



# THE 2<sup>nd</sup> INTERNATIONAL CONFERENCE IN NURSING (ICON) 2016

STRENGTHENING NURSES COMPETENCY IN EDUCATION,  
RESEARCH, AND CLINICAL SETTING TOWARDS  
GLOBALIZATION



THE UNIVERSITY OF  
JORDAN



SCHOOL OF NURSING, FACULTY OF MEDICINE  
BRAWIJAYA UNIVERSITY MALANG  
2016



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## **Rector's welcome**

Assalamualaikumwarohmatullahiwabarokatuh

Good morning, may god always give us good health, bright mind and sincere heart

First of all I would like to say thank you to all the distinguished speakers:

1. Minister of Health of The Republic of Indonesia
2. Minister of Manpower of The Republic of Indonesia
3. Dr. Ati Surya Mediawati, S.Kp, M.Kep, head of nursing department of the Indonesian National Nurses Association
4. Dr (c) Asti Melani Astari, lecturer as well as maternity nurse specialist (Brawijaya University)
5. Nadin M. Abdel Razeeq, PhD, RN (University of Jordan)
6. Associate.Prof. Lorena Baccaglini, PhD (University of Nebraska Medical Center, USA)
7. John Francis Jr Faustorilla, DNS, RN (St. Dominic College of Asia University, Filipina)

Ladies and gentlemen, I would like to say welcome to Malang city, the city of education where our university is located. On behalf of the Brawijaya University I honestly extend my gratitude to all of you for your enthusiasm and effort to join this annual event. It is a great honor for us to have you all here to share knowledge, experience as well as ideas and thought to improve our understanding about high quality health practice.

CurrentlyBrawijaya University is on the top six universities in Indonesia. This achievement signifies our commitment in improving the quality of higher education through research, teachings, and public services. We do aware that nursing is one of the most important profesion in health care system. Therefore, we totally support the improvement of nursing education to produce highly qualified nursing graduates that are ready to compete in the global era. Accordingly we have approved the transformation of nursing program into faculty of nursing. By doing so we expect that nursing education will step into higher quality of education and ready towards international competition.

The theme of this conference is very relevant to our current situation, where each country is challenged to become one step ahead in shaping their healthcare system and quality. The synergy of education institution, government, and health service facility is essential for developing countries in facing the global era. Each of those elements should be well integrated.



Finally For the committee I would like to say congratulations, we are very proud to have this annual event. Hopefully we can convene this event next year, and the years after.

I wish you all have great times here and what we are going to learn here will bring positive outcomes for all of us.

Wassalamualaikumwarohmatullahiwabarokatuh

And good morning



Prof. Dr. Ir. Mohammad Bisri, M.S

## Dean of faculty of medicine's welcome

Assalamualaikumwarohmatullahiwabarokatuh

Alhamdulillahirobbilalamin lets praise the lord for his blessings that we are able to gather here in this amazing event. First of all I would like to say thank you to the rector of brawijaya university, Prof. Mohammad Bisri.

All the distinguished speakers:

1. Minister of Health of The Republic of Indonesia
2. Minister of Manpower of The Republic of Indonesia
3. Dr. Ati Surya Mediawati, S.Kp, M.Kep, head of nursing department of the Indonesian National Nurses Association
4. Nadin M. Abdel Razeeq, PhD, RN (University of Jordan)
5. Associate.Prof.Lorena Baccaglini, PhD (University of Nebraska Medical Center, USA)
6. John Francis JrFaustorilla, DNS, RN (St. Dominic College of Asia University, Filipina)

And also the extraordinary participants, fellow nurses from across Indonesia and neighboring countries.

On behalf of the academic society in faculty of medicine we highly appreciate your participation to learn from each other, to share knowledge, experience, and motivation to make nursing better. I also congratulate the committee for their success in organizing this event.

Nowadays, our attention has been drawn to the commencement of the MEA, which is believed to bring south East Asian nations towards a better future in all aspects, including health service. Nothing is constant except change, therefore improvements is never ending process. For healthcare practitioners, especially nurses, the MEA has become a great force for everyone to improve their competencies and quality of care. Improvement of nurses competency involves many parties including education institution, government as the policy maker, and the health care facility. Therefore, through this event we are seeking for new insights in preparing nurses to compete in the global era.

Nurses are the backbones of the health service, and are essential part in healthcare team. Not only has the largest number, nurses also have the longest interaction with patients. That is the reason why highly competent nurses are needed in all health service settings.

Through this conference I hope that we can enrich each other's knowledge, build international networks, and gain confidence to the global environment.

So please enjoy the conference and workshops, may all of us become the agent of improvement for our professions.

Thank you

Wassalamualaikum warohmatullahi wabarokatuh

And good morning



DR.dr. Sri Andarini, M.Kes

## COMMITTEE'S WELCOME

Greetings for all conference attendees and welcome to the 2nd Annual International Conference on Nursing 2016. We hope you all have a wonderful, inspiring conference and are able to take great ideas back to your individual programs.

Globalization has become the central issue in healthcare service within the last year, to be specific in South East Asia region. The commencement of "ASEAN Economic Society" arrangement among South East Asian countries has given wider opportunity for nurses to work in neighbouring countries. This situation urges nurses to improve their competency in order to be able to compete internationally. For developing countries, the ASEAN Economic Society arrangement challenges them to prepare their nurses to become outstanding and able to collaborate with nurses from different countries. As a consequence, advancements should be made in many aspects of nursing practice, starting from nursing education, research, and also the clinical competencies.

Therefore, the strengthening nurses' competency in education, research, and clinical setting towards globalization became the central issue of this conference. By doing so, it is expected that this conference would give a better understanding how to improve the competencies of nurses in developing countries to face the era of globalization. Accordingly, the Brawijaya Nursing Science Development Committee (BRAINSEED committee) proudly presents the theme of **The 2<sup>nd</sup> International Conference in Nursing (ICON) 2016: strengthening nurses competency in education, research, and clinical setting towards globalization.**

Therefore by gathering and interacting each of attendees here can tighten our bond as academia, researcher and professional in order to increase the spirit of research and study.

Finally, We would like to ask you all to become more involved in this conference. Your unique talents, expertise and ideas are welcomed and appreciated. Please enjoy the conference and hopefully we can get a new knowledge and friend through this outstanding conference.

Thank you,

ICON 2016 Committee

## **The ICON 2 Committee 2016**

### **Advisors:**



DR.dr. Sri Andarini, M.Kes  
Dean of Faculty of Medicine



Dr. dr. Wisnu Barlianto M.Si., Med., Sp.A (K)  
Vice Dean of Academic Affairs Faculty of Medicine



Dr. dr. Loeki Enggar Fitri, M.Kes.Sp.Par.K  
Vice Dean of Finance and Human Development Faculty of Medicine



dr. Yuyun Yuniwati, M.Kes., Sp. Rad  
Vice Dean of Student Affairs Faculty of Medicine



Prof.DR. Dr.Kusworini, M.Kes, Sp.PK  
Head of Nursing Department

### Steering committee



Ns. Setyoadi, M.Kep, Sp.Kom  
University of Brawijaya, Indonesia



Ns. Dewi Kartikawati N., MPH  
University of Brawijaya, Indonesia



Ns. Retno Lestari, MN  
University of Brawijaya, Indonesia



Nadin M. Abdel Razeeq, MSN, PhD, RN, NIDCAP  
University of Jordan, Jordania



Quantar Balthip, PhD, RN  
Prince of Songkla University, Thailand



## Organizing committee



Ns. Lilik Supriati, M.Kep  
Chair of committee



Ns. Ahmad Hasyim W., M.Kep, MN, CWCC



Ns. Bintari Ratih K., M.Kep



Ns. Septi Dewi Rahmawati, MN



Ns. Rinik Eko Kapti, M.Kep



Ns. Endah Panca Lydia F., M.Kep



Ns. Ikhda Ulya, M.Kep

## Keynote speakers profiles

### 1. Minister of Health of The Republic of Indonesia



Nila Djuwita F. Moeloek is a professor at the Department of Ophtalmology in CiptoMangunkusumo Hospital. Professor NilaMoeloek is also served as Indonesian Minister of Health under the name of Worked Cabinet 2014-2019. She graduated as Medical Doctor from Medical College University of Indonesia in 1968, and then started her specialty in the field of ophthalmology in University of Amsterdam, Netherland and Kobe University, Japan. She was chosen as the head of Medical Research Unit, College of Medicine-University of Indonesia from 2008 to2009. She is a member of editor in Orbita International Magazine since 1985 to present.

### 2. Minister of Manpower of The Republic of Indonesia



Hanif Dhakiri is an Indonesian Minister of Manpower under the name of Worked Cabinet 2014-2019. He previously served as House of Representative under The National Awakening Party also known as PartaiKebangkitanBangsa (PKB) within period 2009-2014. PKB is a moderate Islamic and a conservative political party in Indonesia. Mr. Dhakiri professional career was started as a freelance consultant for FNS Indonesia from from 1997 to 2002. One year later, he was chosen as an officier program at NDI

Indonesia within period 2003-2005. The monumental moment, which Mr. Dhakiri was investigated abruptly, once he made great strikes on shelter for Indonesian women workers in several places in Jakarta as well as labor's private companies.

**3. Dr (c). Asti Melanie Astari, M.Kep, Sp. Mat**



Dr (c) Asti is a senior maternity nurse in Nursing Department, University of Brawijaya. She is one of the founders of Nursing Department. Besides actively developing maternity nursing practice, she is also highly committed to nursing education refinement. Currently she is on the final stage in finishing her doctoral degree in Faculty of Nursing, University of Indonesia. Her research interest is about woman health issues focusing on the role of nurses in community to assist pregnant woman at risk preventing the complication of pregnancy, childbirth and postpartum period. As a maternity nurses she also has experience as practitioner and consultant of woman and maternal health.

**4. Associate Professor Lorena Baccaglini, DDS, PhD**



She is an associate professor in the University of Nebraska Medical Center (USA) Department of Epidemiology. Dr. Baccaglini is the Epidemiology Graduate Program chair

for the doctoral program (PhD) in epidemiology. She is also the academic advisor, research mentor, and dissertation and capstone committee member/chair. Her research interest is in clinical research/clinical trials, evidence-based medicine, systematic reviews, epidemiology methods, genetic epidemiology, wound healing, and injuries. Since May 2012, she has also served on two NIH grant review panels.

**5. Assistant Professor Nadin M. Abdel Razeq, PhD, RN**



Dr. Nadin is an assistant professor in the University of Jordan. Dr. Nadin is a faculty of pediatrics nursing with research interest on clinical focus on the behavioral and developmental care of the newborns. Bridging theory to clinical practice in order to improve neonatal health internationally is one of her objectives in life. She also received several certified courses, including specialized 2-year training on a certificate called Newborn's Individualized Developmental Care Program (NIDCAP). Being a NIDCAP professional qualifies Dr. Nadin to understand the baby's behavioral ways to communicate their needs to the caregivers and to evaluate their neurobehavioral development in the NICU; accordingly, she design developmental care recommendations.

**6. Associate Professor John Faustorilla, DNS, RN**



He is an associate professor as well as an auditor, systems and nurse informatician at University of the Philippines Manila College of Medicine. Dr. Faustorilla's professional objective is to work with an organization that values the triple bottom line and would work towards Integrated Management Systems. He is looking for organizations that will allow him to grow professionally while permitting him to contribute to the development of the Philippine Government.

**7. Head of Indonesian National Nurses Association**



In this occasion the Indonesian National Nurses Association is represented by Dr. Ati Surya Mediawati, S.Kp, M.Kep. She is a senior nurse in surgical oncology ward of HasanSadikin General Hospital, Bandung. She started her career as a staff nurse on 1990 and became the head of nursing in 2007. In addition to nursing duties she was also in charge of nursing ethic committee and quality assurance. Currently she is working as a lecturer at Faculty of Nursing, Padjadjaran University, Bandung.

## Conference schedule

### Friday, 25<sup>th</sup> March 2016

07:30 am – 08:30 am	Registration Open
08:30 am – 09:00 am	Opening
09:00 am – 09:30 am	Welcome speeches: <ol style="list-style-type: none"> <li>1. Committee chairperson</li> <li>2. Dean of faculty of medicine</li> <li>3. Rector of Brawijaya University</li> </ol>
09:30 am – 09:45 am	Coffe break
09:45 am – 10:15 am	Presentation on Government strategic to encourage competitive nurses to work globalization (By: Keynote speaker from Ministry of Health Republic of Indonesia)
10:20 am – 10:50 am	Presentation on Improving nurses competency to deal with globalization in term of education system (By Nadin M. Abdel Razeq, MSN., PhD., RN., NIDCAP, University of Jordan)
10:50 am – 11:30 am	Discussion
11:30 am – 01:00 pm	Lunch Break
01:00 pm – 01:30 pm	Presentation on Evidence-based practice and research in nursing: Nursing diversity partnerships (By Associate Prof. Lorena Baccaglini, PhD, University of Nebraska Medical Center, USA)
01:30 pm – 01:50 pm	Discussion
01:50 pm – 05:00 pm	Oral Presentation session

### Saturday, 26<sup>th</sup> March 2016

07:30 am – 08:00 am	Registration Open
08:00 am – 08:30am	Presentation on Principles of social justice as a standard of cultural competence nurses (By: Dr. Ati Surya Mediawati, S.Kp, M.Kep, head of nursing department of the Indonesian National Nurses Association)
08:35 am – 09:05 am	Presentation on Emphasizing culturally competent practice and strategic working in multicultural settings (By: John Francis Jr Faustorilla, DNS, RN , ,St. Dominic College of Asia University, Filipina)
09:05 am – 09:35 am	Discussion
09:35 am – 09:50 am	Coffee Break
09:50 am – 10:20 am	Presentation onPreparing nurses to work abroad: legal recruitment process and communication skills training (By: Keynote speaker from Ministry of Manpower Republic of Indonesia)
10:25 am – 10:55 am	Presentation on Professional appearance in clinical settings (By: Ns. Asti MelaniAstari, M.Kep.,Sp.Mat, University of Brawijaya, Indonesia)
10:55 am – 11.25 am	Discussion
11:25 am – 12:30 pm	Lunch Break
12:30 pm – 04:00 pm	Oral Presentation in session
04:00 pm – 04:30 pm	Closing

### Sunday, 27<sup>th</sup> March2016 Workshop “ Writing International Publication”

07:30 am – 08:00 am	Registration Open
08:00 am – 10.00am	Preparing paper and Strategic for submit international publication
10:00 am – 12.00 am	Practice session
12:00 am – 01.00 pm	Motivation session
01.00 pm – 01.30 pm	Closing



## Oral presentation schedule

Day 1 (25 <sup>th</sup> March 2016)		
Room 1: Paramount Hall		
Presentation number	Time	Title and author (s)
01	01.50 pm – 02.05 pm	EFFECT OF GIVING PROGRESSIVE MUSCLE RELAXATION TECHNIQUE WITH FULFILLMENT SLEEPING OF INSOMNIA ELDERLY IN ELDERLY UNIT SOCIAL CARE IN PASURUAN Ahsan
02	02.05 pm – 02.20 pm	THE FACTORS AND RELATIONSHIP BETWEEN COGNITIVE, ANXIETY, NEUROPHYSIOLOGICAL AND SLEEP QUALITY IN INDONESIAN ADOLESCENTS Anggi Setyowati, Min-Huey Chung
03	02.20 pm – 02.35 pm	THE EFFECT OF HAVING BREAKFAST TO GRADE 4-6 STUDENTS' ACHIEVEMENT IN IN ELEMENTARY SCHOOL 01 KEPUHARJO MALANG Ari Damayanti W, Moh Mundir
04	02.35 pm – 02.50 pm	THE EFFECT OF <i>SELF-SELECTED INDIVIDUAL MUSIC THERAPY</i> (SELIMUT) ON HEMODYNAMIC STATUS CHANGES IN PATIENT WITH CANCER TAKING PALIATIVE CARE INRSUP DR. SARDJITOYOGYAKARTA Dedi Kurniawan, Sri Setiyarini, Martina Sinta Kristanti
05	02.50 pm – 03.05 pm	THE EFFECT OF EYE MOVEMENT DESENSITIZATION AND REPROCESSING (EMDR) FOR POST TRAUMATIC STRESS DISORDER (PTSD) Dwi Septian Wijaya, Hery Wibowo
06	03.05 pm – 03.20 pm	THE IMPORTANCE OF AGED – CARE : A DISCOURSE OF REVIEWS FOR INDONESIAN SENIORS CITIZEN Dyana Sari, Wahyunindyawati, Wahib Muhaimin, Fitria Nindyasari
07	03.20 pm – 03.35 pm	INDEPENDENCE PRIMIGRAVIDA IN HEALTH CARE BASED ON THEORY OF "SELF CARE" OREM AT PACAR KELING PUBLIC HEALTH CENTRE OF SURABAYA Endah Suprihatin, Jujuk Proboningsih, Sri Hardi Wuryaningsih

08	03.35 pm -03.50 pm	THE EFFECT OF RESPONSE TIME ON THE DEGREE OF SEVERITY IN PATIENTS WITH HEAD TRAUMA IN BANGIL HOSPITAL EMERGENCY ROOM Fitrio Devi Anthony, Maya Ayu Shinta
09	03.50 pm – 04.05 pm	DEVELOPMENT OF LEARNING MEDIA BY MULTIMEDIA COMBINATION IN EMERGENCY EVACUATION Fredri Erwanto, Heri Kristianto
10	04.05 pm – 04.20 pm	APPLICATION DEVELOPMENT OF <i>DIABETES MELLITUS</i> WITH <i>E-LEARNING</i> MEDIA CONCEPT Irawan Setyabudi, Wahidyanti Rahayu Hastutiningtyas
<b>Day 1</b> <b>Room 2: Ivory Room</b>		
01	01.50 pm – 02.05 pm	THE FACTORS RELATED TO THE OCCURRENCE OF NOCTURNALENURESIS TO THE STUDENTS OF MUHAMMADIYAH 1 ELEMENTARY SCHOOL IN BUKITKECILPALEMBANG 2015 Rehana, Jawiah, Arifin Hidayat
02	02.05 pm – 02.20 pm	ILLNESS PERCEPTION AND CARDIOVASCULAR DISEASE AMONG PERSON WITH ISCHEMIC HEART DISEASE Kholid Rosyidi Muhammad Nur, Tippamas Chinawong' Charuwan Kritpracha
03	02.20 pm – 02.35 pm	ACUPUNCTURE REDUCE CHEMOTHERAPY-INDUCED NAUSEA AND VOMITING (CINV) AMONG BREAST CANCER PATIENT : WESTERN PERSPECTIVE Laily Yuliatun
04	02.35 pm – 02.50 pm	EFFECT OF THOUGHT STOPPING THERAPY ON REDUCING ANXIETY OF CAREGIVER OF PERSON WITH DEMENTIA IN PUSKESMAS MERDEKA, BOGOR CITY Yossie Susanti Eka Putri, Livana PH
05	02.50 pm – 03.05 pm	EFFECTIVENESS OF ADENOSINE FOR PATIENTS WITH SUPRAVENTRICULAR TACHYCARDIA IN EMERGENCIES: A SYSTEMATIC REVIEW Moh. Ubaidillah Faqih, Mila Nur Fadlilah

06	03.05 pm – 03.20 pm	THE IMPLEMENTATION OF FAMILY PRESENCE DURING RESUSCITATION (FPDR) BY EMERGENCY NURSES Maria Wisnu Kanita
07	03.20 pm – 03.35 pm	THE RELATIONSHIP OF OCCUPATIONAL STRESS WITH MOTIVATION TO WORK STAFF NURSE IN INPATIENT WARD KANJURUHANGOVERNMENTAL PUBLIC HOSPITAL KEPANJEN Nina Sri Wilujeng, Abdurrachman, Riza Fikriana
08	03.35 pm -03.50 pm	THE ASSOCIATION OF TOTAL CHOLESTEROL LEVEL ON HOSPITAL LENGTH OF STAY FOLLOWING ST- ELEVATION OF ACUTE MYOCARDIAL INFARCTION AT RADEN MATTATHER JAMBI GENERAL HOSPITAL, INDONESIA Janna Hoiratun Nissa, Nurhusna, Ahmad Shauqy
09	03.50 pm – 04.05 pm	WOMEN’S INVOLVEMENT IN DECISION MAKING ON EPISIOTOMY PROCEDURE Phat Prapawichar, Dr. Patcharee Juntaruksa
<b>Day 2 (26<sup>th</sup> March 2016)</b> <b>Room 1: Paramount Hall</b>		
01	12.30 pm – 12.45 pm	DISASTER MANAGEMENT NEED ASSESMENT, DISASTER POLICY, FRAMEWORK FOR HEALTH SECTOR Priyo Mukti Pribadi Winoto
02	12.45 pm – 01.00 pm	PEER-SUPPORT GROUPS PROGRAM APPLICATIONS ON SCHIZOPHRENIA PATIENTS IN THE COMMUNITY Putri Ragil Kusumawardhani
03	01.00 pm – 01.15 pm	LITERATURE STUDY : ACCELERATING WOUND HEALING PROCESS BY USING MOIST DRESSING Ratna Aryani
04	01.15 pm – 01.30 pm	CORRELATION STUDY BETWEEN KNOWLEDGE ABOUT DIABETIC FOOT CARE WITH DIABETIC FOOT ULCER INCIDENT IN RSUD DR.SAIFUL ANWAR MALANG Yeni Wijanarko, Dina Dewi SLI, Bambang Soemantri
05	01.30 pm – 01.45 pm	ONLINE EDUCATION FOR REDUCING THE STIGMA OF MENTAL HEALTH ILLNESS Rizqi Wahyu Hidayati

06	01.45 pm – 02.00 pm	THE EFFECTIVENESS ASSISTANCE OF NURSING ADOLESCENT COUNSELORS GROUP TO MAINTENANCE STUDENTS REPRODUCTION ORGANS AT NURSING DEPARTMENT OF HEALTH POLYTECHNIC PALEMBANG 2015 Jawiah, Rosnani, Mediarti D
07	02.00 pm – 02.15 pm	NURSES' KNOWLEDGE AND PRACTICE REGARDING PREVENTION OF CESAREAN SECTION SURGICAL SITE INFECTION IN INDONESIA Shinta Novelia, Wipa Sae Sia, Praneed Songwathana
08	02.15 pm – 02.30 pm	DOCUMENTATION OF NURSING PROCESS IN CLINICAL ROUTINE: A CASE STUDY FROM A HOSPITAL IN A DEVELOPED COUNTRY, AUSTRALIA Septi Dewi Rachmawati
09	02.30 pm – 02.45 pm	THE INFLEUNCE OF <i>ASSERTIVENESS TRAINNING</i> ADOLESCENT VIOLENCE IN MUHAMMADIYAH 2 PALEMBANG SENIOR HIGH SCHOOL Budi Santoso, Sri Endriyani, Ridwan
<b>Day 2</b> <b>Room 2: Ivory Room</b>		
01	12.30 pm – 12.45 pm	STUDENT ABILITY TO WRITE OF NURSING DIAGNOSIS Suprajitno
02	12.45 pm – 01.00 pm	EFFECT SELF DIRECTED VIDEO METHOD TO THE KNOWLEDGE AND SKILL OF CARDIOPULMONARY RESUSCITATION (CPR) FOR HIGH SCHOOL STUDENT IN MALANG Tony Suharsono, Riza Fikriana
03	01.00 pm – 01.15 pm	THE INFLUENCE OF EARLY AMBULATION TOWARD THE INTENSITY OF BOWEL SOUNDS AND FLATUS IN POST OPERATIVE PATIENTS WITH APPENDICITIS Virgianti Nur Faridah
04	01.15 pm – 01.30 pm	VIRTUAL REALITY SIMULATION (VRS) AS A LEARNING MODEL FOR NURSING STUDENTS BASED ON ADULT LEARNING MODEL: A LITERATURE REVIEW Rismawan Adi Yunanto

05	01.30 pm – 01.45 pm	THE CORRELATION BETWEEN CULTURE WITH NURSING STIGMA AMONG NURSES IN HOSPITAL IN BANYUWANGI Yusron Amin
06	01.45 pm – 02.00 pm	CLINICAL JUDGEMENT FOR PAIN MANAGEMENT AND BIOFILM CONTROL IN MAGGOT DEBRIDEMENT THERAPY Yee Bit Lian, Wan MohdAzizi Wan Sulaiman
07	02.00 pm – 02.15 pm	A STUDY ON KNOWLEDGE, PERCEPTIPN AND PRACTICE OF SCABIES INFECTION AMONG JUVENIL INTIMATE AT HENRY GURNEY SCHOOL, TELOK MAS , MELAKA Mizal Amy
08	02.15 pm – 02.30 pm	PSYCHIATRIC NURSES' PERCEPTION ON THE BARRIER FACTORS OF RESEARCH UTILIZATION Dewi Retno Pamungkas, Rizqi Wahyu Hidayati
09	02.30 pm – 02.45 pm	RESPIRATOR MASK BASED ON MICROALGAE (NANNOCHLOROPSIS OCULATA) FOR PREVENTING SOCIETY FROM ISPA'SDISEASE WHEN VOLCANIC ERUPTION BE CONDUCTED Shochibul Ma'arif, Mudzakkir Dioktyanto, Mimi Nur Indah Sari

### Poster presentation schedule

Posters are presented on the 1 <sup>st</sup> day of the conference		
Poster number	Author (s)	Title
01	Abdul Nasir	THE DEVELOPMENT OF LEARNING APPLICATION IN MENTAL HEALTH OF NURSING: HALLUCINATION USING POWER POINT MICROSOFT OFFICE 2007 AND CAMTASIA STUDIA 8
02	Adin Mu'afiro, Kiaonarni AW, Irine Christiany, Joko Suwito	THE INFLUENCE OF FAMILY SUPPORT : SOLUTION FOCUSED FAMILY THERAPY MODELONHBA1C LEVELS IN PATIENTS WITH TYPE 2DIABETES MELLITUS
03	Ardhiles WK, Mustriwi, Alfa Irianti	THE APPLICATION OF MONOPOLY GAME MEDIA FOR INCREASING PHBS (CLEAN AND HEALTHY LIVING BEHAVIOR) ON AMONG PRIMARY SCHOOL CHILDREN

04	Bambang Wiseno	THE EFFECT OF DISTRACTION THERAPY FOR RELIEVING PAIN IN PATIENT WITH HERNIA IN AMELIA HOSPITAL PARE KEDIRI: AN APPLICATION OF CALLISTA ROY ADAPTATION NURSING CARE MODEL
05	Dadang Kusbiantoro	HEALTH EDUCATION FOR IMPROVING THE ABILITY TO WASH HANDS IN PRESCHOOL CHILDREN
06	Jurita Purnama Sari, Retty Ratnawati, Efris Kartika Sari	THE EFFECTIVENESS OF EXTRACTS CLOVE FLOWER BUDS ( <i>SYZYGIUM AROMATICUM</i> ) IN ACCELERATING THE HEALING TIME OF INCISIONAL WOUNDS IN RATS
07	Ellia Ariesti	BARRIERS NURSING STUDENTS UNDERTAKING THERAPEUTIC COMMUNICATION IN NURSING MENTAL DISORDER PATIENTS: LITERATURE REVIEW
08	Endah Panca Lydia Fatma	SELF MANAGEMENT EDUCATION ON PATIENTS UNDERGOING HEMODIALYSIS: A LITERATURE REVIEW
09	Farida Maemunah Martiningsih, Heri Kristianto	STRATEGY IMPLEMENTATION HALLUCINATIONS IN PATIENT WITH MERGING MEDIA LEARNING SYSTEM THROUGH THE PROGRAM CAMTASIA
10	Mohammad Nur Firdaus	THE EFFECTS OF AROMATHERAPY ON RENAL COLIC, ANXIETY, STRESS AND BLOOD PRESSURE
11	I Putu Gde Yudara	STUDY OF ELDERLY KNOWLEDGE ABOUT UNPRESCRIBED MEDICINES TO RHEUMATOID ARTHRITIS IN TABANAN REGENCY
12	Ika Yuli Astuti	QUIET TIME INTERVENTION AND NURSING ROLE BASED ON KOLCABA COMFORT THEORY: A LITERATURE REVIEW
13	Sri Haryuni	THE RELATIONSHIP BETWEEN CIGARETTE CONSUMPTION AND INCIDENCE OF ACUTE MYOCARDIAL INFARCTION (AMI) IN INTENSIVE CORONARY CARE UNIT (ICCU) DR. ISKAK HOSPITAL OF TULUNGAGUNG DISTRICT 2015
14	Karyo, Kusno	INSTRUCTIONAL MEDIA ABOUT INFUSION PROCEDURE WITH AUDIOVISUAL BASED MULTIMEDIA

15	Lilik Setiawan	DESCRIPTION IN GRIEVING FAMILY RESPONSE TO CARE FAMILY MEMBERS IN THE ICU 1 DR. ISKAK HOSPITAL TULUNGAGUNG
16	Selfi Safrida, Lilik Supriati, Kuswantoro Rusca Putra	THE RELATIONSHIP BETWEEN LEVEL OF EMOTION INTELLIGENCE AND THE IMPLEMENTATION OF THERAPEUTIC COMMUNICATION TECHNIQUE AT DR. RADJIMAN WEDIODININGRAT LAWANG HOSPITAL
17	Liya Novitasari	APPLICATION METHODS PRECEPTORSHIP LEARNING BY CLINICAL INSTRUCTOR (CI) TO IMPROVE THE COMPETENCE OF STUDENTS
18	Siti Masamah, Muladefi Choiriyah, Ayut Merdikawati, Diah Fitrianti	ANTENATAL BREASTFEEDING EDUCATION INCREASE SUCCESSFUL BREASTFEEDING AT HOME ON POSTPARTUM MOTHER IN MALANG, INDONESIA
19	Nanang Bagus	THE ANALYSIS OF PATIENT'S WITH EMERGENCIES MATERNAL SATISFACTION OF IMPLEMENTATION REFERRAL NATIONAL HEALTH INSURANCE PROGRAM AT RSUD NGANJUK
20	Nia Agustiningsih	ANALYSIS OF NURSING PRACTICE THEORY SEFL CARE OF HEART FAILURE : A SITUATION – SPECIFIC THEORY OF HEALTH TRANSITION ON CHRONIC HEART FAILURE PATIENT
21	Nittiya Wongsu, Soisin Siammai, Pimpa Thepphawan	CCU TEAM'S CARE BUNDLE IN PATIENTS UNDERGOING FEMORAL ARTERY PERCUTANEOUS INTERVENTION
22	Ode Irman	APPLICATION OF PRECEPTORSHIP MODEL IN EMERGENCY NURSING PRACTICE: A LITERATURE REVIEW
23	Primasari Mahardhika Rahmawati	A PROJECT FOR DEVELOPING AN APPLICATION COMBINING MICROSOFT OFFICE AND CAMTASIA STUDIO 8 AS LEARNING MEDIA OF SENSORY PERCEPTION DISORDER: HALLUCINATION
24	Rany Agustin Wulandari	THE APPLICATION OF BETTY NEUMAN'S SYSTEM MODEL IN CARING FOR CLIENTS WITH CHRONIC DISEASES EXPERIENCING HELPLESSNESS PSYCHOSOCIAL PROBLEMS: A LITERATURE REVIEW

Posters are presented on the 2 <sup>nd</sup> day of the conference		
01	Rasi Rahagia	INTERNAL FACTORS ASSOCIATED WITH THE BEHAVIOR OF NURSE CARING FOR PATIENTS WITH TERMINAL CONDITIONS
02	Ratna Roesardhyati	SEVERITY OF ILLNESS PERCEPTIONS RELATIONSHIP WITH DRUG COMPLIANCE OF PATIENTS HYPERTENSION IN POLIKLINIK JANTUNG RUMAH SAKIT UMUM DAERAH DR. SAIFUL ANWAR MALANG
03	Reni Nurhidayah	DEVELOPMENT INTERNET-BASED EDUCATION TO IMPROVE POSTPARTUM DEPRESSION AWARENESS IN INDONESIA
04	Rida Darotin	RELATIONS BETWEEN WORKLOAD AND WORK ENVIRONMENT WITH WORK STRESS AT NURSE EMERGENCY
05	Ridhoyanti Hidayah	A LITERATURE REVIEW: PSYCHOSOCIAL ASPECTS OF PARENTING A CHILD WITH AUTISM SPECTRUM DISORDER (ASD)
06	Rina Anggraini	PROBLEM BASED LEARNING TO REDUCE THE GAP BETWEEN THEORY AND PRACTICE IN NURSING EDUCATION
07	Rinik Eko Kapti	SOCIOECONOMIC CONDITIONS AND SELF-ESTEEM OF CLIENTS WITH DIABETES MELLITUS
08	Sekarini	THE IMPORTANT OF APPLICATION REMOTE STATION EARLY WARNING SYSTEM(EWS), SMS GATEWAY AND SIMPLE TRIAGE ALGORITHM AND RAPID TREATMENT(START) FOR HANDLING FLOOD VICTIMS IN DISTRICT MALANG : A LITERATUR REVIEW
09	Setyoadi, Sigit Mulyono, Henny Permatasari	COMMUNITY-BASED SCHOOL EMPOWERMENT IN HIV TRANSMISSION RISK PREVENTION IN ADOLESCENTS
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SIMULATION OF TELENURSING FOR INCREASING THE PERSPECTIVE OF  
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Yunita Wahyu Wulansari\* ..... 504-508

# **EFFECT OF GIVING PROGRESSIVE MUSCLE RELAXATION TECHNIQUE WITH FULFILLMENT SLEEPING OF INSOMNIA ELDERLY IN ELDERLY UNIT SOCIAL CARE IN PASURUAN**

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## **ABSTRACT**

Insomnia (sleeping disorders) is more common in the elderly than in the young adult or adult. Approximately 40% of patients with insomnia were aged  $\geq 60$  years old. Nonpharmacologic treatment in overcoming sleep disorders according to experts include progressive muscle relaxation technique. Progressive muscle relaxation is a relaxation which is done by stretching the muscles and rest him back gradually and regularly. This study aims to determine the effect of progressive muscle relaxation technique on the fulfillment of the elderly sleep Insomnia. The study design used was experimental (pre-experimental design) to design one group pre-test and post-test design in the time series (Time Seris Design). The sample was insomnia elderly in Elderly Unit Social Care. The sample was selected using non-probability sampling technique sampling is by purposive sampling. The number of samples taken 18 elderly. Data collection instrument in this study was a questionnaire. The results of this study showed a decrease in mean value scores Insomnia in the elderly, where the mean pretest was 31.78 while the mean post-test 1, 2 and 3 decreased to 20.17, 15.89 and 13.67. Based on the hypothesis test using repeated ANOVA test (parametric) with a confidence level of 95% obtained a significance value of 0.000 ( $p < 0.05$ ), so it can be interpreted that progressive muscle relaxation therapy significantly influence the decrease in score of Insomnia in the Elderly Unit Social Care in Pasuruan. Therefore, it is suggested to the agency to be able to use progressive muscle relaxation therapy in the elderly who experience insomnia (trouble sleeping).

**Keywords:** progressivemuscle relaxation, fulfillmentssleeping, elderly insomnia

## **INTRODUCTION**

For human, sleep is very important for controlling rhythm of daily life. If human lack of sleep or the sleep disorder, then the days will be slower and less passionate. Conversely sufficient and quality sleep will help in order to have the energy and passion in their daily living activities. Every human spent a quarter to a third of their life to sleep.

Every one of six people suffer sleeping disorders or insomnia. A person suffering insomnia will have a habit of waking, sleeping disorders that goes from night to night and often feels as if it will never end.

Insomnia is the inability to get enough sleep both in quality and quantity. Insomnia is generally almost 1.5 times more happened to parentsthan young children.

Certain groups that have a higher risk of insomnia in eMedicine Health (2007) are among the elderly. The elderly always connoted as a dependent and vulnerable groups into dependency by the family, society and the state.

It is estimated that there will be an explosion in the number of elderly Indonesia, which will increase each year. In 1971 amounted to 4.5 million, in the year 1990 amounted to 6.3 million entered in 2000 amounted to 7.2% of the total population of Indonesia and is forecast to amount to 11.3% in 2020.

In Indonesia also predicted in 2050 the elderly population will reach ten million people. WHO has accounted in 2025 Indonesia will experience an increase in the number of elderly by 41.4% which is an increase of the highest in the world. With the development of technology in the field of health, the average life expectancy in the next few years to 70 years, so that the elderly population in Indonesia is not only exceed the population of children under five even ranked fourth in the world after China, India and the United States. While the

scope of the province of East Java, Surabaya is the largest city with a population of elderly aged 60 years over after the first is Malang and Jember in the second.

The increase of elderly populations followed by a variety of problems for the elderly themselves, this is caused by the aging process. Luce and Segal revealed that the age is a factor that is most important consequences for the quality of sleep. Individually influence of aging process also causes many problems both physically, mentally, biologically and socioeconomic.

This causes the elderly easy to experience anxiety and depression that will have an impact on the elderly sleep. Elderly more easily maintained by an internal or external stimulation, changes in the circadian cycle and hormonal changes also cause the state of the biological clock elderly shorter, more advanced sleep phase, so that the elderly begin to sleep early and wake up early.

Physiological sleep is also a state of rhythmic and cyclic behavior that occurs in five stages (four stages of non-rapid eye movement [NREM] and one stage the Rapid Eye Movement phase [REM]), as indicated by an electroencephalogram (EEG), eye movements and muscle movements. In the final stage which is characterized by a deep stage of sleep occurs entirely muscle relaxation, decreased blood pressure, pulse and respiration slowed. The blood supply to the brain is at a minimum. Normal sleep condition is not always perceived by the person who will sleep. And trouble sleeping disorders often happened, either when the first stage of sleep or when sleep go on.

Sleep disorders occur because of strained muscles. It will activates the sympathetic nervous system. Active sympathetic nervous that makes people can not relax so not to bring a sense of sleepiness. This disorder can occur because of psychological or physical problems that can cause trouble for someone getting calm. The state of excessive anxiety will cause the muscles can not relax and the mind can not control.

Sleep disorders is also known as a significant cause of morbidity. There are some serious impact of sleep disorders in the elderly eg excessive daytime sleepiness, impaired attention and memory, mood, depression, frequent falls, improper use of hypnotics, and decreased quality of life.

The current non-pharmacological management is highly recommended, because it does not cause side effects, and it can make elderly to be able to maintain their own health. One of the non-pharmacological treatment in overcoming sleep disorders according to experts include progressive muscle relaxation technique. Progressive muscle relaxation is a relaxation which is done by stretching the muscles and rest it back gradually and regularly.

Progressive muscle relaxation exercises can provide a smooth massage on the various glands in the body, lowering the production of cortisol in the blood, a hormone that restores spending sufficiently to provide emotional balance and peace of mind (Purwoto, 2007). In research on nursing interventions of progressive muscle relaxation can make the body and mind feels calm, relaxed, and easier to sleep (Davis, 2005).

Based on the results of a preliminary study conducted by researchers at the March 12-18 already obtained the data through interviews with elderly in Elderly Unit Social Care in Pasuruan indicates that there are elderly who experience sleep disorders / insomnia. This leads to daily activities of elderly both physical and psychological condition are disturbed.

Progressive muscle relaxation techniques research was conducted by researchers for on the basis of data obtained by researchers that the number of 107 elderly people are 67% of elderly with age (Elderly), 29% of elderly with age (Old) and 4% of elderly with age (Very Old) from the overall number of elderly are 19% of the elderly having trouble sleeping. This means that 1 out of every 7 elderly people experience sleep disorders.

Based on existing phenomena, researchers want to conduct research that is "Effect Of Giving Progressive Muscle Relaxation Technique With Fulfillment Sleeping Of Insomnia Elderly In Elderly Unit Social Care In Pasuruan."

## **METHODS**

This study used an experimental research (pre-experimental design). The design used was one group pre-test and post-test design with circuit design time (Time Series Design) in

18 respondents were then determined by purposive sampling respondents who fit the inclusion criteria.

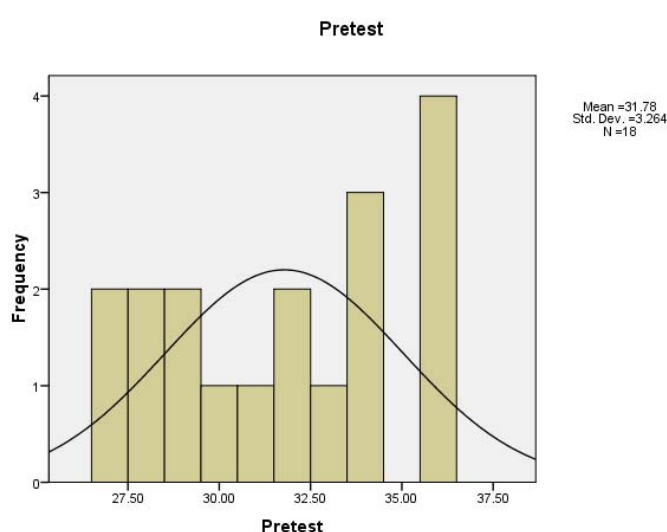
Data were taken to determine the score of pre test and post test by using a questionnaire with 11 questions derived from Biological Psychiatry Study Group Jakarta-Insomnia Rating Scale (KSPBJ-IRS) previously tested for validity and reliability using the program Statistical Product and Service Solution (SPSS) 20.0.

Analysis of parametric test data using Repeated ANOVA with 95% significance level ( $\alpha = 0.05$ ). If  $p < 0,05$  then  $H_0$  is rejected  $H_1$  is accepted.

## RESULTS

Following the data presented research results:

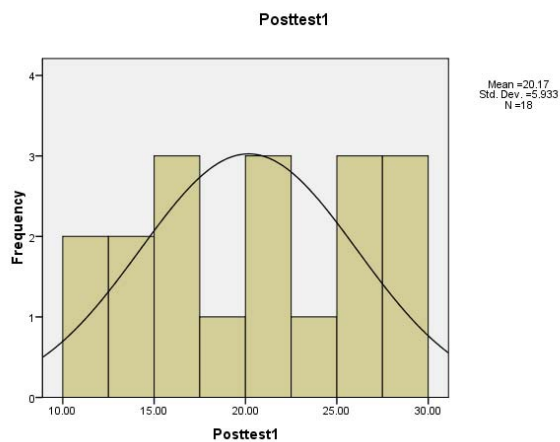
### a. Data Pre Test Scores Insomnia in Elderly Before Doing Progressive Muscle Relaxation Techniques



**Figure1.** Histogram Data Insomnia Score in the Elderly Before Given the Progressive Muscle Relaxation Techniques

Based on Figure 1 shows that the scores before the treatment of insomnia in elderly progressive muscle relaxation techniques, have varying pretest the data with the lowest score is worth 27 to 36 and the highest scores known to the mean or average value as the value of the concentration of elderly insomnia pretest scores of 31.78. In addition, it is known that the pretest scores of elderly insomnia has a standard deviation as the spread value of 32.64. Scores of elderly insomnia is the most emerging 36 obtained by 4 elderly people (22%) of elderly who have insomnia scores below average as many as eight elderly people (44%) and the elderly who have insomnia scores above the mean as many as 10 elderly people (56%) .

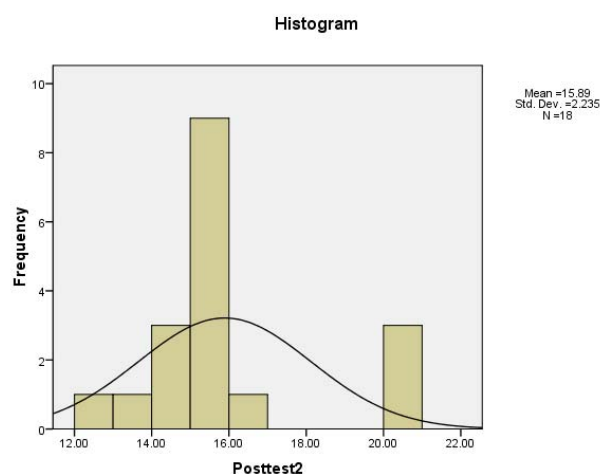
## b. Data Post-Test 1 Insomnia Score in Elderly After Doing Progressive Muscle Relaxation Techniques



**Figure 2.** Histogram Data Score Insomnia in the Elderly at Day-7 After Doing Progressive Muscle Relaxation Techniques

Based on Figure 2 shows that the scores of insomnia in the elderly after treatment progressive muscle relaxation technique on the 7th day, have the data post-test 1 with the lowest score is worth 11 and the highest score is worth 28 and is known as the mean or average value of the concentration value scores post test 1 at 20.17 of insomnia in the elderly. In addition it can be seen that the post-test scores of insomnia in the elderly has 1 standard deviation as the spread value of 5933. Scores of insomnia in the elderly appears the most valuable 28 obtained respectively by 3 elderly people (16.%). Seniors who have insomnia scores below average as many as 10 people (56%) and elderly with above average as many as 8 people (44%).

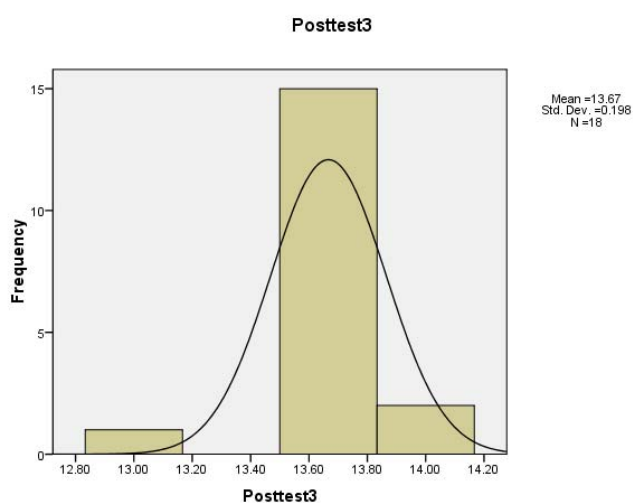
## c. Data Post-Test 2 Insomnia Scores in Elderly After Doing Progressive Muscle Relaxation Techniques



**Figure3.** Histogram Data Score Insomnia in the Elderly Day-14 After Doing Progressive Muscle Relaxation Techniques

Based on Figure 3 shows that the scores of insomnia in the elderly after treatment progressive muscle relaxation technique on day 14, having a data post test 2 with the lowest score is worth 12 and the highest score is worth 20 and is known as the mean or average value of the concentration value scores post test 2 for 15.88 insomnia in the elderly. In addition it can be seen that the post-test scores of insomnia in the elderly has 2 standard deviation as the spread value of 2,234. Scores of insomnia in the elderly appears the most valuable 15 obtained by 9 elderly people (50%). Elderly who have insomnia scores below average as many as 5 people (28%) and elderly with above average as many as 13 people (72%).

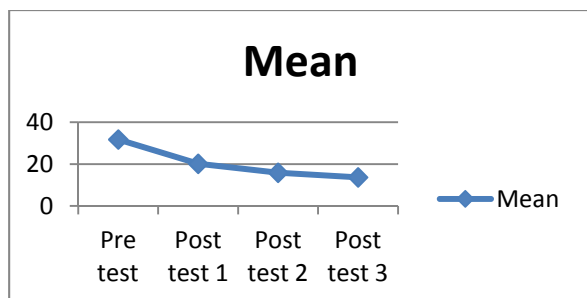
**d. Data Post-Test 3 Insomnia Score in Elderly After Doing Progressive Muscle Relaxation Techniques**



**Figure 4.** Histogram Data Insomnia Score in the Elderly Day-21 After Doing Progressive Muscle Relaxation Techniques

Based on the figure 4 shows that the scores of insomnia in the elderly after treatment progressive muscle relaxation technique on days 21, has a data post-test 3 with the lowest score is worth 13 and the highest score is worth 14 and is known as the mean or average value of the concentration value scores post test 3 is 13.67 insomnia in the elderly. In addition it can be seen that the post-test scores 3 insomnia in the elderly has a standard deviation as the spread value of 0.198. Scores of insomnia in the elderly appears the most valuable 13 obtained by 15 elderly people (83%). Elderly who have insomnia scores below average by 1 person (6%) and elderly with above average as many as 17 people (94%).

#### e. Decrease in Mean of Insomnia Score Data in Elderly Before and After Doing Progressive Muscle Relaxation Techniques



**Figure 5.** Diagrams of Mean Insomnia Scores Decline in the Elderly on Measurement Pre Test, Post Test 1, Post Test 2 and Post Test Post 3.

Based on the above figure 5 it can be seen that the mean scores Insomnia in the elderly from before to after treatment. Where the mean value obtained pre-test measurement of 31.78 and then decreased in the post-test measurements post test 1 is 20.17 to post test 2 is 15.89 and post-test 3 into 13.67.

#### f. Analysis of Repeated ANOVA Test Results

Based on the results of Repeated ANOVA statistical test performed on the scores of insomnia in elderly both pre-test, post-test 1, post-test 2 and post-test 3 obtained the following results: Multivariate Test table shows the results of the overall ANOVA test repeated. With significance value  $<0.05$ , while the p value obtained from the research is worth 0.000 which means p value  $<\alpha$ , it can be concluded that  $H_0$  is rejected. So that means that there is a difference (decrease) in elderly insomnia scores before and after treatment progressive muscle relaxation techniques.

In addition, the Pairwise Comparison known that value p for the comparison between insomnia scores in elderly pre-test to post-test 1, post-test 2 and post-test 3 are 0.000 and p value of 0.045 for the comparison is worth between post test 1 with post-test 2 was 0.03 and for the comparison post test post test 2 with post test 3 is 0.589. With a value of  $\alpha < 0.05$ , it can be seen that of the four measurements taken, four showed p value  $<\alpha$ , which means that  $H_0$  is rejected. It can be concluded that there is a significant effect of treatment progressive muscle relaxation techniques to decrease the insomnia score in the elderly.

## DISCUSSION

### 1. Insomnia Score in Elderly Before Doing Progressive Muscle Relaxation Techniques

This study, through the questionnaire respondents mostly complained as not able to sleep well, difficult to initiate sleep at night, the body feels sore after getting out of bed and looked blackish color around the eyes. From the results of studies that have been obtained illustrate that scores on measures of insomnia in elderly pretest had higher mean value which is equal to 31.78 it is in accordance with the statement of Stanley, (2006) sleep disorder can be caused by physiological changes, for example the normal aging process. A major disruption in initiating and maintaining sleep is the case among the elderly one of which is insomnia is the inability to sleep even though there is a desire to do so.

Based on that statement then there are some analyzes that can be seen in the high pretest mean value of the measurement results can be attributed to the older age levels. Research data suggests that the elderly are becoming a large part of research is elderly respondents aged 60-70 years (Elderly) who had are consistent with the revelation. Ellyana Linden (2008) Insomnia is more common in the elderly than in the young adult or adult. Approximately 40% of patients with insomnia were aged  $\geq 60$  years old. Luce and Segal



reveals that the age factor is an important factor that affects the quality of sleep. It has been said that the complaints against the quality of sleep as we age (Nugroho, 2000).

The majority of respondents saying the elderly experienced sleep disorders has become routine despite hours of sleep less than 3 hours even considered because of the age factor, the mind, pain (gout, rheumatic pains, heartburn) regardless of the impact experienced from the lack of fulfillment of daily sleep. As Hidayat opinion, (2006) that sleep problems or sleep disorders in the elderly can be caused by disease, exercise and fatigue, psychological stress, medication, nutrition, environment and motivation. Control and regulation of sleep depends on the relationship between the two cerebral mechanisms that activate intermittently and suppress the highest centers of the brain to control sleep and wakefulness. Central regulator of natural sleep cycle is located in the brain stem reticular activating system (SAR) and Bulbar Synchronizing Region (BSR). A mechanism causing awake, and the other led to fall asleep (Potter & Perry, 2005).

Sleep disorders occur because of strained muscles. It activates the sympathetic nervous system. Active sympathetic nervous that makes people can not relax so as not to bring a sense of sleepiness. This disorder can occur because of psychological or physical problems that can cause trouble for someone getting calm. Excessive anxiety state will cause the muscles to relax and the mind can not control. And sleeping disorders are often intrusive, either when the first stage of sleep or when sleep takes place. (Purwanto, 2007).

## **2. Insomnia Score in Elderly After Doing Progressive Muscle Relaxation Techniques**

Based on the measurement results of scores of insomnia in the elderly who have given progressive muscle relaxation technique both post-test 1, post-test 2 and post-test 3 indicates that the elderly are given progressive muscle relaxation technique had a mean decrease in the difference 20.17, 15.89, 13.67 it is related to the fact in the field, the respondents were given progressive muscle relaxation techniques while fulfilling unmet sleep before given progressive muscle relaxation techniques (pretest) compliance was not filled. Respondents were given progressive muscle relaxation technique say no longer awakened at night though waking moment and it's easier to go back to sleep again, the body more refreshed upon waking and easier to start sleeping asleep less than 30 minutes.

In accordance with the theory of Edmund Jacobson 50 years ago in the United States, progressive muscle relaxation technique is one that is designed specifically to help relieve muscle tension that occurs when conscious. This technique is also used as a therapy to help relieve the symptoms one of which is insomnia (National Safety Council, 2003). Edmund Jacobson argued that progressive muscle relaxation exercises (Progressive Muscular Relaxation) held 20-30 minutes, once a day for one week on a regular basis is quite effective in reducing insomnia (Davis, 1995).

Progressive muscle relaxation training involves a combination of controlled breathing exercises and a series of contraction and relaxation of muscle groups, can stimulate the relaxation response to both physical and psychological. The response due stimulated parasympathetic autonomic nervous system activity Rafe nuclei located in the bottom half of the pons and in the medulla. Nerve fibers from these nuclei are widely spread in the reticular formation and up to the thalamus, neocortex, hypothalamus, and most areas of the limbic system. It also spreads down to the spinal cord which can inhibit incoming pain signals.

Fiber ends of the raphe neurons secrete serotonin which is the main transmitter of materials related to the onset of the sleep state. Stimulation of the few areas in the nucleus solitarius tract, which is the region of the medulla and pons sensory passed by visceral sensory signals that enter the brain via the vagus nerves and the glossopharyngeal, as well as some regions in the diencephalon also cause sleep state (Guyton and Hall, 1997). Fulfillment of the sleep indicator is the condition of the body when I wake up, if you feel refreshed after waking up, meant we had enough sleep, if the body still feels sluggish when you wake up means his still lacking (Mukhlis, 2005).

Results of interviews from 18 respondents who were given progressive muscle relaxation technique say that the number of hours of sleep to grow between 1.5-2 hours, so the number of hours of sleep increased to 7-8 hours in 24 hours. Based on the facts in the

field of 18 respondents were given the intervention of progressive muscle relaxation techniques during the first week (post-test 1) there were 10 respondents (56%) who still had complaints of either mirth or severe insomnia which can be assumed bahwaannya fulfillment elderly sleep are not met, while the second minggu (post-test 2) shows a decrease in the number of respondents from 10 respondents into three respondents (17%), while in the third week (post-test 3) showed that the overall number of 18 respondents with elderly people experiencing insomnia scores elderly insomnia or sleep fulfillment are met.

According to Williams the average number of hours of sleep needed someone at the age of 60 years is 7-8 hours per day (Carpenito, 2000). Therefore, researchers conducted the provision of progressive muscle relaxation techniques are given in more than three weeks on a regular basis. Because of the need for sleep affects the quality of health and quality of life.

### **3. Analysis of Effect of Progressive Muscle Relaxation Techniques with Elderly Insomnia Sleep Fulfillment.**

In the data analysis it is known that progressive muscle relaxation therapy had a significant effect on the fulfillment of insomnia in Elderly Unit Social Care in Pasuruan. This happens because of progressive muscle relaxation therapy was able to train the body to be able to bring the relaxation response, so that the body can achieve a state of calm. It is in line with the statement of Potter & Perry, (2005). Progressive relaxation is an easy way to relax the entire body by changing the tension and relax the muscles from head to foot. Progressive relaxation training involves a combination of controlled breathing exercises and a series of contraction and relaxation of muscle groups. Clients began to practice breathing slowly and using the diaphragm, allowing abdominal and chest lifted slowly swelled. When clients do regular breathing pattern, the nurse directs clients to localize any areas experiencing muscle tension, think how it feels, and then fully flex these muscles relax. This activity creates a sensation of discomfort and stress release, so that it can be proved on the results of the analysis of SPSS 20.0 for Windows on Multivariate Test table shows the results of the overall ANOVA with repeated test significance value  $<0.05$ , while the p value obtained from the results of the study are worth 0,000 mean p value  $<\alpha$ , it can be concluded that  $H_0$  is rejected. So that means that there is a difference (decrease) in elderly insomnia scores before and after treatment progressive muscle relaxation techniques.

Comparison Pairwise can be seen that the p value for the comparison between scores Insomnia in older pre-test to post-test 1, post-test 2 and post-test 3 are 0.000 and p value of 0.045 for the comparison is worth between post-test 1 with post-test 2 was 0.03 and for the comparison post test Post test 2 with 3 is 0.589. With a value of  $\alpha < 0.05$ , it can be seen that of the four measurements taken, four showed p value  $<\alpha$ , which means that  $H_0$  is rejected. It can be concluded that there is a significant effect of treatment progressive muscle relaxation techniques to decrease the score Insomnia in the elderly. It is strongly associated with Purwanto statement (2007) that progressive muscle relaxation exercises combined with breathing techniques and conscious use of the diaphragm, allowing abdominal and chest lifted slowly swelled. The breathing techniques, capable of providing a favorable cardiac massage on the rise and fall due to the diaphragm, opening blockages and facilitate blood flow to the heart and increase blood flow throughout the body. Increased blood flow can also increase nutrient and  $O_2$ . Increased  $O_2$  in the brain will stimulate increased secretion of serotonin that causes the body to become calm and easier to sleep.

This relaxation is used as an alternative, one of which decrease the symptoms of insomnia, in addition there are factors of the individual itself there are also factors that influence sleep among other diseases, exercise and fatigue, psychological stress, medication, nutrition, environment, motivation (Hidayat, 2006).

Based on the various benefits and research results obtained on progressive muscle relaxation therapy, it can be concluded that the progressive muscle relaxation therapy can be used as an alternative non-pharmacological treatment options in dealing with sleep disorders or insomnia.

## CONCLUSIONS

1. Measurement values obtained pre-test mean score of insomnia in the elderly is high (31.78).
2. Measurements either post-test 1, post-test 2 and post test 3 mean score values obtained insomnia in elderly decreased significantly, namely (20.17, 15.88 and 13.66). In addition there is a decrease in the mean value of the measurement of pre-test, post-test 1, post-test 2 and post-test 3 which is equal to 31.78, 20.17, 15.89 and 13.67.
3. There is a significant effect of progressive muscle relaxation techniques to decrease the score of insomnia in the elderly.

## RECOMMENDATIONS

In future studies is expected to add a control group as well as to identify other factors that may affect the fulfillment of the elderly insomnia and other benefits of progressive muscle relaxation techniques using progressive muscle relaxation technique approach kind of tension relaxation, letting go or differential relaxation.

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# **The Factors and Relationship between Cognitive, Anxiety, Neurophysiological and SleepQuality in Indonesian Adolescents**

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**Introductions:** Few studies had explored the relationship among cognitive, anxiety, neurophysiological factors that affecting sleep in adolescent in developing country. This study used sleep/wake model functioning to predict factor that related with sleep quality. Better understanding about this relationship can educate adolescents about good sleep habits and promote factors related to sleep quality.

**Aims:** The purpose of the study was to examine these predictors on sleep quality of Indonesianadolescents.

**Methods:** This study used purposive sampling, a cross-sectional study design, and self report questionnaires. This study tested the model with a sample of 1965 adolescents from 11 senior high schools. Dysfunctional Beliefs and Attitudes-16 (DBAS-16), and Zung Self Anxiety Scale (SAS) were used to measure cognition and anxiety. To determine neurophysiological factors were used The Adolescent Sleep-Wake Scale (ASWS) and the pre sleep arousal cognitive scale (PSAS). These Questionnaires were used to determine homeostatic system and arousal system. Finally, the Pittsburgh Sleep Quality Index (PSQI) was used to determine sleep quality. The path analysis was applied for analyzing data gained.

**Results:** All path coefficients were significant which gave evidence to the hypotheses of sleep/wake model functioning. The statistical goodness of model fit for the goodness-of-fit index (GFI), adjusted GFI (AGFI), comparative fit index (CFI), and root mean squared error (RMSEA) was 0.994, 0.976, 0.967, and 0.059, respectively. Based on path coefficient, the strongest direct effect on sleep quality was ASWS, the strongest indirect effect on sleep quality was SAS, and DBAS was the weakest total effect on sleep quality. The results indicated that anxiety showed significant impact on sleep quality through the mediation of neurophysiological system.

**Conclusions:** Our findings showed that anxiety was predictors that affecting sleep quality through the mediation of neurophysiological systems (homeostatic and arousal system). It is suggested for further study that applying interventions to reduce anxiety to manage the effect of neurophysiological system on sleep quality among Indonesian Adolescents.

**Keywords:** Sleep Quality, Path Analysis, Indonesian, Adolescents

## **Background of the study**

Physical and social development in adolescents have effects to change the sleep habit easily (Kaneita et al., 2009). Sleep disturbance in adolescents is not rare (Danielsson, N. S. Harvey, A. G., MacDonald, S., Jansson-Fröjmark, M., & Linton, S. J., 2013) and has related with sleep quality (LeBourgeois, Giannotti, Cortesi, Wolfson, & Harsh, 2005). Prevalence range of sleep disturbance in developed country is between 5% until 40% (Kaneita et al., 2009). Based on Study conducted by Haryono et al year 2009, 62.9 % adolescents aged 12-15 years who live in Indonesia, especially in East Jakarta had sleep disorder. (Nursalam, Apriani, Has, & Efendi, 2013). If adolescent has partial sleep less than 6 hours of sleep per night, it has effect like those (Brown, Buboltz, & Soper, 2002). Inadequate sleep quality can affect their concentration, attention, memory, reduced physical health and altered moods, like increased

depression, irritability, and anxiety (Suen, Tam, & Hon, 2010). Unfortunately they often unaware of how sleep disturbances influences their cognitive functioning.

Sleep is important for mental and physical well being (Lund, H. G., Reider, B. D., Whiting, A. B., & Prichard, J. R., 2010). In this age sleep quality related with cognitive, psychological, and neurophysiological system (Yang, Spielman, & Glovinsky, 2006) (Borbély, 1982). Cognitive has relation with patient's beliefs (Yang et al., 2006). Psychological associated with sleep disorder, patients with anxiety had insomnia complaint (Tsai et al., 2013). Neurophysiological is related with homeostatic system and arousal system (Yang et al., 2006).

The association between sleep related with cognitive and psychological factors has been well studied (Tsai et al., 2013). Moreover, a few studies explored relationship among neurophysiological, psychological, and behavioral factors (Chung, Liu, Lee, & Hsu, 2013) especially in adolescent from developing country (Nursalam et al., 2013). This study use sleep/wake model functioning to predict factor that related with sleep quality. In addition, no studies have examined those factors affecting sleep quality in Indonesian adolescents. Better understanding about this relationship can educate adolescents about good sleep habits and promote factors related to sleep quality to Islamic Boarding School and parents.

## **Literature Review**

### **Sleep/wake model functioning**

Sleep quality has related with sleep disturbance. The theoretical for sleep disorder describe in models of sleep/wake functioning that comprise cognitive, anxiety, and neurophysiological system (Yang et al., 2006). Previous studies reported between negative sleep cognitions and poor sleep quality. Cognitive has relation with patient's beliefs (Yang et al., 2006). Stress and anxiety will react with the autonomic nervous system and the hormonal, and it is included in physiologic processes may disrupt normal sleep mechanism (Yang et al., 2006). Neurophysiological systems affecting sleep is recognized with human sleep and has interaction of three major neural systems: (1) a homeostatic system that increase the drive to sleep with increasing hours spent awake. (2) an arousal system that promotes wakefulness in opposition to the sleep drive (Yang et al., 2006).

## **Methodology**

### **Research Design**

This study used a cross-sectional and correlation design, using self-reported questionnaire. This study will examine whether the relationship between cognitive, anxiety, and neurophysiological systems (independent variable) that affecting sleep quality (dependent variable) for adolescents who live in Islamic boarding school. The procedure was granted an ethical clearance.

The setting of this study was Darul Ulum Islamic Boarding School in Jombang City, East Java. The researcher chosen "Darul Ulum Islamic Boarding School" due to approximately 5,000 students who live in this Islamic Boarding School (Ministry of Religious Affairs of the Republic Indonesia, 2013). This Islamic Boarding School has 11 schools in this Islamic Boarding School. This study used purposive sampling. The inclusion criteria were: Aged ranges 10-19 years (WHO, 2014) and no history of psychiatric or neurological disorders. The exclusion criterion was students whose parents disagree if their children participate in this survey or the students do not return the informed consent sheet. This study used AMOS calculator to calculate sample size. It had 5 latent variables, 44 observed variables, and 0.5 statistical power level. So, the minimum sample size was 1012 adolescents were appropriate to test the model.

## **Instruments**

### **Dysfunctional Beliefs and Attitudes-16 (DBAS-16)**

DBAS is 16-items self-report questionnaire and it is used to measure, identify and assess sleep related with cognitions. A higher score indicates more dysfunctional beliefs and attitudes about sleep. The DBAS-16 was found to be reliable and internal consistency of the DBAS, estimated by Cronbach alpha = 0.77 for clinical, 0.79 for research samples and more stable ( $r = 0.83$ ) (Morin et al., 1993).

### **Zung Self Anxiety Scale (SAS)**

It is a 20-item self-report assessment device build to measure anxiety levels. Each question is scored on a likert-type scale of 1-4 (based on these replies: a little of the time, some of the time, good part of the time, most of the time) (Zung, 1971).

### **Adolescent**

Sleep-Wake Scale (ASWS) The ASWS is based on Children's Sleep-Wake Scale. The ASWS had 28-item selfreport. It is to assess homeostatic system that affecting sleep quality. The ASWS had adequate internal consistency for adolescents samples (Cronbach's alpha among Italian adolescents = 0.60 to 0.81; American adolescents = 0.64 to 0.82 (LeBourgeois et al., 2005).

### **The Pre Sleep Arousal Scale (PSAS)**

The PSA is 16-items self-report questionnaire comprising both cognitive and somatic manifestations of arousal. The PSAS had adequate internal consistency (Cronbach's alpha of the cognitive 0.88 for college students (Nicassio et al., 1985). This study only used pre sleep arousal cognitive scale.

### **The Pittsburgh Sleep Quality (PSQI)**

The PSQI is used to measure self-report of sleep quality and sleep disturbances during previous month. Total score ranging from 0-21, with a lower score (less than 5) indicating good sleep quality. The PSQI had adequate internal consistency (Cronbach alpha = 0.73) (Buysse et al., 1989).

## **Data Analyses**

Hypothesized model fit was estimated by AMOS 20.0 for path analysis. Model fit analysis used the following fit indices and the cut off points GFI > 0.90; AGFI > 0.9, CFI value of 0.95 or greater (Kline, 2011) and RMSEA < 0.1. Direct, indirect and total effects were estimated on path analysis as well.

## Result

### The Final Model of Selected Cognitive, Anxiety, and Neurophysiological Systems that affect sleep quality.

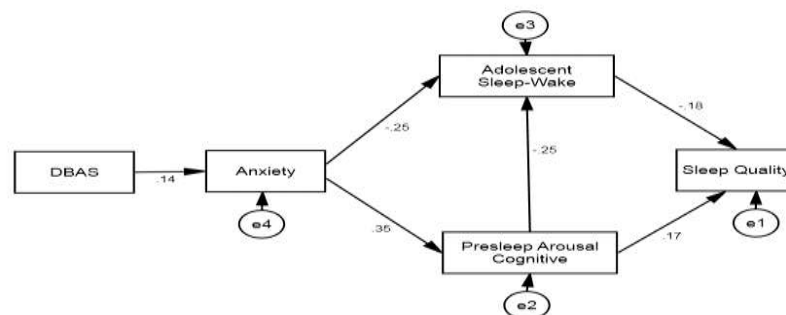


Figure 1. The Final Model of Selected Cognitive, Anxiety, and Neurophysiological Systems that affect sleep quality. Model fit indices goodness of fit index (GFI) was 0.994, adjusted GFI (AGFI) was 0.976, comparative fit index (CFI)= 0.967 and root mean squared error of the approximation (RMSEA) was 0.059. Solid line= significant path. Abbreviation DBAS-16, Dysfunctional Beliefs and Attitude about Sleep 16; Zung Self Anxiety Scale (SAS); ASWS, Adolescent Sleep-Wake Scale; PSA Cognitive, The Pre Sleep Arousal Cognitive Scale; and PSQI, The Pittsburgh Sleep Quality.

**Table 1. Direct, Indirect, and Total Effects of Dominants Factors on Sleep Quality**

Variable	DBAS	SAS	PSA-cognitive	ASWS
Direct Effects				
PSQI	.000	.000	.166	-.176
Indirect Effects				
PSQI	.016	.118	.044	.000
Total Effects				
PSQI	.016	.118	.210	-.176

## Discussion

All path coefficients were significant which gave evidence to the hypotheses of sleep/wake model functioning. The statistical goodness of model fit for the goodness-of-fit index (GFI), adjusted GFI (AGFI), comparative fit index (CFI), and root mean squared error (RMSEA) was 0.994, 0.976, 0.967, and 0.059, respectively. Based on path coefficient, the strongest direct effect on sleep quality was ASWS, the strongest indirect effect on sleep quality was SAS, and



DBAS was the weakest total effect on sleep quality. The results indicated that anxiety showed significant impact on sleep quality through the mediation of neurophysiological system. It is suggested that applying interventions to reduce anxiety to manage the effect of neurophysiological system on sleep quality among Indonesian Adolescents.

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# THE EFFECT OF HAVING BREAKFAST TO GRADE 4-6 STUDENTS' ACHIEVEMENT IN IN ELEMENTARY SCHOOL 01 KEPUHARJO MALANG

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## ABSTRACT

**Background:** Children in 6-12 years old are most commonly suffering from malnutrition. In 2008, a higher rate of nutrition problems and children healthcare occurred indicating by 90% childrens were snacking at school, 56% got anemia, and 40% had no breakfast. Related to those data, 56.4 % had less body weight, 35% had less body height, 94.5% consumed insufficient energy intake that decreased the body immune and the concentration. Based on the preliminary study conducted to 4-6 graders of SDN Kepuharjo 01 Malang, it showed that 50% of the students never have breakfast, 35% of the students always have breakfast, and 15% of the students seldom have breakfast. having For 1-3 graders, all of the students always have breakfast. The objective of this study is to find out the effects of having breakfast to the students' achievement in SDN Kepuharjo 01 Malang.

**Research Method :** The study was conducted in SDN Kepuharjo 01 Malang for 6 months. The sample was taken using stratified random sampling, taking 39 samples out of 132 population. This analitical research used Spearmen Rank for the data analysis.

**Findings :** The result showed that the students who always have breakfast has higher learning achievement (28.5%), while the students who do not have breakfast have less learning achievement (25%). From the data analysis showed that in both ordinal and nominal scale the correlation is  $\alpha = 0.005$ . it means that the  $H_0$  is rejected.

**Conclusion :** There is a significance correlation between the breakfast intake to the students learning achievement in SDN Kepuharjo 01 Malang.

**Keywords:** Breakfast, Learning achievement, elementary school student

## Background

A nation successful development mostly depends on the success in preparing for high quality, healthy, smart and productive human resource (Hadi, 2010). One of the indicator used is IPM (Human Development Index). In 2004, Indonesian IPM is on 111 out of 177 countries, which is on lower position comparing to the neighbour countries. The low IPM is influenced by the nutrition status and the Indonesian citizen health quality (Nuryati, 2010).

Children in 6-12 years old are most commonly suffering from malnutrition. In 2008, a higher rate of nutrition problems and children healthcare occurred indicating by 90% childrens were snacking at school, 56% got anemia, and 40% had no breakfast. Related to those data, 56.4 % had less body weight, 35% had less body height, 94.5% consumed insufficient energy intake that decreased the body immune and the concentration.

Having breakfast will enable the students to perform better at school. They concentrate more, behave positively, cheerful, cooperative, easy to make friends and can solve the problem well. While having no breakfast tends to make them have difficulties in learning and looks lazier (Nuryadin, 2015).

Based on the preliminary study conducted to 4-6 graders of SDN Kepuharjo 01 Malang, it showed that 50% of the students never have breakfast, 35% of the students always have breakfast, and 15% of the students seldom have breakfast. having For 1-3 graders, all of the students always have breakfast. In response to the preliminary study, the researcher was interested in find out the correlation between the breakfast intake to the students learning achievement in SDN Kepuharjo 01 Malang.

## Research Method

The study was conducted in SDN Kepuharjo 01 Malang for 6 months. The sample was taken using stratified random sampling, taking 39 samples out of 132 population. This analitical research used Spearmen Rank for the data analysis.

## Findings

Table 1. Respondent Frequency Distribution on the students breakfast habit of 4-6 graders of SDN Kepuharjo 01 Malang

No	Achiev ment criteria	Achievement criteria						Am ount N
		Good		Fair		Poor		
		f	%	f	%	F	%	
1	Breakfa st	1	28, 2	8	20, 6	2	5,1	21
2	Do not eat break- fast	2	5,1	6	15, 3	1 0	25, 7	18
	Total	3	33, 3	1 4	35, 9	1 2	30, 8	39

The students who always have breakfast has higher learning achievement (28.5%), while the students who do not have breakfast have less learning achievement (25%). From the data analysis showed that in both ordinal and nominal scale the correlation is  $\alpha = 0.005$ . it means that the  $H_0$  is rejected and  $H_1$  is accepted that there is a correlation between having breakfast to the learning achievement.

The students who have breakfast took healthy diet included rice for the carbo intake, vegetables ,protein, mineral, and vitamin. Consuming healthy diet regularly will effect the brain. Having breakfast will make the students have the ability to solve the problems well and increase their memory (Fajar,2010). (Dawn, 2010).

Consuming food for breakfast which have carbo complex and fiber will improve the students concentration and memory (Damayanti, 2005).

Having breakfast is essential to all family members, especially to kids because while they are sleeping the glucose and glycogen are used to lower the blood sugar when they wake up in the morning. The food on breakfast is the fuel for them in studying at school (Turner et al, 2015).

From 29 students who do not have breakfast, 14.25 of them were sleepy because of the low blood sugar that can also make them feel weak, sweating, decreasing the conciousness and get fainted. For students, this condition can decrease the concentration and the learning achievement (Lazzeri et al, 2006).

Respondents who never have breakfast rely on th snacks sold at school which are not guaranteed its nutrition level. School snack is 40.8% consist of E.coli that stay in human colon, while 40% school snack uses syntetic food color and 3% consist of hazardous chemical substances such as formaldehyde. It is hard to stop kids from snacking . Most of school students suffer from micronutrient zinc deficiency that can decresase the imune system (Stephanie et al, 2015).

## Conclusion

There is an effect on having breakfast to the 4-6 graders learning achievement in SDN Kepuharjo 01 Malang.

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# THE EFFECT OF *SELF-SELECTED INDIVIDUAL MUSIC THERAPY* (SeLIMuT) ON HEMODYNAMIC STATUS CHANGES IN PATIENT WITH CANCER TAKING PALIATIVE CARE IN RSUP DR. SARDJITO YOGYAKARTA

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## ABSTRACT

**Background:** Reported that there was an increase in the blood pressure and pulse of patient with cancer taking palliative care which is mainly due to the psychological stressed, pain reaction, and anxiety. Recently, palliative care is used in line with both Complementary And Alternative Medicine (CAM) to reduce the symptoms.

**Objective:** The aim of this study was to know the effect of SeLIMuT on the changes in hemodynamic status of patient with cancer taking palliative care.

**Method:** The study was a quasi experiment applying *pre-post* test with control group approach the purposive sampling technique carried out in IRNA I RSUP Dr. Sardjito Yogyakarta. Respondants were divided into two groups: the treatment and control group. The first group (n=23) received the SeLIMuT therapy 4 times in 2 days with each session lasting for 15-20 minutes. In the last group (n=23), the respondent did not receive therapy. The pre and post pulse rate and blood pressure were measured. It was clinically significant if there was cut off point was a  $\geq 10$  mmHg on both systolic and diastolic level and  $>4$  x/minute on the pulse rate.

**Result:** There was statistically a significant difference in the mean values of systolic ( $p=0.001$ ), diastolic ( $p=0.024$ ) and pulse rate ( $p=0.001$ ), significant as  $p<0.05$ . There was a decrease of 3.70 mmHg on systole level, 2.18 mmHg on diastole level, and 0.52 on pulse rate, however these values had no clinical significance based on both of cutoff point. In the control group, reported the systole level was constant or no changes, while the diastole level and pulse rate increased.

**Conclusion:** Statistically, SeLIMuT has a positive effect on the hemodynamic status of patients with cancer taking palliative care, although there was not significance clinically.

**Keywords:** palliative cancer, hemodynamic, SeLIMuT, music therapy

## INTRODUCTION

The diagnosis of cancer in many people engenders stress and anxiety relates to future prognosis and potential mortality, both in Indonesia and world.<sup>1</sup> The leading mortality rate of cancer reported because 70% patients who come to hospitals further on terminal stadium. Cancer cure expectancy is very small, perhaps treatment may continue but mainly not to treating the disease, merely to reduce or eliminate the serious consequences.<sup>2</sup> The anxiety and distressing may include concerns about the suffered physically, surgical experience, coping with acute pain, treatment regimens, financial burdens of care, and disruptions of their personal and professional lives that may affect quality of life the cancer' patients.<sup>3</sup> The most physical problems of patient with cancer taking palliative care is pain, 62%-78% of pain is due to tumor involvement, 19%-25% is due to treatment of the cancer, and 3%-10% is due to an unrelated condition. Every effort should be made to eliminate the cause of the discomfort.<sup>3</sup> Psychological problems and distress patient and family neither due to cancer pain.<sup>4</sup> They are often experience psychological problems cause of this symptoms and prognosis.<sup>5</sup>

The psychological reaction from the pain has been stimulated by sympathetic nervous that affect the increased of blood pressure (systolic & diastolic) and heart rate (HR) which is haemodynamic status.<sup>6</sup> Cancer Patients whom being fearful, depression and anxious due to higher blood pressure and heart rate frequencies more feel their pain during the treatment than patient with good feeling.<sup>7</sup> The importance of continuous monitoring of the patient's hemodynamic status will ensure early detection of cancer can be performed well, helping to determine the patient's response to intervention and therapies, as well as an indicator of the condition of the patient's psychological distress.<sup>6,7</sup>

Nowdays, the trend of palliative care at this time is to combine medical treatment with complementary therapies (Complementary and alternative medicine / CAM), it is to reduce the symptoms that bother the patient. One form of complementary therapy that is music therapy.<sup>7</sup> Music therapy has the advantages of intervention that can be applied in a simple therapy, non-invasive, it does not necessarily require the presence of the therapist, also price is affordable and does not cause side effects.<sup>8</sup>

In terms of health and medical sciences, music has a beneficial effect on the body and psyches. However, music therapy has a goal to help patients express their feelings, help physical rehabilitation, a positive effect on mood and emotional state, improve memory capability, as well as providing a unique place to interact and build closeness emosional.<sup>9</sup> Music therapy also used to treat mental disorders, and it has affected the patients to reduce of anxiety and depression. The previous studies said that the audio stimulation of music can provide a relaxing effect and analgesia.<sup>10</sup> Some of the studies before, give strong and great motivation to the writer, so the writer is highly motivated to offer new innovations of music therapy, Self-Selected Individual Music Therapy (SeLIMuT) in the health sector in particular as a complementary therapy that gives a relaxing effect of patient with cancer taking palliative care.

SeLIMuT as music therapy is a procedure which is easy, inexpensive, effective with the slow tempo of music, stable to listening, low noise level and soft dynamic and consistent textures (the combination of voice and instrumental). This therapy is given for 15-20 minutes

and give patients the freedom to choose their favorite music and it will be combined with a deep breath activity. Based on this background, the authors were interested in conducting a research to determine the effect of Individual Self-selected Music Therapy (SeLiMuT) on the blood pressure and heart rate as haemodynamic status of patient with cancer taking palliative care in the RSUP Dr. Sardjito Yogyakarta.

## **METHODS**

Approval for the study was obtained through the research and ethics committee in the hospital where this study was conducted, RSUP Dr. Sardjito, Yogyakarta, Indonesia. Written informed consent was obtained from participants. A quasi experiment pre post-test design with control group was designed to evaluate the effectiveness of SeLiMuT for haemodynamic status include blood pressure level (systolic and diastolic) and heart rate (brachial pulses rate) of patient with cancer taking palliative care. This study used double groups (intervention group and controlled group) pre post-test design with 8 separate data collection points. The main goal of this study was to identify whether this intervention would changes in blood pressure or HR outcomes.

A purposive sampling ( $n = 46$ ) of patient was assigned randomly to the control group ( $n=23$ ) or music intervention group ( $n=23$ ). The participants involved in this study were inpatients receiving palliative care services due to a diagnosis of cancer as a terminal illness and were recruited by staff members who were associated with the study. The inclusion criteria consisted of cancer patients are diagnosed cancer advanced stage III or IV, age 18 or older, normal hearing with or without the hearing aids, and willing to engage in this study. Blood pressure and HR parameters were not included in the inclusion criteria for this pilot study. Furthermore, exclusion criteria consisted of patients who experienced a loss of consciousness or coma, uncooperative patient, and the patient in emergency states. Criteria for patients who drop out of the study was currently while the process of SeLiMuT intervention suddenly experienced an emergency states or uncooperative conditions.

There was first activity before this SeLiMuT intervention program that used to aim in establishing a rapport between therapists and participants through SeLiMuT therapy. In this activity, the participants should choose their own song (3 songs) based on listed songs which is suitable to SeLiMuT characteristics.

SeLiMuT intervention program consisted of four times intervention for 2 days to each participant. Before doing the SeLiMuT intervention, participants should be measuring the blood pressure and HR as pretest and then posttest in the end session. Therefore, each participant must follow both pre-post test design with 8 separate data collection points.

Blood pressure measurement uses a mercury sphygmomanometer and watches to count the pulse. SeLiMuT intervention is given four times over two days through the MP3 player and earphones. Each session treatment has duration about 15-20 minutes. Before and after treatment, measurements of haemodynamic status and then used deep breathing technic for 1 minute before and after therapy.

Data were analyzed using the statistical software SPSS (version 15.0). The demographic data of respondents those groups were tested using univariate and

homogeneity test performed by Chi-square test or Fisher's exact test for categorical data and numerical data are tested by independent t-test or Mann-Whitney U test. The average value of systolic and diastolic those groups were tested using the Mann-Whitney U test pulse while using a t test with  $\alpha > 0.05$ , CI 95%.

## RESULTS

The demographic data participants of SeLIMuT group and control group comparison (Table 1). Test results of the homogeneity the demographic data from those groups showed that there were no significant differences in both groups of participants. The data means that characteristics of the two groups comparison were homogeneous or similar.

Tabel 1. Demographic characteristic of participants with palliative cancer RSUP Dr. Sardjito Yogyakarta November 2012 (n=46).

Characteristic	Intervention group (n=23)		Control group (n=23)		p value
	f (%)	Mean (SD)	f (%)	Mean (SD)	
Gender					0.304
Laki-laki	1 (4.3)		3 (13)		
Perempuan	22 (95.7)		20 (87)		
Age		46.26 (11.42)		49.43 (9.62)	0.352
Diagnose Cancer					0.295
Mamae	13 (56.5)		9 (39.1)		
Cervix	5 (21.7)		6 (26.1)		
Prostate	1 (4.3)		0		
Ovarium	4 (17.4)		5 (21.7)		
Nasofaring	0		3 (13.0)		
Long of cancer		10.87 (7.38)		15 (13.01)	0.272
Cancer stage					0.667
III	20 (87.0)		20 (87.0)		
IV	3 (13.0)		3 (13.0)		
Other diagnoses					0.696
Ada	2 (8.7)		2 (8.7)		
Tidak ada	21 (92.3)		21 (91.3)		

Sources: Primary data, 2012

The table 1 showed that the majority participants of this study were female in the amount of 95.7% in the intervention group and 87.0% in the control group. The data are in accordance with the criteria for inclusion in this study that the characteristics of the diseases that were focus of this research are most cancers taking by women. It was supported by the number of participants in this study were diagnosed with breast cancer by 56.5% and 21.7% of cervical cancer in the intervention group and 39.1% for breast cancer and cervix cancer 26.1% in the control group.

Based on the homogeneity test, the characteristics of the participants in the intervention group and the control group was similar (homogeneous) either from sex ( $p = 0.301$ ), ages ( $p = 0.352$ ), a type of cancer ( $p = 0.295$ ), duration of illness ( $p = 0.272$ ), stage of the cancer ( $p = 0.667$ ), and others diseases ( $p = 0.696$ ), it can be concluded that two groups are comparable and the results obtained in this study are not influenced from these factors.

Tabel 2. The variety of songs were used to SeLIMuT group RSUP Dr. Sardjito Yogyakarta November 2012 (n=23).



Music Genre	(n=23)
	f (%)
Religi	30.4
Dangdut	0
Indonesian Pop	8.7
Western Pop	0
Campursari	13.0
Kenangan	0
Keroncong	4.3
Instrumental	4.3
More genre	39.1

Participants in the SeLIMuT group picked songs that have been provided by researchers in the book menu. Based on Table 2, it has been showed that the most of participants SeLIMuT group that 9 participants (39.1%), selected more than one genre of music to be heard in a SeLIMuT therapy and the most listened song when the therapy is a spiritual song. This proves that this kind of spiritual music and campursari be a therapeutic option most participants in this study. These was consistent with previous research which states that a person who has terminally illness or in chronic conditions that resulted of being unable to function as usual as closer to their religion or God.<sup>13</sup>

SeLIMuT intervention is a therapy which aims to deliver the benefits of relaxation in palliative cancer patients that hemodynamic status as one of indicator. Based on Table 3, there were significant differences mean score of systolic ( $p = 0.001$ ), diastolic ( $p = 0.024$ ) and pulse rate ( $p = 0.001$ ), a significances as  $p < 0.05$ . Decrease in systolic, diastolic and pulse on the SeLIMuT after receiving the intervention group with a mean (SD) respectively 2.50 (3034); 2:07 (4765); 0525 (0285).

Tabel 3. The difference scores of pretest and posttest systolic, diastolic and heart rate of SeLiMuT group and control group November 2012 (n=46).

Haemodynamic	SeLiMuT Group (n=23)			Control Group (n=23)			P value
	Mean (SD)	Med (min-max)	95% Ci	Mean (SD)	Med (min-max)	95% Ci	
Systolic	2.67 (3.034)	2.50 (-3-8)	1.36, 3.99	-1.03 (1.542)	0.00 (-6-0)	-1.70, -0.37	0,001
Diastolic	2.07 (4.765)	1.50 (-5-11)	0.00, 4.13	-0.11 (1.550)	0.00 (-3-5)	-0.78, 0.56	0,024
Heart Rate	0.525 (0.285)	0.602 (0.0-1.1)	0.387, 0.663	-0.170 (0.129)	-0.124 (-.03-0.0)	-0.331, -0.009	0,001

Sources: Primary data, 2012

A decrease of 3.70 mmHg in systolic, diastolic mmHg in 2:18, and 0:52 on the pulse, whereas in previous studies reported that clinical significance as a change of or cut off point >10 mmHg in systolic, diastolic and >4 x/min.<sup>11 12</sup> the differences between the systolic pre-post control group tend to remain, while the diastolic and pulse showed an increase with a mean (SD) respectively -0.11 (0.371); -1.84 (0,222).

The following chart below showed us the changes in the difference between the mean value of pre post systolic, diastolic and pulse between SeLiMuT and control group.

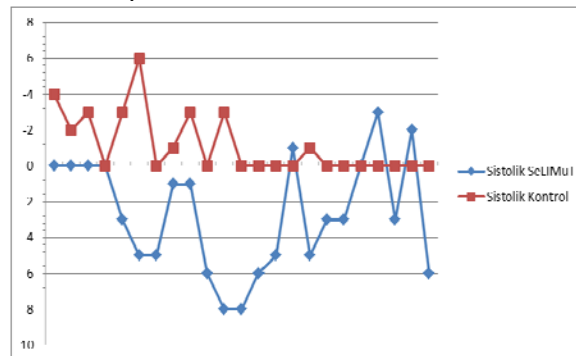


Figure 1. The difference between the mean value of pre post systolic chart between the SeLiMuT and the control group.

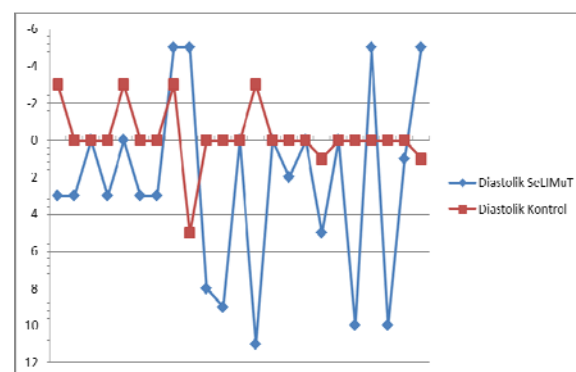


Figure 2. The difference between the mean value of pre post diastolic chart between the SeLiMuT and the control group.

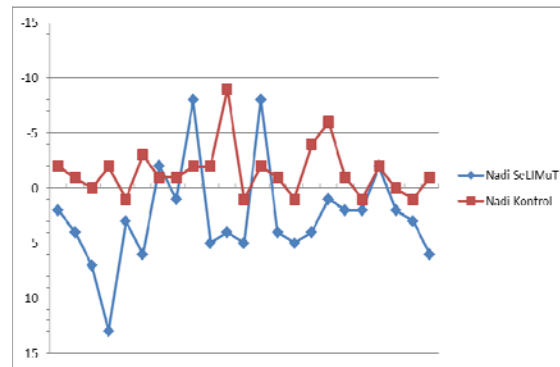


Figure 3. The difference between the mean value of pre post heart rate or pulse rate chart between SeLiMuT and control group.

Based on the figure changes in the difference in systolic, diastolic and pulse pre-post between SeLiMuT and control group showed a decrease in the chart in the group receiving therapy SeLiMuT. Nevertheless, the control group that did not receive therapy SeLiMuT tended to constant and even increased.

The control group showed the difference was negative. Negative values in the graph above was explaining that the post was greater than the value of pre, so the reduction in pre-post = negative value because of posttest was higher than pretest. While the SeLiMuT group was positive, it can be said that the value of a post lower than the value pre.

Based on the results of presented above, it is known that statistically SeLiMuT had positive effect on the hemodynamic status of palliative cancer patients. The influence of the form of lowering the mean systolic, diastolic and pulse in the group receiving SeLiMuT therapy, but the results are not clinically significant.

## DISCUSSION

This study was conducted to determine the effect of SeLiMuT on palliative cancer patient's hemodynamic status. The results indicate that there were statistically of SeLiMuT effect on palliative cancer patient's hemodynamic status. The influences of a decrease in mean values of systolic, diastolic and pulse rate in the group receiving the SeLiMuT intervention, although in the control group who did not receive therapy on systolic tend no change or remain, in diastolic and pulse actually increased. These mean that SeLiMuT has a positive influence to improve relaxation of patients with cancer taking palliative care.

But the results were not clinically significant, this might be due to lack of dose and frequency of treatment where researchers only gave twice a day and the time span is too long. Besides, there were some difficulties on controlling of environmental factors such as the patient's voice and passers that came from other patients or family had influenced the effectiveness of therapy SeLiMuT. Given the research conducted mostly on the setting of the 3 class wards filled about 6 patients resulting in less optimal sound control in addition to the sound coming from the SeLiMuT therapy itself.

Theoretically terms of medical, music has a beneficial effect on the body and psychic.<sup>13</sup> Music therapy has a goal to help patients express their feelings, help physical rehabilitation, a positive effect on mood and emotional state, improve memory, and provides a place Unique to interact and build closeness emosional.<sup>9</sup>

SeLIMuT role was to indicated patients relaxation through the stimulation received from a person while listening to music that stems from the senses auditory then it will be slowly stimulated the cerebral cortex and also channeled through the sensor system or directly to the limbic system which is basically has a major roles in emotional responses.<sup>14</sup> Consequently, the vibration of the sound of music starts the chain of events in which the brain stem to convey a message to the reticular activating system, stimulate changes such as muscle relaxation, decreased blood pressure, and a decrease in respiratory rate and pulse nadi.<sup>15</sup>

The relaxation stimulation by the limbic system of the brain from the music will be lower production epinephrine (adrenaline) and norepinephrine. The hormones are triggered by stimulation of the autonomic nervous system (ANS) where the hypothalamus acts as a central moderated. Both of these hormones resulting in increased blood flow to the muscles, heart rate, dilation of blood vessels, and contribute cortisol increases glycogen stores to muscles.<sup>16 17</sup>

Listening to the music gives them effect to produce epinephrine can be inhibited by affecting organs as the central amygdala and emotional reactions.<sup>15</sup> Reciprocally of amygdala activity with the hypothalamus through the striae terminalis, so that any stimulation of the amygdala activity will lead to stimulate of hypothalamus activity.<sup>13 18</sup>

The decrease on mean values of blood pressure and pulse in the SeLIMuT group can be influenced from several things. In this study, the decrease may occur because of the participants loved the music, the participants choose their own music to be used in therapy, timing of therapy coincides with the free time of participants, duration of therapy SeLIMuT deemed appropriate by the respondent, and the respondents had expressed as the likes while listening to music.

Characteristics of SeLIMuT that distinguished this therapy with music therapy had usually been carried out, namely the freedom of individuals to choose their own music to listen during therapy. The freedom of choocing the music could be expected to be a factor which is affecting the effectiveness of SeLIMuT in improving the patient's sense of comfort and relaxation.

The type of genre music that they were used in the SeLIMuT also supporting the creation of a sense of comfort and relaxation of the patients. Characteristics of SeLIMuT consist of slow-tempo music stable, low sound level and soft dynamic, consistent texture (the combination of voice and instrumental) and simple harmonies.

Soft music (with pitch and volume control), familiar, effective and preferred patients likes more beneficial increase compared with the relaxation of foreign new music and music chosen rumit.<sup>10 30</sup> And also it has an element of calmness to the patient eg rhythmic music that is spiritual order patients feel close to God so that it is able to reduce their stress.<sup>19</sup> It is

also causing the majority of participants who received therapy SeLIMuT choose the kind of religious music as music therapy options.

The timing and duration of SeLIMuT at around 15:00 pm and 19:00 pm for two days to a respondent. This time has been adjusted to the conditions on the ground so that the implementation of SeLIMuT therapy will not interfere with the activity of the health care team and patients. Patients say that the timing of the SeLIMuT to coincide with their free time.

There were not studies before that examined the right time to get music therapy. Timing of music therapy can vary, even the intensity of therapy although this was varied.<sup>20 21</sup> There were giving music therapy once a week even exist that provide music therapy two to three times in one day.<sup>22 23</sup>

Based on all of the phenomena described above, so it can be concluded that listening to music has many positive effects in the healing process. In the process of healing the psychological reactions such as pain and discomfort due to illness, anxiety and fear of illness will be stimulating the sympathetic nervous closely associated with increased blood pressure and heart rate which is a component of hemodinamik.<sup>24 25 26</sup> These conditions will be lower the optimization of the treatment process cancer patients, the studies reported that the tense and anxious patients were related to an increasing of blood pressure and heart rate more pain during treatment compared to patients whom rilex condition.<sup>8 27</sup> Therefore, the music therapy that was appropriate and effective in promoting relaxation and comfort shown with good hemodynamic status especially that occurs in palliative cancer patients.

This study showed that SeLIMuT therapy effectively applied in enhancing relaxation effect which was marked to decrease blood pressure and heart rate significantly of patient with cancer taking palliative care. Participants who received music therapy showed a lot of positive response in terms of psychology such as loss of feeling threatened caused disease and depressed.<sup>6 16</sup> The positive effects to response the positive aspects shown mostly on participants were the disappearance of the expression of fear, reduced muscle tension and fatigue feelings.<sup>8 29 30</sup>

## CONCLUSION

In conclusion, SeLIMuT intervention with the characteristics of patient self choices , the intervention coincide in his spare time, and using a type of music that is slow rythm, stabling tempo, lower of sound levels, soft dynamic, and consistent texture that effectively increase the relaxation of patients are characterized by decreased in the average values of systolic, diastolic, and pulse statistically, but this difference is not considered clinically significant.

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# Psychiatric Nurses' Perception on the Barrier Factors of Research Utilization

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**Background:** Global nursing vision in 21<sup>st</sup> century is that nurses apply evidence in daily practices, actively participate in research activities, and develop to initiate a research. The application of *evidence-based practice* (EBP) is not at its optimum pace. This is indicated by the rapid increase of knowledge in nursing, without coinciding with its application.

**Objective:** This research aimed to identify psychiatric nurses' perception on the barriers factors to utilize research

**Methods:** This research was a descriptive quantitative, conducted at one of psychiatric hospital in Yogyakarta. Research employed the use of questionnaire, with a total sample, 83 nurses responded. Data were then analyzed with descriptive statistics.

**Results:** The majority of nurses (64%) did not negatively perceive the items on the questionnaire as barriers on research utilization. The item that was most perceived as a barrier to research utilization was "Implications for practice are not made clear" ( $mean = 2.58$ ,  $SD = 0.91$ ). Whereas, the least perceived barrier was "The nurse is unwilling to change/try new ideas" ( $mean = 4.14$   $0.83$ ).

**Conclusions:** Result of this research suggests that factors related to the research presentation have become the barrier factors to research utilization. It is important for the nurses to obtain education/training regarding research and the methodology.

**Keywords:** psychiatric nurses, barriers, research utilization, EBP

## Pendahuluan

Visi keperawatan dunia di abad ke-21 adalah agar seluruh perawat mencari *evidence* (bukti) dan mengaplikasikannya dalam praktik sehari-hari, dengan berpartisipasi aktif dalam kegiatan penelitian dan pengembangan untuk memimpin penelitian.<sup>1</sup> *Evidence-based practice* (EBP) merupakan kunci yang berkontribusi untuk memperkuat pelayanan dan sistem kesehatan, sehingga diharapkan perawat mampu berperan aktif dalam penelitian dan mengaplikasikannya dalam perubahan praktik.<sup>2</sup>



Harapan penerapan EBP masih belum optimal. Hal ini ditandai dengan peningkatan pengetahuan dalam bidang keperawatan yang terjadi dengan cepat, namun tidak diiringi dengan penggunaannya di *setting* klinis. Terdapat beberapa tantangan yang perlu dihadapi untuk mengembangkan perawat peneliti, yaitu kultur organisasi di rumah sakit, dukungan manajerial, dan jenjang karier yang jelas yang mendukung pelaksanaan tugas klinis dan penelitian.<sup>1</sup> Sementara sebuah penelitian di Turki menunjukkan bahwa perawat enggan menerapkan EBP karena beberapa alasan, yaitu kurangnya waktu untuk mengimplemantasikan ide-ide baru, kesulitan memahami penelitian dalam bahasa Inggris, dan perbedaan *setting* dalam penelitian dan praktik mereka.<sup>3</sup>

Dalam lingkup keperawatan jiwa, perawat memiliki kewajiban etis untuk meningkatkan praktik melalui identifikasi hasil penelitian yang relevan terhadap praktik dan melakukan penelitian sesuai dengan prioritas. Terdapat tiga strategi yang bisa digunakan untuk meningkatkan dan mengembangkan praktik keperawatan jiwa, yaitu: mengidentifikasi hasil penelitian sesuai dengan prioritas, merespon kebutuhan pengetahuan bagi perawat peneliti dan praktisi, serta membangun program penelitian dan inovasi praktik.<sup>4</sup>

Penelitian tentang persepsi terhadap halangan penggunaan penelitian telah dilakukan di berbagai negara. Namun penelitian serupa perlu dilakukan dengan *setting* Indonesia, agar diketahui bagaimana persepsi perawat tentang penelitian dan hambatan-hambatan yang terdapat dalam praktik keperawatan dalam mengaplikasikan EBP. Agar EBP (praktik berdasarkan bukti) bisa terlaksana, perawat harus bertanggung jawab dalam mencari, mengkritisi, dan menyintesis literatur empiris yang terkait dengan praktik mereka.<sup>5</sup>

Dengan diketahuinya sikap perawat tentang EBP akan diketahui strategi yang tepat agar EBP bisa dilaksanakan dengan baik. Pelaksanaan praktik berdasarkan bukti, bukan tradisi, pada akhirnya akan meningkatkan *outcome* pada pasien.<sup>2</sup> Pengembangan ilmu dan praktik keperawatan jiwa mampu meningkatkan kehidupan orang-orang dengan masalah kesehatan jiwa aktual dan potensial. Perawat kesehatan jiwa mampu memberikan pengaruh yang positif pada mereka yang membutuhkan perawatan kesehatan jiwa jika praktik keperawatan jiwa terorganisasi, *scientific*, dan menggambarkan kemampuan unik dalam mengintegrasikan perawatan kesehatan jiwa.<sup>4</sup> Penelitian ini ingin melihat bagaimana persepsi perawat terhadap faktor-faktor yang menghambat penggunaan hasil penelitian.

## **Tujuan**

Penelitian ini bertujuan untuk mengetahui persepsi perawat terhadap faktor-faktor yang menghambat penggunaan hasil penelitian.

## Tinjauan Pustaka

*Evidence* atau bukti adalah kumpulan fakta yang dipercaya kebenarannya. *Evidence* tersebut didapatkan dari penelitian yang diharapkan mampu digeneralisasi agar bisa diaplikasikan di *setting* yang berbeda.<sup>6</sup> *Outcome* pasien yang positif bisa dicapai saat perawat menggunakan hasil penelitian terbaik dikombinasikan dengan pengetahuan keperawatan mereka, kemudian merencanakan dan menyediakan perawatan sesuai dengan nilai budaya dan pilihan pribadi pasien dan keluarganya.<sup>7</sup>

Tujuan utama dari EBP adalah untuk menyediakan perawatan yang berkualitas tinggi, dengan biaya yang efektif (*cost-effective*), dan berdasarkan ilmu pengetahuan.<sup>8</sup> Pelaksanaan EBP ini akan memungkinkan perawat berkontribusi terhadap organisasi, dan juga memberikan kesempatan pada perawat untuk menggunakan temuan ilmiah terbaru dalam praktik klinik, dan memajukan profesi sesuai dengan kemajuan pengetahuan. EBP bisa memperkuat peran perawat dalam mengambil keputusan dan sekaligus meningkatkan *outcome* pasien.

Faktor pendukung pelaksanaan EBP adalah kolaborasi antara pendidik, peneliti, administrator, dan praktisi, integrasi EBP ke dalam kurikulum pendidikan, pengembangan iklim organisasi untuk memperkuat EBP, termasuk penggunaan mentor dan *role model*.<sup>7</sup> Pelaksanaan EBP dalam keperawatan sangat perlu didukung oleh organisasi, melalui kebijakan pelayanan kesehatan, kepemimpinan, dan organisasi yang kredensial. Organisasi harus mendukung keperawatan dengan menyediakan sumber-sumber untuk meningkatkan akses pada *evidence*, pelatihan, *mentorship*, dan menyediakan waktu khusus di luar perawatan pasien.<sup>8</sup>

Faktor-faktor yang mendukung implementasi EBP adalah penyediaan komputer dan internet di bangsal, penyediaan pendidikan lanjutan untuk meningkatkan pengetahuan tentang penelitian, hingga peningkatan ketersediaan waktu untuk mereview dan mengimplementasikan hasil penelitian.<sup>9</sup>

Faktor penghambat pelaksanaan EBP adalah kurangnya waktu dan pengetahuan yang dimiliki perawat, kurangnya penerimaan EBP oleh supervisor, pola pikir tradisional, budaya organisasi, tidak tersedianya sumber EBP, dan kemampuan perawat dalam menemukan *evidence* yang sesuai dengan *setting* klinik mereka.<sup>7</sup>

Faktor penghambat pelaksanaan EBP dibagi menjadi dua jenis, yaitu personal (individu/perawat) dan organisasi (rumah sakit).<sup>8</sup> Faktor individu yang menghambat pelaksanaan EBP yang paling dominan adalah kurangnya pemahaman *database* elektronik di rumah sakit/organisasi. Faktor individu yang lain adalah kesulitan mengakses penelitian, kurangnya keterampilan untuk mengkritik dan mensintesis literatur, kurangnya kemampuan untuk mencari literatur, kesulitan memahami artikel penelitian, kurangnya akses perpustakaan, kurangnya pengetahuan tentang penelitian, kurang dihargainya hasil penelitian dalam praktik, kurangnya keterampilan komputer, dan kurangnya akses komputer.

Faktor penghambat yang paling dominan berasal dari organisasi (rumah sakit) adalah beban kerja yang sangat tinggi. Faktor lainnya adalah adanya tujuan lain

yang lebih prioritas, tidak adanya pelatihan, tidak adanya informasi, organisasi melihat EBP tidak bisa dicapai, organisasi melihat perawat tidak siap untuk melaksanakan EBP.<sup>8</sup>

Hambatan utama yang dirasakan perawat dalam mengimplementasikan EBP adalah, perawat merasa tidak memiliki otoritas untuk mengubah praktik/pelayanan pada pasien. Perawat melaksanakan perawatan berdasarkan tradisi, dimana mereka tidak pernah mempertanyakan praktik yang mereka lakukan, tetapi hanya berfokus pada penyelesaian tugas yang diberikan oleh kolega, manajemen, atau oleh staf medis. Selain itu, perawat juga merasa tidak bisa memahami analisis statistik, tidak memiliki teman untuk berdiskusi, dan merasa tidak mampu mengevaluasi hasil penelitian.<sup>9</sup>

Sebuah penelitian kualitatif juga mengungkapkan hasil yang hampir sama tentang faktor penghambat pelaksanaan EBP.<sup>10</sup> Perawat mengatakan bahwa terdapat kesulitan yang dialami perawat untuk terlibat dalam EBP, terbatasnya waktu yang dimiliki perawat, dan kurangnya pengetahuan perawat tentang EBP. Selain itu perawat juga menyatakan bahwa ada hambatan dalam hal biaya. Biaya yang diperlukan untuk menyediakan hasil penelitian (*database*) baik *online* maupun *hard copy* sangat mahal. Faktor penghambat lain adalah kurangnya perawat dengan tingkat pendidikan S2/S3. Tantangan terbesar dalam aplikasi EBP adalah waktu yang tidak tersedia untuk perawat, perawat tidak mempunyai otoritas untuk mengubah praktik, serta mahal biaya untuk penyediaan sumber-sumber informasi (artikel).<sup>11</sup>

Penelitian menemukan bahwa 99% responden dalam penelitiannya mengatakan familiar dengan EBP.<sup>8</sup> Selain itu, mereka setuju bahwa kebijakan dan prosedur yang ada di rumah sakit telah mencerminkan EBP. Delapan puluh empat persen responden mengatakan telah menggunakan hasil penelitian dalam praktik mereka. Akan tetapi saat dibandingkan, perawat yang menghadiri pelatihan EBP lebih terlibat dalam mengidentifikasi, berpartisipasi, dan mengevaluasi EBP dibandingkan perawat yang tidak menghadiri pelatihan EBP.

Sementara itu sebuah penelitian kualitatif mengungkapkan bahwa pelaksanaan EBP memerlukan proses perubahan yang sulit, terlalu rumit untuk dipahami, dan terhalangi oleh banyaknya perawat yang tidak memiliki pengetahuan tentang EBP. Meskipun perawat mengungkapkan bahwa EBP merupakan hal yang baik dan sudah saatnya diaplikasikan, mereka tidak yakin bagaimana harus memulai melaksanakan EBP dalam praktik mereka.<sup>10</sup>

Perawat memiliki sikap dan keyakinan yang positif terhadap EBP, akan tetapi pelaksanaannya tidak sesuai.<sup>7</sup> Dalam penelitiannya, mayoritas responden setuju bahwa mengkaji dan menilai hasil penelitian merupakan langkah yang penting dalam proses EBP. Responden juga percaya bahwa EBP dapat meningkatkan *outcome* klinis pasien. Akan tetapi sebagian besar responden tidak yakin tentang cara mengukur *outcome* pasien, dan mereka merasa bahwa pelaksanaan EBP akan memerlukan banyak waktu.<sup>7</sup> Hasil penelitian ini menunjukkan bahwa perawat tidak mengimplementasikan EBP secara aktif, misalnya dengan mengubah praktik klinis sesuai dengan *evidence*, berbagi hasil penelitian dengan pasien atau

keluarga, berdiskusi tentang hasil penelitian dengan kolega atau mengakses *database* hasil penelitian.<sup>7</sup>

Sikap perawat terhadap penggunaan hasil penelitian adalah sangat baik. Perawat percaya bahwa penelitian akan membantu membangun pengetahuan mendasar bagi perawat, penelitian dibutuhkan untuk meningkatkan praktik keperawatan, keperawatan harus berdasarkan *evidence*, bahkan mereka akan mengubah praktik berdasarkan hasil penelitian. Tetapi sikap yang positif tersebut tidak didukung dengan ketersediaan akses dan program di rumah sakit tempat mereka bekerja.<sup>12</sup>

Mayoritas perawat memiliki sikap yang positif terhadap penelitian dan EBP. Mayoritas perawat mengungkapkan bahwa penelitian merupakan hal yang penting untuk mengembangkan profesi keperawatan, perawat perlu mendapatkan kursus/pendidikan mengenai metodologi penelitian, dan bahwa penelitian dalam keperawatan berperan dalam pengembangan praktik keperawatan.<sup>9</sup>

## Metodologi

Penelitian ini adalah penelitian deskriptif dengan metode kuantitatif, menggunakan pendekatan survei. Penelitian dilaksanakan di salah satu Rumah Sakit Jiwa di Yogyakarta. Total jumlah perawat adalah 138 perawat. Setelah 30 perawat dijadikan sampel uji validitas dan reliabilitas, tersisa 108 perawat. Sampel dipilih dengan teknik *total sampling*, dan yang merespon untuk mengisi kuesioner ada 83 responden. Instrumen penelitian adalah kuesioner. Kuesioner dibuat oleh peneliti berdasarkan sumber referensi yang tersedia, sehingga dilakukan uji validitas dan reliabilitas terlebih dahulu. Uji validitas dengan menggunakan *Cronbach's Alpha* menunjukkan dari 30 item pertanyaan yang disediakan, 4 item tidak valid yaitu item nomor 1, 17, 18, dan 23 sehingga menyisakan 26 item yang valid. Uji reliabilitas menunjukkan skor *Cronbach's Alpha* 0.738 sehingga bisa dikatakan cukup reliabel. *Ethical clearance* didapatkan dari Komite Etik Universitas Muhammadiyah Yogyakarta. Data diolah dengan menggunakan statistik deskriptif (frekuensi, persentase, mean, median, dan standar deviasi).

## Hasil

**Tabel 1 Karakteristik responden penelitian**

Karakteristik	Frekuensi	Persentase
<b>Usia</b>		
23-37	49	59,04
38-52	27	32,53
<i>missing</i>	7	8,43
<b>Lama Bekerja</b>		
< 1 tahun	4	4,82
1-5 tahun	11	13,25
6-10 tahun	37	44,58
11-15 tahun	7	8,43
	7	8,43

16-20 tahun	7	8,43
> 20 tahun	10	12,05
missing		
<b>Pendidikan</b>		
<b>Terakhir</b>	42	50,60
D III	19	22,89
D IV	7	8,43
S 1	3	3,61
Ners	1	1,20
S 2	11	13,25
missing		

Tabel 1 menunjukkan bahwa mayoritas responden berusia 23-37 tahun (59,04%), bekerja selama 6-10 tahun (44,58%), dan berpendidikan D III (50,60%).

**Tabel 2 Persepsi Perawat terhadap Faktor-faktor yang Menghambat Penggunaan Hasil Penelitian**

Persepsi	n (%)	Mean	SD
Positif	64 (77,11)	3.62	0.36
Negatif	19 (22,89)	2.69	0.25

Tabel 2 menunjukkan bahwa mayoritas responden (77,11%) mempunyai persepsi yang positif terhadap faktor penghambat penggunaan hasil penelitian.

**Tabel 3 Peringkat, persentase dan mean dari persepsi perawat terhadap faktor penghambat penggunaan penelitian**

# item	item	rank	mean	SD
1	Implikasi hasil penelitian untuk praktik klinis tidak jelas	1	2.58	0.91
11	Sumber baca yang sesuai tidak disediakan dalam satu tempat	2	2.64	1.07
2	Analisis statistik tidak bisa dipahami	3	2.73	0.88
20	Penelitian tidak dilaporkan dengan jelas dan mudah dibaca	4	2.80	1.04
13	Hasil penelitian tidak bisa digeneralisasikan ke setting pelayanannya	5	2.90	1.08
7	Penelitian belum direplikasi (diulang) di setting Indonesia	6	2.93	0.96
23	Jumlah informasi penelitian sangat berlebihan banyaknya	7	3.27	0.93
12	Perawat tidak mempunyai wewenang untuk mengubah prosedur perawatan pasien	8	3.28	1.06
15	Perawat merasakan sedikit keuntungan untuk dirinya sendiri	9	3.36	1.05
21	Staff yang lain tidak mendukung implementasi hasil penelitian	10	3.39	0.88
6	Perawat tidak punya waktu untuk membaca hasil penelitian	11	3.43	0.97
10	Penelitian mempunyai metodologi yang tidak cukup baik	12	3.44	0.81
5	Fasilitas tidak memadahi untuk implementasi hasil penelitian	13	3.46	0.79
3	Hasil penelitian tidak sesuai dengan praktik perawat	14	3.49	0.73
26	Laporan atau artikel penelitian ditulis dalam bahasa Inggris	15	3.54	0.72

8	Perawat merasakan hanya akan sedikit keuntungan jika mengubah praktik keperawatan	16	3.60	0.77
25	Tidak ada waktu yang cukup untuk mengimplementasikan ide-ide baru	17	3.63	0.79
14	Perawat tidak mempunyai kolega yang mempunyai pengetahuan cukup untuk berdiskusi tentang hasil penelitian	18	3.63	0.92
16	Administrasi tidak akan mengizinkan implementasi hasil penelitian	19	3.63	0.73
19	Kesimpulan yang diambil dalam hasil penelitian tidak mempunyai dasar yang kuat	20	3.65	0.67
9	Perawat tidak yakin akan hasil penelitian	21	3.72	0.81
17	Perawat tidak melihat penelitian mempunyai nilai untuk praktik	22	3.75	0.60
18	Tidak ada kebutuhan untuk mengubah praktik	23	3.82	0.77
24	Perawat merasa tidak mampu mengevaluasi kualitas hasil penelitian	24	3.84	0.79
4	Perawat tidak mempunyai kesadaran tentang penelitian	25	3.90	0.92
22	Perawat tidak ingin berubah atau mencoba ide-ide baru	26	4.14	0.83

## Diskusi

Pendidikan telah diteliti berhubungan dengan sikap perawat terhadap EBP dan mempengaruhi persepsi perawat terhadap faktor penghambat/pendukung penggunaan hasil penelitian. Penyediaan pendidikan lanjutan untuk meningkatkan pengetahuan tentang penelitian penting dalam rangka meningkatkan sikap positif perawat terhadap pelaksanaan EBP.<sup>9</sup> Kurangnya pendidikan lanjutan (S2 atau S3) menjadi salah satu penghambat dalam pelaksanaan EBP.<sup>10</sup> Dalam hasil penelitian ini, mayoritas responden berpendidikan D III, dimana kemampuan berpikir kritis dan pengetahuan tentang metodologi penelitian masih sangat kurang dibandingkan dengan tingkat pendidikan S1 atau yang lebih tinggi. Perawat perlu mendapatkan kursus/pendidikan mengenai metodologi penelitian, dan bahwa penelitian dalam keperawatan berperan dalam pengembangan praktik keperawatan.<sup>9</sup> Walaupun demikian, secara statistik penelitian menunjukkan bahwa tidak ada perbedaan yang signifikan antara pendidikan dan persepsi perawat.<sup>7,9</sup>

Sikap perawat terhadap penggunaan hasil penelitian adalah sangat baik. Perawat percaya bahwa penelitian akan membantu membangun pengetahuan mendasar bagi perawat, penelitian dibutuhkan untuk meningkatkan praktik keperawatan, keperawatan harus berdasarkan *evidence*, bahkan mereka akan mengubah praktik berdasarkan hasil penelitian. Tetapi sikap yang positif tersebut tidak didukung dengan ketersediaan akses dan program di rumah sakit tempat mereka bekerja. Akan tetapi, jika dilihat secara lebih detail dalam setiap item pertanyaan, berapa item pertanyaan mendapat respon negatif dari responden, sebagaimana terlihat dalam tabel selanjutnya.<sup>12</sup>

Tabel 2 menunjukkan bahwa mayoritas responden (77,11%) mempunyai persepsi yang positif terhadap faktor penghambat penggunaan hasil penelitian.

Artinya, sebagian besar responden tidak melihat faktor-faktor dalam item pertanyaan sebagai penghambat dalam penggunaan hasil penelitian. Penelitian sebelumnya menunjukkan bahwa sikap perawat terhadap penggunaan hasil penelitian adalah sangat baik.<sup>12</sup> Perawat percaya bahwa penelitian akan membantu membangun pengetahuan mendasar bagi perawat, penelitian dibutuhkan untuk meningkatkan praktik keperawatan, keperawatan harus berdasarkan *evidence*, bahkan mereka akan mengubah praktik berdasarkan hasil penelitian. Tetapi sikap yang positif tersebut tidak didukung dengan ketersediaan akses dan program di rumah sakit tempat mereka bekerja. Akan tetapi, jika dilihat secara lebih detail dalam setiap item pertanyaan, berapa item pertanyaan mendapat respon negatif dari responden, sebagaimana terlihat dalam tabel selanjutnya.

Tabel 3 menunjukkan bahwa di antara 26 faktor penghambat penggunaan penelitian, hal yang dipersepsikan paling menghambat penggunaan penelitian adalah item nomor 1 yaitu "Implikasi hasil penelitian untuk praktik klinis tidak jelas" (*mean*= 2.58, *SD*= 0,91). Sementara itu, faktor yang dipersepsikan paling rendah menghambat penggunaan hasil penelitian adalah item nomor 22 yaitu "Perawat tidak ingin berubah atau mencoba ide-ide baru". Hal ini bisa diartikan bahwa sebenarnya perawat ingin juga berubah atau mencoba ide-ide baru terkait dengan praktik yang dilakukannya. Hal ini sejalan dengan penelitian yang menunjukkan bahwa mayoritas perawat mengungkapkan bahwa penelitian merupakan hal yang penting untuk mengembangkan profesi keperawatan.<sup>9</sup>

Berdasarkan deskripsi operasional, persepsi dikatakan negatif saat *mean* <3. Tabel 3 menunjukkan bahwa dari 26 item pertanyaan, hanya enam item yang dipersepsikan sebagai penghambat penggunaan penelitian (*range*= 2,58-2,93). Sementara 20 item pertanyaan dipersepsikan positif, tidak menghambat penggunaan hasil penelitian (*range*= 3,27-4,14). Enam item yang dipersepsikan sebagai faktor penghambat penggunaan hasil penelitian adalah "Implikasi hasil penelitian untuk praktik klinis tidak jelas", "Sumber baca yang sesuai tidak disediakan dalam satu tempat", "Analisis statistik tidak bisa dipahami", "Penelitian tidak dilaporkan dengan jelas dan mudah dibaca", "Hasil penelitian tidak bisa digeneralisasikan ke setting pelayanannya", "Penelitian belum direplikasi (diulang) di setting Indonesia". Dari enam faktor tersebut, terlihat bahwa yang dianggap sebagai penghambat penggunaan hasil penelitian adalah faktor-faktor yang berasal dari hasil penelitian itu sendiri, bukan faktor dari perawat atau dari manajemen rumah sakit. Hal ini sangat berbeda dengan hasil penelitian yang menemukan bahwa faktor yang paling menghambat penggunaan penelitian di praktik adalah "tidak tersedianya waktu yang cukup untuk mengimplementasikan ide-ide baru".<sup>3</sup>

## Simpulan

Sebagian besar responden tidak melihat faktor-faktor dalam item pertanyaan sebagai penghambat dalam penggunaan hasil penelitian. Hal yang dipersepsikan paling menghambat penggunaan penelitian adalah "Implikasi hasil penelitian untuk praktik klinis tidak jelas". Faktor yang dipersepsikan paling rendah menghambat penggunaan hasil penelitian adalah "Perawat tidak ingin berubah atau mencoba ide-ide baru".

Hasil penelitian ini menunjukkan bahwa perawat mempersepsikan faktor-faktor terkait presentasi hasil penelitian menjadi faktor penghambat penggunaan penelitian. Sehingga penting bagi perawat mendapatkan pendidikan/pelatihan mengenai penelitian dan metodologinya.

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# ***The Effect Of Eye Movement Desensitization And Reprocessing (EMDR) For Post Traumatic Stress Disorder (PTSD)***

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## **Abstract**

**Background:** Post Traumatic Stress Disorder (PTSD) is a disorder that occurs when a person experiences a traumatic event that reacts with the constant fear, feel helpless and afraid, the symptoms evolve for at least a month. Prevalence with PTSD incidence of 60.7% male and 51.2% female. One possibility therapeutic techniques can help to deal with Post Traumatic Stress Disorder (PTSD) is the method of therapy Eye Movement Desensitization And Reprocessing (EMDR). **Objective:** The purpose of this literature study was to determine the effectiveness of therapy And Eye Movement Desensitization Reprocessing (EMDR) in reducing the incidence of Post Traumatic Stress Disorder (PTSD). **Methodology:** The method used in this literature study is to collect and analyze articles - research articles and journals (national and international) related to the effect of therapy And Eye Movement Desensitization Reprocessing (EMDR) for Post Traumatic Stress Disorder (PTSD). Articles obtained from electronic journals from Google Scholar, Cochrane Database, SAGE Journals, PubMed Central International, Wiley Online Library, PubMed Central Europe, The Lancet, Wolters Kluwer Health, etc., using the keyword And Eye Movement Desensitization Reprocessing (EMDR ) and Post Traumatic Stress Disorder (PTSD). The review of the literature found that article 8 indicates that EMDR therapy therapeutic effect against Post Traumatic Stress Disorder (PTSD). **Results:** The review of the literature found that article 8 indicates that EMDR therapy therapeutic effect against Post Traumatic Stress Disorder (PTSD). So it can be concluded that the Eye Movement Desensitization And Reprocessing (EMDR) effect is more effective in reducing the symptoms of Post Traumatic Stress Disorder (PTSD). **Conclusion:** Eye Movement Desensitization And Reprocessing (EMDR) effect is more effective in reducing the symptoms of Post Traumatic Stress Disorder (PTSD).

**Keywords:** Eye Movement Desensitization And Reprocessing (EMDR), Post Traumatic Stress Disorder (PTSD), Society.

## **Background**

Posttraumatic stress disorder commonly called PTSD or Post Traumatic Stress Disorder. PTSD is a disorder that occurs when a person experiences a traumatic event that reacts with the constant fear, feeling helplessness and horror, the symptoms - symptoms are grown for at least a month (American Psychiatric Association in Taylor, 2003). Individuals with PTSD are individuals who experience traumatic events in which individuals are victims or witnesses of the incident, in which the individual felt a strong fear, helplessness, or horror (APA, 2000). Another definition says that PTSD is caused by a life-threatening incident, which shook the emotions of a person or event giving rise to a strong fear (Dryden & Edwards, 2009). Individuals who become amidst the optimism, survivor or witnessed a traumatic event are at high risk for suffering from PTSD.

Signs and symptoms of a person suffering from PTSD can be grouped into three, namely the memories that interfere or memory of events traumatic experiences over and over - again (re - experiencing symptoms), the avoidance behaviors (avoiding symptoms), and the onset of symptoms of excessive (arousal symptoms ) to something similar when a traumatic event and symptoms persist for at least one month. In general, people with PTSD suffer from insomnia and irritability, and easily startled. PTSD sufferers often exhibit excessive reaction which is a result of neurobiological changes in the nervous system (Adesla, 2009). If signs and symptoms are not addressed properly will disrupt the lives of individuals, would interfere with social relationships and can become pathological that would lead to a mental disorder.

Treatment for PTSD according to the National Institute of Mental Health (NIMH, 2008) are psychotherapy and medication, or a combination of both. Psychotherapy is often used to overcome the problem of PTSD is anxiety management, cognitive therapy, exposure therapy while psikofarmaka given to clients with PTSD are antidepressants, benzodiazepines, antipsychotics and other antidepressants.

One possibility therapeutic techniques can help to deal with Post Traumatic Stress Disorder (PTSD) is the method of therapy Eye Movement Desensitization And Reprocessing (EMDR). Eye Movement Desensitization and Reprocessing (EMDR) is a method that is scientifically validated gradually, integrative psychotherapy approach based on the theory of psychopathology that is caused by traumatic experiences or events that disrupt the journey of life (EMDR International Association, 2009).

Leitch (2007) states that the EMDR proved to be the most consistently tritmen provide a positive effect to overcome the trauma. While stabilization techniques are part of the EMDR therapy, but more emphasis on maintaining and restoring basic functions of the individual after an interruption.

It becomes important to be studied further because of someone who experienced the trauma will feel fear and anxiety arise at any time. This will affect and interfere with a person's daily activities traumatized. According to researcher and inventor of the therapy EMDR, Francine Shapiro, said that with the stimulation of bilateral with a pat of fingers and finger movements in EMDR able to reduce fear and anxiety as well as the change of anxiety and fear into the learning process that makes a person traumatized able to establish a defense myself and was able to recover from the trauma (Shapiro, 1995,2001,2002). By overcoming or decrease PTSD, is expected to help reduce the impact of trauma or psychological condition of the person returns to the condition before the trauma that can perform everyday activities better.

## **Methods**

The method used in this literature review is to collect and analyze research articles and journals (national and international) related to the therapeutic effects of Eye Movement Desensitization and Reprocessing (EMDR) for Post Traumatic Stress Disorder (PTSD). Articles obtained from journals electronically from Google Scholar, Cochrane Database, SAGE Journals, PubMed Central International, Wiley Online Library, Europe PubMed Central, The Lancet, Wolters Kluwer Health, etc. by using keywords Eye Movement Desensitization and Reprocessing (EMDR) , Post Traumatic Stress Disorder (PTSD).

Inclusion criteria for the study of literature is an article published between 2003 - 2014. From the article search found 8 articles were analyzed.

## **Discussion**

Post Traumatic Stress Disorder is an anxiety disorder that can be formed from an event or experience a frightening or horrible, difficult and unpleasant tidaak where there is physical maltreatment or feelings (APA, 2000). According to Smith da Segal (2008 in Adesla 2009) Post Traumatic Stress Disorder (PTSD) is a disorder that can be formed from traumatic events that threaten the safety of you or make you feel helpless.

NIMH (2008) defines PTSD as a type of anxiety disorder that occurs after trauma or exposed to some kind of traumatic event. Meanwhile, according to NICE (2005), PTSD is a condition where there is a problem or interference with the physical and psychological person as a result of events that suppress or life threatening, ie a natural disaster, war, Kekeran physical, sexual and emotional abuse, accidents and all the events that make a person feels depressed, desperate and felt herself in danger.

Based on the explanation above it can be concluded that PTSD is a type of disorder that occurs as a result of traumatic events and threatens the lives of the individual and the individual is not able to cope with all the capabilities it has. Treatment for PTSD according to the National Institute of Mental Health (NIMH, 2008) are psychotherapy and medication, or a combination of both. Psychotherapy is often used to overcome the problem of PTSD is anxiety management, cognitive therapy, exposure therapy while psikofarmaka given to clients with PTSD are antidepressants, benzodiazepines, antipsychotics and other antidepressants.

One possibility therapeutic techniques can help to deal with Post Traumatic Stress Disorder (PTSD) is the method of therapy Eye Movement Desensitization And Reprocessing (EMDR). Eye movement Desensitization and Reprocessing (EMDR) is a form of psychotherapy that was originally designed to eliminate the distress associated with traumatic experiences or memories (Shapiro, 1989a, 1989b). Through models of Adaptive Information Processing (Shapiro, 2001) stated that EMDR facilitates access to the traumatic memory and processing to achieve a solution that is adaptive. Leitch (2007) states that EMDR is proven to provide a positive effect to overcome the trauma. While stabilization techniques are part of the EMDR therapy, but more emphasis on maintaining and restoring basic functions of the individual after an interruption.

When the therapy EMDR, the client focus on things that are disturbing emotions in a short period of time at the same attention to external stimuli. External stimuli most commonly used is the finger movements to be followed by the movement of the eyeball clients, but various types of external stimuli such as touch-hand (tapping) or sounds are also often used (Shapiro, 1991).

Shapiro (1995) put forward the hypothesis that EMDR facilitates access to the traumatic memory network, so that information processing is increased. Processing becomes more smoothly with the construction of the association between traumatic memory and memory or other more adaptive information. Association or a new relationship is believed to produce a

perfect information processing, new learning outcomes and the development of cognitive understanding of the traumatic memory.

Based on research by Ananda Robert Rahmania (2012) mengenai differences influence therapy Eye Movement Desensitization and Reprocessing (EMDR) with stabilization techniques in its application to the physically disabled in BBRSD, Surakarta experiencing Post Traumatic Stress Disorder (PTSD) found EMDR therapy has a success rate reduction in the rate of PTSD better than the group stabilization techniques and stabilization techniques are not better than the group EMDR.

## Conclusion

Based on the review of the literature, it can be concluded that there is a therapeutic effect Eye movement Desensitization and Reprocessing (EMDR) for post-traumatic stress disorder that can be used as a reference science and can be applied as a complementary therapy in the world of health.

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## The Importance of Aged – Care : A Discourse of Reviews for Indonesian Seniors Citizen

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### Abstract

Elderly people have been growing in Indonesia and it should be mentioned by Government as they are part of Indonesian citizens. Indonesian population 15 years of age and over who are in labor force in August 2015 is 114 819 199 (BPS, 2016). Say, every year the population will be retired 5 %, five - ten years later it might be around 5 millions old people need protection of aged-care as Indonesian life expectancy is 65-70 (BPS, 2016). So far, there are few places of aged-care. Folks think, old people should have been taken-care by family. In fact, many families are busy with their activities and seniors are lack of attentions. When they are able to do everything by themselves, there is no difficulty. However, there is something should do if they are getting more older and become disability.

Nowadays, Government doesn't plan anything yet for the aged people. The each family of them should be aware more than government can do. However, as we have known, not everyone is a caretaker. Some people still think if they have children, they may raise them by themselves, but how about their parents? Many people are not ready to take care of their old parents, moreover they are the people with special needs and illnesses. There is an importance to take this responsibility. In Sweden, the government takes the responsibility of aged-care and seniors only pay 3 per cent of the total cost and the rest is government's role, funded by taxes.

Therefore, there should be began to think about facilities for seniors in Indonesia, such as aged-care home, older people caretakers in Indonesia, as well as other countries have conducted, to serve old people as also Indonesian citizens who have right to be mentioned. The government can apply the similar method what has been applied in other countries.

**Keywords:** aged-care home, caretakers, Indonesian seniors

### Background

Indonesian people now live longer and healthier lives as compared to the past generations. The advancements in science and technology have made better health and it needs to be

discussed how far the environment is ready for their world, especially when their family is not prepared to take care of them.

Elderly care or aged-care is the fulfillment of the special needs and requirements for elderly people, as they grow old and don't capable of doing like normal people. Some of them need assistance in their daily activities as they become like child and disability.

Elderly people have been growing in Indonesia and it should be mentioned by Government as they are part of Indonesian citizens. Indonesian population 15 years of age and over who are in labor force in August 2015 is 114 819 199 (BPS, 2016). Say, every year the population will be retired 5 %, five - ten years later it might be around 5 millions old people need protection of aged-care as Indonesian life expectancy is 65-70 (BPS, 2016). So far, there are few places of aged-care. Folks think, old people should have been taken-care by family. In fact, many families are busy with their activities and seniors are lack of attentions. When they are able to do everything by themselves, there is no difficulty. However, there is something should do when they are getting older and become disability.

In developed countries, elderly people are provided housing and residential areas to meet with their needs as well as disability people. Like in Sweden, those accessibility requirements have been given greater prominence in legislation over the years as a growing number of elderly people in Sweden want to live in "senior housing", ordinary homes for people aged 55 and over; and in such homes, accessibility is a priority, even some are newly built, while others are regular homes that have been made more accessible as part of conversion or renovation work (Sweden, 2016). Indonesia is not Sweden, but it doesn't mean Indonesians' seniors cannot live as well as Sweden's, as in 2030, Indonesia will be one of the top ten economies in 2030 (McLennan, 2016) as well as the latest data from IMF, World Bank, and USDA in 2015. It means, there will be a lot of afforded seniors of Indonesia who could live better than now. The other words, Indonesia should prepare by now about the situation of premium aged-care availability for Indonesian afforded seniors as well as other countries have conducted, at least in South East Asia countries, such as Malaysia, Thailand, Philippines and Vietnam.

Thailand has begun the challenging process of meeting the needs of an ageing society, significant challenges remain, largely due to the sheer rapidity and magnitude of the demographic ageing in Thailand, including work and education opportunities for older adults, long-term care plans for older people and establishing age-friendly housing (Anonymous<sup>b</sup>, 2016).

## **Aim**

1. Open discourse in the scientific forum that seniors deserve attention from Indonesian government as an integral part of Indonesian society
2. Government should begin to provide afforded aged-care for seniors in Indonesia, especially for whom their family don't have attention to them.
3. Government starts to invite investors to build premium aged-care for people who are able to reside at qualified place, as well as inviting seniors abroad to spend the rest of their lives in Indonesia for the adding foreign exchange value.

## Method

Reviews of literature, commentary, critique, expose, and from volunteer experience in outside the country (Australia).

## Discussion

Indonesia seems not prepared for the situation of seniors' need as well as it has been conducted by others countries. Say, like in Thailand, the government has had policies related to older people following The United Nations Assembly in 1991, that recognized elderly rights with respect to autonomy, involvement, care, self-satisfaction and esteem, so that Thailand established the "National Committee of Senior Citizens" and has programs in line with the Second National Plan for Older Person 2002-2021. As Anonymous<sup>b</sup> (2016) said, this plan focused on the development of policies and programs to support older persons and it has been successful program activities. Surprisingly, Thailand is currently ranked the third most rapidly ageing population in the world (Bloomberg, 2016), and by 2040, Thailand's aging population is expected to increase to 17 million, accounting for 25 percent of the population, or out of every four Thais, one will be a senior citizen (United Nation, 2016). Whilst, Indonesia data is not available as BPS doesn't mention about seniors availability in Indonesia and the government doesn't aware yet of the seniors existing. However, it is not late to start what Thailand has done to seniors and there are hopes to begin caring the seniors.

Generally speaking, there are several cases may come in Indonesia should be mentioned :

1. Normal aged people with normal ability
2. Normal older people with disability

As normal healthy people, these people need best care available and understand their changing needs. They need love and compassion as well as being taken care of in childhood. Some people can accomplish their needs by keeping contacting their friends and spending time together for some activities, like praying-gathering, sports, arts, etc. Some others are involved with their families and enjoying their duties to take care of grandchildren. However, how far the discussion may come into surface when they are getting older than now and the family can't take it over?

Old people with disability are ill and generally difficult deal with due to physical and emotional problems and because of this condition, they often require more care than they can provide. Both two cases above need home of aged-care and so far, Indonesia government doesn't aware to provide the facility for those people.

Health and social care for the elderly are important parts of Swedish welfare policy, of Sweden's 9.8 million inhabitants, 18 per cent have passed the retirement age of 65 while this number is projected to rise to 30 per cent by 2030, partly because of the large number of Swedes born in the 1940s(Sweden, 2016). In Thailand, the government has encouraged the establishment of more clubs, or centers, where the elderly can join activities and events in local communities as this will help promote physical and mental health among seniors citizens (Anonymous<sup>b</sup>, 2016). It is explained, Seniors Citizens Council of Thailand (SCCT) is in the process of setting up a mechanism to provide greater occupational opportunities for the elderly and both public and private sectors work in providing funding sources for older persons to



support their businesses. Even since 2009, the government made its social pension policy for all seniors, giving the Old Age Allowance which is not high, but the pension does serve a function mechanism that is a dependable source of income regardless of economic condition, through some protection from economic shocks, particularly for poor and near-poor older people. This condition can be a reflection for Indonesia government, that older people should be referred to bring up in to surface.

### **Government 's Role**

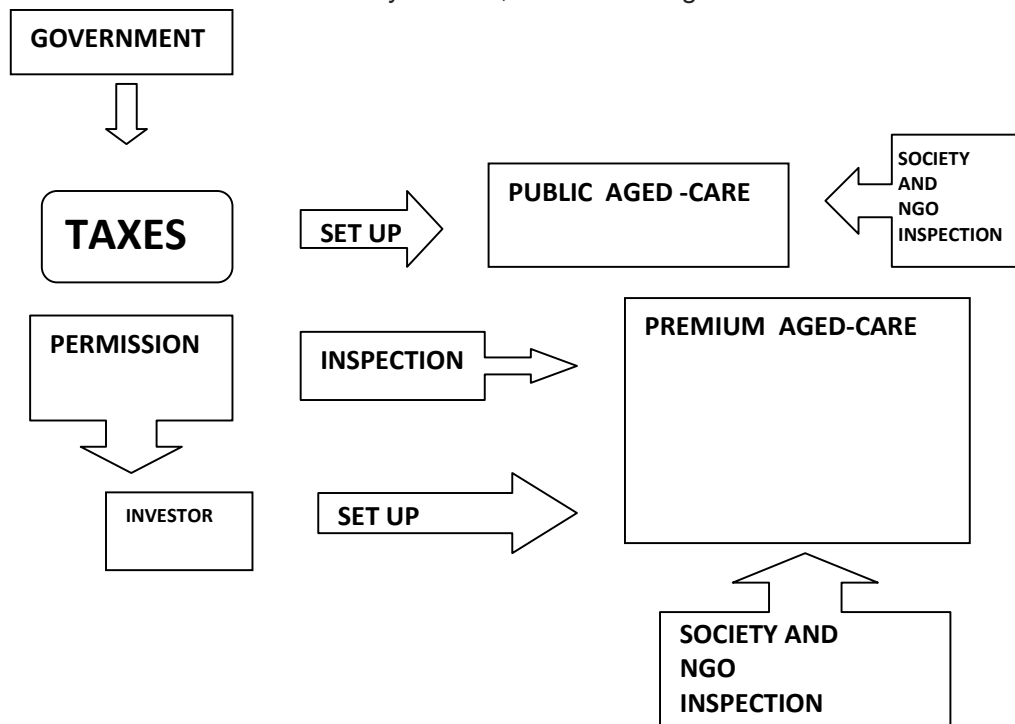
Nowadays, Government doesn't plan anything yet for the older people. The each family of them should be aware more than government can do. However, as we have known, not everyone is a caretaker. Some people still think if they have children, they may raise them by themselves, but how about their parents? Many people are not ready to take care of their old parents, moreover they are the people with special needs and illnesses. Then who will take this responsibility? In Sweden, the government takes this responsibility to save seniors and largely funded by taxes (Sweden, 2016). It is described; life expectancy in Sweden is among the highest in the world, as in 2010, it was 79.1 years for men and 83.2 years for women. And, Sweden has the second-largest proportion of people aged 80 or over among the EU member states, totaling 5.3 per cent of the population. Then, since more and more citizens in this age group are in good health, their care requirement has declined since 1980s. It is said, cost elderly care is funded by municipal taxes and government grants. It is explained; in 2010, the total cost of elderly care in Sweden USD 14.0 billion or EUR 10.7 billion, but only 3 per cent of the cost was financed by patient charges as health care costs paid by the elderly themselves are subsidized and based on specified rate schedules. In Thailand, older persons aged between 60 and 69, receive a monthly allowance of 600 baht and those aged between 60 and 69 receive 700 baht, and the elderly, aged 70-79, receive 800 baht; while a monthly allowance of 1,000 baht will be offered to persons aged 90 and over (Anonymous<sup>b</sup>, 2016). This fund may give the better place for older people and there will be an option for them to choose premium place if they afford to. This method can inspire Indonesian government to apply the policies for older people in Indonesia.

### **How to run the method**

In Sweden, the seniors can choose whether they want their home help or special housing to be provided by public or private operators, and in 2011, 18.6 per cent of all elderly people getting home help from government. However, more municipalities are choosing to privatize parts of their elderly care, letting private care provides run their operation. It is stated, the number of private companies in the social-service sector increased fivefold between 1995 and 2005 (Sweden, 2016). This is also happened in Australia as they have private aged-care with various services. The standard of care should be maintained such as happened in Sweden, recent media investigations have unearthed alarming shortfalls among several private care companies and in subsequent criticism, the companies were accused of letting profit have a negative impact on the standard of care (Sweden, 2016).

Indonesian government can learn from this experience, rather than solitary set up public aged-care but they can offer investors to build premium aged-care or aged-care plus. However,

the government body can inspect periodically the standard of care and the service-quality so the operators can't be harmful for society. Hence, the chart image is made as follows:



Picture 1. The method to make aged-care home in Indonesia

Based on the currently situation, it is a need to start an introduction to the community, that our seniors need to be cared of, as well as our turn in the future. The government should start to communicate about this through medias, internet, asking for the ideas and advices, as what you are thinking of “who is going to take care of me when I get old and need help”.

The ways to correspond this need can be conducted through spreading information as follows:

1. The importance of volunteering for older people in the family or relatives, even in the community. This volunteering may introduce to the children as their grandfather and grandmother will need help and need attention of affection and love.
2. The reminding of the importance of taking care of older people as they are the parents who have spent their whole life to raise their children and have struggled for the better future life of their children and now, the children should be thinking of ‘return’ the services they might have taken.
3. The government should encourage people to think and share their opinion what should the best to do for the older people and follow what the growing discourse to take steps
4. The government may encourage investors to think about the availability of premium aged care, as well as other countries have conducted. Some countries have prepared the facilities of premium aged-care, inviting wealthy old people abroad to spend their funds in other countries until they die. In Australia, premium aged-care are chosen by some people abroad to have their better life until the rest of their life. India started the same offers (Indiamart, 2016). This opportunities are open for some seniors who need good care takers at some

points. Then, why government doesn't do the same if opportunity may come from some wealthy Indonesians

5. The government should start to think the lack of caretakers, especially to take care of the people who have chronic conditions and limitations on their ability to care for themselves and their homes.
6. The government should begin to think the problem of old people, especially who need medical costs due to poor health for more supportive services while they have limited incomes. In USA, eighty percent of those living alone are women and nearly half of people aged 85 or older live alone (Anonymous, 2016). It is described that older women, the very old, and minority elderly, have, on average, the lowest incomes among the older population which severely limits their ability to purchase the health care, goods, services, and housing options which could help them to remain independent. This fact probably will be similar happened in Indonesia even with lower amount, therefore the government should be awake about this.

## **Conclusion**

The government and the people should begin to think about aged-care for Indonesian older people who need help. The government should start to think the opportunity to involve investors in premium aged-care in Indonesia.

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# **Independence Primigravida In Health Care Based On Theory Of "Self care" Orem At Pacar Keling Public Health Centre of Surabaya**

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## **Abstract**

**Introduction:** Recognizing the condition of pregnancy, risk factors and treatment of pregnancy is very important for primigravida. "Self care" Orem is an approach in which the client's ability to care for herself improved so that clients can be maintained in the care of herself to maintain the life, health and welfare.

**Aim :** The aim of study was to explore the independence of primigravida health care base on "self-care" Orem theory.

**Methods:** This study is a qualitative research with phenomenological approach. Data were collected through deep interviews of the 10 primigravidae using the theoretical framework of "self care" Orem. Once saturated, the data were analyzed using the phenomenological draft proposed by Stevick-Colaizzi-Keen.

**Results:** This study found four themes that describe the independence primigravida in caring for her health, there are : self-sufficiency in meeting nutrition, maintain adequate rest, meet spiritual needs, and pregnancy investigation. In meeting the nutritional needs of pregnant women primigravidae independent in dealing with nausea vomiting, addition of food portions, and the selection of groceries. Independently primigravida pregnant women have an understanding that rest is important and efforts to meet the needs of a break. To ensure the safety of themselves and their babies independently primigravida pregnant women rely multiply prayer and orderly conduct pregnancy checks on health care professionals.

**Discussion and recomendation:** Base on theory "Self care" Orem the results of this study indicate that the independence of pregnant women who handled by Professional Health of Pacar Keling Public Health are already well. Primigravida have been able to meet her holistic self-care, such as the need for oxygen, water, nutrients, elimination, activity and rest. Based on these results suggested the health professionals providing motivation to maintain the good independence of Primigravida and improve her knowledge about another impotant things about early detection of risk factors and signs danger in pregnancy.

**Keyword :** Independence, Primigravida, Self Care, Orem

## **Introduction**

Some experts have explained that a person who is able to recognize the condition of the body, to recognize the physiological irregularities early, will be able to take steps to prevent, and can take quick decisions and precise to overcome her health problems (Miftah, 2004). Likewise Orem (Fawcett, J. (2005) has said that if each individual understands the concept of himself, so he will know the health problems experienced and know how to perform self-care independently.

Many past study illustrate that the level of independence primigravida in performing maintenance health is very low so frequent complications in pregnancy (Pratiwi, 2004; Suparmanto 2007; Miftah, 2004). "Self care" is an approach in which the client's ability to

take care of herself to be improved, so that clients can be maintained in the care of itself to sustain life, health and welfare.

There are five methods of self-care interventions, are: 1) perform an act; 2) provide guidance and direction; 3) provide physical and psychological support; 4) provide and maintain an environment that supports personal development; and 5) teach and educate (Orem, 2001; Tomey, 2006). Through a "self care" primigravid will increased of knowledge and independence in caring for her health, and can release of complications or with minimal complications during pregnancy.

## **Aim**

General aim this research to explore Independence of Primigravida once caring her health base on "Self care" Orem at Pacar Keling Public Health Centre of Surabaya. A Specific aim is explore independence of Primigravida fulfil nutritions, rest and activity, spiritual need, and health care of her pregnancy.

## **Methods**

A design of research used in this research is a Qualitatif research with phenomenology approach. Informant(subject of research/respondents) on this research is Primigravida third trimesters who visit antenatal care (ANC) at Pacar Keling Public Health Centre of Surabaya in the period August 2014. Determination of an informer on research using technique selected sampling purposif. Amount of Informant in this research determined after data revealed saturated. In this case the informant about 10 people primigravidae. Data collection tool or instrument used in this study were: 1) the researchers themselves as interview guides; 2) The interview guide containing the questions to explore data to the purpose of research, 3) field notes used to record observations of investigators during the interview process; 4) The sound recording device (tape recorder), and image-making tool (camera) that is used to facilitate the expression and activity of documenting the informer. Data collection methods used in this research is in-depth interviews (depth interview) conducted by the researchers themselves, supported the making field notes (field notes).Data analysis performed in this study is the use of design phenomenology proposed by Stevick-Colaizzi-Keen (1994, in Streubert & Carpenter, 1999)., With the phases: the creation of transcripts, reading transcripts, categorization, and formulation of sub-themes to be the theme.Data analysis performed in this study is the use of design phenomenology proposed by Stevick-Colaizzi-Keen (1994, in Streubert & Carpenter, 1999)., With the phases: the creation of transcripts, reading transcripts, categorization, and formulation of sub-themes to be the theme. The next phase, researchers created a complete description, systematic and clear (exhaustive description) about the results of the analysis to communicate the essence of the structure that has been identified on the phenomenon of the experience of informants. Further description of the results of data analysis submitted to the informant to do the validation of the truth or conformity with the description of the informant's perspective.

## **Results**

### **Included studies**

Informants in this study of 10 people, aged 20 to 40 years, 5 informants middle school graduate, high school graduate three informants, and two informants educated S 1. Employment informants largely as a housewife, one informant has a trading business, and one informant as a kindergarten teacher.Seven out of ten informants recorded orderly visit

antenatal care (ANC), which ranges between 8 to 9 visit, two informants in 5 visits and one informant only doing 3 visits for reasons of busyness.

## Theme

This study found seven themes that describe the experience of independence in caring for pregnant women primigravidae health. These themes refers to four particular goals, namely: self-sufficiency in meeting nutrition, maintain adequate rest, meet spiritual needs, and pregnancy investigation.

### Primigravida independence of health care in meeting the nutritional needs

Primigravidas independence in fulfilling nutritional needs reflected in three themes, namely the ability to prevent and treat nausea vomiting, addition of food portions, and the selection of groceries for pregnancy. Primigravida effort prevent and treat nausea and vomiting with always chewing gum or candy ginger, avoiding certain beverages (the food was greasy and cold drink), and a breath favourite smells (aromatherapy, eucalyptus oil, and lime). For addition of food portions, Primigravida have two ways, increase frequency of eating and more eat. In this research also describe that not all food good for pregnancy and purpose of selection of groceries for avoid defect of baby.

### How Primigravida prevent and treat nausea and vomiting illustrated in the following expressions:

Always chewing gum or candy ginger : *"...basically everywhere should take candy like children ... it's delicious gum ....hehehe .."* (Informant 1)

*"...according my mother, ginger was able to eliminate the nausea ... but difficult to find food or drink flavor jahe... there ginger candy...."* (informant 2)

Avoiding certain foods beverages, the food was greasy and cold drinks : *"I immediately nausea after drinking cold drink.. ... finally I did not dare to drink cold ..."* (Informant 3)

*"Hmmm ... I've read that fried food cause nausea..just look fried food make me feel nauseated..moreover eat it..hehehe"* (Informant 2)

A breath favourite smells like aromatherapy, eucalyptus oil, and lime: *"when vomiting, all the food is definitely out and all parts of the stomach feels sick, so if start feel nausea I was terrified, for that I i inhale aromatherapy immediately, and feels good then .."* (informant 4)

*"The smell of eucalyptus oil makes me feel comfortable .. ."* (Informant 7)

*"If I go to the market, I have to bring lime which mixed in the sauce usually, smells them make good and fresh"* (informant 5)

### Here are an expression that describes the independence primigravid in enhancing the nutritional intake:

Increase frequency of eating : *"at early period of pregnant, I feels lazy to look at the food, just like fresh fruit juice, but after entering five months pregnant I often eat .... hehehe ..., pity my baby ..."* (Informant 10)

*"..... different with non-pregnant, because there was the baby, so I have to eat healthy more, ..but sometimes can not, so little bit but often ....."* (Informant 8)

Eating more: *"I want my baby healthy ... so i should add the food, ... especially when it is not sick ... "(Informant 3)*

*"... If the rice can not much, but the same vegetable side dishes more, want the baby clever ... "(Informant 5)*

### **There are expression of Primigravida that describe about selection of groceries for pregnancy:**

There are foods that can cause disability: *"... if pregnant should not eat carelessly ... should choose a good, fear the baby defect or something ... "(Informant 2,8,10)*

Not all the food is good: *"not all of the food was good ... sometimes right there preserved ... yes I effort to my own cooking ... "(Informant 4)*

### **Primigravidas independence in meeting the needs of rest and activity**

This study found two themes that describe the independence primigravida in meeting the needs of rest and activity, there are the adequacy and importance of rest and activity. Primigravida know that rest enough is important for pregnancy, to prevent complications and exercise also important for make easy when give birth.

### **Primigravidas independence in the adequacy of rest illustrated in the following terms:**

Rest enough can prevent the complications of pregnancy: *:...a pregnant woman works without a break is dangerous, it should be a quick break, then work again ... "(Informant 4)*

*"if less sleep can be a headache, ..so I was obliged to take a nap at least 2 hours, fearing that lack of rest" (informant 8)*

Exercise is importance for pregnancy: *"after Fajr I go dawn to street, so going around here, important is bodybuilding, ... "(Informant 6,8,10)*

*"Let it later gave birth easily, .. should exercise walks ...." (Informant 4.5)*

*"Sometimes in the morning do not have time ... afternoon I was walking in the gardens ... "(Informant 1)*

### **Primigravidas independence in meeting the spiritual needs**

Most of the informants in this study stated that the pregnant women was full of risks so had a lot to pray for safety. This is reflected in the following phrase:

*"... A lot of risk, we and the baby ... although ultrasound, does not guarantee no defects ... yes lots of prayers" (Informant 9.10)*

*"My husband and me often read the Qur'an, so that my baby good morals and I survived " (Informant 5.7)*

*"At night I try tahajud prayer, asking for salvation for me and my baby "(Informant 2.3)*

### **Primigravidas independence in health monitoring**

This study found two themes that describe independence in monitoring the health of pregnant women, the place and the reason for the examination. Most of informants say that pregnant women can do antenatal care in health centers, midwives, and obstetricians. Most informants stated that antenatal care is very important to know the progress of her pregnancy.



Here is a phrase of informant that illustrates about her independence in pregnancy monitoring:

Place of antenatal care : *"... most frequently i seek care for my pregnancy at the public health center because it is more affordable" (Informant 3,5,6,9)*

*"I prefer antenatal care on Midwives, because it could at any time .." (Informant 4,8,9)*

*"If we want to know more details about my baby, i can visit an obstetrics, because taken ultrasound" (Informant 1.2)*

Reason take antenatal: *"in order to know blood pressure the condition of the baby, was worried if not control (Informant 6,9,10)*

*"very important, it's my new first pregnancy, .. so my every a complaint immediately came to Midwives" (Informant 4.5)*

*"If there is a problem immediately known, so it should be a routine control "(Informant 2.3)*

## Discussion

This study has found primigravidas independence about her pregnancy care, namely self-reliance in meeting the needs of nutrition, rest and activity needs, spiritual needs, and antenatal care. Primigravidas independence in fulfilling nutritional needs reflected in three themes, namely the ability to prevent and treat nausea vomiting, addition of food portions, and the selection of groceries for pregnancy. Primigravida effort prevent and treat nausea and vomiting with always chewing gum or candy ginger, avoiding certain beverages (the food was greasy and cold drink), and a breath favourite smells (aromatherapy, eucalyptus oil, and lime).

Base on the result of this study, Primigravida has had good knowledge. The use of ginger to prevent nausea during pregnancy is a scientific action. Ginger with the scientific name of *Zingiber officinale*, is a very common plant rhizomes used as a spice and medicinal materials. Rhizome shaped fingers bulging in the middle sections. Spicy ginger flavor due to compounds called ketones zingeron. Ginger can prevent nausea, because ginger is able to block serotonin, a chemical that can cause the stomach to contract, causing nausea. Ginger enzyme can catalyze protein in the digestive tract so it does not cause nausea. To prevent seasickness, have been tried ginger supplements to the 1741 tourists with a dose of 250 mg every 2 hours, results showed very effectively the same as when taking medication to prevent seasickness (Schmid et al.1994). In another experiment, conducted on 11 adults who had undergone chemotherapy, apparently fell sick after consuming powdered ginger 1.5 g (Meyer et al .1995; Pecoraro et al.1998). The benefits of ginger in reducing nausea and vomiting in pregnant women has also been demonstrated by several studies, which states that the goodness of ginger in dealing with nausea in pregnancy is more effective and safer than the use of anti-emetic drug (C. Smith, 2010; Tiran.D, 2012)

Koren and Maltepe (2013), describe that morning sickness is also aggravated by different tastes and smells. Due to hormonal changes in the body, some women develop a bitter, sour or metallic taste in their mouth during pregnancy. This can prevent women from drinking fluids, which may result in dehydration. It is helpful to drink cold fluids, chew gum or eat hard candies. Also, women develop a heightened sense of smell during pregnancy. They are more aware and sensitive to odors around them. Certain smells may bring on nausea,

retching and/or vomiting during pregnancy. Try turning on the fan when cooking or opening a window. Try eating foods at room temperature or cold.

Base on theory "Self care" Orem the results of this study indicate that the independence of pregnant women who handled by Professional Health of Pacar Keling Public Health are already well. Primigravida have been able to meet her holistic self-care, such as the need for oxygen, water, nutrients, elimination, activity and rest. Base on theory "Self care" Orem the results of this study indicate that the independence of pregnant women who handled by Professional Health of Pacar Keling Public Health are already well. Primigravida have been able to meet her holistic self-care, such as the need for oxygen, water, nutrients, elimination, activity and rest. Base on theory "Self care" Orem the results of this study indicate that the independence of pregnant women who handled by Professional Health of Pacar Keling Public Health are already well. Primigravida have been able to meet her holistic self-care, such as the need for oxygen, water, nutrients, elimination, activity and rest. The results of a similar study also found by Siahaan (2011) in the field, that the self-care to pregnant women considered good. This occurs due to factors that affect pregnant women in performing self-care. In the theory of "self care" Orem, explained that a holistic self-care, such as the need for oxygen, water, nutrients, elimination, activity and rest. The individual's ability to perform basic self-care is influenced by factors sseperti conditioning; age, sex, developmental status, health status, social cultural orientation, the health care system (diagnostics, treatment, modality), family systems, patterns of life, the environment and the availability of resources (Fitzpatrick, JJ & Whall, All, 1989).

Self-care is a human regulatory function that persons must perform for themselves in order to maintain life. Self-care must be learned and it must be deliberately performed. As a result, persons through this learning, exercise intellectual and practical skills to manage themselves to sustain the motivation essential for daily care in an effective manner. The way an individual engages in selfcare will vary due to influences from their culture, environment and outside influences. Engaging in self-care and dependent-care are affected by a person's limitations in knowing what to do, when to do it and how to do it. The theory of self-care is the essential element of self-care deficit nursing theory. This first part of the theory explains and develops the reason why persons require nursing care. In the theory of self-care, Orem explains self-care as the activities carried out by the individual to maintain their own health (Orem, D.E. ,1991).

## **Conclusion and Recomendation**

Primigravidas able to meet nutritional needs through prevent and treat nausea vomiting, addition of food portions, and the selection of groceries for pregnancy. Primigravida effort prevent and treat nausea and vomiting with always chewing gum or candy ginger, avoiding certain beverages (the food was graesy and cold drink), and a breath favourite smells (aromatherapy, eucalyptus oil, and lime). For addition of food portions, Primigravida have two ways, inrease frequency of eating and more eat. In this research also discribe that not all food good for pregnancy and purpose of selection of groceries for avoid defect of baby. Primigravida know that rest enough is importan for pregnancy, to prevent complications and exercise also impotance for make easy when give birth. For guarantee her safety and good baby Primigravida do a lot to pray. To know the progress of her pregnancy, most of Primigravida say that antenatal care in public health centers, midwives, and obstetricians is

very important. Based on these results suggested for health professionals to improve and maintain the good independence of Primigravida.

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# THE EFFECT OF RESPONSE TIME ON THE DEGREE OF SEVERITY IN PATIENTS WITH HEAD TRAUMA IN BANGIL HOSPITAL EMERGENCY ROOM

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## Abstract

**Background** : Head trauma is one of the main causes of death that is experienced by users of motor vehicles. More than 50 percent of the incident death is caused by head trauma and traffic accidents. Head trauma is deadly if a high degree of severity in patient occurred. Many factors can influence this condition including the response time. **Objective** : To identify the effect of response time on the degree of severity patients with head trauma. **Methods** : An Analytical observational study was conducted. It took place in the emergency room Bangil Hospital during June, 8<sup>th</sup> – 30<sup>th</sup> 2015. The data were collected from observation and interview to Nurses in the Emergency Departement. **Results** : The number of research subjects who fulfilled the criteria of inclusion of as many as 44 people. Its consist of 6 people (13,6%) with bad response time and 38 people (86,4%) with good response time. The response time was divided into two categories which are good and bad response time. The study found that there was a significant effect of response time on the degree of severity in patients with head trauma ( $p \text{ Value} = 0,007$ )  $p < 0,05$ . **Conclusion** : Bad response time can effect the degree of severity patients with head trauma. So our recommendation is to improve the response time in emergency room by nurse to make the possibility of patient survival increase, and also to decrease the severity of head trauma.

**Key Words:** Head trauma, degree of severity, response time.

## Introduction

Head trauma constitute of mechanical injury either directly or indirectly which can make a malfunction to many aspect, include physic, cognitive and psychosocial (PERDOSSI, 2006). Head trauma became the main problem in many country which can cause death (Gad *et al.*, 2012). Head trauma became the most kind of trauma that occurs in traffic accidents, the percentation of the head trauma is between 17,6%-42,2% (Wahyudi, 2012). The incident of head trauma in Bangil Hospital's emergency room in the years of 2014, reach 606 patients (RSUD Bangil, 2015). The degree of severity in patients with head trauma in RSUD Bangil's emergency room are various. Begin from low severity until high severity. This condition can occur because there are many factors. One of them is response time form nurse to handling the patients with head trauma. The latest research which is conducted by evaluation team RSUD Dr. Wahidin Sudirohusodo Makassar say that the average of response time in handling patient in emergency room need 8 minutes and 20 second. From the research we can show that bad response time can affect the degree of severity in patient with head trauma. Because the limit of response time are under in five minutes (Kepmenkes, 2009). That introduction push me as researcher to do the research to prove that the bad response time can affect to the degree of severity head injury in emergency room.

## Method

This analytical observational study performed on population from patients with head injury in RSUD Bangil's emergency departement room. Total of 50 people are include in this research. Technique sampling for this research are used non probability sampling with purposive sampling. Statistic test for tihis research are using Chi-square test.

## Result

The result show that the response time are affect to the degree of severity in head injury. From 44 people, there are 38 people (86,4%) with good response time and 6 people (13,6%) with bad response time. The  $p\text{ value} = 0,007$ .  $P < 0,05$ . This result show that the response time give a different result form the degree of severity patient with head injury. It can happen because nurse in emergency room has give quickly response to the patients whose had a head injury. It make the waiting time patient shorter. Because patients waiting time are shorter, it make the injury handled quickly, so the degree of severity head trauma will not be change to critical stage. Nunuk (2008) said that response time will be good if there precisely in time and do the job with quickly response.

Table. Bivarian Analisist Result

Variabel	category	bad		good		P value
		n	%	n	%	
Response time	bad	4	66,7	2	33,3	0,007**
	good	4	10,5	34	89,5	

\*\* Chy Square test

## Conclusion

Head trauma is the most trauma that can make death condition. Head trauma degree of severity caused by many factor. One of them are response time. Response time is the time to handle the patient who has arrive in emergency room. Good response time is when the time to handle patients by nurse are under five minutes, and bad response time is when the time to handle patients by nurse are above five minutes. The result from the research are  $p\text{ value} = 0,007$ . There are under  $p\text{ table}$  ( $p < 0,05$ ). From that result we can conclude that there are response time effect the degree of severity in head trauma in emergency room in RSUD Bangil. From my research, i suggest response time must be improve to make the chance survival patients with the head trauma injury improve.

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# DEVELOPMENT OF LEARNING MEDIA BY MULTIMEDIA COMBINATION IN EMERGENCY EVACUATION

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## Abstract

**Background:** Disaster would cause mass casualties that require treatment immediately. One of the factors that affect treatment of mass casualties is the evacuation process. Evacuation techniques can be studied by using learning media. The use of visual learning media improve memory by 14-38% and increase learner retention by 20%. The development of learning media with various combinations may increase the interest of participants of the material presented.

**Aim:** This study aimed to create a learning media by combining PowerPoint Advance, instructional videos, and blogs.

**Method:** The method used in this study is 10 steps of multimedia development included determining the materials, creation of expert system, creating a blog using wordpress.com, create learning videos, create image then inserted into PowerPoint Advance, create of Advance PowerPoint, combine the PowerPoint Advance and learning videos, upload PowerPoint Advance to google drive sites, upload the result of a combination of learning videos, create a new post on the blog fredierwanto.wordpress.com by inserting learning material that will be used, synchronizing PowerPoint Advance, blog, and learning video.

**Result:** Result of designing this learning media is a blog that contains the material of emergency evacuation, AdvancePowerPoint, and instructional videos that could be accessed by everyone. Result of the blog can be seen from comments. The number of comments are 10. Results of the video broadcast can be seen from number of views. It seen 151 times.

**Discussion:** A learning media by using the development of multimedia will improve the quality of instructional media and the perception of material content. Learning media needs to be developed in order to improve affective, psychomotor and cognitive.

**Keyword:** *Learning media, multimedia combination, emergency evacuation*

## Introduction

Indonesia is a country that is often experienced disasters. Disasters can occur by natural causes or by human activity. Disaster would cause mass casualties that require immediate action. Disaster management involves many factors. One of the factors that affect disaster management is the process of emergency evacuation (Wahyu, 2014).

Emergency evacuation is an attempt to move the victim from the crash area to the safety area. The emergency evacuation process has a variety of techniques that can be used safely. Evacuation can be done by the medical, paramedic, and lay person (Tim Pusbankes 118, 2010).

Emergency evacuation techniques that are performed correctly can prevent death and disability, while the incorrect technique will worsen the condition of the victim and potentially injure to rescuers. Many benefits to be gained from this emergency evacuation that need to be taught, especially to the students and the general public. Learning methods of emergency evacuation can be taught via Internet using a multimedia combination.

The new technology plays an important role in the development of the learning methods. These developments determine the learning strategies. Learning strategies can be created using learning media that are appropriate to the learning objectives (Sanjaya, 2006).

Learning media is a tool that is used in transferring educational materials. Learning media can be used independently by learners. Therefore, educators should not assume as the only source of learning. Another source involved in the learning process is a textbook, the natural environment, and mass media (Thoifuri, 2007).

The use of visual learning media improve memory by 14-38%. The use of visual learning media and combined with the text will increase learner retention by 20%. The use of visual learning media also able to reduce the time required in the provision of material carried by the lecture of 40% (Silberman, 2006).

The use of learning media including Advance PowerPoint, video, and Internet will increase the learning outcome of the learners. Advance PowerPoint, video, and Internet are media which uses visual elements that can deliver information more effectively (Levasseur, & Sawyer, 2006).

Therefore, researchers are interested in creating learning media by multimedia combination using a Advance PowerPoint, videos, and blogs that are suitable to be developed in the learning process.

## **Method**

Application of learning media created using a laptop Lenovo G400 with specs Intel Dual Core 2.4GHz processor, AMD Radeon VGA 2GB, and 4GB of RAM. This learning media combines Advance PowerPoint 2010, which was developed by Microsoft, videos, and blogs. This combination requires several steps that must be done. The first step is determining the materials to be used. The material is a very important foundation for determining the depth of the learning media that will be created.

The second step is the creation of expert system based on the material. An expert system is a step in the work of the media that will be created. The more clearer of expert system, the media-making process of learning will be easier.

The third step is creating a blog using wordpress.com sites and managing the blog to make the learning media attractive. The use of blog will facilitate learners in accessing the material they want. Access from the blog allows direct interaction between educators and learners. The blog can be visited by accessing [fredierwanto.wordpress.com](http://fredierwanto.wordpress.com).

The fourth step is to create learning videos. Learning video is needed, especially on materials related to the psychomotor abilities. Recording is performed using a cell phone Sony Xperia Sola developed by Sony with HD 720p and the size of frame is 1280 x 720. The video which has been recorded, then do the editing process using Camtasia Studio 8 software developed by TechSmith and then compressed using Xilisoft Video Converter Ultimate software developed by Xilisoft Corporation.

The fifth step is create photos using a camera phone Sony Xperia Sola with 5 MP resolution and the size of frame is 2592 x 1944. After the images taken, do the editing process using Adobe Photoshop CC software developed by Adobe. Images required to reflect the real conditions of nursing skills. The images then inserted into Advance PowerPoint.

The sixth step is create Advance PowerPoint using Microsoft PowerPoint 2010. Advance PowerPoint required to convey the essence of the material that will be presented. Advance PowerPoint can display various types of animations that support the learning process.



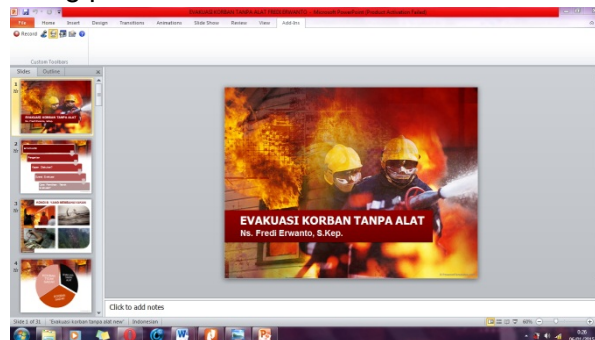
The seventh step is combining Advance PowerPoint and learning videos using Camtasia Studio 8 application. The result of the Camtasia Studio 8 application is a video with 720p HD quality with MP4 format.

The eighth step is uploading Advance PowerPoint to google drive sites, developed by Google. Google drive allows Advance PowerPoint which has been made accessible to the public. The ninth step is to upload the result of a combination of learning videos and PowerPoint Advance to the <http://youtube.com/> site.

Tenth step is creating a new post on the blog fredierwanto.wordpress.com by inserting learning material that will be used, by synchronizing PowerPoint Advance in google drive and blog, and by synchronizing learning video storage in <http://youtube.com/>. The result of this post can be accessed free of charge by everyone.

## Result

This learning project has the final result of a blog post in which contain learning materials, PowerPoint Advance, and learning videos. Advance PowerPoint can be downloaded by all those who visit the blog fredierwanto.wordpress.com so that students and lay person can learn on their own without needing to be online. Result of Advance PowerPoint is used as a media of learning can be discribed in the following pictures:



**Picture 1. PowerPoint Advance using Microsoft PowerPoint 2010 application**

Learning video in this manuscript consists of a combination of Advance PowerPoint recorded using Camtasia Studio 8 applications and learning material about evacuation techniques.



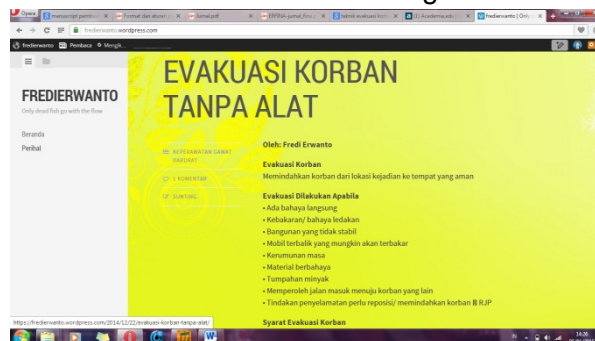
**Picture 2. Learning video using Camtasia 8 application**

Then Learning video is uploaded to <http://youtube.com/> so that learners are easy to access. Learning video that have been uploaded can be downloaded using Youtube Downloader application that can be obtained free of charge.



Picture 3. Learning Video uploaded to <http://youtube.com/>

The end of the process is making the blog. In proses for making the blog required synchronization between Advance PowerPoint and learning video that have been uploaded.



Picture 4. Learning media by multimedia combination

Learning media by multimedia combination very beneficial because students and lay person can learn emergency evacuation material directly. This interactive process can improve motivation for students and lay persons to learn emergency evacuation and accelerate the process of understanding of the learning materials.

Results from the blog of the comments came from readers with 10 comments. Other results can be seen on a learning video which is uploaded to youtube.com by the number of 151 times views.

## Discussion

The result of this study is a combination of three medias simultaneously, namely PowerPoint Advance, instructional videos, and the Internet. According to Levasseur, and Sawyer (2006) the use of PowerPoint, video, and the Internet are able to deliver the information more effectively.

Multimedia combination is interesting because animations, sound clarity, as well as interesting learning materials and in accordance with the many issues that occur. According to Savoy, Proctor, & Salvendy (2009) learning media using PowerPoint will be more effective if they are combined with graphics, pictures, various animations, and appropriate learning material. According to Bartsch & Cobern (2003) states that the presentation contains animation, image effects and in accordance learning material would improve the effectiveness of teaching.

Research conducted by Nouri & Shahid (2005) states that learning media using PowerPoint effect on memory. PowerPoint prepared in accordance with interesting material will improve short-term memory but long-term memory is not shown significant results.

According to Hampton (2002), stating that the use of learning video is a unique learning media that can provide in-depth information. Learning video is effective because it combines audio and visual simultaneously. Learning video is also able to increase the focus of the students to the learning material and the time of delivery of the material will be more effective. The use of audio

and visual will stimulate the senses of learners so that the process of understanding will increase. Another opinion by Zhang, Zhou, Briggs, and Nunamaker (2006) states that the learning video able to provide a real experience for learners by displaying real objects and scenarios are realistic about a condition.

The using of the Internet in this instructional media project is so widely accessible. The combination of learning media contained in the blog serves to enhance the understanding of learners. According to Rourke, Anderson, Garrison, and Archer (2001) argues that there are three interactions that occur in the use of web media, namely: interaction between learners with material that is accessible, interaction between learners with educators, and interaction between learners with friends.

According to Holtz, Zhang, & Turoff (2002) states that the using of web components in the learning and teaching is to remove barriers between educators and learners. According to Zhang, Zhao, Zhou, & Nunamaker (2004) says that the use of media learning using the web combined with the virtual learning increase the satisfaction of learners in the learning process. The satisfaction derived from the interactive process is presented on the web.

This learning media project can be developed further. The effectiveness in the use of learning media combination of the affective ability, psychomotor and cognitive ne to be developed.

## Conclusion

Making an interesting learning media can be done by combining PowerPoint, learning videos, and blogs. The combination in the manufacture of learning media will simplify the process of understanding the learners to the material provided. Learners' attention can also be improved by the use of learning media combination.

The development of science and computers are rapidly allowing educators to develop learning method more interactive. One of interactive learning method is using interactive game that allow to be used and developed.

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# THE FACTORS RELATED TO THE OCCURRENCE OF NOCTURNAL ENURESIS TO THE STUDENTS OF MUHAMMADIYAH 1 ELEMENTARY SCHOOL IN BUKIT KECIL PALEMBANG 2015

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## ABSTRACT

**Background:** Nocturnal Enuresis is a common problem who defined as the involuntary voiding of urine during sleep at the night. Nocturnal Enuresis is always happen in children who supposed to be able to control they bladder voluntary. Nocturnal Enuresis is suffered by a child aged 6 to 8 years or older, eventhough the bedwetting is suffered by teenagers too, sometimes.

**Objectives:** To know the dominant factors related to the occurrence of nocturnal enuresis to the students of Muhammadiyah 1 Elementary School in Bukit Kecil Palembang.

**Methods:** The design of this research was using analytic survey with cross sectional approach. The population in this research was all of the parents of the first grade of Muhammadiyah 1 elementary school Palembang. The sample in this research was using random sampling technique which was 50respondent taken by in first grade of Muhammadiyah elementary school Palembang.

**Results:** Data analysis to this research was using chi square statistic method. The results showed that there is no relation between genetic and nocturnal enuresis (p-value = 0,37), there is no relation between toilet training and nocturnal enuresis (p-value = 0,064), there is a relation between urinary frequent and nocturnal enuresis (p-value = 0,032), and there a no relation between breastfeeding and nocturnal enuresis (p-value = 0,045).

**Conclusions:** Although there are no relation genetic and toilet training factors of nocturnal enuresis, but it can be solution by educated the children to not bedwetting during the sleep with give the children some information about the way to avoid bedwetting, that are reduce the liquid intake before go to bed and educated children to go to bathroom before they sleep and also the elementary school of Muhammadiyah 1 Palembang can give another information about how bedwetting can affect the children till they grow up as a teenagers. It will be put on the negative impact to development mental of children.

**Keywords:** Enuresis, Nocturnal Enuresis

## Introducing

Child is the one of the gift from God that really precious for a family. According KonvensiHakAnak (KHA), or UU No. 23/2002 about the child protections, the definitions of child as a global is the human which the age is under 18 years old including in the pregnancy. Growth and development of child must be getting the special attention from the parent to achieve the optimal growth and development. (Wong, 2009)

As a specially, the development period many children developing their ability include interaction, social, moral value, and cultural for families. The children also tried to take the part of role in the group and the specific development happen, self-concept development, reading skill, writing and calculating, appreciate learning in the school and the toilet training ability which was good (Aziz, 2005).

Enuresis is the common disturbance and problems that meaning as the urine come out as deliberate or involuntary on the bed (usually happen at night) or in the pants at the day (Wong, 2009). Based the time, enuresis allotted to be nocturnal sleep (sleep wetting or bedwetting) that is enuresis which happen at the night, and the diurnal enuresis (awake wetting) that is enuresis which happen at the day (Wong, 2009).

Nocturnal enuresis mostly occurs to the boy than girl. Particularly is the alteration of bladder neuromuscular and often not dangerous and will lost at the time. Nocturnal enuresis usually stops at 6-8 years old although will continue till adolescent (Wong, 2009).

Nocturnal enuresis to school child period will be showing the psychologist problems, some qualitative research which identification of psychologist impact occurred by children with nocturnal enuresis, particularly from the self-concept side and the child prestige. Many research about psychologist impact form child with nocturnal enuresis founded relation about down prestige and health mental disorder to the child with nocturnal enuresis (National Clinical Guideline Centre, 2010).

Wong (2009), the agent occurs of enuresis is organic agent that possible related to the occurrence of enuresis must be lost before consideration the factors of psychogenic. The organic agent including bladder structural disorder, ureter infection, neurologist deficit, disorder that increasing urine normal out come as diabetic and renal disorder to urine concentrate like renal chronic failure.

The psychological development of school child period is the child development which observed form psychosocial nursing article, this development has shown by Ericson (1963) that child in the development always influenced by social sphere (Aziz, 2005). The period of school child middle-in accomplishment phase. This phase attained between 6 years old and adolescent. The school children period, they really want to develop their skill and join to participate in work that useful as social (Wong, 2009).

According Boris NW, et al. (2007) in Windiani (2008) said that the child 5 years old hoped they could for bladder control. But according the researched by HazzaTarawneh (2002) the information from parent, the child 6-8 years old in Jordhania Elementary School, gotten child 6 years old as many 48,9% has enuresis, 21% child 7 years old has enuresis, and 8,4% child 8 years old has enuresis.

One of the researched about the child psychologist impact with nocturnal enuresis by Theunis (2002) with 27 boys and 23 girls with nocturnal enuresis and diurnal enuresis. For this group, the average age 9 years 10 month. Theunis has comparing the child group with

enuresis and child group without enuresis as many as 77 children with average age 9 years 7 month. The result is children with nocturnal enuresis reported shown down prestige ( $p<0,01$ ), and shy with their physic appearance ( $p<0,05$ ) just than children without enuresis (National Clinical Guideline Centre, 2010).

According to the researched by Windani (2009) "The prevalence and Risk Factors Enuresis to the Children of Play Group in Kotamadya Denpasar" which involve 350 research subject. The result is enuresis prevalence to the children of play group with 4,7-5,7 years old as many as 10,9%. From 10,9% children with nocturnal enuresis, 85,6% nocturnal enuresis, and 80,9% is primer enuresis and the factors related to enuresis of children. Father with history factor enuresis, brother history with enuresis and sleep have a role with enuresis.

The age summit children with enuresis is age 4-5 years old with composition 18% boys and 15% girls. At 12 years old decrease to be 6% boys and 4% girls. So it must give explanation to parent about "Law of 15" that 15% include encopresis and 15% include seconder enuresis (Gray and Moore, 2009).

Tanagho (2008) in Windiani (2008), daughters with normal bladder rapidly to control urinate than boys. At 6 years old, 10% has nocturnal enuresis, and 14 years old as many as 5% also has nocturnal enuresis. From the case subject 50% has bund late neuro system and neurogenic bladder. 30% case influenced with psychologist and 20% other caused by organic disease and usually the functional of norcturnal enuresis will stop at the age under 10 years old. Based on the report of American Academy of Family Physician (2003) in Nurizka (2008) enuresis has happened to 15-20% of 5 years old and 1-3% of adolescent.

## Methods

The research design was use analytic survey method research with cross sectional approach.

The population in this research is all parents of Student Muhammadiyah 1 Elementary School Class 1 in Bukit Kecil Palembang as many as 50 respondents. The samples in this research is the parents of Student Muhammadiyah 1 Elementary School Class 1 in Bukit Kecil Palembang. The sampling technic is use probability sampling. The inclusion criteria are:

1. Children with 6-8 years old
2. Children in class 1
3. Parent could be reading and writing
4. Ready to be respondent

According to Suyanto (2011), total sample for population less than 10.000 and using formula:

$$n = \frac{N}{1 + N(d^2)}$$

Explanation:

n = Sample total

N = Population total

d = deviation (0,1)

The research held on May 2015 and applied in Muhammadiyah 1 Elementary School in Bukit Kecil Palembang at Merdeka road, Ilir Barat 1 Palembang.

## Result

### A. Bivariate Analysis

**Table1**  
**Frequency Distribution of Respondent Based on Genetic Factors and Nocturnal Enuresis Occurrence to Students of Muhammadiyah 1 Elementary School Class 1 in Bukit Kecil Palembang 2015**

Genetic	Nocturnal Enuresis				Total		P Value
	No		Yes				
	n	%	n	%	N	%	0,37
There is	33	78,6	9	21,4	42	100	
Thereis'n	5	62,5	3	37,5	8	100	
Total	38	76,0	12	24,0	50	100	

The relation between genetic factors and nocturnal enuresis occurrence to students of Muhammadiyah 1 Elementary School Class 1 in Bukit Kecil Palembang based on the table 1, the conclusion is there is no relation between genetic factors and nocturnal enuresis occurrence (p value = 0,37).

**Table2**  
**Frequency Distribution of Respondent Based on Toilet Training and Nocturnal Enuresis Occurrence to Students of Muhammadiyah 1 Elementary School Class 1 in Bukit Kecil Palembang2015**

Toilet Training	Nocturnal Enuresis				Total		P Value
	Yes		No				
	n	%	n	%	N	%	0,064
Training	20	90,9	2	9,1	22	100	
Not Training	18	64,3	10	35,7	28	100	
Total	38	76,0	12	24,0	50	100	

The relation between toilet training factor and nocturnal enuresis occurrence to students of Muhammadiyah 1 Elementary School Class 1 in Bukit Kecil Palembang based on the



table 2, the conclusion is there is no relation between toilet training and nocturnal enuresis (p value = 0,064).

**Table3**  
**Frequency Distribution of Respondent Based on Factor of Urinary Frequency and Nocturnal Enuresis Occurrence to Students of Muhammadiyah 1 Elementary School Class 1 in Bukit Kecil Palembang 2015**

Urinary Frequency	Nocturnal Enuresis				Total		P Value
	Yes		No				
	n	%	n	%	N	%	0,032
< 7x/day	25	89,3	3	10,7	28	100	
≥ 7x/day	13	59,1	9	40,9	22	100	
Total	38	76,0	12	24,0	50	100	

The relation between factor of urinary frequency and nocturnal enuresis occurrence to students of Muhammadiyah 1 Elementary School Class 1 in Bukit Kecil Palembang based on the table 3, the conclusion is there is relation between urinary frequency <7x/day with nocturnal enuresis occurrence (p value = 0,032).

**Table4**  
**Frequency Distribution of Respondent Based on The Factor Breast Feeding Duration and Nocturnal Enuresis Occurrence to Students of Muhammadiyah 1 Elementary School Class 1 in Bukit Kecil Palembang 2015**

Breast Feeding Duration	Nocturnal Enuresis				Total		P Value
	Yes		No				
	n	%	n	%	N	%	0,045
Long	21	91,3	2	8,7	23	100	
No long	17	63	10	37,0	27	100	
Total	38	76,0	12	24,0	50	100	

The relation between the factor of urinary frequency and nocturnal enuresis occurrence to students of Muhammadiyah 1 Elementary School Class 1 in Bukit Kecil Palembang based on the table 4, the conclusion is there is relation between children with long breast feeding duration with nocturnal enuresis occurrence (p value = 0,045).

## B. Multivariate Analysis

### a. Election of Multivariate Candidate Variable

The result of bivariate analysis if  $p\text{-value} < 0,25$ , so the variable come in multivariate model. Based on analysis, determining of multivariate candidate which is show on table 5, could know that all variable include in multivariate model.

Table 5

**The Result of Analysis Multivariate Candidate Election Factor That Related to Nocturnal Enuresis Occurrence to Students of Muhammadiyah 1 Elementary School Class 1 in Bukit Kecil Palembang 2015**

No	Variable	Log-likelihood	G	P value
1	Genetic	50,541	3,725	0,054
2	Toilet Training	48,691	5,576	0,018
3	Urinary Frequency	37,967	16,3	0,000
4	Breast Feeding Duration	38,712	15,555	0,000

### b. Model Fabrication of Determining Factor to Nocturnal Enuresis Occurrence

The best model will be considering to two marking, there are significant ratio long-likelihood ( $p \leq 0,05$ ). The election model then variable that  $p\text{-value}$  not significant will take out from model as structural start form the biggest.

Table 6

**The Result of Multivariate Analysis Regression Logistic Factor That Related to Nocturnal Enuresis Occurrence to Students of Muhammadiyah 1 Elementary School Class 1 in Bukit Kecil Palembang 2015**

Variable	B	P Wald	OR	95% CI
Genetic	1,282	0,395	3,604	0,188-69,105
Toilet Training	0,890	0,471	2,435	0,217-27,375
Urinary Frequency	3,994	0,024	54,295	1,711-1722,799
Breast Feeding Duration	3,143	0,019	23,178	1,661-323,478

$-2 \log likelihood = 22,184$

$G = 32,082$

$P value = 0,000$

The result of analysis show that there are two variables which has  $p\text{-value} > 0,05$ , so will be examining take out one by one, started from variable which has the biggest  $p\text{-wald}$ , so the last model multivariate analysis shown on the table:

**Table 7**  
**The Result of Multivariate Analysis Regression Logistic Between Breast Feeding Duration and Urinary Frequency with Nocturnal Enuresis Occurrence to Students of Muhammadiyah 1 Elementary School Class 1 in Bukit Kecil Palembang 2015**

Variable	B	P Wald	OR	95% CI
Urinary Frequency	4,081	0,006	59,226	3,260-1075,912
Breast Feeding Duration	3,279	0,005	26,546	2,667-264,234

-2 log likelihood = 26,218

G = 28,049

P value = 0,000

Based on result analysis regression logistic above shown the variable of breast feeding duration and urinary frequency has p-value  $\leq 0,05$ , it means the second variable has related to nocturnal enuresis occurrence to students of Muhammadiyah 1 Elementary School Class 1 in Bukit Kecil Palembang

#### c. Interaction Test

The interaction analysis done by election of variable that interaction between independent variable based on substantiate. Base on variable which was include multivariate model, so the interaction that possible to pregnancy which was work is breast feeding duration and urinary frequency. The result of interaction test is:

**Table 8**  
**Interaction Test Between Breast Feeding Duration and Urinary Frequency with Nocturnal Enuresis Occurrence to Students of Muhammadiyah 1 Elementary School Class 1 in Bukit Kecil Palembang 2015**

No	Interaction	-2 Log-likelihood	G	P value
1	Without Interaction	26,218	28,049	0,000
2	Breast Feeding Duration*Urinary Frequency	25,996	0,222	0,638

The result of interaction test above, there is no interaction between breast feeding duration with urinary frequency (p value = 0,638). Its mean breast feeding duration not give different effect to child which has urinary frequency  $< 7x/day$  and  $\geq 7x/day$ .

## Discussion

Based on the data by Hazza and Tarawneh (2002) from questioner by parent with children 6-8 years old in Elementary School of Jordania, gotten child 6 years old as many 48,9% has enuresis, 21% child 7 years old has enuresis, and 8,4% child 8 years old has enuresis. This prevalent possible higher than another Asia and Europe because the hooked factor.

Tanagho (2008) in Windiani (2008), daughters with normal bladder rapidly to control urinate than boys. At 6 years old, 10% has nocturnal enuresis, and 14 years old as many as 5% also has nocturnal enuresis. From the case subject 50% has bund late neuro system and neurogenic bladder. 30% case influenced with psychologist and 20% other caused by organic disease and usually the functional of nocturnal enuresis will stop at the age under 10 years old.

The result showing that all respondents has known about the toilet training, but there is implementation of toilet training wasn't true, that are: parent do not learn their children to toilet training by giving example, parent do not learn toilet training since 2-3 years old, parent do not squat exercise to children for 5-10 minutes in toilet, parent do not keep their children not to run while urinary, parent do not suggest children to squat for a minutes to urinary and uses pants that easy to take off.

The normal children urinary frequency about 4-7 x/day, every 2-3 hours (Windiani, 2008). At the night occur decrease production of urinary about 50% than the day as a respond circadian anti-diuretic hormone rhythm (arginin vasopressin). (Caldwell PHY, Edgar D, Hodson E, Craig JC, 2005 in Windiani, 2008).

Tight urinary frequency is the one cause of balder mal-function. Bladder mal-function because of hypercontraction of detrusor muscle, in-volunteer contraction while bladder filling (Lawles MR, 2001 in Windiani, 2008). Researched by Andrian, et al (2007) got 64% children with enuresis and urinary frequency >8 x/day.

According researched by Barone, et al (2006) in Windiani (2008), the result is there is significant difference children with breast feeding >3 months to enuresis than control group. Children with breast feeding for 6 month got enuresis 21% and children without breast feeding process got 45% enuresis. Enuresis often related to the child late development. Stability and spyngtherurinarius control will achieving maturation and neuro development. Children with breast feeding can be increasing neuro development and children will have better development ability (Barone, et al 2006 in Windiani, 2008).

## Conclusion

1. Variable of urinary frequency is the dominant variable to nocturnal enuresis occurrence.
2. Children who has urinary frequency >7x/day need adaptation management to spyngtherurinarius control ability so there is no nocturnal enuresis experience.
3. Teacher and parent at home is the support factors for children to be good adaptation.

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# THE EFFECTIVENESS ASSISTANCE OF NURSING ADOLESCENT COUNSELORS GROUP TO MAINTENANCE STUDENTS REPRODUCTION ORGANS AT NURSING DEPARTMENT OF HEALTH POLYTECHNIC PALEMBANG 2015

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## ABSTRACT

**Background:** The policy and Nation Strategy for Health Reproduction is make Adolescent Reproduction Health. The data from statistics center in 2010 most of 63 million adolescent in Indonesia are vulnerable unhealthy behavior (BKKBN, 2012). Adolescent fundamental is the right to information and education. Therefore, peer assistance is needed to improve the maintenance of reproductionorgans. The research aim is to determine the effectiveness of assistance nursing adolescent counselors group that have been formed in nursing department to increase maintenance of student reproduction at Nursing Department of Health Polytechnic Palembang. **Methods:** The research is use quasi experiment with assessing the maintenance implementation of organs reproduction before (pre-test) and after (post-test) carried out by nursing adolescent provides extension group. The sampling technique is total sampling. **Results:** The statistic result is  $p = 0,034$ . **Conclusions:** There is significant difference on average maintainability of student reproduction organs at Nursing Department of Health Polytechnic Palembang. Therefore, the students of Nursing Department need to be trained to become adolescent counselor in every generation

**Keywords:** Assistance, Adolescent Counselors, Maintenance, Reproduction organs.

## Introduction

With the commission reproductive health since 1998 have tried coordination between sector, but the effort has not produce the handling of health reproductive integrated and efficient. In relation to this it made policy and national strategy reproductive health implementation as a reference for all parties involved at the center provincial and district. One scope of reproductive health is adolescent reproductive health (Depkes, 2005).

Adolescence is the transition between the childhood and adulthood, which began in during the sexual maturity. Entering adolescence beginning with the sexual maturity, so teenagers will be faced by state of being required adjustment to can receive the changes that occurred (Santrock, 2003).

In social environment, teenagers have no place clear, that they were not the children not also among the adult. Biological development and psychological teenagers influenced by the environmental and social. Hence teenagers will fight to release to parents and is striving to independence so that they can be accepted and recognized as adult (Yusuf, 2006).

From change reproductive organs and demands the independency, making teenagers own seek solutions to their problems. Often enough teenagers to healthy so failures in the resolution of their problems and disruption to their reproductive health. It is to be supported by the data from Badan Pusat Statistik (BPS), Bappenas and UNFPA in 2010, some of 63 million people teenager in Indonesia susceptible to healthy (BKKBN, 2012).

Health problems genital area common happens to woman is leochorea. About 75% women in the world at once leochorea at least once a lifetime, and 45% of them would have twice or more. Research has been done in South Asia, Bengal in regions South of the level of knowledge about the cleanliness of reproductive tool at the time of menstrual than 160 girls was obtained 76,5% having knowledge of good, while 97,5% not know of hygiene instrument reproduction when menstrual (Qomariah, 2009).

The incident leucorrhea is students in knowledge low. Most student of do not know how clean external genitalia in the tight way. They did not understand danger of antiseptic and soap sirih, so most clean external consider the truth is using antiseptic or soap sirih. The use of antiseptic or douching can affect balance pH the vagina that would cause flora normal interrupted and was the breed of conducive to the growth of fungi (Michale dan Cowan , 2005).

To maintain cleanliness organ external women, that should taken is wash regularly part of the vulva in carefully use the clean water, in addition to remove a sweat is around the vagina. To accommodate menstrual blood, bandge replaced about 4-5 times a day to avoid an influx of bacteria into the vagina (Manuaba, 2009).

In general the real needs related to the basic rights of teenagers will information related to his sexuality and reproductive health that, among others service delivery friendly and easily accessible for teenagers, regardless of age, sex, married status and their financial situation and to provide information. Then the provision of the right to receive education about reproduction and sexuality. Information and education is given it has to support the independence of and confidence teens, and to provide knowledge so that they can make your own decisions related reproduction and their sexual (Prayitno, 2012).

In addition to these needs, teenagers also have fundamental rights health-related reproduction. Rights should be fulfilled as the needs of the basis of their. Rights that of them access to information and education. It includes health insurance and welfare individuals and families with the information and educational adequate reproductive health (Widyastuti, 2009). Health education required by teenager could be provided by group health extension workers is in the form of assistance teams for health problems genital.

## **Methods**

This research using a quasi-experiment in two groups. The research has done by examining the maintenance reproduction organs score before (pretest) and after (posttest) assistance of nursing adolescent counselors group.

Research is done at nursing department of Health Polytechnic Palembang. Population research is all a student of first class, technique sampling use random sampling. The data collected is the primary data directly from college student through questionnaire completion of respondents. During questionnaire completion provides guidance questionnaire completion and accompanies respondents when found questions not understood by respondents.

Research uses a questionnaire that arranged researchers with 23 question. The questionnaire made up of selections answer covered with a score = 1, if the respondent answer right and the score = 0 if respondents This research was conducted October 2015. Data analysis to this research use different analysis mean dependent sample paired t-test by significant 95% ( $\alpha = 0,05$ ).

## Result

**Table 1**  
**A Frequency Distribution Respondents Characteristic Student**  
**at Nursing Department of Health Polytechnic**  
**Palembang 2015**

Characteistic	Mean	Median	Standard Deviation	Minimum	Maximum
Age Respondents	20,6	20	0,598	19	21
Age Menarche	13,04	13	1,11	10	15

From the table above that age of respondents 20,6 years, median 20 years and standard deviations 0,598, the minimum age of 19 years and maximum of 21 years. The research results to the age of menarche known that the average age of menarche respondents 13,04 years, median 13 years with standard deviation 1,11, the minimum age of 10 years and maximum age 15 years.

**Table 2**  
**A Frequency Distribution Respondents Maintenance Reproduction Organs**  
**at Nursing Department of Health Polytechnic**  
**Palembang 2015**

Maintenance Reproduction Organs	Mean	Median	Standard Deviation	Minimum	Maximum
Pre Test	14,96	15	2,423	10	18
Post test	14,00	14	1,803	11	19



On the table above known the results of pretest respondents of maintenance instrument reproduction a students of with the mean 14,96, median 15, standard deviation 2,423 and value of minimum 10, a maximum score 18. The result of post test known, its mean value 14,00, standard deviation 1,803 and value of minimum 11, maximum score 19.

**Table 3**  
**The Average Distribution of Maintenance Reproduction Organs Respondent Before and After done Assistance of Nursing Adolescent Counselors Group At Nursing Department of Health Polytechnic Palembang 2015**

Variable	Mean	SD	SE	P Value	N
Maintenance Reproduction Organs	0,90	2,644	0,382	0,023	48
- Pretest					
- Posttest					

According to the analysis tables 3 shows, average mean application maintenance reproduction organs is a college students 0,90 with standard deviation 2,644, the standard error 0,382. Analysis test known p value = 0,023, that means that alpha 5% are apparently significant differences application maintenance reproductive before a college students be assistance and after done assistance of Nursing Adolescent Counselors Group.

## Discussion

Some efforts to another has done to look types of service adjustment in reproductive health. Differences in of subjects in every components and reproductive health distinction problem cases, good the same component, demanding the service comprehensive but specific and suitable for client needs. This takes the preparation of package service adapted to client needs.

It means each reproductive health program components need to include component elements reproductive health another to supporting the creation of reproductive health services integrative and in accordance with client needs.

In 2002 the development program Pelayanan Kesehatan Peduli Remaja (PKPR) with the approach different and that they are given innovate to improve access with the teenager UKS. Activity of taruna and teenagers other activities considered potential. Puskesmas trying to also to increase the quality of service through the provision of services that meet the needs of teenagers and base on privacy, confidential. In addition the involvement of teenager are very shown in program activities of intervention to evaluation. In addition, to meet one of the teenager to reproductive health information need, the department of health has prepared pocketbooks teenagers about KRR but the distribution of goods still far from target expected, so as to furnish this in 2003 launched website : [licah.com](http://licah.com) (a link with community to adolescent health) containing information about the problem teen health.

In order to apply policies and strategies education adolescent reproductive health via an education channel go formal and non-formal, Depdiknas already prepared and issue books guide, a manual and reading about adolescent reproductive health to the objective teachers, pamong learning and students.

The result of the study name should tell PIK-KRR do the seminar to members of youth group 75%, 60% of school principals providing support and approval, the preparation of activity program PIK-KRR 55%, activities Jambore teenagers 60%. Advocacy to improve the quality and sustainability PIK-KRR obtained from the result that 70%, tissue involvement 70%, the media and electronic 70%, launching the formation of PIK-KRR 60%. A regular schedule meeting at least 1 month 55%, information KRR by educator brought up to the counselor age, medical workers, psychologist and other experts comes 65% scheduled. A special room the service locations and meeting halls PIK-KRR 55%, 50% to prepare the report, information and counseling KRR outside a place of PIK-KRR it can be carried out by means of counseling 70%, sending cadres to training for managers, prospective peer educator and peer counselor 65% (Kurniasih, 2011)

## Conclusion

1. Analysis test known p value = 0,023, that means that alpha 5% are apparently significant differences application maintenance reproductive before a college students be assistance and after done assistance of Nursing Adolescent Counselors Group
2. Every education institutions it is necessary to establish counselors health age to give health service for student
3. Nursing adolescent counselors group need to be taken every level that information hope to continue to next student.

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## ILLNESS PERCEPTION AND CARDIOVASCULAR DISEASE AMONG PERSON WITH ISCHEMIC HEART DISEASE

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**Problem Statement:** Ischemic Heart Disease (IHD) is a leading cause of death. IHD is a heart problem caused by narrowed heart arteries, thus less blood and oxygen reaches the heart muscle. The World Health Organization (WHO) has estimated that 17.5 million people died from cardiovascular disease in 2012 worldwide and 7.4 million of these deaths were due to IHD. The prevalence of IHD has increased each year. According to the National Basic Health Research, the prevalence of IHD in Indonesia was 243,048 people with 53 people dying from IHD in every 1000 people in Indonesia each year. In Bondowoso, a city of East Java Province Indonesia, the prevalence of IHD was 235 people in 2012 and increased to 558 people in 2013. **Purpose:** The purpose was an observational descriptive correlational study was to examine level and relationship between illness perception and cardiovascular health behavior among persons with IHD. **Methods:** The study is a descriptive correlational study, recruiting 235 persons with IHD. The samples were interviewed for determining their representations of cardiovascular health behavior; internal consistency reliability of the questionnaire was analyzed by using Cronbach's alpha coefficient. The test-retest reliability was tested for the stability of the Modified BIPQ. The retest conducted 2 days after the first test. The reliability of CHB questionnaire was analyzed by using Cronbach's alpha coefficient. The acceptable level of reliability is 0.7 for internal consistency. **Results:** The analysis showed that dimensions of illness perception most decisive tendency of respondents to the behavior of cardiovascular health behavior is personal control with 75% from all respondents have to control the disease. The majority of persons had a positive understanding of the belief that she/he was able to control the IHD. The majority of persons also believe that smoking diet and exercise were the main factors causing the IHD. In this study the majority of persons had a high tendency to obey the verdict of health personnel after suffering from IHD. **Conclusions:** There is a positive correlation between illness perception and cardiovascular health behavior among persons with IHD. Person with higher illness perception related to higher cardiovascular health behavior otherwise person with lower illness perception related to lower cardiovascular health behavior with significant level 0.05.

**Key Words:** Illness perception, cardiovascular health behavior, ischemic heart disease

### Introduction

Ischemic Heart Disease (IHD) is a leading cause of death. IHD is a heart problem caused by narrowed heart arteries, thus less blood and oxygen reaches the heart muscle. The World Health Organization (WHO) has estimated that 17.5 million people died from cardiovascular disease in 2012 worldwide and 7.4 million of these deaths were due to IHD (WHO, 2013).

The prevalence of IHD has increased each year. According to the National Basic Health Research (2013), the prevalence of IHD in Indonesia was 243,048 people with 53 people

dying from IHD in every 1000 people in Indonesia each year. In Bondowoso, a city of East Java Province Indonesia, the prevalence of IHD was 235 people in 2012 and increased to 558 people in 2013 (Pravitasari, 2014).

Studies about cardiovascular health behaviors have been conducted in Western countries and Asian countries. Farrell and Keeping-Burke (2014) conducted a study in Canada on the secondary prevention of cardiovascular disease, in regards to nurse practitioners using behavior modification strategies. The result showed that the secondary prevention of cardiovascular disease was significantly affected by behavioral change. Chiou et al. (2009) conducted a study on factors associated with behavioral modification for cardiovascular risk factors in northern Taiwan. The result revealed that modifiable risk factors particularly smoking cessation, checking blood pressure levels, diet management, physical activity and stress management could prevent the risk of IHD.

Several previous studies related to illness perception have been conducted. Janssen, De Gucht, van Exel, and Maes (2013) conducted a study in Netherlands regarding changes in illness perceptions and quality of life during participation in cardiac rehabilitation. The result showed that the illness perception was significant in improving quality of life during cardiac rehabilitation. Broadbent, Ellis, Thomas, Gamble, and Petrie (2009) conducted a randomized control trial study in New Zealand on further development of an illness perception intervention for myocardial infarction patients. The result reported that illness perception intervention can change perceptions and improves rates behaviors in Myocardial infarction (MI) patients. Mosleh and Almalik (2014) conducted a study regarding illness perception and adherence to healthy behavior in patients with Coronary Heart Disease (CHD) in Jordania. The result of this study reported that illness perception has a significantly relationship with CHD, illness coherence and adherence to healthy behaviors. Illness perception had a higher relationship with knowledge and attitude. Furthermore, previous studies have revealed that patients' illness perception influence their thought and health behaviors (Broadbent, 2009).

However all of these studies did not specifically focus on the relationship between illness perception and cardiovascular health behaviors. Furthermore, these studies were conducted in a clinical setting, whereas in the community there are a lot of persons with IHD (Conway, 2015) and there is a need to assess these people's illness perceptions. One study explains that illness perception can be linked to behaviors including cardiovascular health behaviors (Broadbent, 2009). However, the findings of the study cannot be generalized to persons from different cultural background.

The benefit of knowing the relationship between illness perception and cardiovascular health behaviors among persons with IHD can prevent the incidence of IHD and health provider knowledge to prevent IHD and increase person's awareness. By performing practical behavior every day, such as stop smoking, blood pressure control, following a healthy diet, having good levels of physical activity can make healthy behaviors become habits and decrease the IHD rate.

## **Methods**

The study is a descriptive correlational study, a sample of subjects taken at total from a representative sample of the persons composed of 235 persons with IHD is interviewed about their representations of cardiovascular health behavior; Internal consistency reliability

of the questionnaire was analyzed by using Cronbach's alpha coefficient. The test-retest reliability was tested for the stability of the Modified BIPQ. The retest will be conducted 2 days after the first test. The reliability of CHB questionnaire was analyzed by using Cronbach's alpha coefficient. The acceptable level of reliability is 0.7 for internal consistency. Descriptive and inferential statistics were used to answer the research questions and research hypothesis.

## Results

Dimensions of illness perception most decisive tendency of persons to the behavior of cardiovascular health behavior is personal control. Personal control is beliefs about the ability to control person with IHD. The majority of persons have a positive understanding of the belief that she/he is able to control the IHD. The positive understanding, for example, persons believe that a lot of efforts to be made to control the IHD, including the prevention of IHD with Cardiovascular health behavior. The majority of persons also believe that smoking diet and exercise are the main factors causing the IHD. In this case the majority of respondents have a high tendency to obey the verdict of health personnel after suffering from IHD. This is also supported by the persons' belief that quitting smoking, physical activity, taking regular medication and dietary management can cure the illness. There is a strong relationship between the level of illness perception and cardiovascular health behavior, individual beliefs about the severity of the disease *consequence* confidence of individuals to treatment or advice recommended *treatment control* beliefs about the disease increased by factors from outside *causal representation*.

There is a positive correlation between illness perception and cardiovascular health behavior among persons. The relationship between illness perception and cardiovascular health behavior is a high with significant level 0.05

## Conclusion

There is a positive correlation between illness perception and cardiovascular health behavior among persons with IHD every each dimensions. Person with higher illness perception related to higher cardiovascular health behavior otherwise person with lower illness perception related to lower cardiovascular health behavior with significant level 0.05.

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# EFFECT OF THOUGHT STOPPING THERAPY ON REDUCING ANXIETY OF CAREGIVER OF PERSON WITH DEMENTIA IN PUSKESMAS MERDEKA, BOGOR CITY

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## ABSTRACT

**Introduction:** Elderly undergo some changes due to aging process, both in physical and psychological. One of psychological changes that occurs in elderly is dementia. Elderly with dementia suffer from intellectual decline and memory loss which leads the family, as their caregiver, to be anxious. Nurse's role in reducing caregiver's anxiety is by offering thought stopping therapy. **Objective:** This study is aimed to determine the effect of thought stopping on reducing anxiety for caregiver of elderly with dementia in Puskesmas Merdeka of Bogor city. **Methodology:** The design of study is quasi-experimental pre-post test without control group with 26 samples by purposive sampling. The statistical test used paired t-test. **Results:** The result shows that there is significant effect of thought stopping therapies on caregiver of elderly with dementia's anxiety (P Value = 0.000). **Conclusion:** The study recommends thought stopping therapies as an intervention in reducing anxiety.

**Keywords:** Thought stopping, anxiety, caregiver of elderly with dementia

## INTRODUCTION

Elderly is individual over 60 years old. Elderly falls into 4 categories: young-old (60-69 years old), middle age old (70-79 years old), old-old (80-89 years old), and very-old (over 90 years) (Darmabrata & Nurhidayat, 2003). Elderly undergo some changes due to aging process, both in physical and psychological. One of psychological changes that occur in elderly is dementia. Dementia is impairment in cognitive function where the sufferer loses awareness of the disease which affects his memory, cognitive, behavior, and judgment (Patrick, 2005). On 2012, WHO and Alzheimer's Disease International (ADI) reports an estimated of 35.6 millions of people with dementia all over the world. The number is expected to fold twice as much on 2030 and thrice as much, or approximately 115 million people, on 2050.

Elderly with dementia experience a decline in their intellectual and memory thus makes the family as caregiver to face several problems in delivering care for them. The most common problem faced by family with elderly with dementia is dilemma; it is because the caregiver who takes care of them for 24 hours a day is occasionally forgotten and unrecognized by them. Family with elderly with dementia does not have psychological preparation which leads them to frustration and despair due to feeling of inability to deliver the best care for their demented family member. The impact shown on family of elderly with

dementia is lack of engagement in social activities in consequence of lack of caregiver's time to socialize with his family and relatives owing to nursing the elderly with dementia reason. Besides, caregiver also faces financial problem caused by inability to work for the same reason, which causes physical and psychosocial problem for caregiver of elderly with dementia (Widyastuti, Sahar, Permatasari, 2011). Psychosocial problem which commonly occurs to such family is anxiety.

Anxiety is an experience that individual encounters in daily basis such as worrying, insecure, or discomfort feeling of impending event which is perceived as a threat and would cause problem if he is incapable of controlling it and lead to a decline in social and economical productivity (Keliat, 2011). Biological factor of anxiety is anxiety-prone family member, changes in health condition, physiological impairment, and incapability to meet basic needs (Livana, Keliat, & Susanti, 2015). People with anxiety are divided into levels from mild, moderate, severe, and panic. Anxiety response could be cognitive, affective, physiological, behavioral, and social (Stuart, 2013).

There are several methods in reducing anxiety such as generalist therapy and specialist therapy that is thought stopping and progressive muscle relaxation (Supriati, Keliat, & Susanti, 2010). Specialist therapies have been studied separately or by combining both therapies, in this study author used specialist therapy which is thought stopping therapy. Thought stopping therapy for people with anxiety is proven to be effective on reducing cognitive, affective, and social responses compared to other anxiety responses (Livana, Keliat, & Susanti, 2015).

From initial survey that author conducted, 3 out of 5 caregivers of elderly with dementia are found with moderate anxiety. Cognitive responses demonstrated by caregiver of elderly with dementia are frequently paying attention on significant matter, lack of concentration, narrowing perception, and responding quickly to stimulus. Affective responses are shown by worrying, sad, unconfident, and confused. The emerging physiological responses are insomnia and lack of appetite, while behavioral and social responses are demonstrated by decline in activities and social engagement due to nursing elderly with dementia reason. According to the caregivers, caring for elderly with dementia is quite bothersome and increasing both physical and psychological burden. Based on aforementioned background, author is intrigued to propose this paper entitled "The effect of thought stopping therapies on reducing anxiety of caregiver of elderly with dementia in Puskesmas Merdeka of Bogor city".

## **Method**

This study is *Quasi-experimental with pre-post test without control group design*. The sample of study is 26 people, by *purposive sampling*. Anxiety measurement during pre and post test used *Depression Anxiety Stress Scale 42 (DASS 42)* questionnaire which contains 14 questions related to anxiety and workbook. *Pre test* was performed by respondents after signing on *Informed consent* and followed by session of thought stopping therapy which consists of 3 sessions given in two meetings, each for 15-30 minutes. After thought stopping therapy was over, the caregiver's anxiety level was re-assessed as a *post test* result. Data processing and analyzing of this study used software with statistical analysis of *paired t-test*.

## Result

Characteristic of age and experience in nursing elderly with dementia are numerical data which analyzed by counting *Central Tendency* consisting of *mean*, median, modus, standard deviation, minimal dan maximal value.

**Table 1.**  
**Distribution and Analysis of Age Equation and Experience in Nursing Elderly with dementia in Bogor (n = 26)**

No	Variable	Mean	Median	SD	Min-Maks
1	Age	41,3	42,5	9,8	22 – 70
2	Experience in nursing elderly with dementia	3,3	4	1,2	0 – 4

The result shows the average of caregiver's age is 41.3 years old, with standard deviation of 9.8. The youngest is 22 years old and the oldest is 70 years old. The average of experience in nursing elderly with dementia is 3.3 years, with standard deviation of 1.2. The longest span in nursing elderly with dementia is 4 years.

**Table 2.**  
**Distribution of characteristic of sex, educational background, employment, type of family, kinship with elderly, and medical condition of family in Bogor (n = 26)**

No	Characteristic	f	%
1	Sex		
	Male	0	0
	Female	26	100
2	Educational Background		
	Primary school	7	27
	Middle school	7	27
	High school	12	46
	DIII	0	0
	Bachelor	0	0
3	Employment		
	Unemployed	19	73
	Employed	7	27
4	Revenue		
	≤Bogor minimum wage (Rp2.250.000)	7	27
	>minimum wage Bogor (Rp2.250.000)	0	0

0)			
No income			
	1	73	
	9		
5	Type of family		
	Nuclear family	3	12
	Extended family	23	88
6	Kinship with elderly		
	Spouse	3	12
	In-laws	1	4
	Child	20	76
	Grandchild	2	8
7	Medical condition of family		
	Healthy	16	60
	Diabetes	1	4
	Hypertension	5	20
	Stroke	1	4
	Gastritis	3	12

**Table 3.**  
Change in anxiety level of caregiver of elderly with dementias before and after thought stopping therapy session (n = 26)

No	Anxiety level								P- Value
	Norm al		Mild		Modera te		Sev ere		
	f	%	f	%	f	%	f	%	
1	Before progressive muscle relaxation therapy session								0,00 0
	7	26,9	4	15,4	13	59	2	7,7	
2	After progressive muscle relaxation therapy session								
	11	42,3	9	34,6	6	23,1	0	0	

**Table 4**  
Distribution of anxiety signs and symptoms(n=26)

Anxiety signs and symptoms	Before		After	
	f	%	f	%
<b>Cognitive response:</b>				
• Focusing on significant matter	1	6	10	3
• Lack of concentration	8	9	9	8
• Narrowing perception	1	6	13	3
	7	5	9	5

• Need a lot of advices	2	8	9	5
• Fast responding to stimulus	1	1	10	0
	1	5		3
Average	4	4		5
	2	7		3
	0	7		5
	1	6		3
	8	9		8

#### **Affective response:**

• Worrying	2	9	12	4
• Sad	4	2	8	6
• Unconfident	2	9	7	3
• Confused	5	6	9	1
Average	1	7	9	2
	9	3		7
	2	9		3
	4	2		5
	2	8		3
	3	8		5

#### **Physiological response:**

	1	5	4	1
• Lack of appetite	4	4	8	5
• Tensed muscle	1	4	7	3
• Decrease/increase of vital signs	2	6	6	1
	1	5	2	2
• Insomnia	4	4	3	7
• Frequent toileting	1	7	5	2
• Nightmare	9	3		3
Average	6	2		8
	7	3		1
	1	2		2
	2	7		2
		4		0
		6		

#### **Behavioral response:**

• Alert	1	6	10	3
• Unproductive	8	9	22	8
• Frequent asking	2	9	4	8
Average	4	2	12	4
	1	4		1
	2	6		5
	1	6		4
	8	9		6

#### **Social response:**

• Need another's help	1	5	10	3
• Decline in social engagement	3	0	12	8
	2	9	11	4

Average	5	6	6
	1	7	4
	9	3	2

Average of declines in anxiety responses after thought stopping therapy session is shown as cognitive, affective, and social responses rather than other responses.

## Discussion

Analysis result shows the average of age of caregiver of elderly with dementia is 41.3 years old, with the youngest is 22 years old and the oldest is 70 years old. This result corresponds to Tobing, Keliat & Wardhani's study (2012) which claims that age characteristic is related to anxiety changes up to 36.5% where anxiety level is between stress and depression (Crawford & Henry, 2003). It is also affected by belief and values in community, which says that maturer person is more reliable than less mature one; this is demonstrated by experience and maturity level. Sutejo's statement (2009) also corresponds to this study which states that person with anxiety is usually an adult with a complex developmental task, where he is responsible for a high level of autonomy related to his ability in solving socio-economy problem as resources in family compared with other developmental stages.

Family experience in caring for elderly with dementia characteristic shows that the caregivers are experiencing anxiety after spending 3 years of nursing them.

Characteristic of sex indicates that all caregiver of elderly with dementias are females (100%). This result supports Isnardi and Ritandiyah's study (2006) which indicates that females are more prone to anxiety than males.

Characteristic of educational background of caregiver of elderly with dementias shows that most of them are high school graduate (46%). The result of study supports Notoadmojo's theory (2007) which states that knowledge is information which is acquired through education, learning, cultural process, and other life experiences. Based on both result and theory, author infers that all caregiver of elderly with dementias are able to recognize problems faced by the elderly due to their experience in caring for them.

Characteristic of employment and revenue in this study indicates that majority of caregivers are unemployed which results in no income (73%). This result concurs with Widyastuti, Sahar, dan Permatasari's study (2011) which conveys that caregivers of elderly with dementia are unemployed due to nursing the elderly reason; this condition leads to financial problem. The result of study also agrees with O'grady's statement (2004) which states that family would have to burden psychological, social, and financial problems when they have to act as caregiver as well. Based on both result and O'grady's statement, author concludes that anxiety is resulted from caregiver's lack of income.

Characteristic of family type from the result indicates that majority of caregivers (88%) are from extended family. Halini shows that most of caregiver of elderly with dementias are married and having nuclear family, hence makes them to have another task apart from taking care of the elders.

Characteristic of kinship with the elder is child (70%). The result is different from study conducted by Kutsumi and Mikami on family of psychiatric patients where the caregiver

(68.6%) is their own parents. The difference in result shows that caregiver is the closest family member who naturally helps another family member with limitation to meet his basic needs.

Characteristic of physical fitness of caregiver of elderly with dementia is mostly healthy (60%). This result confirms/proves that the caregivers do not have any health issues physically so they would be able to nurse elderly with dementia in optimum condition.

The result regarding caregiver of elderly with dementia's level of anxiety before thought stopping therapy session is in majority (59%) having moderate level anxiety and 7.7% are severe level. Thought stopping therapy was performed face to face with respondent for 3 sessions long, where the first session consists of identifying disturbing thoughts and followed by thought stopping using alarm or countdown. The second session consists of thought stopping using varied alarm and countdown, and third session consists of evaluation of thought stopping benefit.

Analysis result of post thought stopping therapy session indicates that majority of caregivers of elderly with dementia are having normal anxiety level (42.3%) and 34.6% are having mild level, so the result from analysis shows that 3 sessions of thought stopping therapy is able to reduce anxiety level up to 69%. Statistical result has  $p\text{ value}=0,000$  ( $p<0,005$ ), so it can be concluded that there is significant decline of anxiety level before and after thought stopping therapy.

The result of study also coincides with Stuart and Laraia's theory (2005) which states that thought stopping therapy is able to halt bothering thought and settle the negative or maladaptive one which occasionally arises while coping with anxiety. Townsend's theory (2009) also states that thought stopping therapy is a technique learned by individual on his own which is useful every time he feels the necessity to eliminate troublesome or negative thought and unwanted thought from his consciousness when he feels anxious.

This result is in accordance with Erwina, Hamid, and Mustikasari's study (2011) which reveals that thought stopping therapy is able to solve negative thought and anxiety. Restiana, Keliat, Wardani's study (2011) also supports this result that thought stopping therapy which is performed on respondents could improve their control over anxiety. Widiastuti, Keliat, and Susanti's study (2011) also indicates a decline of anxiety through improvement of client's ability to cope with anxiety by thought stopping therapy. This result corresponds with Nasution, Hamid, and Helena's study (2011) which claims that thought stopping therapy could decrease anxiety level from moderate to mild when compared to the respondents who are not given the therapy. Based on both result and previous studies, author concludes that thought stopping therapy could reduce anxiety and improves respondent's ability to cope with anxiety.

Surtaningrum and Keliat's study (2012) reveals that thought stopping therapy when combined with cognitive therapy and progressive muscle relaxation is able to decrease signs and symptoms of client's anxiety up to 37.73% and improve his ability up to 75.55%. Result of Banon and Hamid's study (2012) also shows that anxiety could be reduced by thought stopping therapy, progressive muscle relaxation, cognitive behavioral therapy, and family psychoeducation. Based on both result of studies, and linked with result of this study

then it proves that thought stopping therapy could reduce anxiety level whether performed separately or combined with another psychiatric nursing therapy.

Anxiety response post thought stopping therapy in this study shows declines in cognitive, affective, and social responses. This result corresponds to Atun and Keliat's study (2012) that states a decline in physiological and affective response after thought stopping therapy. This result also coincides with previous study by Livana, Keliat, and Susanti (2015) which states that applying thought stopping therapy for client with physical disease could reduce his cognitive, affective, and social responses. Widiastuti, Hamid, and Wardani's study (2015) also supports this study by claiming that thought stopping therapy could reduce signs and symptoms of anxiety especially in cognitive, affective, physiological, behavioral, and social aspects as well as improve client's ability to cope with anxiety. Another study supporting this result is the one conducted by Syisnawati, Keliat, and Susanti (2015) which states that thought stopping therapy could decrease anxiety signs and symptoms especially in cognitive and physiological aspect. This result also supports study conducted by Agustarika, Keliat, and Nasution (2009) and Supriati, Keliat, Nuraini, and Susanti (2010) which states that thought stopping therapy is able to reduce client's anxiety significantly which is demonstrated by decline in physiological, cognitive, behavior, and emotional responses.

The result confirms that caregiver of elderly with dementia is capable of improving his ability to cope with anxiety by thought stopping therapy. This result coincides with Ikhtiarini and Keliat's study (2012) which states that thought stopping therapy could improve client and family's ability to control anxiety. This result also supports Febrianti, Hamid, and Wardani's study (2014) which claims that thought stopping therapy could improve ability to cope with anxiety for people with hypertension.

Based on the result, theory, and previous result of studies, author concludes that thought stopping therapy for caregiver of elderly with dementias could reduce anxiety level, decrease anxiety responses, and improves one's ability to cope with anxiety in comparison with condition before thought stopping therapy applied. The success of thought stopping therapy in this study is thanks to resolve and commitment from the caregivers in having thought stopping therapy for 3 sessions consecutively.

## Conclusions

Thought stopping therapy for caregiver of elderly with dementias is able to reduce anxiety level up to 69%; to decrease anxiety response that is cognitive, affective, and social responses; to improve caregiver of elderly with dementias ability to cope with anxiety. Result of this study is expected to be used *asevidence based practice* for psychiatric nurses in giving therapies for caregiver of elderly with dementias. Further qualitative studies are required to examine effectiveness of thought stopping therapy in reducing anxiety level of caregiver of elderly with dementia.

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## Effectiveness of Adenosine for Patients with Supraventricular Tachycardia in Emergencies: A Systematic Review

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**Background:** Supraventricular tachycardia (SVT) is a very serious heart disease and common rhythm disorder that often requires treatment out of hospital. It can be treated with drugs, vagal maneuvers, or synchronized electrical cardioversion (SEC). Over the past 20 years, verapamil has become the drug of choice for the treatment of SVT in the pre hospital setting. However, some studies have shown that adenosine could be as effective as verapamil, with fewer side effects.

**Aims:** This systematic review aimed to identify the activity of adenosine in patients with SVT.

**Method:** This systematic review used 2 keywords in the search of the existing literature, namely adenosine and supraventricular tachycardia. This systematic review is only used literature obtained from sciencedirect and limit time period used between 1990 until 2015. Initial literature search identified 144,509 from adenosine and 14,329 journal articles from supraventricular tachycardia. Based on all the journal articles obtained from sciencedirect, only 9 articles that discuss about effectiveness adenosine for SVT in emergencies included in the review. That articles and appropriate content to the topic synthesized to obtain the appropriate literature review.

**Results:** The review found that the first dose of adenosine was effectively administered once the measures of vagal Maneuvers do not respond. The dosage was Adenosine 6 mg rapid IV bolus followed by flushing with 20 mL of normal saline. If within 1-2 minutes the rhythm does not change, then given a second dose of 12 mg Adenosine IV bolus quickly then in flush with 20 ml of normal saline. If there was no improvement, it can be given back Adenosine 12 mg IV bolus quickly and in flush with 20 ml of normal saline (maximum dose of 30 mg adenosine). Then continuous ECG monitor for changes (prognosis) of patient's ECG results. The majority articles determined adenosine as an effective agent for the management of patients with supraventricular tachycardia, demonstrate a high level cardioversion and has low side effects.

**Conclusion:** Administration of adenosine is recommended and highly effective for patients with SVT outside the hospital if given during the pre-hospital and given 6 mg as an initial dose and 12 mg as a further dose.

**Keywords:** supraventricular tachycardia, adenosine, the effectiveness

### Background

Supraventricular tachycardia (SVT) is a very serious heart disease and common rhythm disorder that often requires treatment out of hospital. It can be treated with drugs, with vagalmaneuvers, or with synchronized electrical cardioversion (SEC) (Lozano, McIntosh, andGiordano, 1995). Over the past 20 years, verapamil has become the drug of choice for thetreatment of SVT in the pre-hospital setting. However, Di Marco et al have shown adenosinebe as effective as verapamil, with fewer side effects (Madsen, Pointer, & Lynch, 1995).

Adenosine is an endogenous substance, such as purine nucleoside metabolized quickly that generate transient atrioventricular nodal block when administered intravenously (IV). Benefit, rapid onset, short duration, and safety profile has made it a first-line therapy for supraventricular tachycardia (Davis, Spitalnic, & Jagminas, 1999).

More recently adenosine, a nucleoside naturally found in almost all cells of human life, added to the treatment regimen for SVT. Its usefulness in treating SVT is due to its effects on the heart's electrical conduction system. It is rapidly metabolized in the blood so that the effect lasts for seconds. In the latest revision of the guidelines for adult advanced cardiac life support, the American Heart Association recommends adenosine as a first-line agent in the treatment of SVT. Three studies have shown that adenosine can be safely used by paramedics outside the hospital setting. Adenosine is used in 49 of the 111 EMS system who recently surveyed nationally. In 18 systems is used as a stand-order drugs, while the rest use it as a medical control options (Lozano, McIntosh, and Giordano, 1995).

Manufacturers recommend the use of an initial dose of 6 mg IV bolus, followed by 12 mg when the initial bolus unsuccessful. The dose gradually been recommended to minimize intensity and duration of the common side effects occur during administration: flushing, dyspnea, hypotension, chest pain, and bradycardia. Preliminary research indicates that 6 mg adenosine managed about 60%, and 12 mg successfully for more than 90%. Efficacy and safety of adenosine was later confirmed in numerous studies, both in the Emergency Department (ED) and in the pre-hospital setting (Davis, Spitalnic, & Jagminas, 1999).

## **Aims**

This systematic review aimed to identify the activity of adenosine in patients with SVT.

## **Method**

This systematic review used 2 keywords in the search of the existing literature, namely adenosine and supraventricular tachycardia. This systematic review is only used literature obtained from sciencedirect and limit time period used between 1990 until 2015. Initial literature search identified 144,509 from adenosine and 14,329 journal articles from supraventricular tachycardia. Based on all the journal articles obtained from sciencedirect, only 9 articles that discuss about effectiveness adenosine for SVT in emergencies included in the review. That articles and appropriate content to the topic synthesized to obtain the appropriate literature review.

## **Results**

Paramedical treatment protocols specifically address SVT has prevailed in New York City since 1985 and has called for the use of Valsalva maneuver and SEC as a medical control options. On July 1, 1993, adenosine was introduced as a drug for the treatment of SVT outside the hospital under treatment protocol approved by paramedics Advanced Life Support Committee of the New York City Regional Emergency Medical Advisory Committee (Lozano, McIntosh, and Giordano, 1995). The protocol used in the study Lim, et al (2009) is given as a bolus adenosine rapidly in 2 seconds through 18G intravenous cannula placed in the antecubital fossa, followed by 10 ml of fluid Saline. 6 mg bolus originally given, and if no conversion SVT within 2 minutes of administration, further 12 mg bolus was given (Lim, et al, 2009).

Adenosine effectiveness, ease of administration, rapid onset, short duration of action and a favorable safety profile has made him a first-line therapy for the treatment of SVT.

Giving a dose of 6 mg IV bolus initially, followed by 12 mg IV if the initial dose should fail, derived from the initial dose trials and continues to be the recommended dose. IV administration of adenosine normally for proximal and saline flush, and often combined with physical maneuvers (for example, lifting the extremities) to more rapidly deliver the drug to the target organ (Davis, Spitalnic, & Jagminas, 1999).

Special protocols for intravenous adenosine infusion is used as a command from the EMS medical director. In short, the diagnosis of PSVT is determined by the physical signs and symptoms (complaints of palpitations or chest tightness, rapid pulse, hypotension relative to baseline patient, if known, dyspnea, cyanosis, and / or diaphoresis) followed by the results of the ECG, regular, tachycardia narrow complex with the same level or greater than 160 beats/min. After a presumptive diagnosis of PSVT, intravenous access was given to the choice of cannulation antecubital large diameter, while the vagal maneuver attempted. Paramedics were instructed to consider whether the patient shows sign of severe hemodynamic instability (defined as systolic blood pressure <90 mm Hg, rales on lung auscultation, chest pain substernal great, or changes in mental status) as a diagnosis "unstable PSVT", in terms of the patients will receive electrical cardioversion pre-hospital quickly according to standard ACLS guidelines. In the absence of hemodynamic instability and if vagal maneuvers failed to convert dysrhythmia, patients are given a rapid intravenous bolus of 6 mg adenosine (over 1 to 2 seconds), followed by a rapid flush using 5 ml of normal saline or Ringer's lactate solution. If PSVT failed to convert to sinus rhythm within 2 minutes, adenosine is given for the second time with a dose of 12 mg (preferably 1 to 2 seconds) followed by a flush. If PSVT failed to convert to sinus rhythm within 2 minutes of the second dose, a third rapid intravenous bolus consisted of 12 mg adenosine is given, followed by a rapid saline flush. After the conversion, or in the case of treatment failure after the prescribed three doses of adenosine are, paramedics then contacted the base station by summarizing medical doctor, continue to monitor the patient, giving volume repair or electrical therapy when necessary, and brings the patient to definitive care as quickly as possible (Furlong, et al, 1995).

If the measures of vagal Maneuvers patient do not respond, then the treatment given was first dose: Adenosine 6 mg rapid IV bolus then in flush with 20 mL of normal saline. If within 1-2 minutes the rhythm does not change, then given a second dose of 12 mg Adenosine IV bolus quickly then in flush with 20 ml of normal saline. If the rhythm does not change, it can be given back Adenosine 12 mg IV bolus quickly and in flush with 20 ml of normal saline (maximum dose of 30 mg adenosine). Then continuous ECG monitor for changes (prognosis) of patient's ECG results. When changing the rhythm may be a reentry SVT then observed the occurrence of a recurring situation and re-do the management of the administration of adenosine or longer-acting AV nodal blocking agents (diltiazem, B-blockers). If no change of rhythm ECG rhythm may be flutter or junctional Atrial tachycardia then immediately consult to the expert (expert), control of heart rate by providing diltiazem and B-blockers. When the rhythm becomes irregular with QRS Complex = 0.12 second then give  $\beta$ -blockers or calcium channel blockers. B-blockers are drugs that bind to beta-adrenoceptors, thereby blocking the binding of norepinephrine and epinephrine receptor  $\beta$  will inhibit the sympathetic effect of this receptor. Calcium channel blockers have a major effect reduces the speed and magnitude of depolarization by blocking sodium channels, therefore blocking sodium channels will reduce the transmission speed in the cardiac action potential (reducing the conduction velocity, negative dromotropy). It can serve as an important mechanism to suppress tachycardia caused by abnormal conduction (ACLS Tachycardia Algorithm for Managing Stable Tachycardia, Neumar et al, 2010).

McCabe and colleagues found adenosine is safe and effective for pre-hospital termination of SVT. Health care providers of pre-hospital treating SVT with vagal maneuvers, medications, or electric. Vagal Therapy Techniques (Valsalva maneuver, carotid sinus massage, depending on the body position of the head tilted down, and the diving reflex) approximately 50% effective for termination or conversion SVT (Madsen, Pointer, & Lynch, 1995).

Lozano, McIntosh, and Giordano (1995) found that, prior to the introduction of adenosine, 14 of 104 patients arrived at the hospital in stable heart rhythm. Looks no different with 15 of 104 (OR, 1.03; 95% CI, 0.44 to 2.40;  $P = 0.95$ ), which entered spontaneously. However, this represents 14 patients who met the criteria of the American Heart Association as unstable. The introduction of adenosine bringing the total number of conversions ALS induced 77 of 140 (55.0%), with no spontaneous conversion. Efficacy of adenosine in the prehospital setting has been proven by several studies. Success rate found in this study (67.8%) is comparable, although somewhat lower than reported by McCabe et al (87%), Madson et al (78%), and Gausche et al (85%). Lozano, McIntosh, and Giordano (1995) is difficult to explain is that the proportion of patients reported to the protocol specified indications for the treatment of ALS increased from 72.0% to 90.7%. This increase is not explained by changes in the patient population with respect to age, initial vital signs, or symptoms. One might explanation is that paramedics in 1992 were less likely to obtain and document the physical findings or point of history that might force them to contact a doctor telemetry control to start the selection of medical control. The call may have caused the command to perform cardioversion in patient's unconscious. The reason may be close to the hospital and therefore definitive therapy. With the introduction of adenosine, there is a more suitable alternative to out-of-hospital electrical cardioversion. Moreover, in our system of adenosine administered as a standing order, eliminating the extra time required to contact the medical control and consult a physician for permission to administer medication. There is currently no disincentive for a list of findings on the ACR which may indicate that the ALS intervention was justified.

Research results Riccardi, et. al, (2008) concurs with those reported in the literature Delacretaz (2006) and Holdgate & Foo (2006) and confirm adenosine as an effective agent for the management of patients with supraventricular tachycardia, demonstrate a high level cardioversion and has low side effects. No major side effects, such as bronchospasm, occurred in a patient. Riccardi, et al. only observe one main, interim, adverse events (0.2%), which is giving 12 mg adenosine to patients diagnosed with atrial flutter with 2: 1 AV conduction causes a 1: 1 AV conduction and ventricular rate of 280 bpm, which recovered spontaneously after 30 seconds. This experience emphasizes what is reported in the Cochrane review, adenosine who do not have serious side effects when patients are properly selected and life-threatening alteration in heart rhythms have been reported after use of the drug is very rare and usually due to improper use. This last incident was previously reported as a pro arrhythmic effects of adenosine, especially when it is used for diagnostic purposes (Riccardi, et. Al, 2008).

## Conclusions

Administration of adenosine recommended and highly effective for patients with SVT outside the hospital if given during the pre-hospital and given 6 mg as an initial dose and 12mg as a further dose.

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# THE IMPLEMENTATION OF FAMILY PRESENCE DURING RESUSCITATION (FPDR) BY EMERGENCY NURSES

## Oral Presentation

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### ABSTRACT

**Background:** One of the actions undertaken by the emergency nurses facing families' emotional response of cardiac arrest patients is by applying Family Presence During Resuscitation (FPDR). FPDR still debated since the beginning of this concept was formed. Because some countries still have not had policies or guidelines of FPDR. In addition FPDR is not universal so that nurses in some countries are not familiar and do not have competence of FPDR.

**Aims:** The purpose of this paper is to explore the implementation of FPDR by emergency nurses.

**Methods:** A literature review was undertaken using the keywords 'family presence,' 'resuscitation', and 'emergency nurses'. Papers published 10-year period were included. Those published in the English language that presents data on the implementation of the FPDR by emergency nurses. Obtained several articles related to the implementation of FPDR of a wide range of countries.

**Results:** Literature revealed that the implementation of FPDR closely related to the perception of nurses as well as the perception of the patient's family. There are nurses who agree and some who disagree with applying FPDR. The family responded with positive feelings about FPDR and believe FPDR can help patients. There were nurses who have a positive impression about FPDR and supporting the FPDR. FPDR did not affect the characteristics of resuscitation, patient survival, or the level of emotional stress on the medical team and do not cause medical lawsuits.

**Conclusion:** There are different perception about the FPDR by emergency nurses. The findings strongly suggest the need for the development of written policies about FPDR. In addition, education regarding institutional policies, methods for incorporating family into the resuscitation process, and psychosocial interventions to support the needs of the family members must also be prepared.

**Keyword:** Emergency Nurses, Family Presence, Resuscitation



## BACKGROUND

Good quality service can not be separated from the sense of responsibility and accountability of a professional nurse. Nursing as a profession must act in a professional manner (Perry, 2013).

The Emergency Room (ER) nurse is required to act professionally because many are faced with a life-threatening emergency cases a person. The case of urgency that is often encountered by emergency nurses one of which is cardiac arrest.

The incidence of cardiac arrest each year causes the death of about 600,000 people to the events that occur in industrial countries (Jabre, et al., 2013). Emergency nurses are required to be able to give the best effort to provide relief to patients with cardiac arrest. Emergency nurses must immediately help to patients by performing resuscitation (Pae, Andarini, and Lestari, 2015).

High risk for emotional and physical burdens that occur in Family members can occur when resuscitation. This can be prevented by asking them to be present when resuscitation, known as the Family Presence During Resuscitation (FPDR). FPDR can cause family members can see the patient, provide support to patients, and understand the first aid has been given to the patient (Jabre, et al., 2013; Pae, Andarini, and Lestari, 2015).

FPDR can provide benefits for patients and their families. FPDR can help the family to give a final farewell and can assist in the process of bereavement so as to prevent the occurrence of Post-Traumatic Stress Disorder (PTSD) (Jabre, et al., 2013; Zavotsky, et al., 2014).

In the beginning, the cardiac arrest patient family is guided away to the waiting room while the resuscitation administered to the patient. But it has been changed, FPDR highly recommended by many nurses, specialty practice organization, and health organization worldwide taking into account the rights of patients and families (Al-Mutair Abbas, Plummer, and Copnell, 2012; Boehm, 2008; Gordon, et al., 2013).

FPDR still debated since the beginning of this concept was formed in the early 1990s among other health care professionals in many communities, one of them in the United States. Because FPDR some countries still have not had policies or guidelines in the implementation. In addition FPDR is not universal so that nurses in some countries are not familiar and do not have competence over FPDR (Jabre, et al., 2013; Al-Mutair Abbas, Plummer, and Copnell, 2012; Boehm, 2008; Gordon, et al., 2013; Sheng, Lim, and Rashidi, 2010).

This causes the still lack of research results that include few of data from hospitals on family experience to evaluate the presence of FPDR implementation. (Lowry, 2012; Mangurten, et al., 2006). In many Asian countries, the acceptability of this practice has not been well studied (Sheng, Lim, and Rashidi, 2010).

## **AIM**

The purpose of this paper is to explore the implementation of Family Presence During Resuscitation (FPDR) by emergency nurses.

## **METHODS**

A literature review was undertaken using the keywords 'family presence,' 'resuscitation', and 'emergency nurses'. Papers published 10-year period were included. Those published in the English language that presents data on the implementation of the FPDR. Obtained several articles related to the implementation of FPDR of a wide range of countries such as the United States, Saudi Arabia, France, Malaysia, and Indonesia.

## **RESULT**

Literature revealed that the implementation of FPDR closely related to the perception of nurses as well as the perception of the patient's family. There are nurses who agree and some who disagree with applying FPDR.

The family states that witnessed resuscitation is a traumatic experience and cause restlessness in the face FPDR process. Families responded with positive feelings about FPDR and believe FPDR can help patients. Families become stronger by doing FPDR and reported that FPDR can reduce their worries. Families who did not witness the CPR have symptoms of anxiety and depression more often than those who do FPDR. The family wishes to continue to assist the patient because of the love and the role of the patient. All families describe an active role during FPDR. The family also believes that they have the right to be present when resuscitation for patients. Families feel some complexity in mentoring complications such as ignorance about FPDR, lack of procedures, and the rooms were not quite freely to FPDR. Three months after FPDR, no family to report traumatic memories.

Nurses have a wide range of perceptions about FPDR. There are nurses who disagree with FPDR but there are also nurses who strongly approve FPDR done.

Nurses who have a negative attitude towards family presence during resuscitation stated FPDR will not provide benefit for patients and families. Nurses reveal that the presence of the family have a negative effect and will affect the performance of nurses in resuscitation. It gives the effect of nurses did FPDR even though knowing that the family has a right to be in the vicinity of the patient during resuscitation. The nurse also prefer a written policy that allows for the selection of family presence during resuscitation.

Literature also mentioned that there are nurses who have a positive impression about FPDR and supporting the FPDR. Literature also reported that family presence should not adversely affect the care shown by resuscitation in patients uninterrupted and does not cause actual harm. FPDR did not affect the characteristics of resuscitation, patient survival, or the level of emotional stress on the medical team and do not cause medical lawsuits.

Nurses also assume that FPDR helpful for family members to be able to see the process of resuscitation and the development of the patient's condition, especially in children. Nurses also showed appreciation of the family can improve their self confidence to perform resuscitation.

Nurses expressed the family should be allowed to remain at the bedside during resuscitation by considering their educational deficits and mixed feelings that may arise from the presence of the family as a challenge that must be faced by nurses. Nurses argue that education is necessary for all members of the healthcare team to facilitate collaborative changes in the practice of resuscitation. Education should include information about institutional policies, methods for incorporating family into the resuscitation process, and psychosocial interventions to support the needs of family members.

## **DISCUSSION**

Nursing as a profession must act professionally. There are several characteristics that must be owned by a profession. One of them nurses must have the basic foundation and continuing education of all its members; have the science underlying theory to determine the skills, abilities and norms (Perry, 2013).

One of the nursing care that still being a topic of discussion is about Family Presence During Resuscitation (FPDR). Nurses who worked in the Emergency Room (ER), is still faced with the choice of giving the opportunity for the family to provide guidance when giving CPR to family members who become patients (Moreland, 2005).

Emotional sense of family will be able distracting administration of CPR quality. But if judging from the other side, FPDR will also provide an opportunity for families to have the experience of parting with family members, so the family is considered to be better prepared when facing the death of a family member. The situation is a lot going on today is the implementation FPDR still not maximized because it is considered as the decision to minimize the risk (Marco, Jesus, Phillips, & Larkin, 2015; Boehm, 2008; Soleimanpour, et al., 2013; Moreland, 2005).

FPDR often encountered by nurses in the emergency room. MacLean (2003) in Boehm (2008) reported that most hospitals do not have a policy about FPDR so that health workers often do not provide an opportunity for families to mentoring.

Sheng, Lim, and Rashidi (2010) reported that health workers in performing CPR to the patient in the Malaysian states chose not to provide an opportunity for patients to do FPDR. But they actually believed that the patient's family has the right to provide guidance on their family members when performed CPR.

Boehm (2008) reported that families who have been present during the administration of CPR majority feel that their adjustment to death was made easier by their presence in the room and their presence is beneficial for people who are dying. In addition they will choose to be present during the administration of CPR again if given the opportunity.

Soleimanpour, et al., (2013) also reported that the majority of the patient's family is not allowed to provide guidance to patients who performed CPR. The more experienced health worker, the more impossible it provides an opportunity for families to mentoring.

Boehm (2008) reported that most health professionals do not provide the opportunity for patients to do FPDR due to several things. Namely the fear of health personnel who may be disrupted because of a family member is experiencing confusion, concerns health workers will experience emotional stress will hinder their performance, fear of health professionals would have trouble controlling emotional responses of their own families, frightened family who witnessed the error or wrong understand what they see or hear that enables tend to demand, especially if the patient dies, the anxiety about the loss of control of the environment and the possibility of interrupting the behavior of the patient's family, anxiety if a family member fainted, there is not enough space in the room to accommodate the family, not there are enough health workers to provide family support, as well as concerns over confidentiality and patient privacy rights impaired (Al-Mutair, Plummer & Copnell, 2012).

It is actually different from the results of research conducted Zavotsky et al. (2014) which states that nurses do FPDR support to patients, especially in patients with infants and children. In this study also said that by doing FPDR, the biggest challenge is educating owned nurse itself to be able to perform and collaborate well during resuscitation.

Nurses who allow the family to do FPDR able to see the process that is given by health workers to carry out relief to their family members. Nurses have increased confidence that the appreciation given by the family who accompany the patients after viewing the resuscitation process (Lowry, 2012).

Results of research conducted by Mangurten et al. (2006) stated that with the FPDR have positive results, there are no emotional stress felt by the family. The family did not experience anxiety and depression. Three months after the action is also taken back the data on the family. And showed no recollection of trauma on the actions performed on a patient at the hospital.

Families who do not accompany patients tend to experience emotional stress. Families will experience anxiety and depression more often than families that accompany the current resuscitation for patients (Jabre, 2013).

Mangurten et al. (2006) also stated that most nurses are health professionals who provide an opportunity for the family to provide guidance to patients when performed resuscitation. Educational preparation and type of certification into matters affecting nurses in providing the opportunity for families to do family presence to patients in resuscitation.

Education is needed nurses to facilitate collaborative family presence and changes in the practice of resuscitation. Education should include information about institutional policies, methods for incorporating family members into the process of resuscitation, and psychosocial interventions to support the needs of family members (Zavotsky, et al., 2014).

## CONCLUSION

High risk for emotional and physical burdens that occur in Family members can be prevented by applying Family Presence During Resuscitation (FPDR). The study revealed that the implementation of FPDR closely related to the perception of nurses as well as the perception of the patient's family. There are different perception about the FPDR by emergency nurses.

Families receive FPDR because they thought that it is good for them and for the patient. Nurses supporting the FPDR because they thought that FPDR good for families, patients, and caregivers themselves. In addition, FPDR does not interfere with the process of resuscitation, and does not cause actual harm.

The findings strongly suggest the need for the development of written policies offering families the option to werner with patients during resuscitation. In addition, education regarding institutional policies, methods for incorporating family into the resuscitation process, and psychosocial interventions to support the needs of the family members must also be prepared.

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# **The Relationship Of Occupational Stress With Motivation To Work Staff Nurse In Inpatient Ward Kanjuruhan Governmental Public Hospital Kepanjen**

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The Hospital service quality was supported by nursing services. So it were not be denied that the nurse's role becomes very important, for along 24-hour nurse provided nursing care. Nurses required to always make effort to optimize performance of nurses. A complicated task and the amount of responsibility were cause the nurse susceptible to occupational stress. According to results of PPNI research 50.9% Indonesian nurses who work facing the occupational stress.

The aimed of this study was to determine the relationship of occupational stress with work motivation of nurses at the Kanjuruhan Governmental Public Hospital Kepanjen.

The study design was correlational design with cross sectional study. Population consisted of 33 nurses spread across three inpatient ward at the Kanjuruhan Governmental Public Hospital Kepanjen. All subjects had similar characteristics. The number of samples obtained as many as 30 people, the sampling technique used was proportional random sampling. In this study we were used a questionnaire The Expanded Nursing Stress Scale (ENSS). The classification for that work motivation were the needs of existence, relatedness, and growth. Data analysis technique was used Spearman Rank.

Spearman Rank analysis results showed there was no significant relationship between stress occupational and work motivation ( $\rho = -0.252$ ,  $P = 0.05$ ). The result have shown that most stressful subscales for nurses was Workload as "Frequently Stress" and the least stressful subscale was Patient and their families as "Occasionally Stressful". The negative sign was indicated that the more severe work stress will lower the motivation. Based on the level of stress, known the half of respondents were experienced Occasionally stressfull as many as 15 respondents (50%). Aside from the motivation the existence need ( $\bar{x} = 21.433$ ). Based on the level of motivation showed that most respondents have sufficient motivation (76.7%).

The study conclude that Kanjuruhan Governmental Public Hospital Kepanjen staff nurses were exposed of job related stress, although it didn't affect their level work motivation. This emphasis adopted strategies to reduce or suppressed the source of occupational stress. The next increased the motivation work through Existence needs (salaries, incentives, and assurance and safety), Relationship needs (cooperation, socialization, status, and reputation), and Growth needs (self-esteem, confidence, autonomy, career development and self-actualization). Besides it took a good hospital management thus creating a quality policy that encourages workers provided the quality health care

**Keywords :** Occupational Stress, Motivation to work, Nurses, The ENSS, Governmental Hospital, Kanjuruhan.

## **Introduction**

Hospital as a health infrastructure was participated to integrated health services for society. It was ran optimally if supported by qualified human resources and passion to achieve the goals. But in reality, the nursing profession was only seen as a form of effectiveness as a person career, it compared to the welfare of themselves as a nurse underlying level of satisfaction at work (**Abraham & Shanley, 1997**).

One of the important issues were related to the behavioral characteristics of the human resources that stress occupational, stress occupational was individual response to the high pressure in the work (**Sule & Saefullah, 2010**). Stress occupational caused by the interaction of workers with jobs, many of the problems that must be solved, the patient's family, the workload and should be more active for the patients safety, sometimes under high pressure and uncertainty. This situation was often trigger of stress (**Lenhart, 2002**).

Based on a survey was conducted by the Indonesian National Nurses Association (**PPNI, 2006**) in four provinces, found 50.9% of Indonesian nurses who work experienced stress occupational often feel dizzy, tired, less friendly, less rest due to the workload was too high and inadequate salaries.

**Barrett (1998)**, analyzed the four reasons that motivate nurses to keep working in the UK, satisfaction with their work, a good working atmosphere, good managerial support and the availability of a sustainable education and professional development.

Results of interviews carried on 7 to 8 January 2013 in nurse at the Kanjuruhan Governmental Public Hospital Kepanjen, nurses were tend to experienced stress occupational due to workload because discrepancy between amount of nurses with the average amount of patients per/day, other nursing duties, and complaints from patients and families. Meanwhile, according to some nurses there were things that motivated to survive with their duties such as needs financially, the award by the management, sence to advance and responsibility towards job or profession.

Based on the background mentioned above, researchers interested in conducting furthermore the research on the relationship of stress occupational with work motivation nurse in the Kanjuruhan Governmental Public Hospital Kepanjen.

## RESEARCH METHODS

The study design was correlational design with cross sectional study. With cross sectional approach where the independent variable ( stress occupational) and the dependent variable (motivation to work). This study was carried on 11 to 28 February 2014 and would be conducted in space Kanjuruhan Governmental Public Hospital Kepanjen.

Population consisted of 33 nurses spread across three inpatient ward included Airlangga, Diponegoro, and Imam Bonjol Ward at the Kanjuruhan Governmental Public Hospital Kepanjen. All subjects had similar characteristics. The number of samples obtained as many as 30 people who working in the previously mentioned setting for at least 6 month continuously with full time employment, and also having Graduate of the Diploma of Nursing or Bachelor of Nursing. Meanwhile head nurse and supervisor were exclude from staff nurse because their work nature was different.

The tool was used in this research, Expanded Nursing Stress Scale (ENSS)(French et. Al, 2000)has been used to measure Nursing Job related stressor, this is an expanded and updated revision of the classic Nursing Stress Scale (NSS) was developed by **Gray- Toft& Anderson(1981)**. It was consist of 54 item in nine subscales: a) Death and Dying, b) Conflict with Physicians, c)Inadequate Emotional Preparation, d) Problem Relating to Peers, e) Problem Relating to Supervisor, f) Workload, g) Uncertainty Concerning Treathment, h) Patient and Their families, and i) Discrimination. Based on mean and standard deviation value in stress occupational variable we aranged in a 5 point Likert respon scale(**Riwidikdo, 2009**). Discriminant validity of the ENSS was examined by computing product moment correlations with over all Life Stress ( $r = .17, p < .001$ ) (one-tailed test) and Health Problem Index ( $r = .34, p < .01$ ) (one-tailed test)(**French et. al, 2000**).

Meanwhile for the Work Motivation, we adopted from **Sari (2009)** research's instrument which refers to ERG's Theory By Alfender, so it appeared in 3 Work Motivation subscales (Esistence, Relatedness, Growth) with 25 item. Each item, scored from 1 to 3 if the origin respon choices are used. The high scores on the scale represent work motivation, then calculated the score by mean and std deviation value, aranged in a 3 levels of work motivation. Below the internal consistency reabilities (coefficient alpha), based on a sample of 0,6 (**Sari 2009**).

The sampling technique used proportional random sampling. This technique required a way of sampling of each sub-population taking account of the size of sub-populations. This method provides the basis generalizations can be more accountable than if regardless of the size of sub-populations, and each sub-population.

## RESULT

### Descriptive statistic

SPSS program (version 17) was used to analyze the result. Out of 79 Questionares distributed. 33 staff nurses completed the items.

**Table 1. Descriptive Statistic for Demographic variables**

Demographics Variables	Frequency	Valid percent
Gender		
Male	10	33%
Female	20	64%
Age		



Less than 30 years	14	47%
30-40 years	11	36%
More than 40 years	5	17%
Education Diploma of Nursing	30	100%
Work Period 1-5 years	9	30%
5-10 years	11	37%
10-15 years	6	20%
More than 15 years	4	13%
Marital Status Married	28	93%
single	2	7%
Work Setting Airlangga Ward	8	27%
Imam Bonjol Ward	7	23%
Diponegoro Ward	15	50%

**Table 2. Most Stressful subscales and least stressful subclales percieved by nurses**

<b>Subscales</b>	<b>Mean</b>	<b>Std. Deviasi</b>
Workload	23,7333	2,40593
Patients and Their families	22,3667	3,70911
Uncertainty Concerning Threatment	21,9667	2,47028
Problem with supervisors	18,1000	3,36667
Problem with Peers	15,4667	3,12645
Death and Dying	13,9667	4,30303
Conflict with Physicians	12,1333	1,87052
Inadequate Preparations	7,2000	2,24990
Diskrimination	5,0667	2,67728
Valid N (list wish)	30	

**Tabel 3. Frequency Distribution of Nurses Job Stress**

<b>Nurse job Stress</b>	<b>Fr equ- ency</b>	<b>Valid percent (%)</b>
Not applicable	3	10
Never stressful	3	10
Occasionally stressful	15	50
Frequently stressful	7	23,3
Extremely stressful	2	6,7
Amount	30	100

From the above table it can be seen that nurses who felt Occasionally stressful at highest ranks with (N=15, (50%)), while in the lowest that nurses were felt Extremely stressful (N=2, (6.7%))

**Table 4. Frequency Distribution Table of Work Motivation nurse**

Subscales	Mean <i>n</i>	Std. Deviasi
Existence Needs	21,43 33	4,50810
Growth Needs	17,60 00	2,62087
Relatedness Needs	20,43 33	3,47090
Valid N (List wise)	30	

From the above table we know that the Existence Needs was on the highest (N=30, Mean 21.43) while the Growth Needs was on the lowest than others. At the work Motivation variable we also arranged this in a 3 levels included Good motivation with 4 respondents, Less Motivation mount 3 respondents, and the majority had Sufficient motivation with 23 respondents.

**Table. 5 Cross Tabulation Table Stress Occupational with Work Motivation Nurses**

Stress Occupational/ Job stress	Work motivation						Total	
	Good		Sufficie nt		Less			
	F req	%	F req	%	F req	%	F req	%
Not applicable	2	6,7	0	0	1	3,3	3	10
Never stressful	1	3,3	2	6,7	0	0	3	10
Occasionally stressful	0	0	1	3,3	2	6,7	3	10
Frequently stressful	1	3,3	6	20	0	0	7	23,3
Extremely stressful	0	0	2	6,7	0	0	2	6,7
Total	4	13,3	10	33,3	3	10	17	56,7

Based on the above table was obtained at a rate of invalidity stress amount of two nurses (6.7%) classified as having good motivation, 1 nurse (3.3%) classified as having less motivation. At the nurses were never stress amount of 1 nurse (3.3%) had good motivation and two nurses have sufficient motivation (6.7%). In addition to the level of sometimes stress there were 13 nurses (43%) classified as having sufficient motivation and two nurses (6.7%) have less motivation. At the level of stress often there was one nurse (3.3%) who have a good motivation, and 6 nurses (20%) were motivated enough. On distressed rank there were only two nurses (6.7%) with motivation quite enough.

While based on the analysis of Spearman Rho ( $r_s$ ) at a significant level ( $\alpha$ ) of 0.05, with SPSS for Windows 17.0 was obtained  $r_s = -0.210$  and  $p \text{ value} = 0.226$ , then the  $p \text{ value} > \alpha$ , so  $H_0$  was rejected. Thus we can conclude there was no significant relationship between stress occupational with work motivation nurses in Kanjuruhan Governmental Public Hospital Kepanjen.

## DISCUSSION

### Nurses Stress Occupational

The result showed that respondents with the level of stress Occasionally stressful as many as 15 respondents (50%), respondents with Frequently stressful amount 7 respondents (23.3%), while there are only two respondents (6.7%) were Extremely stressful, leftover respondents who never stress and not applicable stress with each 3 respondents (10%). While the results showed that the mean value calculation subscales workloads have the highest mean value of 23.733 followed by subscales patients and their families at 22.367 can be concluded that the two of subscales brought about nurses to feel stress by their work.

According to **Sylvia (1995) in Damit (2007)** nurse was a profession that easy exposed by stress for example, role conflict, role ambiguity and job demands significantly. Job stress was a result of interaction between nurse and their work environment, in addition there were factors related to individual characteristics can also give discription of the level of work stress experienced by the individual.

Besides, the presence of respondent demographic characteristics such as age, sex, education, length of working and other work stress were affect to nurses. Age Characteristics of a person's tolerance related to stress and type of stressor (**Sartika, 2013**). In adulthood usually someone was be able to control stress. While workers (nurses) with older age would have the ability to demonstrate the maturity of the soul, as more and more capable of rational thinking, control their emotions, attitudes tolerant of the views and behaviors that was different from himself and has maturity in intellectual and psychological (**Billy and Adisasmito 2005 in , Sartika 2009**).

The results were obtained mostly nurses (47%) number of 14 respondents in the age group between 20 to 30 years, this was suggests that the ability at that age range did not yet have full mental maturity. The next was gender, some researchers said that gender differences were decisive differences in sources of stress on the emotional state, the continuity of the physical and with the presence of a person, it was seen that the source of the same stress will display different behavior for each gender. Although the difference was not significant, women were tend to more quickly experience fatigue and anxiety. Some studies also suggest that was almost no significant relationship between work stress on gender (**Teddy, 2005 in Kamal, 2012**).

But this did not comparable with the **Kamal (2012)** who found a relationship between the gender with the stress experienced nurses. Also there were characteristics of education, which can be used as an indicator to determine the quality and quantity of competitiveness and performance. The results showed the level of education of all respondents were Diploma of Nursing Program, so it can be concluded that there was no difference between the level of education in this study.

Furthermore, that was a great chance to influenced the work stress, the length of work. The results showed that there were two groups have almost equal amount in the range of less than 10 years. Period of employment was closely related to physical ability, the more harder person

to work it will reduce the ability to physically (**Sartika, 2009**). Another view suggests that the working period of less than one year was often cause complaints, but it will disappear with increasing the length of work. The longer work period of labor would be required to make adjustments with their work environment.

Most (93%) of respondents had been married, this may have relevance to work stress that the existence of a new responsibility towards the family in addition to the responsibility of the job, would encourage workers to behave. But based on **Ismar (2012)** found that marital status did not give a significant impact on job stress.

This study was focused on nine sources of stress identified by **French et. al (2000)** what was members of The Expanded Nursing Stress Scale (ENSS) which is a stress scale of nurses, which states that there were 9 sources of work stress: workload, uncertainty about treatment, problems with supervisors, lack of emotional preparation, conflict with medical personnel, problems with colleagues, patients and their families, discrimination, and death and dying / critical.

Nurses who feel stress sometimes indicated that nurses have the ability to manage work stress who they experienced though not optimal as using coping mechanisms themselves. While nurses have a very stressful feelings showed that nurses was not been able to optimize the coping mechanisms in managing the threat of stress. The results showed the majority of nurses feel sometimes stress it was not separated from the contributing factors that affected and not maximal utilization of emotionally coping. There was many nurses feel sometimes stress showed that was still need increase efforts in reducing work stress.

According to **Aries (2005)** in **Widyasari (2010)** there were attempts to deal with work stress is changing the work environment to improve worker comfort, changing work environment through the perception of labor, and increase the durability of the workforce to stress, it can be realized with emotional training by psychologists and recreational activities.

### **Work Motivation Nurses**

Based on this research, it was known that the existence needs have a mean score of 21.433, while for the relationship needs was below with 20.433 and the growth needs with 17.600. From the data processing mean value of motivation to work acquired three levels, motivation was good, sufficient and less. Based on statistical calculation showed that most respondents have sufficient motivation (76.7%), while (13.3%) were in the range good motivation and (10%) in the range of less motivation.

Furthermore from the sociodemographic data also gave some description of the nurses work motivation. All of the subject came from Diploma of Nursing Program, which generally were had a level of knowledge and skiled to supporting themselves in order to perform duties optimally. But it was not be used as an indicator value in determining that the nurses also had a good motivation anyway.

This study emphasizes the **ERG theory** was developed by **Clayton Alfender (1972)** in his theory stated that a person would be motivated to work harder reached the needs of existence, which was related to physical needs like salary in line with expectations, according to the standard quality, incentives or rewards, occupational safety, and a feeling of comfort and quiet while working.

Most of them were had length of working, generally was showed that already have more enough experience carried out their duties. **Kreitner and Kinicki (2004)** states that the working period of employees was tends to make person feel comfortable in organization, this was due to them has adapted to environment for long enough so that employees feel comfortable.

Guidance of motivation techniques performed by a leader was expected help optimization of health service. In reality, not all nurses were had the same motivation. The function leadership as a manager would be very useful to accomodated all the interests and well-being of nurses, such as by provided incentives, or activities that was improve the relationship between nurse.

### Relationship between Nurse Occupational Stress and Nurse Work Motivation

To determine the relationship between each variable, both work stress and work motivation was used Spearman Rank analysis. In Bivariate analysis, this study was explained that both variables showed a correlation value of -0.210 with p-value show 0.266 or ( $\alpha > 0.05$ ). So that means that  $H_0$  was accepted. The results can be explained that the work stress variables did not have a significant correlation with work motivation. This was evidenced by the correlation value close to zero that indicated they were not have a relationship, with  $\alpha$  value 0.05. There was a negative sign indicated that the more severe work stress will lower the motivation.

It was possible that in this study the both of variables did not have a relationship, when management of human resource by the hospital institutions mainly work motivation was been run well. This was showed by most of the respondents (76.7%) have sufficient motivation, and only 10% have less motivation and the rest with good motivation. Besides, from the mean frequency data obtained the motivation existence needs in the highest position influenced the motivation of nurses with a score of 21.433. The existence needs was of a material-related needs such as the desire for food, housing, money, furniture and cars. These needs included physiological needs and safety needs of Maslow and in **Herzberg** equivalent with the hygiene factor. Some of existence needs affected the motivation, like salaries, incentives, and guarantees, and work safety.

Salary was one important thing to be considered a person when they would to work. Salaries were periodic payments specified under the contract of work, remuneration in accordance with the standards of quality of life would certainly the job was be worthy job and increase the satisfaction with the job. With given of incentives, remuneration reward was different because different achievements. Two people with the same title was received different incentives because it was depend on achievement. Incentives would gave a boost to the nurse in the achievement through performance.

The job security and the safe workplace and comfortable would certainly provide its own effectiveness for the hospital management increased the motivation of nurses. It was also leaders attention in health and safety, hospital care institutions, facilities that supported the performance of nurses and a conducive working environment and others. It can be an intermediary to control work stress was experienced by nurses.

With a mean value which occupied the highest position, there was a possibility that existence needs was one factor that has been successfully carried out management of the hospital to compensate or reduce the occurrence of occupational stress. This supported by research showed that the level of stress experienced by workers was sometimes stress, or stress can be interpreted only on certain conditions. Results of this study are not the same as the results of research conducted **Widiastuti (2008)** with Pearson product moment test results that was suggest a relationship of work stress with work motivation nurse with  $r = 0.05$ .

According **Munandar (2001)** in **Klau (2013)** there were several ways improved employee motivation, such as increasing the leadership role in two basic ways that was be assertive, it was expected the labor can not escape and would work hard and gave the purpose meaningful, workers were expected to be able specified the meaningful goals according their competence to reached the achievement.

Furthermore, with enhancing the role of themselves, some people need others to motivated the work. Work was seen as an activity that must be done to get a salary or compensation to finance life. With enhanced the role of organization, as policies and regulations that was enable attract or encourage the work motivation of health workers.

Guidance of motivation techniques performed by a leader was expected help optimization of health service. The leader was function as a manager would be very useful to accomodated all the interests and well-being of nurses, such as by provided incentives, or activities that was improve the relationship between nurse as a possibilities.

## THE CONCLUSION

Based on the results and discussion in this study was concluded as follows:

1. The level of work stress was experienced by majority of staffnurses in hospitals "Kanjuruhan" Kepanjen was sometimes stressful with 15 nurses (50%).
2. The working motivation of satff nurse in hospitals "Kanjuruhan" Kepanjen were experienced sufficient motivation (76.7%) with the amount of 23 respondents.
3. There was no relationship significant between the occupational stress with staff nurse working motivation in hospitals "Kanjuruhan" Kepanjen. This was indicated by  $r_s = -0.210$  and  $p\text{-value} = 0.266$  with a value of  $\alpha > 0.05$ .

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## ABSTRACT

### **The Association of Total Cholesterol Level on Hospital Length Of Stay Following ST- Elevation Of Acute Myocardial Infarction At Raden Mattaher Jambi General Hospital, Indonesia**

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**Background** : Acute myocardial infarction is the death of heart muscle tissue due to reduced demand and supply of oxygen that occurs suddenly. If there is a form of occlusive thrombus, then it may lead to a condition called ST Elevation Myocardial Infarction. One of its risk factors is dyslipidemia including an abnormal amount of total cholesterol in the blood. Some studies suggest that an increase in total cholesterol can aggravate the disease of acute myocardial infarction, this resulted in the patient's length of stay becomes longer.

**Aims** : The general objective of this study was to determine the levels of total cholesterol in association to Treatment duration for Acute Myocardial Infarction Patients with St-elevation.

**Methods** : It was an analytic retrospective study. The subject of this study were 116 among STEMI patient whom hospitalized for 2015. The statistical test, specifically The Chi-Square test was used to analyze the association of both variables. Meanwhile the single variable data were analyzed by the distribution frequency.

**Results** : There was a significant association of total cholesterol levels of patients with STEMI on length of hospital stay with p-value = 0.035 (p <0.05). The study showed that 72.4% of respondents with a longer length of stay (≥5 days) have high cholesterol levels (≥200mg / dl).

**Conclusion** : It could be concluded that it is necessary to early detection and observation in total cholesterol levels of patients with STEMI in reducing the hospital length of stay and costs.

**Keywords** : Total cholesterol, length of stay, acute myocardial infarction, St-elevation



## ABSTRAK

### HUBUNGAN KADAR KOLESTEROL TOTAL DENGAN LAMA RAWAT PASIEN INFARK MIOKARD AKUT DENGAN ST-ELEVASI DI RUMAH SAKIT UMUM DAERAH RADEN MATTAR JAMBI

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**Latar Belakang :** Infark miokard akut adalah kematian jaringan otot jantung akibat berkurangnya kebutuhan dan suplai oksigen yang terjadi secara mendadak. Apabila terbentuk *thrombus* yang bersifat oklusif akan terjadi STEMI. Salah satu faktor risikonya yaitu dislipidemia yang diantaranya adalah kolesterol total. Beberapa penelitian menyebutkan bahwa peningkatan kolesterol total dapat memperberat penyakit infark miokard akut, hal ini mengakibatkan lama rawat pasien menjadi lebih lama.

**Tujuan Penelitian :** Adapun tujuan dari penelitian ini untuk mengetahui Hubungan Kadar Kolesterol Total dengan Lama Rawat Pasien Infark Miokard Akut dengan St-elevasi.

**Metode :** Merupakan penelitian analitik dengan menggunakan pendekatan retrospektif. Subjek penelitian adalah pasien STEMI yang dirawat selama tahun 2015 berjumlah 116 orang, Data dianalisa secara bivariate menggunakan uji *chi-square*, dan univariate menggunakan distribusi frekuensi.

**Hasil penelitian :** Terdapat hubungan bermakna antara lama rawat dengan kadar kolesterol total pasien infark miokard akut dengan St-elevasi dengan nilai *p value* = 0,035 ( $p < 0,05$ ), yaitu terdapat 72.4% responden dengan lama rawat buruk ( $\geq 5$  hari) yang memiliki kadar kolesterol tinggi ( $\geq 200$ mg/dl),

**Kesimpulan :** Deteksi dan pemantauan kadar kolesterol sejak awal perawatan sangat diperlukan dalam perawatan pasien dengan STEMI guna menekan biaya dan waktu perawatan.

**Kata kunci :** Kolesterol Total, Lama Rawat, Infark Miokard Akut, St-Elevasi, STEMI

## INTRODUCTION

Heart disease is the number one cause of death in the world. In 2005 at least 17.5 million, equivalent to 30.0% of all deaths worldwide are caused by heart disease. Based on data from the World Health Organization (WHO), 60% of all causes of death of heart disease is coronary heart disease (CHD) that is more than 10 million people (Djohan, 2010).

The coronary heart disease if it is not handled properly can lead to acute myocardial infarction. The circumstances in which the death of heart muscle tissue due to the imbalance between demand and supply of oxygen that occurs suddenly. The most common cause is a blockage in coronary arteries, resulting in the interruption of blood flow that begins with myocardial hypoxia. If it is formed an occlusive thrombus, it will become STEMI (ST Elevation Myocardial Infarction), while the thrombus not formed the occlusive one, it will occur NSTEMI (Non-ST Elevation Myocardial Infarction) or UAP (Unstable Angina Pectoris).

Based on data that was obtained from the Registry GRACE (The Global Registry in Acute Coronary Events), it is known that the frequency of STEMI diagnosis was 30%, while the frequency of diagnosis of NSTEMI was 25% of the overall ACS (Acute Coronary Syndrome) (Soeharto, 2004).

Strong risk factor that set as a risk factor in acute myocardial infarction can be classified into risk factors that can be changed are: smoking, hypertension, obesity, diabetes mellitus, dyslipidemia and which can not be changed, namely: sex, age, family history. Dyslipidemia is a disorder of lipid metabolism which is characterized by an increase or decrease of lipid fraction in the blood plasma, various fractions of lipids including total cholesterol, LDL cholesterol, HDL cholesterol, and triglycerides. Various clinical and epidemiological studies mentioned dyslipidemia has an influence on disease incidence of acute myocardial infarction (Soeharto, 2004; Kennel, McGee & Castelli, 2004).

McQueen et al. also indicated that dyslipidemia is one of the risk factors for acute myocardial infarction (Koba & Hirano, 2011). Research MONICA III (Multinational Monitoring of Trends Determinants in Cardiovascular Diseases in 2000) it was recorded which 1856 respondents were seen from the proportion found hypercholesterolemia more than 250 mg / dl as much as 27.7%. The Coronary Primary Prevention Trial (CPPT) showed that the reduction in cholesterol levels also lowered mortality from acute myocardial infarction (WHO MONICA, 2000).

An overall total cholesterol levels of cholesterol circulating in the human body, and is an essential structural component of the plasma membrane and a lipid fraction in dyslipidemia. Total cholesterol is used as an indicator of atherosclerotic coronary artery disease, plaque buildup in the coronary arteries can cause STEMI. Research Larosa et al revealed that the specific increase in serum total cholesterol by 10% will aggravate the occurrence of acute myocardial infarction with st-elevation by 20% to 30%, the research conducted by J-LIT (Japan Lipid Intervention Trial) also found that a higher level total cholesterol would further aggravate the incidence of disease acute myocardial infarction with st-elevation, research conducted follow-up for 6 years at 47 294 people in Japan were able to show that total cholesterol as a predictor heightened the incidence of disease acute myocardial infarction with st-elevation, from some of the research that had been mentioned that the increase in total cholesterol could aggravate the disease acute myocardial infarction with st-elevation and this could affect the timing of patient care in hospitals and caused the increasing length of stay of patients (Larosa, Watson, Buchanon, et al, 2001; Batalla , Reguero, Hevia, et al., 2001).

Length of stay (LOS) is one of the elements or aspects of care and hospital services which will be assessed / measured. Length of stay is calculated from the number of calendar days when he was hospitalized until the exit of the treatment. If someone is hospitalized, then the expected course, the change will be degree of health. When the expected both by doctors and by patients that has been reached then of course there was no one who wants to linger in the hospital. Length of stay closely linked to the quality and efficiency of hospitals and total expenses by the patient's family in order to realize the satisfaction of patients and their families, then it can be used to improve the performance of hospitals and the impact on the cost of care that is issued by the patient. Based on research conducted by Kotowycz et al. Mentioning that the length of stay for patients with myocardial infarction (STEMI) was about 5-7 days (MOH, 2005; Katowycz, Scarves, Afzal, et al., 2009).

Based on data from Medical Records of RS. Raden Mattaher Jambi, in 2013 the number of patients with acute myocardial infarction with a percentage of 120 patients (0.71%) of the total patients treated, namely 16 992 patients, and in 2014 the number of patients with acute

myocardial infarction as many as 120 patients with percentages (0, 80%) of the total patients treated, namely 14 892 patients. Initial studies showed variations in cholesterol levels range from  $\geq 200$  patients, with an average length of  $\pm 7$  days.

Based on the exposure above, researcher was interested in knowing the relationship of Total Cholesterol Levels of patients infract acute myocardial with the length of stay in hospital Raden Mattaher because there was not any reseach or study on this subject previously yet, and at the Hospital of Raden Mattaher, the examining of total cholesterol level has not been made as the main reference during caring the patients of acute myocardial infarction, while this is also important for the process of patients's recovery.

## METHOD

The type of this research was an analytical observational study with retrospective approach. This research was conducted in June 2015 and it was done by observations toward the medical record of patients with acute myocardial infarction with St-elevation from January to December 2014 at the Hospital of Raden Mattaher Jambi with a population of 116 patients. Samples were taken by total sampling and met the inclusion criteria (1) Patients with Acute Myocardial Infarction St-elevation who hospitalized in January until the month of December 2014 at the Hospital of Raden Mattaher Jambi. (2). Exclusion criteria: Patients with Acute Myocardial Infarction St-elevation who were hospitalized at the Hospital of Raden Mattaher Jambi whom died less than 1 day, acute myocardial infarction patients with St-elevation of forced return, as well as referral patients who have been treated previously at another hospital. Acute Myocardial Infarction Patients with St-elevation who have total cholesterol laboratory test results during the first treatment.

The data used was secondary data based on the observation of data medical record of the patients. Data analysis was using univariant which using frequency distribution and bivariate with Chi Square test with significance level P value  $\leq 0.05$

## RESULTS AND DISCUSSION

Based on the results of the research, was obtained the characteristics of respondents of patients acute myocardial infarction with St-elevation that had been hospitalized at hospital Raden Mattaher Jambi in 2014 presented in Tabel.1.

**Table 1. Characteristic of Ages, Gender, and concomitant disease of Respondents in Patients' installation of Acute Myocardial Infarction with ST elevation at hospital Raden Mattaher Jambi in the year of 2015 (n = 116)**

Characteristic of Respondents	Frequency (f)	Percentage (%)
Age		
31 - 40 years of age	6	5,2
41 - 49 years of age	29	25,0
50 - 59 years of age	42	36,2
$\geq 60$ years of age	39	33,6
Sex		
Male	86	74,1
Female	30	25,9

Congenital disease		
No congenital disease	30	25,9
Hypertension	45	38,8
Diabetes melitus	41	35,3

From Tabel.1 known that most of respondents in the range of age 50-59 years (36.2%) and over 60 years (33.6%), male (74.1%). The most Congenital of the respondents were hypertension (38.8%) and diabetes mellitus (35.5%).

#### **Lenght of stay Patient's STEMI at the hospital**

Based on the result of the research, the length of stay myocardial infarction patients with St-elevation acute at the hospital presented in Table 2 below:

**Table 2: Frequency Distribution of length Treat of Acute Myocardial Infarction Patients with St-elevation at hospital Raden Mattaher Jambi in the year 2015 (N = 116)**

Length of Stay	Frequency	Percentage (%)
Good (<5 days)	58	50.0%
Bad (≥ 5days)	58	50.0%
<b>Total</b>	<b>116</b>	<b>100%</b>

Based on above data, it can be concluded that the length of STEMI patients was comparable between <5 days with ≥ 5 days. This condition can be influenced by several factors, namely matters relating to age, sex, congenital (hypertension and diabetes).

The relationship between age with length of stay in the hospital, where the older the age, the decrease of organ function will happen. The decrease of Organ function will affect metabolism process that will also decrease, so that caring at home will be more longer (Juliana, 2010).

Based on sex which had the most length of bad hospitalization (≥5 days), were male 43 respondents (72.9%), and female 16 respondents (27.1%). The Research conducted by Juliana et al (2010) also found that respondents who had a bad length of stay (> 5 days) were male that was 38 respondents (67.5%). This was in line with the research of Sarif (2009) said that men had a risk of developing hypertension and diabetes mellitus that affected the length of stay of patients, this similarity also occurred because the male was a risk factor for acute myocardial infarction. And also because of the number of male respondents were more than female (Juliana, Suryanti & Basuki., 2010 ; Sarif, 2009)

Based on congenital that had the most length of bad hospitalization (≥5 days) diabetes mellitus were 23 respondents (39.7%), hypertension were 21 respondents (36.2%), and who did not have congenital that 14 respondents (24, 1%). The Study which was done by Juliana et al (2010) also obtained that 65.3% of respondents had a length of stay (> 5 days) also had a history of diabetes mellitus. This was in line with the research of Jenny P. Simpson et al. which suggested that diabetes mellitus status was a significant factor affecting the length of stay of patients in hospital (Juliana, et al, 2010 ; Simpson, Jenny & Crane, 2005).

Basically, there are several mechanisms that underlie some of the unwanted effects of high blood glucose levels toward the cardiovascular system, especially in patients with acute myocardial infarction namely oxidative stress, coagulation and platelet activation system, inflammatory reaction and endothelial cell dysfunction. In addition, high blood glucose levels when caring in the hospital is also associated with an increasing risk of thrombosis. So that the possibility of increasing risk or clinical deterioration in patients also affected by high blood glucose levels, and it can not be ignored. This thought also affects the length of stay in hospital (Sarif, 2009 ; Simpson, *et al.*, 2005).

### Total Cholesterol Levels

Based on the results, total cholesterol levels of patients with acute myocardial infarction with ST-elevation presented in Tabel.3

**Tabel.3 Frequency Distribution of Total Cholesterol levels of Patients with Acute Myocardial Infarction St-elevation at hospital Raden Mattaher Jambi in year 2015 (n = 116)**

Total Cholesterol levels	Frequency	Percentage (%)
Normal (<200)	44	37.9%
High (≥200)	72	62.1%
<b>Total</b>	116	100%

Based on Tabel.3 known that the most of patients who had high cholesterol levels was (62%). This showed that patients with acute myocardial infarction with ST elevation had average value of high cholesterol levels, which indicated that the total cholesterol level was an indicator of atherosclerotic and coronary artery disease, plaque built up in the coronary arteries could cause myocardial Acute Infarction. The results were accordance with the research conducted by Septianggi et al (2013) that respondents who had normal cholesterol levels were 14 respondents (23.3%), while respondents who had high cholesterol levels were 46 respondents (76.7%) (Septianggi, Mulyati & Sulistya., 2013).

### The relationship between total cholesterol levels with length of hospitalization towards Infarction Patients with ST Elevation Acute Myocardial

**Table 4. Total Cholesterol Levels relationship with length of stay the Patients of Acute Myocardial Infarction with ST elevation at hospital Raden Mattaher Jambi year 2015 (n = 116)**

Total Cholesterol Levels	Length of hospitalization				Total	%	P Value Chi Square Test
	Good (< 5 days)		Poor (≥5 days)				
	f	%	f	%			
Normal	28	48,3	16	27,6	44	37,9	0,035
High	30	51,7	42	72,4	72	62,1	
Total	58	100,0	58	100,0	116	100,0	

Based on Table 4. Obtained that there were respondents with normal total cholesterol levels which could have a poor length of stay and there were also respondents with good total cholesterol levels. Statistical test results showed  $p\text{-value} = 0.035$  ( $p < 0.05$ ), which meant that there was a significant relationship between total cholesterol levels for patients of myocardial acute miokadwith long-day hospitalized. Meaning that the higher total cholesterol levels of patients with acute myocardial infarction with St-elevation then the longer the day for patients, and vice versa.

A total cholesterol level is overall cholesterol circulating in the human body, and is an essential structural component of the plasma membrane and is one of lipid fraction in dyslipidemia. Total cholesterol is used as an indicator of coronary artery disease and atherosclerotic, a buildup of plaque in the coronary arteries can lead to STEMI, because STEMI usually occurs when coronary blood flows decreased suddenly after the occlusive thrombus in atherosclerotic plaque, and if thrombus coronary arteries occurs rapidly at the site of injury vascular. Many studies also indicate that the relationship between total blood cholesterol levels with acute myocardial infarction with st-elevation is very strong and consistent. Genetic research, experimental, epidemiological, and clinical also show clearly that the increase in total cholesterol levels have an important role in the pathogenesis of acute myocardial infarction with st-elevation (Benny, 2013 ; Anwar, 2004)

The result of this study proved that the increasing in total cholesterol could affect the length of patients of acute myocardial infarction with St-elevation, which is in line with research of Larosa et al revealed that the specific increased in serum total cholesterol by 10% would aggravate the occurrence of acute myocardial infarction with st-elevation by 20% to 30%, research conducted by J-LIT (Japan Lipid Intervention Trial) also found that a higher total cholesterol level will further aggravate the incidence of disease acute myocardial infarction with st-elevation, research conducted follow-up for 6 years on 47 294 people in Japan are able to show that total cholesterol as a predictor aggravatethe incidence of acute myocardial infarction disease by st-elevation, of the few studies that have been mentioned increasing the total cholesterol can aggravate the disease acute myocardial infarction with st-elevation and this can affect the timing of patient care in hospitals and causes an increase in length of stay of the patients (Larosa, *et al.*, 2001 ; Batalla, *et al.*, 2001)

## CONCLUSION

Based on the research conducted, it was concluded that:

1. Respondents who had normal total cholesterol level was at 37.9%, respondents who had high Cholesterol levels amounted to 62.1%.
2. Respondents who possessed good long-day hospitalization amounted to 50.0%, respondents who had a poor length of hospitalization amounted to 50.0%.
3. There was a significant relationship between total cholesterol levels for infarction patients with ST elevation acute miokad Installation General Hospital in Jambi Province with a  $p\text{-value} = 0.035$ .

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## Women's Involvement in Decision Making on Episiotomy Procedure

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### Abstract

**Background:** Involving patient in decision making for their care can enhance satisfaction and promote health outcomes in particular in the nursing fields. As The World Health Organization Principles of Perinatal Care has recommended that care should involve women in decision making. This principle strongly endorses for improving effective perinatal care. Decision making regard to treatment options is a concept that has increased widespread appeals to healthcare providers and users in recent year. Evidently, patient involvement in decision making has not always been implemented in clinical practice in particular during intrapartum period. **Objective:** The aim of this study was to investigate the involvement of women in decision making on episiotomy procedure during labor. **Methods:** A descriptive quantitative approach was conducted using self-administered survey questionnaires in two government hospitals, Bangkok, Thailand. Participating hospitals were identified by convenience and remained anonymous. The Participant, eligible women included those who have reached 37 to 42 weeks of gestation, experienced vaginal birth, have a live baby, and admitted in the postpartum units. An appropriate sample size was assigned based on a 95 percent confidence level. A sample size was drawn from two hospitals based on a binomial probability distribution. There were 400 postpartum women participated in this study. Anonymous patient's data were analyzed using frequencies and percentages. **Results:** The results revealed that 80% of all women experienced episiotomy. The finding demonstrated that decision making on having this procedure made by health care providers and relatives 73.8%, 3.2%, respectively. 23% of them had a chance to make a decision on having episiotomy. There were 23.8 % of women received information about risks and benefits of episiotomy procedure and 76.2% did not get information. **Conclusion:** The findings of this study demonstrated that women have less opportunity to make a decision on having episiotomy during labor and received less information about this procedure. Therefore, health care providers should be clearly discussed about risks and benefits of episiotomy before performing the procedure. The factors influencing patient involvement in decision making should be investigated to promote good experiences of women during delivery and increase satisfaction toward their care.

**Keywords:** Patient involvement, decision making, intrapartum care, episiotomy



## Introduction

Patient involvement in decision making regarding the treatment options is a concept that has increased widespread in recent years. Previous research studies found that giving patient an opportunity to participate in decision making regarding treatment choices could increase the satisfaction toward their care (Chang, Park, Fritschi, & Kim, 2015; Dhital, Dhital, & Aro, 2015; Draper & Ives, 2013) as well as increase the quality of care (Nkuoh, Meyer, & Nshom, 2013). However, patient involvement in decision making has not always been implemented in clinical practice (Jacobson, Zlatnik, Kennedy, & Lyndon, 2013; Oweis, 2009). In maternity field, many research studies demonstrated that most of health care providers have been providing unnecessary birth interventions in low risk pregnant women without their involvement in decision making (Coulm et al., 2012; Stevens & Miller, 2012). Finally, the women have to accept all negative or positive health outcomes following the birth interventions; episiotomy, for instant (Sutcliffe et al., 2012).

Episiotomy is the birth interventions that commonly performed to enlarge the perineum during delivery which, may be justified for specific maternal or fetal indications such as poor maternal effort, forceps extraction or fetal distress, however, the routine use of this procedure is being questioned (Altaweli, McCourt, & Baron, 2014; Schantz et al., 2015). The World Health Organization (WHO) has recommendation to restrict the use of episiotomy procedure in low risk pregnancy, nevertheless, this procedure has remained constant in all countries around the world (Chalmers, Kaczorowski, O'Brien, & Royle, 2012; Graham, Carroli, Davies, & Medves, 2005) in particular developing countries (Altaweli et al., 2014; Chalmers et al., 2012; Schantz et al., 2015).

The reason for performing episiotomy might be influenced by individual practice patterns (Schantz et al., 2015) or attitudes of the health providers (Adams et al., 2011; Fox et al., 2013; Healy, Humphreys, & Kennedy, 2015). On the other hand, it is possible that women's lack of involvement in decision making about the treatment choices (Rance et al., 2013; Stevens & Miller, 2012). Oweis (2009) conducted research using a descriptive cross-sectional study to explore the women's perception regarding childbirth experience in term of induction and episiotomy procedures. The results revealed that most of women were not satisfied with care that they received during labour. They reported that they had less involvement in decision making about their care (Oweis, 2009).

Many research studies found that sharing information about risks and benefits of birth intervention by healthcare providers and giving patients to involve in decision making about treatment choices could increase satisfaction and good health outcomes (Rudman, El-Khoury, & Waldenström, 2007; Tingstig, Gottvall, Grunewald, & Waldenström, 2012). In Thailand, there is limited research study regarding the women's involvement in decision making on their care during intrapartum period. Therefore, this research was aim to investigate the involvement of women in decision making on episiotomy procedure during labor.

## Methodology

A descriptive quantitative approach was conducted using self-administered survey questionnaires with postpartum women in two government hospitals, Bangkok, Thailand. Eligible women included those who have reached 37 to 42 weeks of gestation, experienced vaginal birth, have a live baby, and admitted in the postpartum units. After delivered for two days, all postpartum women who have no complications after delivery would ask to participate in the study because at this time they would be feeling well enough to answer the

questionnaire. An appropriate sample size was assigned based on a 95 percent confidence level. A sample size was drawn from two hospitals based on a binomial probability distribution. There were 400 postpartum women participated in this study. Anonymous patient's data were analyzed using frequencies and percentages.

### **Ethical Considerations**

Ethics approvals were obtained from the hospital settings prior to conduct the research. Participant information sheet and informed consent were distributed to the participants to read and signed before participating in research study. It was clearly stated that participation in the study was voluntary; they could refuse to participate and free to withdraw from the research at any time. Their refusal or withdrawal to participate would not affect any treatment in any way. Participants were informed their responses would be kept confidential; no individual to be identified in the study, and only grouped data would be analyzed and presented.

### **Results**

#### *Demographic data*

Table 1 presents demographic characteristics of women who participated in the study. Most participants were 20 to 29 years old. There were two hundred and eight women (52%) completed high school education, 95 women (23.8%) had primary school level, 58 (14.5%) and 39 (9.8%) of all graduated diploma and higher than bachelor degree, respectively. The majority of the women in the study were married (94.5%), only 5% versus 0.5% were separated, widowed or divorced, respectively. Most of the women were attended general antenatal care (83%), and 6% were did not receiving antenatal care during their pregnancy period. The study found that there were three hundred and twenty women (80%) experienced episiotomy.

**Table 1. Summary Demographic characteristics of women (n=400)**

Characteristic	Number of Patients	Sample Distribution (%)
Age		
≤ 19	66	16.5
20-24	116	29.0
25-29	113	28.3
30-34	74	18.5
≥ 35	31	7.8
Education Level		
Primary school	95	23.8
High school	208	52.0
Diploma degree	58	14.5
Bachelor degree and higher	39	9.8
Occupation		
Housewife	158	39.5
Employed	239	59.8
Government official	3	0.8
	142	

Marital Status		
Married	378	94.5
Separated	20	5.0
Widowed / Divorced	2	0.5
Antenatal care service		
General care	332	83.0
Private care	44	11.0
No Antenatal care	24	6.0
Birth experience on episiotomy		
Episiotomy	320	80.0
No Episiotomy	80	20.0

#### *Involvement in decision making on episiotomy*

Table 2 demonstrates the person who involved in decision making on episiotomy procedure. The study found that two hundred ninety five women (73.8%) reported the decision making on episiotomy procedure was made by health care providers. There were ninety two women (23%) had a chance to make decision on having episiotomy. Only thirteen women (3.2%) reported the decision making was made by husband and relatives.

**Table 2. Involvement in decision making on episiotomy**

Decision maker	Number of Patients	Sample Distribution (%)
Self	92	23
Health providers	295	73.8
Husband and relatives	13	3.2

#### *Information on the risks and benefits of episiotomy*

**Table 3. Presents the information sharing between health care providers and the women on the topic of risks and benefit of episiotomy procedure. The finding pointed out that three hundred and five women (76.2%) did not receive information.**

Table 3 Information sharing on the risks and benefits of episiotomy

Information	Number of Patients	Sample Distribution (%)
No information	305	76.2
Received information	95	23.8

## Discussion

The findings of this study demonstrated that the rate of episiotomy still high in clinical practice in the government hospitals in Thailand. Similar to the studied of Trinh and team (2013) found that the rate of episiotomy in Vietnamese women was 29.9% compared with 15.1% in Australia (Trinh, Khambalia, Ampt, Morris, & Roberts, 2013). It clearly seen that decision making from this study has been done by health care providers as same as others health care settings (Healy, Humphreys, & Kennedy, 2015; Rudman, El-Khoury, & Waldenström, 2007). Although previous study found that the effective of decision making during intrapartum period involved both health care providers and patients (Nolan, 2015), however, some patients lacked of a chance to make decision to receive or refuse the intervention during intrapartum period (Bayes, White, & Osbourne, 2011). Therefore, providing an opportunity for the patients to share their needs would be increased satisfaction.

Health care providers are the key person to encourage the patients to share about health problems and give them information regarding the risks and benefits of the treatment options. In doing this, the patients can gain more understanding about treatment choices and able to involve in decision making toward their care (Stevens & Miller, 2012). Previous research studies have focused that effective communication between health care providers and patients could increase better health outcomes as well as satisfaction (Grassley & Sauls, 2012; Sutcliffe et al., 2012). During intrapartum period, the information regarding risks and benefits of birth interventions need to be clearly discussed with the women because it can help them to gain more understanding and having a chance to involve in decision making about their care (Stevens & Miller, 2012). However, in the real practice, most of the women lacked of an opportunity to know about the advantages and disadvantages of birth intervention that they received (Rudman et al., 2007). Surprisingly, some of health care providers have been performing unnecessary birth interventions because they afraid of involvement in adverse patient's health outcomes (Healy et al., 2015).

Therefore, patient involvement in decision making about treatment options in particular episiotomy procedure should be improved in clinical practice. Health care providers should provide adequate information for patients regard to the risks and benefits of each intervention and encourage them to involve in decision making toward their care. On the other hand, patients should speak out and sharing their health problems with health care providers. In doing this, it can help to increase satisfaction both health care providers and patients.

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## DISASTER MANAGEMENT NEED ASSESMENT, DISASTER POLICY, FRAMEWORK FOR HEALTH SECTOR

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### ABSTRACT

**Background:** Indonesia has a high level of disaster risk because of population density. This condition makes us very often, almost every week, see the news in the media about natural disasters and the impact caused by it. With an area that stretches wide and constitutes the border between the two oceans, no doubt Indonesia became often visited by various kinds of disasters, ranging from earthquakes, volcanic eruptions, wind elnino, typhoons, landslides, forest fires to tsunamis. So the government by making a draft response to minimize the disaster victims in which there are health professionals who can help the victims of natural disasters.

**Purpose:** The purpose of this literature review is to cope with natural disasters that frequently occur in Indonesia with more health workers expect portray koraban can minimize disaster.

**Method:** This study is a review of scientific literature taken from various sources for the disaster in Indonesia that has been researched and reviewed by various cross-sectoral, not only health professionals but across a range of disciplines has been suggested that the disaster in Indonesia should minimize victims .. the literature review conducted by finding and analyzing all eligible studies of the electronic data base as Science Direct, Nature and Proquest, Sage is taken subscribed by PNRI. We examine that Indonesia is a country where all disasters can happen we can not prevent disasters but that can be done is how health workers can minimize their losses from a disaster.

**Results:** One of the success of the management of natural disasters is to optimize the health personnel to minimize casualties in times of disaster and post-disaster, during the pre-disaster government made a rule that can cope with natural disasters that occurred in Indonesia, natural disasters simply can not be avoided and can not be prevented but with cross-sectoral work together and portray the health workers in the expected damage and losses could be less.

**Conclusion:** One of the conditions of disaster emergency treatment success is leadership. The absence or weakness of leadership is confusion, destruction, loss, and catastrophe. Leadership is certainly appropriate authority of the owner of the elements (the government). The success of all elements of society in the disaster scene depends where leaders. Leadership in disaster emergency management must be able to quickly, accurately, and take bold decisions, be assertive run the system instruction rather than discussion

**Keywords:** Dissaster management, Dissaster policy, Health sector

### Introduction

Indonesia is a country prone to natural disasters. History records that Indonesia was once the scene of two of the world's largest volcanic eruptions. 1815 Mount Tambora on the island of Sumbawa, West Nusa Tenggara, erupted and issued approximately 1.7 million tons of ash and

volcanic material. Most of these volcanic materials form a layer in the atmosphere that reflect sunlight back into the atmosphere. Because of sunlight that enters the atmosphere is reduced a lot, the earth did not receive enough heat and cold wave occurs. Cold wave to make 1816 be the "year that do not have a summer" and lead to crop failure in many places, following widespread famine. In the same century, Krakatoa erupted in 1883. The eruption of Krakatau is estimated to have a force equivalent to 200 megatons of TNT, roughly 13,000 times the explosive force of the atomic bomb that destroyed Hiroshima in World War II. The most deadly disaster in the beginning of XXI century, also originated from Indonesia. On December 26, 2004, a major earthquake occurred in the ocean west of Sumatra near Simeulue. This earthquake triggered a tsunami that killed more than 225,000 people in eleven countries and caused widespread devastation in many coastal areas in the countries affected. Throughout the twentieth century, only a few events which cause massive casualties like that. In Indonesia earthquake and tsunami left an estimated 165 708 deaths and the value of the damage reached more than Rp 48 trillion. In addition to large-scale disasters ever recorded in the history, Indonesia is also not free from major disasters that occur almost every year that cause harm is not small [7] .

If we talk about natural disasters, however, half of the tragedy of natural disaster in the world occur in Asia, particularly in Asia Pacific. Japan, Indonesia and the Philippines topped the list of most vulnerable countries affected by natural disasters. Indonesia is an archipelago located in the Pacific ring of fire. With an area of vast stretches and becomes a barrier between two oceans, Indonesia no doubt be frequently visited by various kinds of disasters, ranging from earthquakes, volcanic eruptions, wind elnino, typhoons, landslides, forest fires to tsunamis. Indonesia has a high level of disaster risk because of population density. This condition makes us very often, almost every week, see the news in the media about natural disasters and the impact caused by it[4].

Understanding disaster according to the International Strategyfor Disaster Reduction (2005) is aserious disruption of the activities in the communitywhich caused extensive losses in late humans in terms of material, economic or and beyond the ability of communitiesconcerned to cope with usingtheir own resources.

## **Method**

Methods This study is a review of the scientific literature taken from various sources for the disaster in Indonesia that has been researched and reviewed by various cross-sectoral, not only health professionals but across a range of disciplines has been suggested that the disaster in Indonesia should minimize the victim. the literature review conducted by finding and analyzing all eligible studies of the electronic data base as Science Direct, Nature and Proquest, Sage is taken subscribed by PNRI. We examine that Indonesia is a country where all disasters can happen we can not prevent disasters but that can be done is how health workers can minimize their losses from a disaster.

## **Discussions**

Understanding disaster according to the International Strategy for Disaster Reduction (2005) is a serious disruption of the activities in the community that caused extensive loss on early



human material terms, the economy or the environment and beyond the capabilities of the peoples concerned to cope with their own power.

Frequent natural disasters in Indonesia in between such as earthquakes, tsunamis, volcanic eruptions, landslides, floods, tornados, etc. Approximately 13% of the world's volcanoes are in the Indonesian archipelago potential natural disasters with intensity and strength vary. Tsunami Disaster in Aceh, December 26, 2004. The earthquake and tsunami in Aceh is one of the devastating natural disaster in Indonesia even in the world for the last 40 years. According to the UN, as many as 229 826 victims of the earthquake and tsunami missing and another 186 983 have died. The Indian Ocean Tsunami become the worst earthquake and tsunami last 10 years. An earthquake measuring magnitude 9.3 (according to the Pacific Tsunami Warning Center) has been devastating lantahkan northern Aceh, North Sumatra, West Coast of Peninsular Malaysia, Thailand, the East Coast of India, Sri Lanka, even to the East Coast of Africa. This is the biggest disaster in the history of death. Indonesia, Sri Lanka, India, and Thailand is a country with the largest number of deaths. In Indonesia as many as 126 thousand people died in the disaster, and more than 30 thousand others missing. The areas most severely affected by the earthquake and tsunami is Meulaboh and Banda Aceh. Nearly 50% of the buildings destroyed in the region hit by the earthquake followed by a tsunami wave that reaches a height of 9 meters [16].

Disaster indeed can not avoid. Their panic and confusion of society can lead to chaos for a moment. Hope we together to strengthen the organization in disaster relief efforts, the system of coordination and cooperation could be improved. Disaster or catastrophe divided into several phases: the pre-disaster stage, stage an attack or when a disaster occurs (impact), emergency phase and the reconstruction phase.

#### a. Stages Pre-Disaster

This stage is also known as pre-disaster phase, the duration of time from now before disaster to stage attacks or impact. This stage is seen by experts as a strategic step for the pre-disaster stage is responsive to the community needs to be trained to be met in the future disasters. Exercises that diberikan kepada officers and the community will greatly affect the magnitude of the number of victims when disasters strike (impact), introduced an early warning to the public at the stage of pre-disaster. Considering that, for the first time to help when disaster strikes is the ordinary people or ordinary special (first responder), the special lay public needs to be trained by the government kabupaten city. Exercise needs to be given to the special general public can be: The ability to ask for help, ABILITY help themselves, determine the exact direction of evacuation, giving aid and transportation for

The role of health workers in the phase of Pre-Disasteris:

- a) The health worker training and education related to disaster threat countermeasures for each phase.
- b) Health workers involved in a variety of government agencies, environmental organizations, the Red Cross, national and civil society institutions in providing counseling and disaster preparedness simulation to the public
- c) Health workers involved in health promotion programs to improve community preparedness in the face of disasters that include the following:

- 1) The business of self-help when there is a disaster
- 2) First-aid training in the family such as helping other family members
- 3) The health worker can give you some addresses and telephone numbers of emergency such as fire departments, hospitals and ambulance

b. Stages Disaster (Impact)

At this stage of an attack or disaster (Impact phase), the time can be several seconds to a few weeks or even months. Stage attack begins when a disaster strikes until the attack stops. A short onset time, for example: an attack by a tornado, an earthquake in Jogjakarta attack or bomb explosion, the time is only a few seconds but the damage can be very powerful. Waktuserangan long, for example: when the tsunami hit Aceh occur periodically and repeatedly, the Lapindo mudflow attacks until more than a year and even until now have not stopped which resulted in a huge amount of losses. The role of health workers in phase Impact is

- a. act quickly
- b. Do not promise, health workers should not promise anything for sure with the intention of giving great hopes on survivors
- c. Concentrate fully on what yang dilakukan
- d. Coordination and creating leadership for each group tackling disasters

c. Stages of Emergency

Stage emergency disaster started towards the end of the first attack, when the attack occurred periodically disasters such as in Aceh and the Lapindo mudflow to place its reconstruction. Emergency phase can occur several weeks to several months. At this stage of the emergency, the victims need help-an of medical specialists, health professionals emergency, special laypersons skilled and certified need medical aid, bandage splint and evacuation equipment, means of transportation that is efficient and effective, means of communication, food, clothing and more specifically children clothing, women's clothing, especially underwear, bras, sanitary napkins sometimes even almost non-existent. Required mini field hospital, soup kitchen and manajemen perkemahan good so that the freshness of the air and sanitation with the environment's well-maintained.

The role of health workers when the emergency phase is :

- a. Facilitate medical consultation visit schedule and daily health checks
- b. Fixed employment plan daily health care priorities
- c. Plan and facilitate the transfer of patients requiring medical treatment in hospital
- d. Evaluating the health needs daily
- e. Examine and regulate the supply of drugs, food, baby food, medical equipment
- f. Assist the handling and placement of patients with infectious diseases or mental condition unstable to endanger themselves and their surroundings.
- g. Identify psychological reactions that appear on the victim (anxiety, depression shown by the frequent crying and isolate themselves) as well as psychosomatic reactions (loss of appetite, insomnia, fatigue, nausea, vomiting, and muscle weakness)

- h. Helping psychotherapy victims, especially children, can be done by modifying the environment for example with play therapy.
- i. Facilitate counseling and other psychiatric therapy by psychologists and psychiatrists
- j. Consult local joint supervision of the medical examination and the needs of the people who did not evacuate.

d. Stage Reconstruction

At this stage began to be built hav-gal, public facilities such as schools, places of worship, roads, markets or community meeting place. In this reconstruction stage which is built not only physical needs but it is more important that we need to rebuild is culture. We need to do the reconstruction of cultural re-orientation of values and norms of a better life more civilized. Deng's conduct cultural reconstruction to disaster victims, we hope that their life is better when compared to before the disaster. This situation can be seharus its momentum by the Indonesian government to rebuild a better, more civilized, more polite, more intelligent life, more me-have competitiveness in the international world. This is what we seem to be long, because we often read and hear is the misuse of aid to victims of disasters and mutual wait between local government and central government.

The role of health workers in the reconstruction phase are:

- a. kesehatan power in patients post-traumatic stress disorder (PTSD) T
- b. With the community health team and other professionals associated with the element of cross-sector cooperation deal with public health issues and accelerate the post-emergency recovery phase (Recovery) to be healthy and safe

## Disaster management

Disaster management is the activities

are made to control the disaster and emergencies, as well as providing a framework to help people in a state of high risk in order to avoid or recover from the impact of disasters. The scale of the disaster and the status according to Law number 24 of 2007, determined by the president. Scaling and disaster status is determined based on the criteria of the number of victims and material brought by the disaster, which damaged infrastructure, the area affected, public facilities are not functioning, influence on the socio-economic and resource capacity

Local to overcome. The purpose of disaster management:

- 1. Reduce or avoid kerugiansecara physical, economic and soul that experienced by individuals, the country's society.
  - 2. Reduce the suffering of disaster victims
  - 3. ccelerate recovery
  - 4. Provide protection to refugees or people who were displaced when their lives are threatened In the disaster management cycle are several stages in an attempt to deal with a disaster that
1. Emergency; namely the effort tosave lives and protect propertyas well as dealing damage and disruptionAnother impact of a disaster. Whilestate of emergency which is a condition causedby extraordinary events that are inbeyond the ability of a society to copethe resources or capacitythere so can not meetbasic necessities and goingdrastic reduction in the quality of life,health or threat to thesecurity of many people in a community or location.

2. Recovery (recovery) is a process traversed so that basic needs are met. Recovery process consists of:
  - a) Rehabilitation: the necessary repairs directly temporary or short-term.
  - b) Reconstruction: permanent improvement
3. Prevention (prevention); efforts to eliminate or reduce the possibility of a threat. But be aware that prevention can not be 100% effective against most disasters.
4. Mitigation (mitigation); namely the efforts made to reduce the harm of a threat. For example: the realignment of the village land so that flooding does not cause large losses.
5. Preparedness (preparedness); namely the preparation of a plan to act when it happens (likely to occur) disaster. Planning consists of estimates of the needs in emergencies and identification of existing resources to meet those needs. This planning can reduce the harm of a threat.

### **Competence Health Personnel in Disaster Conditions**

The competence of health workers in disaster management is the ability directing and mobilizing (external multisectoral response), by accessing the resource requirements across health authority quickly, accurately and integrated disaster conditions [6].

### **Conclusion**

One of the requirements of disaster emergency treatment success is leadership. The absence or weakness of leadership is confusion, destruction, loss, and catastrophe. Leadership is certainly appropriate authority of the owner of the elements (the government). The success of all elements of society in the disaster scene depends where leaders. Leadership in disaster emergency management must be able to quickly, accurately, and take bold decisions, be assertive run the system instruction rather than discussion

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## **Literature Review**

### **Full Paper Oral Presentation**

#### **Peer-Support Groups Program Applications On Schizophrenia Patients In The Community**

**Putri Ragil Kusumawardani**

##### **Background**

Nearly half of patients with a diagnosis of schizophrenia treated himself by his family members. Certainly has the burden of family members in care, social, physical, emotional and even economic. Besides the family has a heavy burden in caring for patients with schizophrenia, the family is a major factor in improving the health of the patient. Improved health status can be done through psychoeducation given nurses to family members. So, the family is the first environment that relate directly to the patient, who know and understand the characteristics of the patients themselves. However, sometimes families are also less than optimal in treating patients with schizophrenia. These deficiencies are usually shaped like indifference towards the patient's family members, does not acknowledge as a family, negligence in giving medication, even to act confinement. So, it can make Schizophrenia patients continue to run constant and did not obtain an optimal healing (Chien and Thompson, 2013 & Gray, 2013).

Health status of the patient is not only influenced by family environmental factors, but also influenced by the nursing process. The nursing process performed in the order of the community relate with the local stakeholders. Neither the cadres, the public health nurse, the clinic and the students practice. Then, the role of all participants is aimed to controlling the symptoms of the patient, the response experienced by the family in caring for patients and maintaining the optimal condition of the patient and family. However, the fact that we met on the ground that their interventions both students and nurses are constant. Doing an implementation strategy (SP) repeatedly, then changed new college students and conduct SP again like before. In this course conducted nursing process is not comprehensive. This will result in the responsible nurse in each region and could lead to stress in the workplace. To prevent the stress of the nurses gathered to discuss the existing problems. Of the assembly resulted in that group by exchanging ideas and receive suggestions can reduce the sense of stress (Moll et al., 2015). If nurses can perform association or "peer-support groups", why not apply to patients with schizophrenia who are in the community.

Research conducted by Casteleins et al., (2008) and Gray (2013), states that there are positive effects of the establishment of Peer-Support Groups in patients with schizophrenia, evidenced by the increase in family support, increased independence of patients and the quality of life of patients, as well as decrease the burden of families because of the support of the families of patients Schizophrenia. So, from the above explanation, the purpose of this paper is how the application and effectiveness of Peer-Support Groups program for schizophrenia patients and their families in the community .

##### **Literature Review**

More than 60% of people identified as having a risk of psychotic symptoms such as depression and anxiety, but it is not sustainable into psychosis. One approach that can be

done to prevent this from happening is by doing peer-support groups (Yang et al., 2014). Peer-Support Groups is a form of individuals aid who aimed to focus on mental patients as a health service that routinely given in term of social support, emotional exchange experiences in dealing with similar problems (Chien & Thompson, 2013, and Simpson et al., 2014). In a Peer-Support Groups there is a leader in which he has more experience related to treatment in patients with schizophrenia. His experience can through by training of local nurses that aims to help colleagues in the same boat in treating patients with schizophrenia. The content of the training provided nurses based on the needs of the patient itself. So, in Peer-Support Groups has five levels of sessions that must be passed by the group to be able to cope with the problem and the patient care process, where each session is conducted every 2 weeks (Chien & Thompson, 2013).

The first is the orientation session, where the session is a leader directing the peer to get acquainted with one another. Build mutual trust, accept this program as scheduled needs. After BHSP process is established, then we discuss the future goals to be achieved by negotiations, discussions related to the role and responsibilities of mental health, the effects felt by the family in caring for the patient. The second session is sharing openly about psychological needs of patients with schizophrenia, explore cultural influences in meeting those needs. In this session, families exchange information and experience emotionally what he feels for treating a patient to make a decision together with the group. The third session is how to manage the psychological needs of the patient and family. Discussions among members of related groups what needs should be met by the patient and the family, such as information about medication, management strategies such as the recurrence of symptoms at home and health care costs that could be covered. How to communicate with patients, both within the family and in society. The fourth session is to adopt new ways of caring for patients with schizophrenia. This new method is given by group members who have succeeded in doing coping skills to be able to overcome his problems. Instructors provide examples or simulations related to the treatment regimen during the session progresses. The fifth session is a conclusion or termination of the group members. At this session is evaluated from the whole session, if the patient's condition in accordance with the initial objectives that have been agreed. Discuss continuation of this group, would bring benefits to the community. The nurse explains linked from the end of this study and continued follow-up to family members and the patient in the next months. Of the five sessions, according to Chien & Thompson (2013), there is a significant outcome on family support in caring for the patient, the patient's mental functioning was increased when viewed from the pre-post test scores. Readmission to mental hospital and positive symptoms of schizophrenia also decreased. So that the perceived impact of peer-support groups is indeed perceived by family members and patients.

Peer-support groups have several categories of roles, namely as an educator, advocate, health promotion, patient empowerment. As a mentor in a peer-support groups can embrace the role of nurses who have knowledge of the theory and clinic. Both patients and family members and staff believe that the peer-support groups have a positive impact on quality of life and treatment (Jacobson et al., 2012). There are five characteristics of how peer-support groups perform their duties in order to be effective, that is based on the experience to understand the patient's schizophrenia, the approach to the patient with respect and calm, our presence as a member of the group whose focus and attention so as to demonstrate it applicable, as a role model to the patient and family members and collaboration between group members and staff (Jacobson et al. & Pfeiffer et al., 2012).

## Discussion

Many cases of mental health which impact on the work of nurses in the workplace, making the nurses association initiatives among colleagues. Psychologically, the effects of which are not the job responsibility completed will cause anxiety or stress on caregivers and pose a slow work efforts. This initiation makes an association between colleagues which contains the outpouring of thoughts and feelings they experienced. Most nurses describe their work problems. Some senior nurses provide solutions and guidance. So they open thinking and getting the positive results of the assembly (Moll et al., 2015). From the explanation, if it is associated with mental health problems continue to grow in the community is very important. Given the economic factors are the main factors that cause community prefer to care their family member at home. Nurses at least be able to apply the village association as intervention programs, because the results of the assembly was produced a solution and suggestions from experience. Peer-support groups program when viewed from the components and characteristics are very easy if done guidance or mentorship prior to the cadres and the patient's family.

The family is the environment in which the patient interacts directly and influential in terms of treatment after out from mental hospital. Research conducted by Sharif et al., (2012) in Iran, the role of family psychoeducation can reduce the symptoms of relapse and family burden in caring for patients with schizophrenia compared with families who are not given psychoeducation therapy. From this description, peer-support groups holds important role of the family members. Family environment is the first environment that is familiar with the characteristics of the patient so that it will be easier to influence cognitive, affective and motoric patients (Wilhelm et al., 2005). In this peer-support groups, a peer leader have received training in advance of nurses and assessed them as a senior in caring for patients. So, it will arises a sense of trust among members of the group and will enhance the role and function as a family of schizophrenic patients.

If we view from the practice in the field, there are areas where the role of student practice. They have the competence to conduct therapy or TAK-group activities. Indeed, this case highlights the same thing, namely in the context of the group. Only the group of patients who became the object of the exercise program, so that the assessment of the patient as the unit will appear. Unlike the method of Peer-support groups. The program involves all the local stakeholders, where there is a nurse, cadres, patients, their families and communities. The difference is what makes something different. More factors that will contribute to the nursing process, considering we live in a social environment are interdependent and interconnected. Expected from peer-support activities of these groups is a good cooperation between members of the group and a positive outcome. According to the article Gray (2013), recognition of schizophrenic patients after follow Peer-support groups that sense of friendship among us as patients and families. Having a relationship, closer to each other and felt like having a normal social life that we live together, not alone. From these explanations, the benefits of peer-support groups are in terms of in terms of support is very seem significant, the family burden can be reduced with the support of other members of the group, emotionally more controlled and in terms of cost is very effective at all because it can decrease the incidence of treatment at mental hospital. This is what makes people enthusiastic in optimizing mental patient health through relevant interventions based community by deploying a social network (Casteleins, 2008).

From the above explanation, the easiest thing to do and is relevant is the implementation of peer-support groups. As seen from the effectiveness of the support is very helpful in treating schizophrenia patients. In terms of time is also very flexible whereby the



implementation of training sessions done every two weeks for nine months, so as to avoid boredom and constant. In terms of cost also may suppress spending as in hospitals. Because of the cash or funds from local governments that are specific to the poor and can not afford health care in terms of reach.

## Conclusion

Based on the above it can be concluded that the implementation of the program of peer-support groups is very applicable done, because it does not require time, effort and cost extra. The execution time consisted of five sessions, each session once every two weeks for nine months and conducted follow-up after one week of the intervention, 18 months and 36 months. However, the role of family members is very important and influential in this regard. Role as an educator, advocate and communicants so must be trained because schizophrenic patients must be able to optimize their social function in society. Given the peer-support groups is a community-based interventions that mobilize individuals, families and communities can become productive network. The expected outcome is patients and their family able to become a single entity that can be an group leader in terms of optimal mental health.

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# ACCELERATING WOUND HEALING PROCESS BY USING MOIST DRESSING

## *Oral presentation preparation*

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### Abstract

**Background** :Humidity (moist) is an important component for maintaining the cells to stay alive and functioning. Humidity is also required to optimize the process of migration of epithelial cells starting from the ends of the wound until perfect closure of the wound. Therefore, wound care by using moist dressing is a therapy for handling injuries, both acute and chronic wounds. Unfortunately, it is not easily applicable in the clinical studies even though previous research has proved that moist dressing is the most appropriate method. **Aims**:To systematically review current studies and literatures on moist bandagefor accelerating the process of wound healing. **Methods**:By using a systematic review of scientific journals published in PubMed database in 2003-2014. Study selection used English-language randomized trials with reporting ulcer healing or time to complete healing in adults with moist dressing. The keywords use for searching the articles are acute or chronic wound, moist bandage, wound healing and then find 4 articles retrieved**Conclusion**: Moist bandagescan accelerate the process of wound healing. The nurse should consider using moist dressing than standard care to improve healing process.

**Keywords**: acute or chronic wound, moist bandage, wound healing

### Introduction

Wound is a breakdown of the protective function of skin with loss of continuity of epithelium, with or without loss of muscle connective tissue, bone and nerve.<sup>1</sup> Injuries can result from surgeries, chemicals, trauma, heat / cold, friction, pressure, or as a result of disease processes.

Affecting skin as the largest organ of the body, it is believed that wounds will surely result in something unpleasant. The prevalence of wounds estimated to be 3.7 injuries per 1,000 population where one person has at least one wound. <sup>2</sup> Although the elderly are assumed to have the most frequently damaged skin continuity, actually wound can be found in all age spectrum, especially in the age group of neonates and elderly. <sup>3</sup> For neonates, wounds are usually due to intrinsic factors such as immaturity and thin skin, meanwhile the elderly, they are commonly due to the thin epidermal layer.<sup>2</sup>

Wounds that are not handled properly will cause negative things that influence clients, health service and also their community.<sup>4</sup> For clients, the improperly-handled wounds will lead to poor quality of life, onset of pains and sufferings, sepsis, infections, decreased appetite, fatigue, depression, psychological disorders, loss of activities and financial disruption. Even in some cases, they can lead to amputation and death. For the health service, it will have an impact on health insurance payments due to the high

frequency of wound care because wound care should be done at least 2.4 times per week. In the same reference, it is also stated that nurses will spend 66% of their time for doing wound care. The impact on the society is a decrease of participation in the community activities because sometimes clients will express their feelings of being isolated, anxious and depressed. Associated with the prevalence and impact of injuries, the healing of wounds is something that must be considered seriously.

One way to optimize the treatment of wounds is to keep the moisture of wounds.<sup>5</sup> Therefore, one important feature of an ideal bandage is its ability to maintain a moist environment and support autolytic debridement. Unfortunately, until today, health care facilities still use wet to dry dressings using only normal saline. After the bandage is dry, it is changed back to the same process. Dressing like this is able to absorb slough or tissues that have died, however, such a method is considered less optimal because of the slough and dead tissues that are not lifted. With many slough and dead tissues which are not lifted, the growth of granulation tissue will not occur. Furthermore, this method is ineffective because the removal of the bandage in this way will cause new cells to be lifted; this results in pain for clients. In general, nurses will saturate wound dressing with NaCl 0.9% liquid until the dressing becomes very wet. Recent evidence suggests that it is less effective and more expensive than wounds treated with moist bandage.

The concept of moist wound healing was first introduced in 1962 by George Winter who conducted research experiments using pigs as a sample. Winter compared two acute wounds with two kinds of wound care. The first wounds were treated with moist bandage (at that time, using a Polyurethane bandage) and the second wounds were treated with a dry bandage.<sup>6,7</sup> The results of the study indicate that the average depth of the wound before treatment was 2.5 cm and became 0.01 to 0.03 cm with the wound epithelialization process. The epithelialization was twice as fast in a moist wound environment. One year later, Hinman and Maibach conducted similar research by using human skin with a moist bandage. Their was not much different. The condition of the wound with a dry bandage caused it to be dehydrated and raised scar inhibiting the migration of epidermal; thus it needed longer healing process.<sup>6,8</sup>

Much evidence on the moist bandage treatment for wounds does not make all health services able to apply it. Addressing the gap, this research focuses on a literature study on the way moist bandages accelerate wound healing process. The purpose of this article is to systematically review the evidence of moist bandage for accelerating the process of wound healing.

## **METHOD**

By using a systematic review methods from journals published in PubMed database on 2003-2014. Study selection used English-language randomized trials with reporting ulcer healing or time to complete healing in adults with moist dressing. The keywords use for searching the articles are acute or chronic wound, moist bandage, wound healing and then find 4 articles retrieved.

## **DISCUSSION**

Humidity (moist) is an important component for maintaining the body's cells to stay alive and functioning. Humidity is also required to optimize the process of migration

of epithelial cells starting from the ends of the closure of the wound until the wound completely. Unfortunately, the problem of imbalance of moisture often occurs, either at the level of molecules or cells, which result in the slow process of migration.<sup>9</sup>

The process of migration of epithelial cells will not occur in a dry wound condition in which the production of granulation tissue and epithelialization will be impaired. Therefore, the dressing selection becomes important to retain a moisture environment. The wound dressings which can be used include alginates, hydrocolloids, foams, hydrofibre, collagens, hydrogels and transparent films and some topical medications.<sup>9,10</sup>

Many advantages can be acquired when the moisture of wounds is retained :<sup>5</sup>

1. Lowering dehydration and cell death : wound repair will be effective when the activity of a number of cells of neutrophils and macrophages, fibroblasts and pericytes were active. These cells can not function in a dry environment.
2. Increasing angiogenesis : angiogenesis requires a moist environment. In addition, angiogenesis will only occur in areas with low oxygen pressure. The other way to stimulate angiogenesis process is to create an occlusive wound dressing.
3. Increasing autolysis debridement : By maintaining a moist wound environment, the neutrophils cells will still stay alive and increase the proteolytic enzymes towards the wound bed. It will give benefits to the client because the debridement process will be more natural and painless. Degradation of fibrin is a factor that can stimulate macrophages to secrete growth hormone into the wound bed.
4. Increasing the re-epithelialization : For wounds deeper than the epidermis, the blood supply has to carry oxygen and nutrients adequately. It will be less optimal when the wound is dry, so that it becomes a barrier for cell migration and slows down the process of epithelialization.
5. Becoming bacterial barrier and reducing the incidence of wound infection : occlusive wound dressing with the adequate seal can be a barrier for the migration of microorganisms. The bacteria have been shown to pass through 64 layers of moist dressings. Wound with an occlusive bandage is proved to reduce the incidence of infection when compared to conventional gauze bandage.
6. Reducing pain : it happens because the moist bandage can protect the nerve endings. More especially, moist bandage with an occlusive technique can reduce the frequency of changing dressings that effect the comfort of clients.
7. Reducing the cost required for the treatment of wound care : using moist bandage with the occlusive technique can reduce the frequency of changing dressings when compared to a gauze bandage with conventional techniques. This will certainly decrease the cost, particularly if used in the long term.

The rapid development of science and technology, encourages many new innovations for creating an ideal wound bandaging, which is able to control the humidity of wounds. The wound dressing can be adapted to the needs of the clients' wounds. The table the types of moist dressings.

**Table 1 : Moist dressing**

Wound Bed Description	Aims Of Care	Exudate	Consider Using:	
			Primery Dressing	Secondary Dressing
Necroctic	Debride eschar & promote moisture balance	Low	Purilion	Comfeel or C-view
			Comfael	
		Moderate	Sorbsan	Sugipad
		Heavy	Aquacel	
Sloughy	De-slough & provide healthy bed for granulation: promote moisture balance	Low	Purilion	
			Comfeel	
		Moderate	Sorbsan	Surgipad
		Heavy	Aquacel	
Granulating	Provide healthy bed for epithelialisation& promote moisture balance	Low	Urgutul	Gauze or surgipad
			Comfeel	
		Moderate	Biatain	
Epithelialising	Promote maturation	Low	Tricotex or urgutul	Gauze or sugipad
			Duoderm	
		Moderate	Comfeel or Biatainn	
Over-granulating	Promote healthy granulation	Low – heavy	Biatain	
Post-op	Promote healing by primary intention	Low	Primapore	
		Moderate-heavy	Opsite post-op	
Critical colonisation/ infection	Reduce bacterial burden	Low	If small,simple wound use inadine for < 1week	
		Moderate heavy	Aquacel Ag	Surgipads
			Refer all MRSA+ve wounds to TVN or LUN*	
Cavity/sinus	Provide healthy would bed for granulation: promote moisture balance	Low	Purilion	Comfeel or c-view
		Moderate	Sorbsan	Allevyyn cavity over primary dressing surgipads
		Heavy	Aquacel	
Fungating	Manage symptoms i.emalodour, exudates, infection	Asses wound bed & treat accordingly (i.esorbsan if wet slough). Consider metronidazole gel if infected ( will need to be proscribed)&clinisorb if malodorous: refer to tvn		

Source : Purser, K. (2010). Wound Dressing Guidelines. Royal United Hospital Bath NHS Trust :

Previous research has been carried out by using a pilot study for evaluating whether the principles of moist wound care affect the closure of the wounds faster.<sup>11</sup> The material used to retain moisture in the wound in that research is Thera Gauze™. It was mounted on wound after debris has been done. After that, the wound was mounted with a secondary dressing on top. Thera Gauze™ is a wound dressing that can absorb wound fluid. Each size 4x4, Thera Gauze™ can absorb 5cc of fluid from the wound surface. The material is made from non-woven poly/rayon and has the ability to regulate the humidity of wounds down to the cellular level.

Based on the chronic wound sex amined, the wounds can close completely within 30 days. One of the chronic wounds studied was of clients with Pyoderma gangrenosum; the initial wound size was 49 cm<sup>2</sup> to 3 cm<sup>2</sup> within 21 days. Other clients had chronic venous stasis in the calf; the initial wound size was 49 cm<sup>2</sup> to 3 cm<sup>2</sup> within 21 days.

Examination under an electron microscope gives an overview of how the wound fluid can be highly controlled by Thera Gauze™. Thera Gauze™ structure is like a tube with a vertical arrangement such as straw piles, providing a way to select fluid out of the wound surface of the wound tissue. The tubes are mutually connected to each other like the canals of blood vessels that have the ability to regulate the flow of the wound and regulate the movement of and towards the wound tissue. In addition to the above study, much research shows the advantages of a moist bandage compared to other bandages.

Based on the experience of my own research, the most significant changes to the wounds that retain moisture is on the 1st and 7th day. This is particularly noticeable in the wound bed color change. On the 7th day no longer found a blackened eschar on almost 100% of respondents, although the amount of exudate more at almost 100% of respondents. This can be seen in Figure 1.

**Figure 1 : The colour and exudate changes on 1st, 7th, 14th and 28th days**



**1st day**



**7th day**



**14 th day**



**28 th day**

This situation shows that macrophages and endogenous enzymes proteolytic successfully softens, lyse and destroy proteins dead tissue (eschar and slough) on the wound. The end result of this process is the separation of dead tissue from healthy tissue injuries.

It should be considered in these circumstances is how to increase the amount of exudate which does not interfere with wound repair process. Excessive exudate on the wound can cause maceration and tissue damage and stimulate the growth of new bacteria. Therefore this should be eliminated exudate using a bandage to absorb exudate.

**Table2 below out lines some evidence based summaries related to the use of a moist bandage.**

**Table 2 : Summary of randomized studies (N=4)**

Researcher (s)	Design	Population / sample	Research protocol	Result
<b>Dowd, Russell, Williams on, Keller &amp; McConnell (2008)<sup>11</sup></b>	Case study	<b>Samples :</b> <ol style="list-style-type: none"> <li>1. A woman (28 years) with lower gastrointestinal tract infections with Pyoderma gangrenosum. Wound already infected with MRSA.</li> <li>2. A woman (88 years) with chronic venous stasis in the calf.</li> <li>3. A man (44 years) with sickle cell. Having a wound of 6.8 cm<sup>2</sup> in the medial malleolus. The wound was infected with MRSA</li> </ol>	TheraGauze™ installed over wound debridement has been done, then mounted secondary dressing on top.	<ol style="list-style-type: none"> <li>1. The initial wound size was 49 cm<sup>2</sup> to 3 cm<sup>2</sup> within 21 days.</li> <li>2. The wound can close completely within 30 days.</li> <li>3. Examination with electron microscope illustrated that TheraGauze™ could control wound discharge.</li> <li>4. Reduced pain.</li> <li>5. Do not arise maceration</li> </ol>
		<b>Moist dressing :</b> TheraGauze™		



<b>Vogt, K.C; Uhlyarik, M &amp; Schroeder, T.V (2007)<sup>12</sup></b>	<i>Randomized-controlled trial</i>	<b>Bandage used :</b> Standar Dry dressing (Mepore) Moist dressing (Hydrofiber : Aquacelt)  <b>Population : 160 clients</b>  <b>Samples :</b> <ul style="list-style-type: none"> <li>66 clients used Mepore</li> <li>70 clients used Aquacelt</li> </ul>	1. Wound care is done for 4 days post-surgery.  Notes : <ul style="list-style-type: none"> <li>After 4 days, there was no longer a bandage attached if the wound is dry.</li> <li>If the wound is not dry, then re-use wound dressing used (dry dressing).</li> </ul> 2. Wounds observed every day  3. Followed up after 6 months post operation	1. There were no significant differences between 2 groups associated with comfort. 2. Group Aquacelt more expensive, but the frequency of replacement of bandage fewer 3. There is no significant difference between groups Mepore: Aquacelt associated with an average incidence of infection (13% vs. 11%), length of stay in hospital and the incidence of complications
<b>Capasso, V.A; Munro, B.H (2003)<sup>13</sup></b>	<i>Non-experimental, retrospective chart review,</i>	<b>Population :</b> Client with perioperative arterial surgical wound & Diabetic ulcer  <b>Samples :</b> <ul style="list-style-type: none"> <li>5 clients used the gauze bandage wet – dry</li> <li>25 clients used Amorphous Hydrogel</li> </ul>	1. Wounds conducted post-operative treatment 2. Wounds were evaluated at weeks 1, 3, 5 and 7 consecutive	1. There was no significant difference between the two groups associated with the average time of wound closure. 2. Amorphous Hydrogel more cost effective
<b>Khatta, A.Z; Ross, R; Ngo, T &amp; Shoemaker, C.T (2010)<sup>14</sup></b>	<i>Prospective, randomized controlled trial</i>	<b>Samples :</b> <ul style="list-style-type: none"> <li>25 clients used standard bandage</li> <li>25 clients used silver alginate (Algindex)</li> </ul>	1. Wound care were done 2. Wounds were evaluated at weeks 1, 7 and consecutive	1. There are a group of silver alginate 45.8 % and decrease infection

## Conclusion

Based on the research which has been done before, it can be concluded that the moist bandage has some advantages which can be proved theoretically and clinically. However, nurses must keep the wound from excessive moisture because it will cause damage to the skin in the area around the wound or in the wound itself.

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# Resilient Rural Communities: A Qualitative Review of Current Research

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## Abstract

### Background:

Resilience means as a systemic process in which allows individuals to make judgments and decisions for themselves, families and communities when faced with a significant sources of stress. Resilient rural communities defined as the capacity of rural communities to deal with changes in varying environmental conditions. In this article, we summarize current researchs and develop suggestions for furthering the issues.

**Aim:** The purpose of this study was to review the literature describing the experiences of resiliency model in rural communities

**Methods:** An electronic review of articles published from the years 2006 to 2016 was conducted via the Proquestdatabases. A meta-analysis was used to compare the studies, based on 371 data sources: Proquest Health and Medical Complete, Proquest Nursing and Allied Health Source, Proquest Research Library and Proquest Science Journals.

**Results:** Rural communities experience several stressors such as ageing, job loss, poorer health and a lack of services. Resilience model in rural communities enables people to adapt to the stressors, find their own way to support the living, and learn to response to future problems. There is sufficient data to support the resilience model in rural communities in improving their quality of life, and in building their capacity to stay mentally well.

### Discussion and Recommendations:

Resilient rural communities model is a promising approach to stress management for people living in rural areas. Future research may benefit for defining the structure model, processes, and appropriate sources of advice and support using culturally based design.

**Keywords:** resilience, resilient model, rural communities, qualitative research

### What is Resilience and Community Resilience??

Resilience is an ability to adapt, learn and change to any external stressors or environmental conditions. Resilience is conceptualized as a process where in an individual shows a positive adjustment such as psychological well-being despite experiencing stress like severe drought (Greenhill, King, Lane, MacDougall, 2009). Community resilience is the ability of individual *and* community to respond to any changes and influenced by numerous factors both within and outside of their control. Communities have their own responsibilities for their own well-being, and bounded by the role of governments. In addition, community resilience means a *process* of adaptation rather than an *outcome* of evaluation (Smith and Lawrence 2014). Varghese, Krogman, Beckley and Nadeau (2006)

also mentioned that community resilience measures the abilities to adapt with changes happen overtimes.

Rural resilient communities are the capacity of rural people to deal with changes in varying environmental conditions. People living in rural areas are vulnerable to stresses; further develop their resilience through their responses to a crisis situation. Physical interventions by state and local government to increase resources in rural areas are sufficient to strengthen the resilience of people (Barua, Katyaini, Bili and Gooch, 2014). The purpose of this study is to review the literature describing the experiences of resiliency model in rural communities. An electronic review of articles published from the years 2006 to 2016 was conducted via the Proquest databases. A meta-analysis was used to compare the studies, based on 371 data sources: Proquest Health and Medical Complete, Proquest Nursing and Allied Health Source, Proquest Research Library and Proquest Science Journals.

### **Stressors Living in Rural Areas**

A multidimensional poverty seen as significant stressors as stated by a Barua, et al (2014), for example domestic water supply, food and nutrition, energy and housing, gender and social equality, sanitation and hygiene, health care and any unforeseen natural disaster caused by climate change. Resilience also the result of many factors, including intrapersonal aspects such as intelligence, positive coping strategies, optimism, prior experiences and personal financial ability as well as external ones such as community facilities and services (Boon, 2014).

McCrea, Walton, and Leonard (2014) investigated that a sudden changes, such as a natural disaster, or irregular changes, such as instability of economic condition, are factors related to stressors experienced in rural settings.

### **Community Resilience Aspects**

According to Smith and Lawrence (2014), community resilience has several aspects: Community resources, which defined as the capability of community to move towards the crisis. Relationships means as the existence of support social networks helps individuals to organize to pursue the goals, by understanding of actions that improve community well-being. Sufficient information in community also significant aspect in ensuring people to obtain clear information flows during the crisis. McCrea *et al.* (2014) also found several dimensions of resilience, such as community resources, development of community resources, engagement of community resources, leadership and empowerment, community engagement, social networks, community infrastructure, diverse & innovative economy and links within communities.

### **Community Resilience in Rural Areas**

Communities with deprived leadership, lack of planning and low levels of confidence are likely to feel vulnerable (Keogh, Apan, Mushtaq, King and Thomas, 2011). Members of resilient communities build their own personal and capacity to respond to any changes, to maintain and renew the community and to develop new trajectories for the communities' future. Three important attributes contributing to building community resilience are leadership, being social networks and trust (Madsen and O'Mullan, 2014). Through this community, people have better understanding about others and are more accepting of differences in others.

Boon (2014) investigated a model which contributes resilience in rural community when faced with crisis situation such as flood. This model links between senses of place,

number of years living in the community, health impacts, resilience and desire to relocate. Individual resilience was promoted by social connectedness and a sense of place, a factor that was also negatively linked to the desire to relocate from the community.

Meanwhile, there are several indicators of adaptive family living in rural areas, such as life satisfaction, financial well-being and food security (Raffaelli, Tran, Wiley, Galarza-Heras, and Lazarezic, 2012). These three indicators measure the quality of life and subjective well-being. Having practical and emotional support from members of communities associated with life satisfaction and well-being.

A study in rural communities by Skovdal and Andreouli (2011) found that using recognition of people efforts, enabling individuals to construct positive identities which then enhance their resilience. There is also a need for policy and practice on health providers in all countries and contexts, to consider the role of social recognition in shaping the resilience of individuals. Identity can be defined as about recognition oneself in relation to others. Recognition defined as models of symbolic environment for the development of identities.

McCrea *et al.* (2014) found a general model of community resilience showing the main structures, and its relationships. This concept explained about the communities changes that may impact on community resources, community resources from which communities develop their wellbeing and use to build their resilient responses.



## Conclusion

Community resilience is a process which is more strongly related to future wellbeing of societies. Resilient rural communities' model is a promising approach to stress management for people living in rural areas. Future research may benefit for defining the structure model, processes, and appropriate sources of advice and support using culturally based design.

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# **VIRTUAL REALITY SIMULATION (VRS) AS A LEARNING MODEL FOR NURSING STUDENTS BASED ON ADULT LEARNING MODEL: A LITERATURE REVIEW**

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## **Abstract**

**Introduction:** The changing to nursing learning method is needed to produce a qualified nurse who can give the best caring for people. Teaching Centered Learning (TCL) model, which is known as traditional teaching method, is not give a big impact to increase nursing student's competencies in clinical practice. Nursing education need something new to be used for enhancing nursing student's competencies. The growing of technology these days gives an impact to the development of learning model based on modern technology. One of innovative teaching model is Virtual Reality Simulation (VRS) that gives a concept of practice which is serve in 3D technology. This model can give an easiness for nursing students to learn about nursing and enhance nursing competencies in practical setting.

**Aim:** To know how Virtual Reality Simulation (VRS) can be an innovative learning method for nursing students based on adult learning model.

**Method:** A literature review was conducted by analyzing research articles, papers, and theses that relevant to the topics and published between 2010 to 2015. All articles were identified from the following data base including PubMed, ProQuest, Ebsco Host, Google Scholar, and Science Direct.

**Result:** Technology and research in nursing are growing so fast these days and it also change every education system in nursing including learning model for nursing students. Teacher Centered Learning (TCL) that really be the main option for nursing learning model for a long time, is replaced by several kinds of learning model named innovative learning model. One of innovative learning model that still developing is Virtual Reality Simulation (VRS). VRS is a 3D's computer technology that shows an animation moving video with audio which is reflecting human in doing an appropriate simulation. Some researches found that VRS can be an effective learning model for nursing students with several advantages like VRS can provide independent and practical learning process, effective learning process, increase critical thinking ability, and also self directed learning with problem based learning for nursing students. With those advantages, VRS model can be better than TCL model to provide learning process based on adult learning model.

**Conclusion:** Virtual Reality Simulation (VRS) is a learning model in 3D that provide a simple learning process for nursing students to understand about nursing practice competencies or another nursing phenomena. Some researches found that VRS can provide independent and practical learning process, effective learning process, increase critical thinking ability, and also self directed learning with problem based learning for nursing students. This learning model can be used as a teaching method based on adult learning model for nursing students.

**Keyword:** virtual reality simulation, nursing students, adult learning

## Introduction

Changes in learning model in nursing so far is much needed in preparing nursing students to face the challenges of providing the best quality of nursing care system. An innovative research has been developed to find a suitable learning model for a teaching strategy to provide proper nursing education for nursing students with learning approaches of an adult (Steiner, *et al*, 2010). The main objective of the adult learning model is to provide an independent learning experiences to understanding the concept of learning. A nursing student should be able to perform this learning models either independently or interdependently to gain some experiences for getting some form of new knowledges that are essential for the learning process (Moore, 2010).

Traditional learning model with an usual model of lecture / *Teacher Centered Learning* (TCL) today is still used in nursing education process and it does not provide a considerable influence on improving the competence of nursing students (Smith & Hamilton, 2015). The learning process using traditional model which is mostly done by using a *text book*, an explanation from lecturer, remembering, and rewriting, did not provide an increasing ability for nursing students to develop critical thinking ability, define a form of problem solving ability, and the decision making ability (Parasuram, *et al*, 2014).

Yuliasutik (2010) in her study at one of the nursing educational institutions in Banyuwangi found that all lecturers at the institution are still using TCL model in providing knowledge to the passive nursing students. Wahyuningsih & Santoso (2013) also explains that learning model of non-traditional such as problem based learning (PBL) has actually been implemented by many nursing institutions in Indonesia, but there are still some obstacles such as being trapped in traditional learning model, less active role of facilitator in the process, and the workload is too much perceived by students.

Sadeghi, *et al* (2014) in their research explains that in order to overcome the problems in the traditional learning model, the new learning models based on the technology needs to be used as an alternative. Innovative learning method in nursing education is expected to help nursing students to become more active as an adult learner in the independent learning process and structured in order to improve skills in nursing competencies (Gandhi, 2015). One strategy of innovative learning model based on computer technology is a virtual reality simulation (VRS) which gives a real application of the concept of nursing procedures or other nursing experience in a three-dimensional media (Jenson & Forsyth, 2012).

The use of VRS learning model of a nursing action procedure will provide an understanding of the concepts that can be easily learned by independently nursing students to gain knowledges and improvement of skills (Cant & Cooper, 2010). Smith & Hamilton (2015) in their research on the effects of VRS as a learning strategy on nursing students, showed that the VRS learning model provides convenience for nursing students to enhance their clinical skills that are becoming a basic competences in the world of nursing.

The purpose of this literature review is to know how Virtual Reality Simulation (VRS) can be an innovative learning method for nursing students based on adult learning model.

## Method

A literature review was conducted by analyzing research articles, papers, and theses that relevant to the topics and published between 2010 to 2015. All articles were identified from the following data base including PubMed, ProQuest, Ebsco Host, Google Scholar, and Science Direct.



## Result

The development of the modern world, accompanied by increasingly sophisticated technological advances has changed the order of the various processes of education/learning methods to force students have a better learning process including nursing education (Gandhi, *et al*, 2015). New challenges in nursing education that is currently being developed is because of advances in modern technology also provides the development of the emergence of various new methods in the learning process of nursing, and slowly began to leave the learning process with the traditional model (Smith & Hamilton, 2015). The success of nursing education is not only seen on the achievement of competencies by nursing students, but also views of the effectiveness of learning methods are applied in a high nursing education (Hashees, *et al*, 2011). Sadeghi, *et al* (2014) in their research explains that the development of modern technology gives a new color to the emergence of innovative learning model / modern technology based with different characteristics than traditional learning models.

The traditional learning model is one of the traditional learning methods are mostly done by the method of teacher learning centered (TCL) with focus on the use of text books, lecturer explanation, the process of remembering and also rewriting. On the other side, non-traditional learning methods more commonly known as a learning method innovative / modern using elemental technology, animation, and certain effects which will generally lead

<b>Table 1 Differences Learning Model of Traditional and Non-Traditional</b>			
<b>No.</b>	<b>Characteristics</b>	<b>Types of Study Method</b>	
		<b>Traditional methods</b>	<b>Non-Traditional Methods (VRS)</b>
<b>1</b>	Learning objectives	Giving a narrative and a thorough knowledge of all the information	Focus on one case or the procedures presented in virtual media (VRS)
<b>2</b>	The role of the lecturer	Lecturer as a teacher /educator in the learning process	Lecturer as a facilitator in the learning process
<b>3</b>	The role of student	Passive learner	Active Learner
<b>4</b>	Student independence	Dependent	Independent
<b>5</b>	interaction group	The interaction between faculty and students in only one direction	The interaction between faculty-student groups and student groups-groups of students.
<b>6</b>	Output / Outcome	Understand the science given	Critical thinker, self-directed learning, and problem solver

to the process of understanding independently of the learner and hone interactive capabilities of each learner (Parasuram, *et al*, 2014). One of strategy from non-traditional learning model based on computer technology is a virtual reality simulation (VRS) (Jenson & Forsyth, 2012). Virtual reality and simulation is a 3 dimensional computer technology form of video animation moves accompanying audio that reflects the human in performing a simulation in accordance with grooves have been made. VRS is commonly used for a

learning model for several kinds of science, including nursing science (Heinrich, et al, 2010). Application VRS media that is used by adult learner in nursing to support the learning process can be carried out independently by nursing students anywhere and anytime when the technologies are enabling access to support learning activities (Tschannen, *et al*, 2011).

Differences in traditional nursing learning model with non-traditional learning model based on modern technology (VRS) can be seen in the following table (Parasuram, et al, 2014; Hashees, et al, 2011; Jenson & Forsyth, 2012):

## **Discussion**

Hashees, et al, 2011 in the research explained that the non-traditional learning model is more effective than the traditional model in building the capability of students as acriticalthinker and problem solver. Kilmon, *et al*, (2010) explains that the use of VRS as a learning method of nursing is a learning strategy that was developed by presenting a simulation similar to the actual application and will easily be able to be analyzed by nursing students in the learning process. Aebersold, *et al* (2011) explains that the use of virtual simulation models with VRS is currently a trend and basis for the development model of learning in nursing education programs. The advantage gained by learning model VRS as nursing students learning model are:

### **1) Independent and Practical (Effective Time & Cost Effective)**

Application VRS media that is used by adult learner in nursing to support the learning process can be carried out independently by nursing students anywhere and anytime when the technologies are enabling access to support learning activities (Tschannen, *et al*, 2011). Edbert, *et al*, (2013) also added that a nursing student can review the understanding of the application of an act autonomously with a direct view learning model VRS can be stored in media technologies such as PC, laptop, or mobile phone that can be accessed anytime and anywhere. VRS learning model is also very effective in terms of time for educators and nursing students in which VRS can direct the activity of students in adult learning independently conducted by not limited to a specific time (Gandhi, *etal*, 2015). VRS also provides the opportunity for nursing students in improving clinical experience in a virtual environment that can be set by the educator in a certain place that does not require a lot of costs when compared to perform simulation directly on the patient in the field (Aebersold, *et al*, 2012).

### **2) Learning Effective**

Jenson & Forsyth (2012) in theirresearch of the use of VRS, said that VRS model provided some results that the study of a nursing procedure turned out to provide an effective learning process in improving the skills of nursing students. Synder, et al, (2010) also explains that the learning outcomes by using a model of the VRS to nursing students provide retention of understanding of procedures of nursing that can be last longer. It happen because the process of understanding can be done easily and can be repeated at various time required to achieve a form of learning effective. VRS model from a nursing action will provide a reflection that can be easily learned by nursing students independently to obtain an effective understanding of the procedures (Cant & Cooper, 2010).

### **3) Improved Critical Thinking Ability and Self Directed Learning with Problem Based Learning**

Gandhi (2015) explains that the VRS as one of the innovative teaching model will provide a reflection of the problems that will be an analitical object to students who study

it. These conditions will make it easier to hone the skills of nursing students in critical thinking and self-directed learning to a problem that is given by VRS model. Tschannen, *et al* (2011) also explained in his research that the VRS model can train critical thinking ability of nursing students in the resolution of problems that appear in the media. Poulton (2014) in his research that gives several patients in a virtual learning process, showed that nursing students can study each type of patient's problem that is given virtually with the assistance of educators. The assistance of educators can lead the students to be able to determine the problems faced by the patients.

## Conclusion

Virtual Reality Simulation (VRS) is a learning model in 3D that provide a simple learning process for nursing students to understand about nursing practice competencies or another nursing phenomena. Some researches found that VRS can provide independent and practical learning process, effective learning process, increase critical thinking ability, and also self directed learning with problem based learning for nursing students. This learning model can be used as a teaching method based on adult learning model for nursing students.

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# ONLINE EDUCATION FOR REDUCING THE STIGMA OF MENTAL HEALTH ILLNESS

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## ABSTRACT

**Background:** The prevalence of mental health illness has grown so fast. Today, the evidence of people suffering mental health illness in the world and Indonesia are 14% and 1.7% respectively. In Indonesia, the people who suffer from mental health disorders commonly have been labelled as dangerous, not morally, or unwanted. It is made people with mental disorders being uncomfortable and distress. This condition is not good enough for them. It is because the people with mental disorders get more depressed than before. Because of these reasons, education is needed to reduce this stigma and the people who suffer mental illness have right to do their activities.

**Aims:** To investigate the impacts of online education on reducing negative stigma of people who suffer from mental illness.

**Method.** This paper is presented applying a literature review approach. The articles used was taken from some databases such as Ebsco Host, Pub Med, Google Scholar, and Science Direct. The author analysis the factors how internet could influence for reducing stigma of mental disorders.

**Result.** Education is one of the way to reduce the stigma of mental health illness. Online education both website and social media is effective to reduce the stigma of the people with mental illness. These papers said that online education is effective to reduce the stigma of mental health disorders. The factors that internet is effectively for reducing the stigma of mental disorders are a tool where the people can meet face to face over the world. Next, the internet is a tool which is shared the motivation between the people who suffer mental illness and their families. Besides that, internet is also a tool to hold opinion and idea which is shared by people to learn each other. Not only that factors, if we see from economical factor, internet has many benefit. Today, people could find internet where they are. Besides that, many Indonesian telephone providers give easiness internet program and the price is quite cheap. However, today in Indonesia, there is still limited research and online education program for reducing stigma of mental disorders.

**Conclusion.** Online education is an effective approach to reduce the stigma for people who suffer from mental illness. Today, it is limited online education program for reducing stigma of mental disorders. Because of that, I suggest the government has collaboration with a clinical health care, health academic institutions, non-government organizations, and society to improve the online education program for reducing this stigma.

**Keyword:** Stigma, Mental Health Illness, On-Line Education

## INTRODUCTION

Indonesia has a policy to manage about mental health. There is Undang-Undang Kesehatan Jiwa Number 18, 2014. This policy manages person who has a problem with mental illness and people who has mental disorder. This policy tells that people who suffer mental illness is a person who has disturbance in the mind, behavior, and feeling. Beside it can hamper and bother the activity daily living (ADLs) of that person(*Undang-Undang Kesehatan & Kesehatan Jiwa*, 2015). World Health Organization (WHO) (2015a) said that there is 14% around the world suffering mental illness(WHO, 2015a). In Indonesia, people who suffer mental illness is about 1.7%. It means that 1-2 per 1000 person suffer serious mental illness(RISKESDAS, 2013).

Unfortunately, most of them are not prosperity family. Because of that they do not have access to get better treatment. Although they do not have any access to get a better treatment in hospital, their families still care them at home with limited facilities (WHO, 2015a). In Indonesia, there is only less than 10%, the patients get good treatment. There are some factors which influence this condition. The factors are treatment and the specialist or psychiatric. These factors influence the worse of the patient's condition. It holds up the mental illness treatment. The effort to maintenance the patients with mental illness is not only medically but also socially. The example of socially effort is decreasing the stigma in society. Society sometimes give them some label and negative stigma(Viora, 2015).

Stigma and mental illness have a relation. The person who has mental illness is considered dangerous, lazy, or unable to do their roles by the society(Sartorius & Schulze, 2005). In China, one of the developed country, the negative stigma for people who suffer mental illness is strong. It depends on their culture and lacks of knowledge about what the mental illness is (Yang et al., 2012).

Indonesia has the same condition with China. Most Indonesian see that person who suffers mental illness are dishonor for the family. So, they will keep in secret. Besides, the patients are also known as unmorally, embarrassing, and unbeliever. It is happened, because the society lack of knowledge, the prognosis of the disease, and the behavior of the patients. This discrimination could make the person who suffers mental illness lost their human right (Wijaya & Fatimah, 2014). The form of human right violation is deprivation. Because of that, there is need some efforts to reduce the stigma (Lestari & Wardhani, 2014). Education is one of the effort to reduce the stigma. Then, online education is one of the technique to increase the knowledge in society. So the aims of this paper is investigation the impacts of online education on reducing negative stigma of people who suffer from mental illness.

## METHOD

The method of this paper is literature review. Writer try to search some paper which talked about effectiveness of the online education to reduce the stigma in society. This paper took from many literature such as PubMed, Science Direct, Ebsco Host, and Google Scholar. After that, the author analyze it to find the factors which could influence for reducing the stigma.

## DISCUSSION

People who suffers mental illness is a people who has disturbance in thought process, language, perception, and self-assessment(WHO, 2015b), then it can stimulate behavior changing, disturb activities and role of the human (*Undang-Undang Kesehatan & Kesehatan Jiwa*, 2015). People with mental disorders are regarded as negative. It is called stigmatization (Lestari & Wardhani, 2014). Stigma, labelling is giving negative value of the physic disturbance, culture identity, and personal condition. Mental illness is one of the example of physic disturbance and personal conditions(Florez & Sartorius, 2008)and it is a labelling of someone based on their social identity (Overton & Medina, 2008).

Stigma has negative effects for person with mental illness, such as difficulties to find a job and maintenance a job, bullying in their institution (school, job, or society), does not have comfortable place to live, difficulties in health care access, difficulties in society acceptance, difficulties to find friends, difficulties in insurance claimed, and disturbance in their society activities(Rathwell, 2015). Because of these reasons, person with mental illness feels shy and depression. It makes person with mental illness staying at home. People does not understand, this condition will make recurrent their disorder. Besides, human right of these people is also ramped. The form of human right violation is deprivation by their family(Lestari & Wardhani, 2014). Moreover, person with mental illness also has a human right. It can be seen in Undang-Undang Kesehatan Jiwa number 18, 2014, including their creativities and skills (*Undang-Undang Kesehatan & Kesehatan Jiwa*, 2015). It need to decrease the stigma to get their human rights back.

The efforts to reduce the stigma is education. Education is one of kind health promotion. It is also a method to give some information in a specific group (Overton & Medina, 2008). Education has some principles such as ability the participants, learning style, focusing ability of participants, motivations, resource learning, psychosocial adaptation, learning process, and learning environment (Widiastuti, 2012). Therefore, participants should see their capability and comfort when receiving information.

Internet is assessed an effective toolbecause it is a media of communication that connects online mass media with visitors. Besides that, it is ease to access. (Thomas, McLeod, Jones, & Abbott, 2015). The effectiveness of the internet can be seen from the material how to reduce the stigma itself. The materials should have 4 primer components. These are global program which has a goal to dig the information about committee programs such as *steering*, *awareness*, *reintegration*, *stigma*, and *committee review*. 2)Professional, it is an information category which is given by the expert such as schizophrenia, treatment, and professional health care. 3)Families and friends, its content is about sharing how to care the people with mental disorders. It also share their experience about their stigma when they have been living with people with mental disorders. 4) The last content is about mental disorders myth (Florez & Sartorius, 2008).

Education using the Internet is considered good for reducing stigma for people with mental disorders. It does not only have an impact on the types of one mental disorders, but also many of mental disorders, such as depression, psychosis, and other mental disorders generic. In fact, Cognitive Behavior Therapy (CBT) is considered ineffective for reducing stigma(Griffiths, Carron-Arthur, Parsons, & Reid, 2014). Because CBT is ineffective, so there is another way to reduce the stigma of people with mental disorders. There is an internet or online education.

Using internet is not just limited to websites, but also social media has a great influence. Social media is a tool which spread idea, opinion, and information resource. This kind of information can be spread so fast. It means that social media is an effective support system for reducing this stigma(Haimson, Ringland, Simpson, & Wolf, 2014).

Besides that, internet also gives the reality and myth about mental disorders (Thomas et al., 2015). Another reason why internet effective to reduce the stigma are cheap and easy to operate. Today, some of the telephone provider give some easiness way to access the internet. Besides it, they also give the lowest price in accessing internet over worldwide. Internet also gives newest information and there is still up to date about any kind of issues in others country(Simamora, 2009). Today, in Indonesia, there is improving the people who access the internet(Novianto, 2012).

Some countries in the world use website to reduce the stigma because of the reasons. The developmental of the website is done by non-government organization (NGO) like United States (US) (Shatter, 2014)and nursing association such as in Australia (Victoria, 2015). However in Asia, website and online education are difficult to develop including Indonesia. Indonesia is a big country with many of island. Because of this geography, the spreading of the resources is as not same as one island to another. The differences resources are human resource and technology (Simamora, 2009).

## CONCLUSION

These reasons give a fact that internet is a tool to give an education and it is a new innovation of education. Online education is an effective way to reduce the stigma. These is related to the factors that internet could be a cheap and easy media to spread the information about mental disorders. Besides that, internet also spread the idea, opinion, and current issues about mental disorders. Although the implementation in Indonesia is limited because of the limitation of human resource, technology, and the geography. I suggest that the researcher have to improve their research about how to reducing the stigma with on line education. The government have to get cooperation with the academic institution, society, NGO, and psychiatric nursing to improve the online education. So, they can be walk in synergy to get human right of people with mental disorders in their society.

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## **Documentation of nursing process in clinical routine: A case study from hospital in a developed country, Australia**

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### **Abstract**

**Background:** Nursing process documentation has been one of the most important functions of nurses since it serves multiple and diverse purposes. Current health-care systems require that documentation ensures continuity of care, furnishes legal evidence of the process of care and supports evaluation of quality of patient care. Evaluation regarding the implementation of nursing documentation in developed countries is essential to provide description and information about better documentation to improve nursing care practically.

**Aims:** The study was conducted with the general purpose to identify the implementation of nursing documentation in a hospital in South Australia. In addition, it then analysed the gap between theory and practice, the effectiveness and challenges of the implementation of nursing process documentation.

**Methods:** In this case study, the implementation of nursing process documentation was investigated by conducting an observation in the practical field and interview to some nurses in a particular hospital in South Australia. The observation in practical setting is carried out for 1 month at two places; paediatric oncology and haematology ward and paediatric outpatient department in the hospital. The interview process was carried out using an open ended questionnaire.

**Results:** There were three main points that have been found in the study including nurses' roles in documentation, tools of nursing process documentation, content and challenges of nursing process documentation. In the practical setting in the study, nurses had responsibilities to record comprehensively in which the implementation of this responsibility was applied depend on the practice field needs and nurses' education level background or competencies. The job description was clearly stated as the SOP (standard of procedure) of every nursing skill explicitly mentioned the minimum educational background or competency to implement the skills. The electronic documentation system called OACIS, Excel Care and Homer system were used in the paediatric ward and outpatient department. Paper based documentation was merely used as a complement documentation to the computerized based system. There was an interesting point related to the content of nursing process documentation in which the nurses do not comprehensively documented the nursing process based on NANDA NIC NOC Standardized Nursing Language (SNL). Some difficulties had been found as barriers to implement this SNL. A plan to update and change the electronic system had been outlined that focus on the formulation of how the information could be accessed nationally to make easier in gathering data data came from other institution quickly and comprehensively.

**Conclusion:** It could be noted that in developed countries including in this case study as an example, the nursing process has been recorded widely using an electronic documentation system to improve nursing care delivery. Further investigation is necessary conducted in other practical field to explore the application of electronic documentation based on the standardized nursing language.

**Keywords:** Nursing process, documentation, clinical routine, developed countries

### **Introduction**

Nursing profession is continually challenged to improve nursing care delivery to provide the highest quality outcomes for patients (LoBiondo-Wood & Haber 2006). Most of studies found that the effective working tools and higher quality of nursing documentation has a positive impact on the improvement of nursing care practice which lead to provide better patient outcomes (Mluer-Staub 2007; Teytelman 2002). It is essential to run out paths for

revision and development of quality including projects for the evaluation and the improvement of nursing documentation to improve nursing care practically (Picogna & Lirutti 2001).

However, nursing process documentation has not served such objectives because of its complexities. Some of studies conducted in developing countries reveal that documentation issue exists in the actual content, its forms and procedures used. In term of its form and procedures, most studies investigating the used of paper based documentation found that the issues beyond on the resistance of nursing documentation involving recorded assessments commonly incomplete, nursing diagnoses and nursing care plans are often inaccurate and inconsistent. These issues all lead to wasted time, high costs and uncomfortable charting (Cheevacasemsook et al 2006; Bocolli et al 2001; North & Serkes 1996). On the other hand, the used of computer based documentation is considered less time consuming and enable nurses to provide nursing care practice more effectively (Korst et al 2003). The nursing process generates conflict between theoretical situations and practical realities for nurses lead to affect the quality of care provided for patients (Cheevacasemsook et al 2006; Bocolli et al 2001).

To sump up, a review of the literature above has described some of the complexities that most nurses in developing nurses still encounter, both in the documentation system itself and in other related factors. Therefore, conducting an observation of the implementation of nursing process documentation in health services in developed country such as Australia is needed to provide description and information about better documentation.

The study was conducted with the general purpose to gain information regarding the implementation of nursing documentation in a hospital in Australia. In addition, it then analysed the gap between theory and practice, the effectiveness and challenges of the implementation of nursing process documentation.

## **Method**

In this case study, the implementation of nursing process documentation will be investigated by conducting an observation in the practical field and interview to some nurses in a hospital in Adelaide, South Australia. The observation in practical setting is carried out for 1 month at two places; paediatric oncology and haematology ward and paediatric outpatient department of a particular hospital in South Australia. The interview process was carried out using an open ended questionnaire.

## **Finding and discussion**

The findings of the observation is present and discussed together which is summarized in three main topics: **nurses roles in documentation, tools of nursing process documentation, content and challenges of nursing process documentation.**

### **Nurses responsibilities in documenting nursing process documentation**

Observation in the paediatric ward found that nurses have a significant role on each component of nursing process. Nurses have to gain comprehensive data related to patients' condition when assessing patients to determined patients' problems then deciding nursing interventions to solve the problems. The patients' progress is recorded continuously to evaluate the effectiveness of selected interventions. All the component of nursing process is have to recorded completely, comprehensively and continuously. Nurses have to record the assessment and nursing intervention immediately to avoid loss and miss an important data. This implementation in practical setting suits with the basic principals of nursing

documentation that nursing documentation should be conducted comprehensively since a comprehensive documentation provide evidence that nurses competently utilize their knowledge to assess, plan, implement, and evaluate required client care and outcomes of the interventions (Doenges and Moorhouse 2008; Carpenito-Moyet 2008; Alberta 2007). Nurses is responsible to document holistically on each component nursing process.

However, there is an interesting point related to nurses' responsibilities in documentation at outpatient department. Since the patients only come for a short period time in outpatient department, nurses do not have documentation burdens as high as in paediatric ward. In the outpatient department, nurses spend lots time in gathering comprehensive data related to patients' personal data and status condition. Nurses do not assess the assessment related to patients' physical condition nor apply lots of nursing intervention as commonly doing in paediatric ward. Different responsibilities in documentation is commonly occur in practical setting since different setting often have different needs of related information. The important point is that whenever practical setting held, the nursing documentation have to cover required information needed.

In the observation in practical setting, it is found that nurses working in the hospital have different education level background including a registered nurse, clinical specialist nurse, enrolled nurse, assistance nurse and student nurse. A clinical education staff in practical setting stated that all of the nurses above have different responsibilities and authorities in documenting nursing process in which commonly a registered nurse and clinical nurse have higher authorities than an enrolled nurse, assistance nurse or a student nurse. For instance, a student nurse implementing documentation in patient record should be observed and assisted by a registered nurse once writing the documentation. In this practical field, a clinical specialist nurses would provide a specific consultation to patients as needed and ordered. The job description was clearly stated as the SOP (standard of procedure) of every nursing skill explicitly mentioned the minimum educational background or competency to implement the skills.

It could be note that nurses have responsibilities to record comprehensive documentation in which the implementation of this responsibility is applied depend on the practice field needs and nurses' education level background.

### **Tools of nursing process documentation**

The observation found that most of documentation of nursing process in practical field (paediatric ward and outpatient department) is recorded electronically. Paper based documentation is used as a complement documentation of computerized based documentation.

Related to the used of paper based documentation, in paediatric ward, information of nursing care delivery and patients' condition is recorded in three folders paper based documentation. The first folder is called confidential patient record which consists of patients' alert; patient summary related to general information of patients; information about patients' medication, laboratory results, and admission; and general progress note consists of nursing care plans. The second folder is called patient blue folder which consist of patient information, protocol, prescription chart, medical orders, observation charts, nursing assessments, and other documentation related to patients' condition. The difference between first folder and the second folder is that the first folder has a function as main record consist details information of patients during period from the first time admission until current condition while the second folder only consist of documentation of current nursing care delivery and patients' condition. All the comprehensive data in all that folder is formulated in

check list, column, and yes/no questions forms with a little bit written narratives. The last folder called progress notes consists of summary of nursing care plans in brief written narratives.

Similarly, in outpatient department, all comprehensive data is also recorded using check list, column, and yes/no questions forms with a little bit written narrative. The progress notes written in patient folder is also written in a brief written narratives form. The nurses staff in practical setting said that this formulation applied to achieve an effective nursing documentation and avoid burdens and stressful feelings in nursing documentation. This findings support the previous studies which found that the use of lots of written narratives could lead to documentation burdens resulting in lack of focus in data collection, inaccurate nursing diagnosis, inconsistent nursing intervention and failure to identity priorities for care during the hospitalization (Cheevacasemsook et al 2006; Bocolli et al 2001; North and Serkes 1996).

In term of the used computerized based documentation, the observation found that the practical field use three main electronic system called OACIS, Excel Care and Homer system to provide effective and efficient documentation. While the Oacis system is used to record general patient information including laboratory results, the Excel care is used to record nursing care plans or nursing notes and Homer is used to record patient's tracks during admission. Applying electronic health record found in the observation is supported by most of previous studies found that the used of computer based documentation is considered less time consuming and enable nurses to provide nursing care practice more effectively enhancing high quality of nursing and patient outcomes (Barthlod 2009; Dahm and Wadensten 2008; Lykowski and Mahoney 2004; Korst et al 2003).

The nurses said that the use of nursing documentation is a particular forms whether narration, column, check list, or computerized is depend on each learning topic and and each clinical venue. Long narration form is some time needed in the learning process at the university since it is necessary to provide details reasons and explanation about a particular issue. However, the teaching staff said that it is only for learning purposes, but for clinical field, lots of written narratives should be avoid.

It could be concluded that using electronic health record and paper based documentation with a little bit written narrative forms is an effective and efficient tools for nursing documentation providing better qualities in documenting nursing process resulting better outcomes of nursing care delivery.

### **Content and challenges of nursing process documentation**

There is an interesting point related to the content of nursing process documentation in practical setting. The observation found that in the documentation of nursing process, nurses do not comprehensively the nursing process based on NANDA NIC NOC. A clinical governance unit staff at the practical setting said that the electronic system used is formed many years ago and the system has been applied for over 15 years in the practical setting in this observation. Therefore the electronic used could not provide and record enough information related to current formulation of NANDA international standard nursing diagnosis, NIC and NOC.

According to Westra (2008), current computerized system of documentation of nursing process integrating NANDA, NIC and NOC formulation is only SNOMED-CT (Systematic Nomenclature of Medicine Clinical Terms) introduced in 2000 in America. The electronic used in the practical setting in this observation using Oacis, Excel care and Homer only

could record general information about patient and record nursing problems, general nursing intervention and outcomes without current formulation of NANDA, NIC and NOC.

According to a nurse staff in practical setting, understanding and implementing these standard terminologies in practical setting is difficult since it is too complex and not all nurses considered understand this formulation. Therefore, applying this formulation could lead to misinterpretation and problems in communication process among nurses.

Related to this issue, a staff said that for learning purposes at University level, current knowledge about nursing process and documentation including NANDA, NIC and NOC is given to the students. However, it is only for broaden knowledge and deepen understanding purposes, but for exam assessment or clinical practice purposes, some difficulties have been found to apply this formulation.

The difficulties in applying these current standard terminologies are also experienced by nurses in other country such as Thailand. Most nurses in that developing country feel that the terminology of nursing diagnosis is often too complex and commonly nursing practitioners have different view and assumption about the implementation of it in practical field resulting them are not confident applying this theories in nursing documentation (Cheevacasemsook et al 2006). Education level background and comprehensive understanding about how to implement nursing theories in documenting nursing process are considered have a significant relation and influence related to nurses' challenges in this issues (Bocolli et al 2001).

A clinical governance unit staff in the practical field of this observation said that the practical field has a plan to change the electronic system used for many years but not the SNOMED system. This next electronic health record system is still in draft and formulation process and considered would focus on the formulation of how the information could be accessed nationally to make easier in gathering data process between a particular health institution and others related institutions. This is because the main problems experienced by the practical setting in nursing documentation are the difficulties to access data came from other institution quickly and comprehensively.

Related to challenges in documentation, nurses at practical field also said that they sometimes difficult to understand others written or could not remember a particular data. However, in general, they do not face a significant barrier. They feel comfortable with the system conducted and found that this system is effective providing enough information and enhance quality of nursing care delivery.

It could be noted that nurses in this observation experiences difficulties in implementing current nursing standard terminologies based on NNN but do not face a significant challenges implementing their nursing documentation system. Even though the content of nursing documentation found in this observation could not cover current improvement in the development of nursing body knowledge in terms of the improvement of NANDA, NIC and NOC formulation, the system applied could provide enough information and produce an effective nursing process documentation.

## **Conclusion**

In conclusion, this observation found several findings related to nursing responsibilities in documentation, tools of nursing documentation and content and challenges of nursing documentation. In term of nursing responsibilities, nurses have responsibilities to record comprehensive documentation in which the implementation of this responsibility is applied depend on the practice field needs and nurses' education level background. In term of nursing documentation tools, using electronic health record and paper based documentation

with a little bit written narrative forms is considered as an effective and efficient tools for nursing documentation. Related to content and challenges of nursing documentation, nurses in this observation experiences difficulties in implementing current nursing standard terminologies NNN but do not face a significant challenges implementing their nursing documentation system.

Since this observation has many limitations in which only conducted in a short period of time and limited field, further investigation with longer time and deeper exploration is needed related to nursing documentation with its complexities. It is also important to conduct investigation in other practical field implementing nursing process based on NNN to provide comprehensive information about nurses' challenges contributing deeper understanding related to this issues which is significant for the development in formulating a better nursing process documentation system.

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# Nurses' Knowledge and Practice Regarding Prevention of Cesarean Section Surgical Site Infection in Indonesia

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## Abstract

**Introduction.** The Caesarean Section (CS) procedure is commonly associated with significant infectious morbidity involving Surgical Site Infection (SSI). CS SSI is a major cause of prolonged hospital stay and resource consumption, and causes morbidity and mortality for the mother and the baby. Nurses play a key role in CS SSI prevention. There were limited studies of nurses' knowledge and practice regarding prevention of CS SSI conducted in Indonesia.

**Aims.** To identify the level of nurses' knowledge and practice regarding prevention of CS SSI and to examine the relationship between nurses' knowledge and practice regarding prevention of CS SSI.

**Methods.** Subjects were nurses and midwives who work in the labor rooms and postnatal wards. Data collection was conducted in ten government hospitals selected in West Sumatera Indonesia using self-report questionnaires. Total 201 nurses completed the questionnaires yielding a response rate of 90.13%. Data were analyzed by descriptive statistic and Spearman Rank correlation.

**Results.** The results showed that nurses had low levels of knowledge ( $M = 69.7\%$ ,  $SD = 8.59\%$ ) and high level of practice ( $M = 87.58\%$ ,  $SD = 9.28\%$ ). There was no significant relationship between knowledge and practice regarding prevention of CS SSI in Indonesia ( $r = .03$ ,  $p = .72$ ).

**Discussions and Recommendations.** Nurses' knowledge and practice in some certain areas of prevention of CS SSI need to be improved. Education and training program should be conducted in Indonesia to improve nurses' knowledge and practice regarding CS SSI prevention using evidence-based practice which the content including the risk factors of CS SSI, the assessment and diagnosis of CS SSI, the best method of hair removal to prevent CS SSI, the best agent for pre-operative skin preparation and principle of antibiotic prophylaxis.

**Key Words.** Nurses' knowledge and practice, prevention of surgical site infection, cesarean section.

## Introduction

CS SSI is the clinical problem that leads to morbidity and mortality for the mothers and the babies. The incidence of CS SSI ranged between 5-51% in some countries including England, USA and Nigeria (Dryden et al., 2014; Ezechi, Edet, Akinlade, Gab- CV, & Herbertson, 2009; Johnson et al., 2006; Thornburg et al., 2012; Yeeles, Trinick, Childs, Soltani, & Farrell, 2014). The incidences of CS SSI in Indonesia ranged from 6.67% to 20% (Himatusujanah & Rahayuningsih, 2008; M. Djamil Hospital Profile, 2015; Hastuti, 2001). CS SSI is a major cause of prolonged hospital stay and resource consumption, maternal anxiety, breast feeding production disturbance, and decreased quality of life of new moms and babies (Ng et al., 2015).

Prevention of CS SSI was the result of a complex interaction between patient related factors, environmental factors, and nurse related factors (Hollinworth et al., 2008). Nurses play the key role on CS SSI prevention. Due to the different risk factors of SSI in CS found compared to with general surgery, such as premature rupture of membrane (PROM), pre-eclampsia, and unscheduled CS, nurses should

have enough knowledge about the risk factors of CS SSI. In addition, nurses' practice was also related to SSI (Widiyanto et al., 2013). Some studies have been conducted in Indonesia regarding prevention of CS SSI; however, it only explored nurses' and midwives' knowledge and practice regarding aseptic techniques, and hand washing (Onggang, as cited in Himatusujanah&Rahayuningsih, 2008). The other components of prevention of SSI endorsed by Center for Disease Control (CDC) regarding prevention of CS SSI have not yet been explored.

## **Aims**

This study aimed to identify the level of nurses' knowledge and practice regarding prevention of CS SSI and to examine the relationship between nurses' knowledge and practice regarding prevention of CS SSI.

## **Research Methodology**

The study has been conducted from November 2015 to January 2016 at ten government hospitals selected in West Sumatera, Indonesia. Approval and permission were obtained from the Institutional Review Board (IRB), Faculty of Nursing, Prince of Songkla University (PSU), Ministry of Health of West Sumatera Indonesia, Research Ethic Committee of West Sumatera Province and Hospital Directors. Total 201 nurses completed the questionnaires with the response rate yielded 90.13%. The conceptual framework of this study was developed based on the Knowledge-Attitude-Practice (KAP) model, CDC guideline of SSI prevention and literature reviews. Knowledge and practice regarding prevention of CS SSI in pre and post-operative care were measured by the structured questionnaires, which have been added and modified by the researcher from Sickder's Nurses' Knowledge and Practice Regarding Prevention of SSI questionnaire (2010). The questionnaires were translated into Indonesia language using back translation technique and they were tested for content validity by 3 experts. For internal reliability, the Kuder Richardson (KR-20) coefficient of knowledge questionnaire was .81, the cronbach alpha coefficient was .86 for practice questionnaire. Data were analyzed using computer software. The subjects' demographic characteristics, level of knowledge and of practices regarding the prevention of CS SSI were analyzed using frequencies and percentages. The Spearman Rank correlation coefficient was used to examine the relationship between nurses' knowledge and practice regarding the prevention of SSI.

## **Results**

All subjects were female (100%). The average age was 32.92 years old (SD=8.41) ranging from 19 to 58 years old. All subjects were Muslim (100%). The majority of subjects (71.1%) were married. The majority of subjects (78.6%) completed Diploma III in midwifery. More than one third of the subjects (40.8%) had 0-5 year total working experience. The majority of the subjects (54.2%) worked in the wards which combine post natal room and labor room. Most of the subjects (83.1%) were not trained in the infection control training program. The result showed

the level of nurses' knowledge regarding prevention of CS SSI was at a low level ( $M= 69.7\%$ ,  $SD= 8.59\%$ ) and the level of nurses' practice in this study was at high level ( $M=87.58\%$ ,  $SD=9.28\%$ ). There was no significant relationship between total knowledge and total practice regarding prevention of CS SSI ( $r = .03$ ,  $p = .72$ ).

## Discussions and Recommendations

The findings revealed that nurses' knowledge regarding the prevention of SSI was at a low level. The reason might be due to some reasons. Firstly, the majority of nurses had diploma 3 of midwifery (78.6%). Considering the curriculum of Diploma III of midwifery in Indonesia, the focus on evidence based practice and knowledge regarding prevention of CS SSI has not been fulfilled. Thus, no specific content of prevention of CS SSI was included in midwifery program would be one factor for lower knowledge in this area. Secondly, the majority of subjects (83.1%) never attended the infection control training program and there is no infection control training program which specific to CS SSI prevention conducted in Indonesia. Previous study found that training and education have been considered to prepare nurses to gain better knowledge on nosocomial infections (Sucitra & Devi, 2007). Thirdly, the majority of subjects (49.8%) had working experience in 0-5 years. A study found that nurses who have more years of working experience showed a higher level of knowledge regarding infection control (Vij et al., 2001). Thus, less year of working experience would affect the low level of knowledge.

Moreover, the five items of knowledge questionnaire that the lowest percentage of nurses' correctly answered included identifying the best agent for pre-operative skin preparation, identifying the best method for pre-operative hair removal to prevent CS SSI, identifying the diagnosis of SSI, recognizing the laboratory used to ensure SSI, and comprehending prophylactic antibiotic for high risk patients to prevent CS SSI. These data indicated that nurses lacked of knowledge regarding evidence-based nursing practice of CS SSI prevention. Another study also found that nurses lack of knowledge in some areas of SSI prevention including the best time of pre-operative hair removal and hair removal method for pre-operative preparation of surgical patients (Sickder, 2010).

The findings revealed that the nurses' practice regarding the prevention of SSI was at a high level. Some factors are assumed to influence nurses' level of practice regarding prevention of CS SSI. Firstly, social desirability is individual factor that influences the subject responded to self-reported questionnaire. Subjects tended to respond in order to get the higher score even though they might not have performed those activities (Adams et al., 2005). Secondly, the environment might influence nurses' practice in the wards. The availability of resources, including water, washbasin, gloves, masks, and hand soap can help nurses to perform good practice. Previous study found that SSI control was related to sufficient resources of caring for surgical patients (Nguyen, Nguyen, & Jones, 2008). Thirdly, all government hospitals included in this study were teaching hospital, which had an infection control department and infection control program endorsed by the World Health

Organization (WHO). The infection control department supervision might affect the high level of practice. Clinical supervision supplies nurses with an opportunity to improve nursing care in particular for a given patient and in general in relation to maintaining standards of care (Brunero& Stein-Parbury, 2008).

The result revealed that there was no significant relationship between total knowledge and total practice regarding prevention of CS SSI. Another study conducted in Egypt was consistent with this result which found that there was no relationship between knowledge and practice regarding infection prevention at the burn unit (El-Sayed, Gomaa, & Abdel-Aziz, 2013). Some reasons might explain this result. Firstly, nurses who lack of knowledge might perform good practice because of social desirability. Secondly, the method of data collection by using a self-report questionnaire might be failing to capture the real practice. Further study using observation method for data collection might be needed to capture nurses' practice regarding prevention of CS SSI. Thirdly, the items of both knowledge and practice questionnaires were too many. The instrument used for assessing nurses' knowledge and practice regarding prevention of CS SSI should be further revised to be more simple and specific to CS SSI.

Based on the results, the researcher suggests the following recommendation: firstly, education and training program should be conducted in Indonesia to improve nurses' knowledge and practice regarding CS SSI prevention using evidence-based practice which the content including the risk factors of CS SSI, the assessment and diagnosis of CS SSI, the best method of hair removal to prevent CS SSI, the best agent for pre-operative skin preparation and the principle of antibiotic prophylaxis. Secondly, nursing and midwifery curriculum in Indonesia should be adjusted to include the content of CS SSI prevention. Lastly, further study is needed to be conducted in both government and private hospitals in another province in Indonesia.

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**Respirator mask based on microalgae (*Nannochloropsis oculata*) for preventing society from ISPA's disease when volcanic eruption be conducted**

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**Abstract:** Indonesia is the most country who has a lot of volcanic mounts of Ring of Fire can erupt everytime it can be. When volcanoes eruptions, some of material be exploded such as bomb, lapilli, pyroclastic ash etc. Piroclastic ash can influence respiration disease and it call ISPA (Infeksi Saluran Pernapasan Atas). ISPA is kind of disease which attacks lung by damaging alveolar under process of loading pyroclastic ash movement. This research will find out solution for preventing society from piroclastic ash movement by using respirator mask based on microalgae (*Nannochloropsis oculata*). Respirator mask filters piroclastic ash and it can not be absorbed in respiration system. Microalgae (*Nannochloropsis oculata*) be used to supply amount of oxygen which is needed of respiration system. For the result, any kind of respiration disease such as ISPA can be prevented by using this mask.

**Keywords:** ISPA's disease; microalgae; respirator mask

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## The Influence of *Assertiveness Training* Adolescent Violence in Muhammadiyah 2 Palembang Senior High school

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**Background:** Adolescents in the search for their identity prone to violent behavior. Violent behavior is behavior to hurt your self and others physically and psychologically. Violent behavior by adolescents is a problem that must be resolved soon because the impact is very detrimental to all parties. One of the nursing interventions that can be given in order to achieve optimal adolescent mental health is to provide assertiveness training therapy. This kind of therapy is applied to train individual to behave assertive with expression, thoughts, and feelings comfortably without anxiety.

**Aims:** This study aimed to determine the effect *assertiveness training* on violent behavior of adolescent in Muhammadiyah 2 Palembang high school. **Methods:** This study was a quasi-experimental pre-post test with control group with a sample of 60 student. The 30 student in control group was given generalist therapy violent behavior and the 30 student in intervention group was given assertiveness training therapy. The data collection is using questionnaires and the data analysis with statistical test *paired t-Test*.

**Results:** The results showed that there is a significant decrease to the response of violent behavior with mean 11,46 before given assertiveness training therapy and 9,46 after give assertiveness training therapy in the intervention group with p value 0.000. This research also showed that violent behavior in response to behavioral, cognitive, social and physical decreased significantly ( $p = 0.00$ ,  $\alpha = 0.05$ ).

**Conclusion :** There is an influence of assertiveness training therapy on response behavioral of adolescent with violent behavior in the form of physical violence against other people and the environment. *Assertiveness training* able to reduce violent behavior in adolescents and recommended to the teachers, friends and family.

**Keyword:** Violence Behavior, Adolescent, *Assertiveness Training*

The adolescent development known are being in a phase of the search period for identity, is a period which full of emotion, a period of development of the soul to the negative and positive direction also experience the transition period into adulthood. Adolescence is a critical period in the development cycle of a person that marked by the rapid development of biological, psychological, and social aspects. These conditions resulted in various changes that require the ability of adolescent to adjust themselves in order to achieve growth and development task at this stage, that is to achieve a strong self-identity purpose in life which more purposeful so that they can be successful through this phase with optimal<sup>1</sup>.

If this task development can't be achieved so there will be a failure or process of self-identity disorder and role confusion in the form of negative attitudes and behaviors such as, opposes and distrust the ability of themselves, most of it because they are not aware and have not common to consider due to short term or long term. The adolescent who have mistaken doing the adjustment of themselves sometimes perform actions that are not realistic, a lot of them perform impulsive actions such as fights, brawls, thefts and behavior that divert problems faced by consuming alcoholic beverages until it reaches the level of dependence of drug abuse and addictive substances<sup>2</sup>.

The National Narcotics Agency of the Republic of Indonesia reported on the 2008, student whom using drug and illegal drugs in Indonesia as many as 83,000 students, from the elementary school students there are 8449 people, from the middle and high school students there are 73 253 people while from college students there are 1.3 million people. South Sumatra occupied the ranks tenth out of all cities in Indonesia as a drug user. Data from the BNN, that there was an increase of 22.7% from the drug users in 2006, ie 1.1 million inhabitants and in 2008 become 1.3 million inhabitants. And as many as 3,677 people are those who first try and aged 16 to 18 years. Counted approximately 29% of men aged 12 years or older who smoke than women who smoked at the same age<sup>3</sup>.

Violations against children in the greater Jakarta area rising as much as 98% from 1,234 cases in 2010 become 2,380 cases in 2011. Also take note at least a day there are 20 times happens the case of student brawls in Jakarta. Besides also obtained that abortions cases in 2008 until the year 2010 increased by 62%, and the perpetrators are the minors. It turned out that the increase in abortion cases is 15% per year. In 2008 there were 2 million children are victims of abortion, in 2009 increased as many as 300 thousand inhabitants and in 2010 increased as many as 200 thousand inhabitants<sup>4</sup>. Operational Bureau of Polda Metro Jaya stated that in 2010 there were 28 cases of student brawls, in 2011 as many as 39 cases, which begins a trivial matter and offended. The findings of the Ministry of Law and Human Rights, the data of 16 prisons in all over Indonesia found 6,505 children in conflict with the law and submitted to the court as much as 4,622 of them in jail<sup>5</sup>.

Violent behavior among adolescent, especially high school students is increasing every year. Data in Poltabes Yogyakarta in 2008 showed that there are 78 cases of adolescent violent behavior with the offense of the use of a sharp weapons, mistreatment, and beatings with an age range of 12 to 18 years<sup>6</sup>. Juvenile delinquency in the city of Palembang also increased in 2012, amounting to 15%<sup>7</sup>.

This shows that adolescent are vulnerable to do violent behavior, is an attitude or rude behavior or words that describe the behavior amuck, hostility and a potential which causing

physical damage<sup>2</sup>. Violent behavior is a condition in which a person doing an action that can harm physically for themselves, others and the environment. The factors which affect the incidence of violent behavior in adolescent are identity, self-control, age, sex, hope to education, recognition of peers, the economy and the process of family<sup>8</sup>. Violent behavior in adolescent occurs due to biological factors, temperament, social influence, drugs and exposure to violent behavior<sup>6</sup>.

Based on interviews that have been conducted against teachers and several students at Senior High School Muhammadiyah 2 Palembang in January 2015, it is known that there is still a class XI student who often truant during school hours, students who often fight among classes and violent behavior verbally that often expressed both peers and to parents and teachers.

Teachers and parents have done a lot of things to overcome this, but it still student's behavior at this time is very risky become violent behavior that would be very detrimental to themselves, their families, their school and communities. For this reason that effort must be taken to overcome the violent behavior of adolescent and distributes their activities into positive activities. This activity consisted of assertive behavior training contained in training Assertiveness therapy. Assertiveness training given by giving examples, models and exercises to improve the ability of adolescent to behave assertively, especially in expressing thoughts and feelings as required, build up an open communication, direct and honest so that the violent behavior of adolescent can be minimized<sup>9</sup>.

Assertiveness training is a consequence that will be earned by individuals in the resolution of the conflict that has been always experienced by individuals, overcome the difficult situations and sharing in decision making, increase a sense of comfort and reduce the situations that can cause emotions<sup>9</sup>. Assertiveness training is a therapy to train individuals to behave assertively by expressing their thoughts and their feeling comfortably without anxiety.

Assertiveness training is given to adolescent with violent behavior in order to be able to know, understand and do the assertive behavior in various situations in their life processes. Giving assertiveness training aims to increase the self-assessment, improving self-esteem, reduce anxiety, improve the ability to make life decisions, express something verbally and nonverbally, to express the needs and rights and to train skills of basic interpersonal of someone cognitively, affectively and behavior and help individuals understand that aggressive behavior is a form of behavior that must be understood, modified and controlled, angry expression for one situation is not necessarily right for other situations and methods to

overcome the aggressive behavior can be used to decrease aggressive behavior become better<sup>10</sup>.

Assertiveness training therapy in adolescent with violent behavior is necessary and important to be done in order to help adolescent have the assertive behavior with learning and practicing together so they can do the assertive behavior in various situations. Research that have been done by Wahyuningsih showed that assertiveness training and generalist therapy has influence significantly lowered response behavioral, social, cognitive and physical of violent behavior<sup>11</sup>. It is also appropriate with research that have been done by Novianti who reported there were an increase of assertive communication skills of mother in the group that receive assertiveness training increased significantly<sup>12</sup>. Thus Assertiveness Training therapy is one form of therapy that can be used as one form of activities and programs for health workers especially, families and society in general in order to improve the quality and ability of teenagers in the future by changing the violent behavior of adolescent become the assertive behavior.

### **Research methods**

The design that used in this research is "Quasi experimental pre-post test with control group" with assertiveness training intervention on September 21st, 2015 and November 20th, 2015. The intervention group had given Assertive training therapy which divided into five sessions, there are session 1 is to identify an incident that make angered or annoyed and attitudes that appear when there are incident that make angered or annoyed, session 2 is to express wishes and needs and how to fulfill it, session 3 is to train the ability of assertive attitude in expressing needs and wishes, session 4 is to train the ability to say no to requests of others who are not rational and submit the reason, session 5 is an exercise in maintaining assertive attitude in expressing needs and desires and to say no to request of other people who are not rational<sup>12</sup>.

The control group was given generalist therapy violent behavior as much as four sessions. Each session conducted twice meeting. The research sample is using purposive sampling technique based on the predefined inclusion criteria, namely teenage boys, aged 14-19 years, a history of violent behavior, and willing to become respondents. This research conducted to know the effect of assertiveness training on the response of cognitive, behavioral, social and emotional teenagers in Senior High School Muhammadiyah 2 Palembang.

The research samples as many as 60 people with 30 respondents of intervention group and 30 respondents of control group. The data collection is using questionnaires and the data analysis with univariate and bivariate. The bivariate analysis using statistical calculations, statistical test *paired t-Test*.

## Research Result

The description of the characteristics frequency distribution of adolescent with violent behavior that includes age and a history of violent behavior.

**Table 1**  
**The distribution of adolescent with violent behavior based on age and a history of violent behavior in Senior High School Muhammadiyah 2 Palembang 2015**

The Intervention Group	n	Mean	SD	SE	<i>p value</i>
Behavioral response					
1. Before	30	11,46	2,11	0,38	0,000
2. After	30	9,46	1,67	0,30	
3. Difference		2,00			
Cognitive response					
1. Before	30	13,26	1,99	0,36	0,003
2. After	30	11.03	2,10	0,38	
3. Difference		2,23			
Social response					
1. Before	30	9,63	2,53	0,46	0,000
2. After	30	7,73	2, 01	0,36	
3. Difference		1,90			
Physical response					
1. Before	30	7, 83	1,48	0,27	0,000
2. After	30	6,78	1,16	0,21	
3. Difference		1,05			

**Tabel 2**  
**The differences analysis of violent behavior in adolescent Before and After Assertiveness training Based on response Behavioral, Cognitive, Social and Physical In the intervention group in Senior High School Muhammadiyah 2 Palembang 2015**

Characteristics	The intervention group		The control group		Total	
	n	%	n	%	n	%
Age						
1. 14 -16	15	30%	21	67,7%	36	60%
2. 17- 19	15	30%	9	29,0%	24	40%
A history of violence						
1. ≤ 5	19	63%	14	45,2%	33	55%
2. ≥ 6	11	36,7%	16	51,5%	27	45%

**Table 3**  
**The differences analysis of violent behavior in adolescent Before and After Assertiveness training Based on response Behavioral, Cognitive, Social and Physical In the control group in Senior High School Muhammadiyah 2 Palembang 2015**

The Control Group	n	Mean	SD	SE	<i>p value</i>
Behavioral response					
1. Before	30	11,43	2,11	0,38	0,000
2. After	30	9,40	1,63	0,29	
3. Difference		2,03			
Cognitive response					
1. Before	30	13,06	2,04	0,37	0,004
2. After	30	10,96	1,12	0,38	
3. Difference		2,10			
Social response					
1. Before	30	9,56	2,29	0,41	0,002
2. After	30	7,80	2,34	0,42	
3. Difference		1,76			
Physical response					
1. Before	30	7, 93	1,48	0,27	0,000
2. After	30	6,70	1, 14	0,20	
3. Difference		1,23			

## The Discussion

### The effect of Assertiveness Training on the response of violent behavior in adolescent

The results of the research showed that there is a significant decrease to the response of violent behavior between before and after given assertiveness training therapy in the intervention group with *p value* 0.000. It means that there is an influence of assertiveness training therapy on response behavioral of adolescent with violent behavior in the form of physical violence against other people and the environment.

Violent behavior is a response to the anger that is in the range of maladaptive which includes cognitive, affective, physiological, behavioral and social response. Behavioral responses which appear in someone with violent behavior are hostile, behavior that can harm their self, others and the environment<sup>8</sup>. Behavioral responses can be either an inability to sit calmly, fisted hand and encroach on personal space when interacting namely <60cm<sup>9</sup>.

Assertive attitude is an action which taken in accordance with the choice, express your expression honestly, feel comfortable without feeling anxious. Assertive behavior that trained in teenagers with violent behavior will help them to behave in accordance with the duties of adolescent development<sup>10</sup>. Adolescent are taught new behaviors which they will be learning, and practicing and doing role play with friends and expected to be able to apply it in real life everyday either in school and society<sup>9</sup>.

Violent behavior of adolescent can be reduced by taking anger management program which contributed as much as 6% to the decline in aggressive behavior of adolescent. This program is also beneficial in helping teenagers control their behavior to maximize the abilities they possess<sup>6</sup>. Other programs which can reduce violent behavior of adolescent is a program that is proven to be effective in lowering aggressive behavior of teenagers by providing training for 10 weeks (20 sessions). This activity is given by playing of percussion instruments as a means of diverting an angry expression and to train adolescent to look for other alternatives response against angry other than negative behavior<sup>13</sup>.

### **The effect of Assertiveness Training on the cognitive response of violent behavior in adolescent**

The results of the research showed that there is a significant decrease to the cognitive response of violent behavior in adolescent before and after given assertiveness training to the intervention group with p value 0,003. It means that there are an influence of assertiveness training therapy to the cognitive response of adolescent with violent behavior namely are not be able to think calmly when upset and can't find a solution to the problem that is being faced. A cognitive response in individuals with violent behavior such as have an irrational thinking and lack of confidence, assess and criticize others behavior and lose control<sup>14</sup>.

Violent behavior occurs because of there are an unpleasant situation and individual factors. The existence of interaction from the aspect of affective, cognitive and arousal of the stimulus and then cause a negative feelings and the role of cognitive factors which determine the behavior that appears. Aggressive behavior also occurs because of the process that accepted cognitive<sup>6</sup>. The appearance of anger on someone as a result of their negative thoughts, both in the form of the negative view towards their self, others and the environment and the negative view towards the future<sup>15</sup>.

### **The effect of Assertiveness Training on the social response of violent behavior in adolescent**

The results of the research showed that there is a significant decrease to the social response of violent behavior in adolescent before and after given assertiveness training to the intervention group with p value 0,000. It means that there are an influence of assertiveness training therapy to the social response of teenagers with violent behavior in the form of blaming others for the problems that are going on, speak loudly and rudely, insulting and belittling the others opinions. The social response of violent behavior in someone is interpersonal relationships that less harmonious and tend to hurt other people<sup>14</sup>.

The period of growth and development of adolescent are often experiencing conflicts during the adjustment period of themselves. The pattern of their social development becomes annoyed so that their development tasks can't be achieved well. Social relationships can also have problems even though at the same time they actually need other people to help them in solving the problems they faced. Because of that adolescent should have the skills to manage emotions and anger or reduce the occurrence of aggressive behavior that is very detrimental to adolescent. Adolescent who have good interpersonal intelligence tend to be easily accepted by their environment, they can express their self well and satisfied in life<sup>15</sup>.

Assertiveness is a person's ability to maintain their personal rights and is able to express their feelings, ideas and thoughts and beliefs openly, honestly and with honoring and

respecting the rights of others. Teenagers who do not assertive usually not be able to convey the desire, the confidence and the feeling such as fear, shame and even they can't afford to respect their own rights<sup>16</sup>.

Adolescent should train their self to behave assertively. Assertiveness or behave assertively is an interpersonal behavior that includes aspects of honesty and openness of mind and feelings. Assertive behavior will help a person establish a good interaction between individuals, because in it there is mutual respect behavior and respect for one another and uphold the values of honesty<sup>17</sup>.

### **The effect of Assertiveness Training on the physical response of violent behavior in Adolescent**

The results of the research showed that there is a significant decrease to the physical response of violent behavior in adolescent before and after given assertiveness training to the intervention group with p value 0,000. It means that there is an influence of assertiveness training therapy to the physical response of teenagers with violent behavior that appears in the form of sharp eyes and bulging, head up to the top and flushed face when angry. Physical response of individuals with violent behavior includes increased blood pressure, heart rate and breathing, dilated pupils, strained face and jaw hardened<sup>14</sup>.

Assertive behavior is the ability to require what is be your rights or what do you want from a situation and maintain it as well not violate the rights of others<sup>18</sup>. Individuals who can't apply assertiveness in life may result in unhealthy relationships, not harmonious; lacking a sense of kinship even it can occurs a dispute<sup>17</sup>.

Research shows that there is a relationship between assertive behavior with a tendency to become a victim of bullying, the higher the assertive behavior of students, the lower the tendency to become victims of bullying, and vice versa the lower the assertive behavior, the higher tendency of being bullied. Teenagers who are able to behave assertively will not get any physical violence, because they are able to fight or escape from bullying experienced. They also do not get non-physical violence because they were able to report to the school principal or teacher<sup>18</sup>.

### **Conclusion**

1. The Characteristic of adolescent with violent behavior are men as much as 100%.
2. The Characteristic of adolescent with violent behavior as much as 60% at the age of 14-16 years.
3. The Characteristic of adolescent with violent behavior <5 times as much as 55%.
4. There is a decrease in violent behavior both the response of behavioral, cognitive, social and physical of adolescent in Senior High School Muhammadiyah 2 Palembang is greater in the group that receiving generalist therapy and assertiveness training rather than the group that only receiving generalist therapy (p value <0.05).

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## STUDENT ABILITY TO WRITE OF NURSING DIAGNOSIS

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### Abstract

**Background:** Nursing students of third semester began a nursing clinical practice for four weeks were required to provide care to two patients and writing nursing care.

**Aim:** The study goal was describe the ability of student to write a nursing diagnosis.

**Methods:** Design was descriptive used documentary study. Material study were all student writing about nursing diagnosis in practical report of the 3<sup>rd</sup> basic human needs on the third semester of the academic year 2015/2016 at study program of Blitar third diploma of Malang Health Polytechnic as much as 180 nursing diagnoses writing. Sampled used total nursing diagnosis. Analysis used descriptive.

**Result:** NANDA domain that the focus of nursing students were nutrition, elimination and exchange, activity and rest, safety, and comfort. Congruence of writing of problem toward domain nursing diagnosis was as much as 75.6% was matching and as much as 24.4% was mismatching. Congruence of etiology toward problem of nursing diagnosis was as much as 48.9% was mismatching and as much as 7.8% was not written.

**Analysis:** Incongruity writing of nursing problem toward domain and etiology toward nursing problem of nursing diagnosis by 3<sup>rd</sup> semester nursing students cause they confused for analyzing and synthesizing, limitation of assessment data, and inability critical thinking.

**Discuss:** Effort to reduce of incongruity can be done by intensive guidance, consultations every writing, correction after consultation, guidance practice by bed side teaching, and preceptorship training.

**Key words:** student, ability, nursing diagnosis

### Background

Student clinical learning effort to socialization for clinical practice include in writing of nursing care. A part of nursing care is nursing diagnosis. Writing of nursing diagnosis by student must be trained and applied. Learning format for student should be implemented as early as in clinical practice.

According course curriculum, clinical practice for student began in the third semester of basic human needs practice. Student determine their own basic human needs of patients who are treated in accordance practice. So, student do the assessment and formulate nursing diagnosis. Result of clinical practice activities organized in practice report.

The study goal was describe the ability of student to write a nursing diagnosis.

### Methods

Design was descriptive used documentary study. Material study were all student writing about nursing diagnosis in practical report of the 3<sup>rd</sup> basic human needs on the third semester of the academic year 2015/2016 at study program of Blitar third diploma of Malang Health Polytechnic as much as 180 nursing diagnoses writing. Sampled used total nursing diagnosis. Analysis used descriptive.

### Result

Clinical practice activities every nursing student of basic human needs was conducted four weeks in two ward rooms of hospital nursing services. Students get the task of

providing nursing care to a patient every two weeks of practice. Nursing care provided must be comprehensive begin assessment until an evaluation directed at basic human needs. Each student during practice four weeks has written two nursing diagnoses.

Students practice as many as 90 people to produce 180 nursing diagnoses. Writing guidelines using NANDA (North American Nursing Diagnosis Association) 2015-2017, expected outcomes using NOC (Nursing Outcomes Classification), and nursing intervention using NIC (Nursing Interventions Classification. Written nursing diagnoses students when grouped in the NANDA domain are as much as 23.3% (42 nursing diagnoses) in the domain of nutrition, 21.1% (38 nursing diagnoses) in the domain of elimination and exchange, 33.3% (60 nursing diagnoses) in the domain of activity and rest, 3.3% (6 nursing diagnoses) in the domain of safety, and 18.9% (34 nursing diagnoses) in the domain of comfort.

Congruence of writing of problem toward domain nursing diagnosis and etiology toward problem of nursing diagnosis presented in the table below.

**Table of congruence of writing of problem toward domain nursing diagnosis and etiology toward problem of nursing diagnosis**

Congruence of writing of problem toward domain nursing diagnosis		Congruence of etiology toward problem of nursing diagnosis			Total
		Matching	Not matching	No written	
Matching	Nutrition	12 (6.7%)	12 (6.7%)	2 (1.1%)	26 (14.4%)
	Elimination and exchange	16 (8.9%)	2 (1.1%)	2 (1.1%)	20 (11.1%)
	Activity and rest	26 (14.4%)	22 (12.2%)	4 (2.2%)	52 (28.9%)
	Safety	2 (1.1%)	4 (2.2%)	0 (0%)	6 (3.3%)
	Comfort	22 (12.2%)	10 (5.6%)	0 (0%)	32 (17.8%)
	Total	78 (43.3%)	50 (27.8%)	8 (4.4%)	136 (75.6%)
No matching	Nutrition	--	14 (7.8%)	2 (1.1%)	16 (8.9%)
	Elimination and exchange	--	14 (7.8%)	4 (2.2%)	18 (10.0%)
	Activity and rest	--	8 (4.4%)	0 (0%)	8 (4.4%)
	Safety	--	0 (0%)	0 (0%)	0 (0%)
	Comfort	--	2 (1.1%)	0 (0%)	2 (1.1%)
	Total	--	38 (21.1%)	6 (3.3%)	44 (24.4%)
Total	Nutrition	12 (6.7%)	26 (14.4%)	4 (2.2%)	42 (23.3%)
	Elimination and exchange	16 (8.9%)	16 (8.9%)	6 (3.3%)	38 (21.1%)
	Activity and rest	26 (14.4%)	30 (16.7%)	4 (2.2%)	60 (33.3%)
	Safety	2 (1.1%)	4 (2.2%)	0 (0%)	6 (3.3%)
	Comfort	22 (12.2%)	12 (6.7%)	0 (0%)	34 (18.9%)
	Total	78 (43.3%)	88 (48.9%)	14 (7.8%)	180 (100%)

## Discussion

Student writing ability of nursing diagnosis should be practiced earliest. Nursing practice implemented since the odd semester of second years. Practice is performed integrated between the practice to fulfilment patient basic needs and writing

nursing care. Nursing care provided to patients is the assessment, diagnosis formulation, planning, implementation, and evaluation. The patient basic needs is determined by preceptor. So, students provide care for two weeks for each patient. Student writing of nursing care consulted continuously to preceptor.

Written nursing diagnoses students describe the patient basic needs of who were care for four weeks and in accordance with the highest ranked health problems of patients served by the hospital. Domain nursing problems (nutrition, elimination and exchange, activity and rest, safety, and comfort) matching with the most diseases caring of hospitals in East Java namely anemia, hypertension, diarrhea, and Diabetes Mellitus (Dinkes Prov Jawa Timur, 2012). Patients has a tendency to have physical weakness for the move and do not dare to mobilize around the bed during care. Interviews results showed that patients has a fear becomes severe or prolonged recovery. Thus the patient who makes the students training to be educators and to train the patient to be able to undertake activities and mobilization capabilities.

Mismatching problems nursing written with domain as much as 24.4% (table) possible that students have confused for analysing and synthesizing from assessment result. Should, student confusion does not occur because the student has got a theory about nursing care and critical thinking in nursing. Also, during practice guidance from preceptor. Reasonableness of write nursing problems mismatching with the domain because students nursing practice is the first time so that the confusion occurs. Research result of Kyung-Sook Kim and Jung-Hyun Choi (2014) that the students' ability to write is influenced by the experience of clinical practice. That is, if the experience of the students practice improved then the mismatch writing of nursing problem will be reduced. Students who have the appropriate write nursing problems with the domain (75.6%) probably because during the writing using a pocket book about guide writing nursing diagnoses.

A writing congruence of nursing problems with the domain, there are as many as 27.8% of the etiology is not matching with nursing problem and as many as 4.4% is not written. The situation may be due to the inability critical thinking or limitations of assessment data, possible causes of emotional intelligence of students. According Austyn Snowden et al (2015) that emotional intelligence is associated with success. Writing of etiology fault of the nursing diagnoses formulation can be improved with intensive guidance, consultations every writing, correction after consultation, and guidance practice by bed side teaching. Also, need to increase the critical thinking skills and emotional intelligence of preceptor that is preceptorship training.

## **Conclusion**

Incongruity writing of nursing problem toward domain and etiology toward nursing problem of nursing diagnosis by 3<sup>rd</sup> semester nursing students cause they confused for analyzing and synthesizing, limitation of assessment data, and inability critical thinking.

## **Recommendation**

Effort to reduce of incongruity can be done by intensive guidance, consultations every writing, correction after consultation, guidance practice by bed side teaching, and preceptorship training.

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# **Effect Self Directed Video Method to The Knowledge and Skill of Cardiopulmonary Resuscitation (CPR) For High School Student in Malang**

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It is necessary nowadays to increase the importance and the skill of CPR in lay people. One way is to introduce CPR training using self directed video method. The aim of this experiment was to identify the increased knowledge and skill of CPR using self directed video method. This experiment was a quasy-experimental with pretest-posttest without control group design using 48 high school students as the samples, which were obtained using purposive sampling technique. Data from a pretest and a posttest were collected to measure the difference in knowledge and skill before and after the training. Results showed that the mean of knowledge was 6.94 (1.8) before training and 9.13 (1.2) after training, with p value 0.001. The respondents could not perform the complete procedure of the CPR. After training, the respondents showed the average results of 35.7 mm chest compression depth, 117.6 chest compression speed, 0.3 times ventilation, and 142.8 second of 5 CPR cycles duration. The respondents were unable to perform chest compression adequately for both depth and ventilation to the victim of cardiac arrest. It is suggested that CPR training is necessary for general public and that is should focus more on chest.

**Keyword:** Knowledge, CPR Skill, Self Directed Video

# **THE INFLUENCE OF EARLY AMBULATION TOWARD THE INTENSITY OF BOWEL SOUNDS AND FLATUS IN POST OPERATIVE PATIENTS WITH APPENDICITIS**

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## **ABSTRACT**

Appendicitis is abdominal emergency case that most frequently occurs. Post-operative patients of appendicitis usually bed rest and afraid to move causing the delays of bowel sounds and flatus intensity. The aim of this study was to determine the influence of early ambulation toward the intensity of bowel sounds and flatus in the post-op patients of appendicitis.

The design of this study was pre-experimental study. Sampling used was total sampling. The sample was taken from 30 respondents. Those respondents were treated in Bougenville wards of Dr. Soegiri hospital Lamongan. Data collection was performed using observation sheet and has been analyzed using independent sample t-test with a significance level of 0.05

The result of this study showed that the intensity of bowel sounds and flatus in the group with early ambulation was normal intensity, while the intensity of bowel sounds and flatus in the control group was almost slow. It can be concluded that there was influence between early ambulation and the intensity of bowel sounds and flatus with the level of significance 0.023 and 0.000 ( $p < 0.05$ ).

Getting the results of this study, it is salient to hold a socialization of early ambulation to post-op patients of appendicitis in order to avoid the delays of bowel sounds and flatus' intensity.

**Keywords:** early ambulation, the intensity of bowel sounds, the intensity of flatus

## **INTRODUCTION**

Appendicitis is an emergency case of abdomen that often occurs. Annisa (2011) argues that appendicitis is a prototype disease that goes through inflammation due to the obstruction and ischemia in variety of time period in which the symptoms reflect the disease state in the time of the disease occurs. In appendicitis case, almost 97% -100% of this sickness is accompanied by the initial complaints, such as sharp pain that is a main complaint than any others (Soetanto, 2010). Appendicitis is a major surgery disease that most often occurs. This disease can infect all ages both men and women, but it more common infects men aged between 10 to 30 years (Robbins, 2007). Appendicitis happens quite often in many countries, including Indonesia. Appendicitis is the fourth biggest disease that often infects Indonesian in 2006. The number of patients hospitalized due to this illness in that year was 28.949 patients.

It was in the fourth order after dyspepsia, gastritis, duodenitis and others CEMA system (Ganong, 2008).

The data obtained from the medical records in the operating room of Dr. Soegiri Hospital Lamongan in 2012, there were 116 post-op patients of appendicitis and in the year of 2013 from January to April, there were 45 post-op patients of appendicitis. The observation data on 29 November 2013, there were 10 post-op patients with appendicitis (70%) experiencing delays flatus (> 24 hours) and 30% patients experiencing rapid flatus (< 24 hours).

From the data above, it can be concluded that there were still many post-op patients with appendicitis who experience delays flatus.

Appendectomy is an appendicitis treatment by taking the appendix through surgery. This surgery is done if the inflammation of the appendix does not rupture. This operation can be performed using spinal anesthesia with a lower abdominal incision (Brunner and Suddart, 2002). In addition to spinal anesthesia, it can also use Subarachnoid Block (SAB). The use of anesthesia SAB can reduce the bowel sounds and flatus intensity so that it can influence frequency of peristaltic. Besides that, post-op appendicitis patients without complication were given oral liquid food after getting fart or when they felt thirsty, hungry, even when they loosen their bowels.

The factors that affect the frequency of intestinal peristalsis is early ambulation (*early ambulatory*), type of anesthesia, anxiety, nutrition/feeding oral liquid, and health status of patients who can be seen from the weight of the patients, laboratory results, x-ray, and a complete physical examination (Bascommetro, 2010).

The impact when one cannot fart is that the gas is accumulated in the intestine lumen, then the intestinal wall become stretchable and distended (*flatulen*).

## RESEARCH METHODOLOGY

The design of this study used pre-experimental methods (Suharsimi, 2006). Population of this study was post-op patients with appendicitis in Bougenvile ward of Dr. Soegiri Hospital Lamongan and the samples are 30 patients of the population. The sampling method used is total sampling (Hidayat, 2009). The research variables were the intensity of bowel sounds and flatus using early ambulation treatment (Soekidjo, 2002). The data were taken using observation sheet and analyzed using independent sample t-test with  $\alpha = 0.05$  (Nursalam, 2008).

## RESULT OF THE RESEARCH

1. The effect of early ambulation to the bowel sounds intensity on post-op appendicitis patient

**Table 1 The Distribution of the bowel sounds Intensity on the control and treatment group**

Early Ambulation	Bowel sounds Intensity						Total	
	Soft		Normal		Strong			
							F	



							req.	
Control		2	1	7	0	0	15	00
Treatment		0	2	8	0	0	15	00
Total		2	3	15	0	0	30	00

Table 1 shows that four patients who were not given early ambulation indicated soft bowel sounds intensity (26.7%) and 11 patients indicated normal bowel sounds intensity (73.3%), While none of patient given early ambulation experienced soft bowel sounds intensity (0%), 12 patients experienced normal bowel sounds intensity (80%) and three of them experienced fast bowel sounds intensity (20%).

The results of SPSS using independent sample t test with significance value of 0.023 where  $p < 0.05$ , it showed that  $H_0$  was rejected and  $H_1$  was accepted. It means that there was influence of early ambulation to the bowel sounds intensity on post-op appendicitis patients in Bougenvile ward Dr. Soegiri Hospital Lamongan.

## 2. The effect of early ambulation to the intensity of flatus on the post-op appendicitis patients

**Table 2 The Distribution of the flatus Intensity on the control and treatment group**

Early Ambulation	Flatus Intensity						Total	
	Slow		Normal		Fast			
							F req.	
Control	3	6,7	2	13,3	0	0	15	00
Treatment	0	0	7	46,7	3	20	15	00
Total	3	20	9	60	3	20	30	00

Table 2 shows that 13 patients not given early ambulation showed slow flatus intensity (86.7%) and two patients showed normal flatus (13.3%), while two patients given early ambulation indicates fast flatus intensity (13.3%) and seven patients experienced normal flatus intensity (46.7%).

The results of SPSS using independent sample t test with significance value of 0.000 where  $p < 0.05$  showed that  $H_0$  was rejected and  $H_1$  was accepted. It means that there was

influence of the early ambulation to the intensity of flatus on post-op appendicitis patients in Bougenvile ward of Dr. Soegiri Hospital Lamongan.

## **DISCUSSION**

### **The effect of early ambulation to the intensity of bowel sounds in post-op appendicitis patients**

There is an effect of early ambulation to the bowel intensity on post-op appendicitis patients in Bougenvile ward of Dr. Soegiri Hospital Lamongan.

Laparotomy will lead to a reduction or disruption to patient mobilization. Therefore mobilization is an important activity to prevent complications. The patient's ability to move and walk in post surgery will determine the activities that must be done to do maximum movement. Movement and activity on the bed can help to prevent complications in the respiratory system, cardiovascular, and it is able to prevent decubitus, stimulate intestinal peristalsis and reduce pain. It is because of patients with musculoskeletal disorders have limited motion.

The results of this study are consistent with that has already research by Mark Swartz (1995) that post-op appendicitis patients should get early ambulation treatment to prevent complications. But in general, post-op appendicitis patients often have limited movement and tend to be in a horizontal position only in which that position will lead to drastic changes in many systems of the body, not just the musculoskeletal system, but also other systems, including the digestive system.

The results of the study indicate that early ambulation on post-op appendicitis patients can help the recovery process of intestinal peristalsis in which the early ambulation is recommended to post-op appendicitis patients as early as possible. It is influenced by the level of education, people who have less knowledge will hamper themselves to get information, then it will make them get fear and anxious to move. They are afraid if the suture will get open or as their experience that if they move, they will feel so much pain. That is why patients choose not to mobilize.

### **The effect of early ambulation to the intensity of flatus in post-op appendicitis patients**

There is an effect of early ambulation to the intensity of flatus in post-op appendicitis patients in Bougenvile ward Dr. Soegiri Hospital Lamongan. Mobilization is important for patients to maintain their health. Physical problems that are caused by not performing mobilization to post-op appendicitis patients include: the decreasing of mental awareness as an impact of the discharge of oxygen to the brain, the decreasing of speed and depth of breathing that can occur thrombophlebitis, the healing of wounds take longer, the increasing of the pain level, the decreasing of kidney function that may cause urinary retention, the decreasing of metabolism, the decreasing of muscle tone that will hamper nitrogen balance, the decreasing of intestinal peristalsis, the difficulties in farting, the distension of abdominal and pain due to gas, and the occurring of constipation and paralytic ileus (Wibowo, 2013).

Mobilization is an activity that stands out in the increasing of postoperative recovery and is useful to prevent further complications. But in fact, it is not to mobilize an appropriate program with a consideration that patients themselves were reluctant to move because of the

pain and fear that the wound will be opened if they did many movements, and any other complaints. If it lasts continuously, patients will only rest in bed for a long period of time and it will result in psychological complications that will obviously hamper the recovery process of post-surgery (Wibowo, 2013).

This result supports the theory that early ambulation is one of nursing procedures that can be done to speed up the flatus of patients by reducing the accumulation of gas in the intestinal organs (Soetanto, 2010). Ambulation can improve the tone of the gastrointestinal tract and the abdominal wall stimulates the peristalsis (Brunner and Suddart, 2002), besides that early ambulation, physiologically, can stimulate organs to function well more quickly, such as heart, bladder and gastrointestinal system, especially peristalsis, so the patient can fart. The working principle of early ambulation is in every movement of ambulation will stimulate the heart to work more optimally so that the blood circulation will work smoothly. Normal blood flows will bring the anesthetic inside the body gradually and then will be taken to the kidneys (Soetanto, 2010).

According to its function, kidney will filter the blood as well as anesthetic contained in it and throw it as a substance that is no longer needed for the body in the same time when they urinate (Syaifudin, 1997). When the anesthetic effect begins to disappear then the organs will work normally as well as the peristaltic on gastrointestinal system. This will encourage the movement of gas in the intestine and will come out that the patients can fart and reduce the impact of distention due to anesthesia (Annisa, 2011).

Based on the results, it showed that the exercise of joint motion or early ambulation is very important for patients so that after having surgery, the patient can immediately perform a variety of movements needed to accelerate the healing process. The patients or their family often do not have an accurate view of patients' movement after having surgery. Many patients did not dare to move their body because they were afraid if the sutures were opened and it would take too long to heal. This kind of understanding is clearly wrong because when the patient has already had surgery and immediately move their body or having exercises, it will stimulate their bowel (intestinal peristalsis) so the patients will fart more quickly. Another advantage of early ambulation is to avoid the accumulation of mucus in the respiratory tract and avoid the occurrence of joint contractures and bedsores. Therefore, knowledge is very important for patients because it will increase their knowledge to do early mobilization so that the patient will feel more comfortable and feel no pain in their suture after surgery. It can also improve the intestinal peristaltic stimulation, so the patients can immediately fart/flatus.

## **CONCLUSIONS AND RECOMMENDATIONS**

The conclusions of this research are:

- 1) There is an influence of early ambulation to the intensity of bowel sounds on post-op appendicitis patients in Bougenville ward Dr. Soegiri Hospital Lamongan.
- 2) There is an influence of early ambulation to the intensity of flatus on post-op appendicitis patients in Bougenville ward Dr. Soegiri Hospital Lamongan.

The suggestion for this study is that this study can be used as an input in the implementation of early ambulation to the intensity of bowel sounds and flatus on post-op appendicitis patients.

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## APPLICATION DEVELOPMENT OF *DIABETES MELLITUS* WITH *E-LEARNING* MEDIA CONCEPT

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### ABSTRACT

*Diabetes Mellitus Type 1 is the result of a systemic disorder of glucose metabolism which signed with chronic hyperglycemia. The situation is caused by damage to the pancreatic beta cells by either an autoimmune or idiopathic processes so that insulin production is reduced and even stopped. On the other hand, Diabetes Mellitus Type 2 is a metabolic disorder that is marked by a rise in blood sugar due to a decrease in insulin secretion by pancreatic beta cells and insulin function or disorder (insulin resistance). The results of Health Research in 2008, showed the incidence of Diabetes Mellitus in Indonesia reached 57% (from total population), while diabetes mellitus type 2 is 95% in the world. Management of these diseases is done by the use of hyperglycemia and insulin oral medication and lifestyle modifications to reduce these incidences and microvascular-macrovascular complications of diabetes mellitus type 2. The material requires a learning media as a source of latest information for the service provider who expected to improve their knowledge with E-learning concept. It means learning with computer; specific softwares and internet. The objection of this paper explains how to make Diabetes mellitus learning media with computer software in order to attractive, interactive and make it easier for user, it also how to understand the importance of science about Diabetes mellitus and the way to handle this disease. The computer softwares are Microsoft Power Point as presentation media, Camtasia Studio and Corel Video Studio as video editor which will uploaded in YouTube. The method using descriptive analysis which explain work processes, it start from making presentation media in Microsoft Power Point, recording monitor screen with Camtasia Studio, video editing with Corel Video Studio, then the next steps are uploading video in YouTube and writing in personal blog which can find via google search. The result is E-learning media concept which raising the interest of users as material for the study of Diabetes mellitus and effective to minimize the impact of this disease.*

**Keywords:** *Diabetes mellitus, instructional media, and E-learning media concept*

### INTRODUCTION

*Diabetes Mellitus* is a disease characterized by the occurrence of hyperglycemia and impaired metabolism of carbohydrates, fats, and proteins associated with absolute or relative shortage of labor and or insulin secretion. The people who have *diabetes mellitus* symptoms are polydipsia, polyuria, polyphagia, weight loss, and numbness. *International Diabetes Federation* (IDF) said that the prevalence of *Diabetes Mellitus* in the world is 1.9% and has made *diabetes mellitus* as a cause of death sequence to seventh in the world, while in 2012 the incidence of *diabetes mellitus* in the world is 371 million people where the proportion of incident *diabetes mellitus* 2 is 95% of the

world population suffer from diabetes mellitus. Results of Health Research Base in 2008, showed the prevalence of diabetes mellitus in Indonesia enlarged up to 57% (Burerah, 2010).

In Indonesia the exact number of people with type 1 *diabetes mellitus* is unknown although the figures reported rising sharply lately. As an illustration, the number of children with type 1 *diabetes mellitus* in patients with *diabetes mellitus* Association of Child and Adolescent (IKADAR) number has reached 400 people. Because there is the large number of *diabetes mellitus* in children are found in Indonesia, so parents and doctors often did not alert to the disease. Many parents do not even believe his son had diabetes mellitus, and have realized the pain is quite severe (Harding, 2003). Knowing that, it's time various parties associated with the management and prevention of diabetes mellitus both the type 1 and the type 2 such as doctors, nurses, physician endocrinologist children, and the health department, to harmonize and unify measures for the handling of the disease can be sustainable.

Thus, the objection of this paper is to explain how the of making processes about *diabetes mellitus* learning media by E-learning Concept. It means learning with computer; specific softwares and internet, such as Microsoft Power Point, Camtasia Studio, Corel Video Studio, YouTube, and personal blog : wordpress.

## **METHODOLOGY**

This study about how to make learning media easier for users. It called E-learning media concept, which using internet and softwares. Of course not only media but also in scientific area, that is *Diabetes mellitus* learning media. The method of analysis conducted by the study description analysis which explain work processes. Steps being taken include the determination of the aspects of the discussion, data collection, and data processing aspects to generate conclusions. Aspect of the discussion as a limitation of the research conducted in this study include processes to make learning media. it start from making presentation media in Microsoft Power Point, recording monitor screen with Camtasia Studio, video editing with Corel Video Studio, then the next steps are uploading video in YouTube and writing in personal blog which can find via google search.

### **Equipment**

Learning media *Diabetes mellitus* using hardware and software equipment in the manufacturing process.

#### **1. Hardware**

Acer laptop, windows 8.1 Enterprises 32 bit (6.3, build 9600), Aspire 4752, Intel (R) Core <sup>TM</sup> i3 CPU-z350M 230 GHz (4CPUS), 2.3 GHz, 2048 MB RAM memory. Recording sound using Voice Recorder from the LG Optimus L4 Dual E445.

#### **2. Software**

The manufacturing processes of learning using PowerPoint 2013 from Microsoft Corporation, Camtasia Studio 8 of TechSmith Corporation and Corel Video Studio.

### **Making procedures**

In making process of the media learning *diabetes mellitus*, first step is to do a search of material *diabetes mellitus* of various journals and essence. Second, the material poured into Microsoft PowerPoint 2013, with a number of slides, where each color slides arranged compositions, writings and animation effects to impress. The third step to record sound to PowerPoint 2013 by using Sound Recorder on the handset LG Optimus L4 Dual E445, as recorded separately. Fourth, the screenshot video recording computer screen using Camtasia Studio 8, the Fifth made a video overview of diabetes mellitus with Corel Video Studio X6 and produced with the format ".mp4". As a necessary complement to the video creation video opening

and closing with Canon IXUS 125 HS Full HD Digital Camera video files which are exported also into Corel Video Studio X6. Video files that have been granted full mp3 instrumental tracks in order to give amazing effect. The last process is rendering a whole movie or a video in a single file mp4 format by searching for the file size is not too big to get under quotas when uploaded to youtube. The total size of the upload is 143mb. Video learning more accessible via YouTube with in-link it to wordpress blog that serves as the description / explanation from the video. Presenters should link it with facebook account because of students prefer to access social media so it will be popular.

## RESULT AND ANALYSIS

Based learning media making procedures *diabetes mellitus*, the result that the materials used are sourced in the journal of *diabetes mellitus*, which consists of definition, types, signs and symptoms, and management.

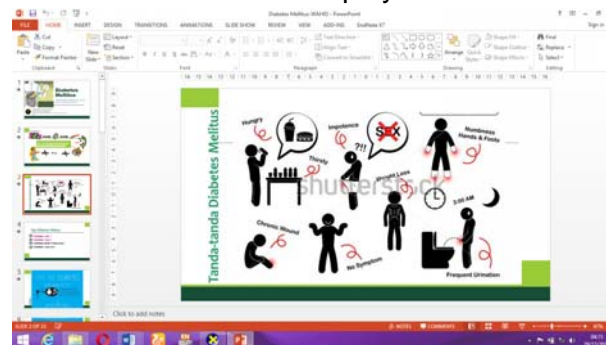
Once the material is collected and collated, the material incorporated into PowerPoint 2013 with initial view as in Figure 1

Figure 1. Screenshot of PowerPoint 2013 *diabetes mellitus* learning media



All material is inserted and prepared using animations and slide transition so that interesting. Number of slides in a media of learning as much as 23 slides, with the composition of the first slide initial appearance, 21 slide material, and the first slide cover. In each slide contains elements of words or phrases, sounds, and images, as shown in Figure 2.

Figure 2. One of the elements of the display material with text, and images.



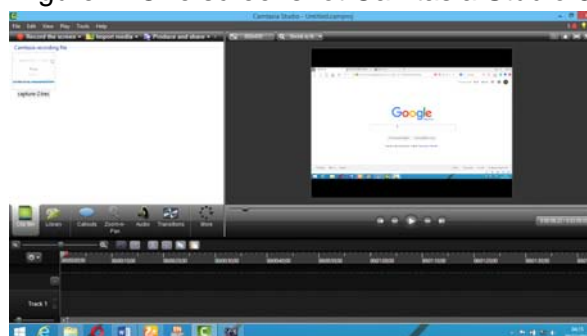
Next is the voice recording process for PowerPoint 2013 by using Sound Recorder on the LG Optimus L4 Dual E445 as shown in Figure 3. The tape contained the voice in accordance with the materials on each slide material. The recording is saved in the format ".mp4".

Figure 3. One screenshot voice recorder



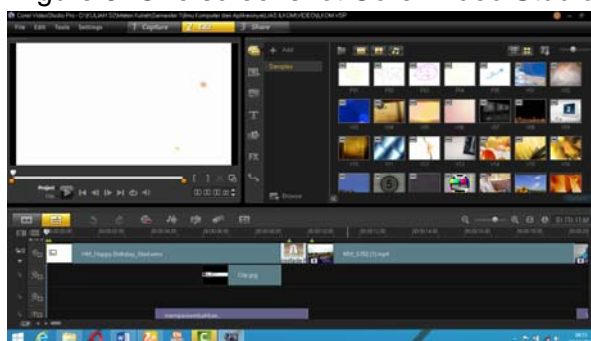
Media Learning diabetes mellitus using Camtasia Studio 8 to create a screenshot of the screen shown in Figure 4.

Figure 4. One screenshot Camtasia Studio 8



In *diabetes mellitus* instructional media there is a video created with Corel Video Studio application (Figure 5) and saved with the format ".mp4".

Figure 5. One screenshot Corel Video Studio



After *diabetes mellitus* learning media already produced, stored in a file format ".pptx" and ".ppsx". Instructional media then uploaded to wordpress.com and can be accessed through the address

<https://keperawatanjiwa2015.wordpress.com/2015/12/19/diabetes-mellitus/> in Figure 6.

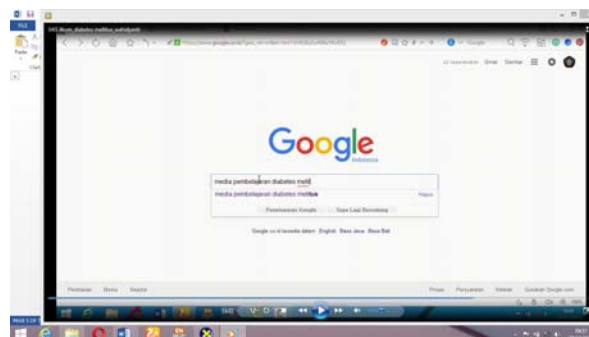


Figure 6 Views on wordpress learning media.



Diabetes mellitus learning media can be uploaded by clicking "Check here: Diabetes Mellitus learning media" in Figure 7.

Figure 7 Display on google learning media.



The material in the manufacture of diabetes mellitus learning media is derived from the journal. With these materials, it is expected users (especially nurses) of *diabetes mellitus* learning media can understand how treatment in patients with diabetes mellitus if it finds the case comprehensively in the hospital and in the community.

*Diabetes mellitus* instructional media created using Power Point 2013, so it looks to be more interactive. Adryan (2013) explains that the Power Point is a transformation of the form of information technology in teaching and learning activities that can be used as a media for learning. PowerPoint is used as a media of learning can involve musty cognitive, affective, and psychomotor in the learning process because it can foster teaching and learning activities that focus on student, performed interactively, so as to attract attention and motivate learners. In addition to PowerPoint has its advantages, the application also has a weakness, which tends to make people lazy recorded and communication between educators and learners is reduced (Adryan, 2013). Nonetheless the use of PowerPoint 2013 to appeal and increase the interest of the users to use it as material for the study of diabetes mellitus for more interactive.

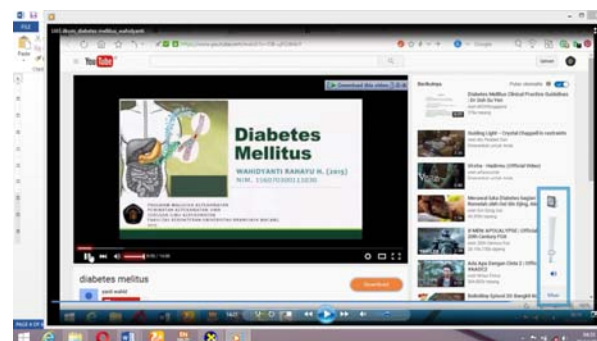
In addition to using PowerPoint 2013, the manufacture of diabetes mellitus learning media is also using the application Camtasia Studio 8 and corel video studio. Based on the site <http://www.techsmith.com/camtasia.html>, that Camtasia Studio 8 is an incredible tool to make the creation of video that can record everything in your device's screen. In the application Camtasia Studio 8 and corel video studio can do video editing in a professional manner with provision of themes, animation for background video, graphics, callouts, and so forth. The making of the video can be stored or distributed directly or uploaded to sites like youtube.com in Figure 8. To address can be accessed on <https://www.youtube.com/watch?v=OB-ujFGW4cY&feature=youtu.be>.

Therefore, the use of application Camtasia Studio 8 and corel video studio in the manufacture of diabetes mellitus learning media can increase zoom and can become more appeal to users.

Figure 8 Views on google about searching : *Diabetes mellitus*.



Figure 9 Views on youtube learning media.



Meanwhile, learning media is also uploaded to the blog site, that is wordpress. It aims to make it easier for people to access and use the media of learning diabetes mellitus. According Muttaqien (2011) with their blog, learning materials can be accessed anytime and anywhere, so the learning process is not limited to an educational institution, but it can be done anywhere. The use of web applications not only provide convenience to users or students, but also to educators who provide learning materials on the sidelines of his activities, so lighten the task of the educator (Hussin, Rasul, and Rauf, 2013). The material is also to link it in to facebook in Figure 9 with <https://www.facebook.com/wahid.yanti> address. The goal is for the students prefer to access social media so it will be popular.

Figure 9 Views on facebook about learning media.



Figure 10 Views on facebook about link of personal blog.



## CONCLUSION

The manufacturing processes of learning *Diabetes Mellitus* using Power Point 2013, Camtasia Studio 8 and Corel Video Studio makes this media appeal and increase the interest of the users to use it as material for the study of *Diabetes Mellitus* because the media is more interactive and can be appeal more to users.

## SUGGESTION

In the next research, continuing this paper, it will be better if researcher tested to know the effectiveness of *Diabetes Mellitus* instructional media to increase knowledge of the user.

## ACKNOWLEDGMENT

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## Case study:

### Clinical judgement for pain management and biofilm control in maggot debridement therapy

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**Background:** Pain is a possible complication of maggot debridement therapy (MDT). Pain and non-healing wound are always topics of controversy. Pain related to MDT always severe enough to dictate discontinuation of the treatment. **Aims:** This case study aimed to look into clinical judgement when dealing with pain related to MDT, when using *Lucilia cuprina*, on a non-healing wound in a diabetic middle-aged lady with *Pseudomonas* infection. **Methods:** This was a single case pretest/posttest design study to identify the effectiveness of pain control in MDT for a non-healing wound with *Pseudomonas* infection. We focused on visual presentation of the wound in every cycle of MDT with *L. Cuprina*. Visual analogue scale (VAS) was used to let the patient indicated the severity of the pain scores on a straight line graded from 'no pain' (0) to 'worst possible pain' (10) in every visit. The severity of *Pseudomonas* infection is based on clinical diagnosis when we also observed for changes of wound healing and color of the dressing in every cycle of maggots removal. Patient's pain score escalating from 6 to 10 after fifth cycle of MDT. MDT was discontinued due to unbearable pain despite of consuming prescribed painkiller. Silver hydroalginate dressing was used as alternative of discontinuation the MDT instead. **Results:** Wound healing progressing gradually even after discontinuation of MDT. Pain score was drastically reduced from 10 to 4 after the first two of silver hydro-alginate dressing. Patient was totally free from pain after subsequent application of silver dressing. Evidence of heavy biofilm also diminished eventually when switched to silver dressing. Patient's wound was fully healed without complication after nearly seven months. Epithelial tissue was also visible and shrinking of the wound size was. **Conclusions:** Pain related to MDT is

not a failure in MDT itself but rather than the practitioner's clinical judgement in choosing the alternate antimicrobial modern dressing in addressing the biofilm control.

Keywords: *maggot debridement therapy, larval therapy, pain, chronic wound, diabetes, clinical judgement, biofilm control*

## **Introduction**

Ana [pseudonym] was a 52 year old married woman living with her husband and two step children in a metropolitan city of Malaysia. She had type II diabetes mellitus since 14 years ago. Her condition was well controlled with oral medication as prescribed by her general practitioner (GP). She was an optimist and a cheerful lady. She demonstrated good mental health throughout this study. Ana's movement was not limited despite the wound on her right calf. Instead, she was able to perform her daily routine and her job as a van driver.

## **Case report**

On 8<sup>th</sup> June 2015, Ana suffered a minor injury at her lower right calf by heavy luggage wheels whilst assisting her client at the local airport. Obviously, her skin integrity had broken and she experienced a large hematoma around the wound. Initially, according to her, there was a small wound approximately size of 2cm x 2cm. The wound developed across the hematoma around the periwound over the following 5 days. By day-10, the wound increased in size to the size of her fist as described by Ana. In contrary, despite the deteriorated wound healing, Ana did not seek medical treatment or any other advice at that point due to her hectic schedule and own negative perception of modern medicine. She also preferred to treat the injury herself with over-the-counter (OTC) antiseptic after her work.

Nevertheless, the original soiled area deteriorated gradually over a period of 3 weeks into a full thickness of yellowish-greenish slough wound. This time, the painful and swollen infected wound had led her to seek immediate medical advice. Ironically, Ana visited her GP but refused the

referral to the local hospital for hospital admission. Instead, due to her past experience that her very same leg recovered without complication three years ago with maggot debridement therapy (MDT), she chose to seek treatment in one of the MDT centre in town. Clinical judgement from the colour of the slough, Ana's GP treated her as *Pseudomonas* wound infection. She was given 2 weeks course of antibiotic, edema control and painkiller.

## **Maggot Debridement Therapy in Malaysia**

Chronic wound healing using larval therapy namely *Lucilia cuprina* is widely used in Malaysia (Paul et al., 2009; Tian et al., 2013; Sun et al., 2014). In Malaysia, *Lucilia cuprina* used for the treatment is not always readily available in the MDT centre. *L. cuprina* is specially bred by department of entomology of Institute Medical Research (IMR), Kuala Lumpur. When client was to use the maggot for therapy, the staffs of MDT centre would make a phone call to IMR, the maggots are then incubated and grown to an adequate size in a sterile environment before they were transported in a cool box to the MDT centre. This will take up to 2 days prior to apply on patient's wound.

## **Wound profile and treatment**

At the MDT centre, Ana's wound was re-assessed. It was clearly infected with moderate odema of her lower leg, highly exudates, badly inflamed at the periwound, malodorous and a full thickness of yellow-greenish slough covering the entire wound bed. It measured approximately 8.3 cm x 10cm, with depth of 0.4 cm, highly exudates, and greenish appearance surrounded the periwound (Figure 1).

Upon consent and counselling prior to MDT, Ana appeared very positive that MDT was the best option for her because it was her second experienced with MDT. As part of MDT centre's patient criteria, which were prolonged chronic wound healing (more than 2 weeks), not entomophobia, willing to try complementary medicine; therefore, Ana was definitely fit for MDT. Visual analogue scale (VSA) was utilized to assess Ana's pain severity. On the straight line graded from 'no pain' (0) to 'worst possible pain' (10), Ana graded her initial pain score of '2'. MDT staffs explain to Ana that the objectives of her wound management were to debride the slough, control exudates, control odor, increase granulating

tissue, pain control, and ultimately attain her wound closure. As part of the protocol, an informed consent was signed by Ana. She was informed that photographs would be taken before and after MDT from MDT centre's camera. However, she was also allowed to keep the photographs by using her own mobile phone camera.

Aforementioned for Malaysia scenario, however, for Ana's case, the stock of maggots was already available in IMR. A phone call was made to IMR and the maggots were transported immediately. The distance from IMR to the MDT centre is approximately 12 kilometres. Without massive traffic congestion, the arrival of maggots will only take up to 15 minutes. However, due to traffic congestion, Ana had waited for nearly 1 hour that day to receive her first cycle of free range MDT. *L. cuprina* was applied on Ana's wound according to the maggot application guidelines recommended by the MDT centre. Three days later (72 hours), the maggots were removed and disposed following Ministry of Health clinical wastes disposal guidelines.

After the second cycle (Figure 2 and 3), Ana's wound was visibly cleaner, but the greenish appearance remained thick and malodorous both on the removed gauze and wound bed. After the third cycles, Ana's complained of pain from MDT which left her with severe pain and altered her sleep pattern at night as the pain was intense during the night. She graded her pain score at '6' compared to '2' initially. Due to unavailability of medical doctor in MDT centre, she was advised to seek for pain control in her GP's clinic. Ana came back for subsequent MDT next 72 hours. However, she complained that despite the oral painkiller, her pain score on VSA was escalated to 8 and that awful experience jeopardised her daily routine, too. She was advised to discontinue the MDT, but Ana decided to try another cycle since she believed that MDT will cure her wound again like previously happened three years ago. Nevertheless, her subsequent cycle only lasted for 48 hours when she called the MDT staffs at night. Her MDT was removed immediately on her arrival to the MDT centre.

The clinical judgement was made to discontinue the MDT was based on Biomedical Therapy protocols, which were unbearable pain, sufficient granulation tissue and epithelization, disruption of job or financial issues. This is also supported by various studies that physical discomfort such like pain induced by MDT did occurred (Mumcuoglu, 2001; Mumcuoglu et al., 2012; Shi & Shofler, 2014).

Ana was treated with MDT for five cycles but suffered from unbearable pain during the treatment despite of consumed oral analgesic. During



MDT, her exudating wound was controlled, less odema, odor diminished, and granulation tissue was significance with pink and healthy wound bed. However, the color of her dressing remained greenish which indicated the initial infection still persists. The severity of *Pseudomonas* infection was based on clinical diagnosis when we also observed for changes of wound healing and color of the dressing in every cycle of maggots removal.

Eventually, after discontinuing the MDT, Ana's wound was treated with modern dressing as guided by centre's protocol. Silver hydroalginate dressing was used in view of her highly exudates wound. The dressing was kept for three days prior to removal. Ironically, her VAS declined to 6 (from 10 initially) on her first visit with the silver dressing (Figure 4). Ironically, she was experiencing drastically lesser pain after few applications of silver dressing, which she graded her pain score from '6' to '2', and gradually reported free from pain. Thereafter, Ana was on silver dressing for 4.8 months (Figure 5).

At this point of writing, Ana's wound measure 1.8cm x 1.3cm (Figure 6) without complication, let alone the pain that she experienced many months ago. Epithelial tissue was well noticeable.

*Table 1: pretest and posttest of the treatment*

<b>Treatment</b>	<b>size</b>	<b>exudates</b>	<b>VAS</b>	<b>Color of gauze dressing</b>	<b>Days</b>
1 <sup>st</sup> cycle Free range 600 sterile maggots	8.3cm x 10.1cm x 0.5cm	++++	2	greenish	3
4 <sup>th</sup> cycle Free range 500 sterile maggots	7.8cm x 9.7cm x 0.4cm	+++	8	greenish	12
5 <sup>th</sup> cycle Free range 500 sterile maggots	7.8cm x 9.5cm x 0.4cm	+++	10	greenish	14* (early removal)
Ag	7.5cm x 9.4cm x 0.4cm	+++	6	greenish	17
Ag	7.4cm x 9.2cm x 0.3cm	+++	2	greenish	22
Ag	7.1cm x 9.2cm x 0.2cm	++	0	yellowish	29
Normal dressing	5cm x 6.8cm	+	0	nil	161
Normal dressing	1.8mm x 1.3mm	NA	NA	NA	217 (latest)

*Figure 1. Ana's leg before MDT*



*Figure 2. Ana's leg after second cycle of free range maggot*





*Figure 3. Greenish stained of removal gauze from Ana's leg*



*Figure 4. Greenish stained gauze on Ana's wound after first Silver dressing*



*Figure 5. Ana's leg after 15 weeks*



*Figure 6 Ana's leg after 7 months*



## **Discussion**

Pain is a possible complication of maggot debridement therapy (MDT). Pain and non-healing wound are always topics of controversy. Pain related to MDT always severe enough to dictate discontinuation of the treatment (Shi & Shofler, 2014). Sound clinical judgement is essential for nurses to ensure the patient continue other alternative of wound management.

Pain management during MDT should be handled with vigilance in order to enhance wound healing for heavy biofilm chronic wound. Combination of painkiller, antibiotic and silver dressings were proven to promote wound healing and patient well-being. Although MDT is the ultimate choice for certain chronic wound, for Ana, MDT was only lasted for five cycles.

Across the literature from various experts, wounds of any aetiology have been proven of speedy recovery and promote excellent granulation tissues, including difficult decision on MDT may disturb the feasible graft tissue was left in case study by Fenn-Smith (2008). In Ana's case, initial MDT significantly improved her wound bed and better biofilm control. Nevertheless, failing MDT in Ana's wound was not indicating failing to salvage patient's foot. As patient's advocate, nurses should have sound judgement and knowledgeable about different types of wound care modalities (Klaus & Steinwedel, 2015). A systematic review by Moore and Young (2011) and a randomised cotrolled trial by Senet et al. (2013)



reported that silver hydro-alginate dressing had shown good clinical outcomes, especially in chronic wounds with difficult biofilm control.

## **Summary**

In Ana's scenario, although we faced few dilemmas in our decision making pertaining to her wound management, appropriate clinical judgement and open communication by the nurses were noticeably paramount in preventing the widespread of infection, appropriate biofilm control and salvaging her right leg. These were achievable with combination of analgesic, antibiotic and silver dressings.

## **Acknowledgment**

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## **Conflict of interest**

No conflict of interest has been declared by both authors.

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# **Correlation Study Between Knowledge About Diabetic Foot Care With Diabetic Foot Ulcers Incident in RSUDr. Saiful Anwar Malang**

## **Oral Presentation**

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Type 2 diabetic (DM type 2) is a condition in which the body has elevated blood sugar caused by a decrease in insulin function. Prevalence of type 2 diabetes has increased every year. Results of preliminary studies at RSUDr. Saiful Anwar Malang has increased by 1.68% over the period December 2011 to January 2012. Type 2 diabetes has a risk of long-term complications is diabetic ulcers. This study aimed to explore the relationship between the level of knowledge about diabetes type II diabetes foot care with the incidence of diabetic foot ulcers in RSUDr. Saiful Anwar Malang. This study used a correlation study with cross sectional method approach to diabetes type II. Samples were selected by purposive sampling with a sample size ( $n = 46$ ). The variables measured in this study is the level of knowledge of diabetic foot care and the incidence of diabetic foot ulcers. The results obtained, in patients with type II diabetes with a low level of knowledge of 20 people (43%), while diabetics with high levels of knowledge there are 26 people (57%). After testing fisher test using 95% confidence level values obtained significance 0,007 or smaller than  $\alpha$  (0.05) which means that there is a correlation between the level of knowledge about diabetes type II diabetes foot care with the incidence of diabetic foot ulcers in RSUDr. Saiful Anwar Malang. While calculating the odds ratio obtained a score of 6, which means knowledge of diabetes foot care is low will give the possibility to 6 times the incidence of diabetic foot ulcers. Suggestions for further research is the influence of foot care to diabetic foot ulcers.

**Key words:** knowledge, type II diabetic, diabetic ulcer, diabetic foot care

## THE CORRELATION BETWEEN CULTURE WITH NURSING STIGMA AMONG NURSES IN HOSPITAL IN BANYUWANGI

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### ABSTRACT

**Introduction:** Stigmatization of persons living with HIV (PLWH) had to be a great problem in health care, especially in nursing. Stigma which was done by nurses could to be a barrier of nurses to implement nursing care to PLWH patients. Stigmatization to PLWH was connected with culture (belief and lifeways).

**Aim:** This study was to examine the correlation between culture (belief and lifeways) with nursing stigma (labelling and stereotyping) among nurses particularly in the hospital, district of Banyuwangi, Indonesia.

**Methods:** Design used in this study was observational study using *crosssectional approach*. The population was all nurses who worked in 4 hospitals in Banyuwangi of Indonesia. Total sample recruited were 77 respondents. Data were collected by questionnaire and analyzed by using rank spearman test in SPSS 16.

**The result:** There was significant correlation between belief with labelling ( $p=0,025$ ), lifeways with labelling ( $p=0,004$ ), belief with stereotyping ( $p=0,016$ ), and lifeways with stereotyping ( $p=0,007$ ).

**Conclusion and Discussion:** It can be concluded that there was correlation between culture (belief and lifeways) with nursing stigma (labelling and stereotyping). It can be considered to reduce stigma of nurses by intervening on belief and lifeways. Further research should apply those intervening of belief and lifeways of nurses in nursing care.

**Keywords:** culture, nurses' stigma, hospital.

### INTRODUCTION

One of the major problem of *Human Immunodeficiency Virus* (HIV) and *Acquired Immunodeficiency Syndrome* (AIDS) cases was the stigma and discrimination against people living with HIV and AIDS <sup>(1)</sup>. The emergence of stigma and discrimination among people living with HIV and AIDS namely fear of HIV and AIDS, stigma for patients with negative behavior, and lack of knowledge about HIV and AIDS <sup>(2)</sup>. People with HIV infection received stigma because of his or her disease <sup>(1)</sup>. Stigma and discrimination was not only done by lay people who did not have sufficient knowledge about HIV and AIDS, but also can be done by health personnel. Health workers including nurses have potential to do stigma on HIV and AIDS <sup>(3)</sup>.

Stigma in health care to be one of the obstacles for patients with HIV and AIDS to achieve a high quality nursing care, which in turn can reduce the health status of patients with HIV and AIDS <sup>(1)</sup>. The stigma associated with HIV and AIDS referred as a major problem and disrupts family life, social, economic and individual. The

stigma associated with HIV and AIDS were considered as a major barrier to prevention, care, and treatment of HIV and AIDS <sup>(4)</sup>.

The results of a preliminary study conducted at a hospital in Banyuwangi, Indonesia, showed that 96 nurses have done stigma to patients with HIV and AIDS as described 20 nurses (20%) put on a specific code on HIV and AIDS patients, 24 nurses (25%) used special protection (double gloves, masks), 24 nurses (25 %) were reluctant to communicate with patients with HIV and AIDS, 7 nurses (7,5%) were fear to hold patients' s dress and patients's bed, 7 nurses (7,5%) were fear to care patients' wound, 7 nurses (7,5%) were fear to take laboratory sample, such as blood and urine, 7 nurses (7,5%) were fear to do infasive treatment to patients, such as infection, taking infusion and cateter.

Stigma became problem or new issue in nursing practice in health care setting. Stigma as a part of the culture, because of the stigma that appears and rooted cultural background as health workers, especially nurses. The culture that mean was belief and lifeways of nurses<sup>(8)</sup>.

Nurse's stigma on HIV and AIDS patients has a huge impact, especially in the implementation of nursing care for patients with HIV and AIDS in the Hospital. Therefore, it was necessary to reduce the stigma of nurses for the implementation of nursing care for patients with HIV and AIDS. One of the solution to reduce stigma based on nurses' view was the cultural approach. To prove that culture (belief and life ways) have affect to nurses stigma, researcher interest to research of the correlation between culture with nurses stigma among nurses in Banyuwangi.

## RESEARCH METHOD

The design used in this study was observational studied, which using *crosssectional* approach that to observe risk factor and effect factor in the same time and one section<sup>(7)</sup>, risk factor was culture (belief and lifeways) and effect factor was stigma (labelling and stereotyping). While the aims was to looked for correlation between culture and nursing stigma among nurses. The population is all nurses working in four hospitals in Banyuwangi, Indonesia. The total sample was 77 respondents that met the inclusion criteria. Inclusion criteria were a nurse who worked at least 1 year experience in a hospital, having minimum diploma degree, and working in the HIV and AIDS care. Sampling technique in this research is cluster sampling. The instrument used in this study was a questionnaire. A questionnaire was used to measure culture (belief and lifeways) and stigma (labelling and stereotyping). The research procedure was used in that study would be described in that figure below:

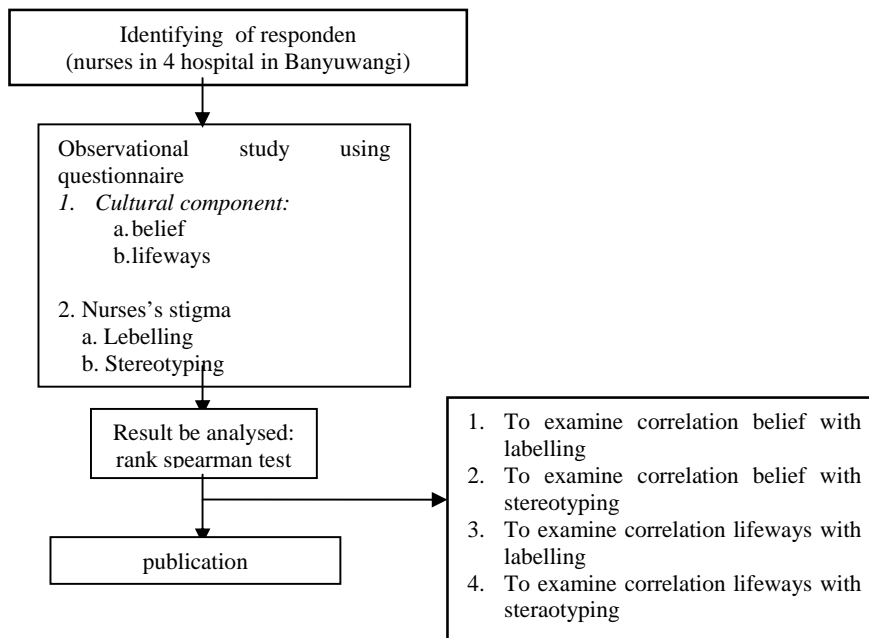


Figure 1. Research Procedure

Figure 1 showed that first step began by identifying of responden (nurses in 4 hospital in Banyuwangi), after getting responden who were proper with criteria. Researcher lets to begin observational study two variables were culture and nurses stigma using quistionnare. The result of questionnaire was calculated and analyzed using rank spearman test in SPSS 16 to examine each other of variables. The result of rank spearman test will be published.

## Result and discussion

### Result

Table 1. Rank Spearman Test Result

o	Direct and indirect influence	p
	between endogenous and	Value
	correlation of belief with labelling	0,025
	correlation of lifeways with labelling	0,004
	correlation of belief with stereotyping	0,016
	correlation of lifewyas with	0,007

From the table 1 showed that:

There was correlation between belief with labelling ( $p=0,025$ ), lifeways with labelling ( $p=0,004$ ), belief with stereotyping ( $p=0,016$ ), and lifeways with stereotyping ( $p=0,007$ ). It can be indicated that culture (belief and lifeways) has correlation with nursing stigma in HIV / AIDS Patient.

## Discussion

The result of study showed that there was correlation between culture (belief and lifeways) with nursing stigma (labelling and stereotyping), significant result of belief with labelling ( $p=0,025$ ), lifeways with labelling ( $p=0,004$ ), belief with stereotyping ( $p=0,016$ ), and lifeways with stereotyping ( $p=0,007$ ).

Goffman defined stigma as an “attribute that is deeply discrediting” and that reduces the bearer “from a whole and usual person to a tainted, discounted one” <sup>(5)</sup> Goffman observed that stigma can be seen as a relationship between an “attribute and a stereotype” to produce a definition of stigma as a “mark” (attribute) that links a person to undesirable characteristics (stereotypes). In our conceptualization, stigma exists when the following interrelated components converge. In the first component, people distinguish and label human differences as named *labelling*. In the second, dominant cultural beliefs link labeled persons to undesirable characteristics—to negative stereotypes as named *stereotyping*<sup>(5)</sup>.

Stigma (*labelling and stereotyping*) was seen as a process of people’s perception and thinking about social status of person with his different characteristic from other. Perception and thinking have been affected by culture. The culture which means are belief and lifeways<sup>(6)</sup>. Belief was defined as an integrated component of cognitif, attitude and behavior. Stigma appears when the belief of people or community to see the HIV and AIDS disease and PLWA as an odious, contagious, and harmful, so they are ignored from their community. Lack of belief of nurses make a stigmatization to HIV and AIDS patient. Lifeways was defined as a commitment, choice, and way of life which to navigate nurses to implement nursing care to HIV and AIDS patient and treat them same as other patients in nursing care. Lack of life ways as nurses make nurses do stigma to HIV and AIDS.

## Conclusion

Nurses showed stigmatization while doing nursing care to patients with HIV and AIDS. Stigmatization was greatest in labelling and stereotyping. The culture (belief and lifeways) has correlation with nursing stigma (labelling and stereotyping). It can be considered to reduce stigma of nurses by intervening on belief and lifeways. Further research should apply those intervening of belief and lifeways of nurses in nursing care.

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# THE DEVELOPMENT OF LEARNING APPLICATION IN MENTAL HEALTH OF NURSING: HALLUCINATION USING POWER POINT MICROSOFT OFFICE 2007 AND CAMTASIA STUDIA 8

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## ABSTRACT

**Introduction:** Currently most students find differences in applying the strategy of implementation of nursing actions hallucinations ranging from the discovery of the core data, the orientation phase, the phase of work until the termination phase, so that the learning product design development with the Nursing Mental Hallucinations problem needs to be improved.

**Aim:** The purpose of this study was to make learning mediation in patient with hallucination using power point 2007 and camtasia studio 8.

**Methods:** The method was used by product design from luther by six steps : making concept, planning, material collecting, producing, testing and distributing. This learning method was used by *Microsoft Power Point 2007* and *Camtasia Studio 8.6*.

**Result:** Student assessment survey showed that most of the lecturers use of media and technology learning by lecturers is very good, and the majority of votes on the ability of lecturers to use a variety of communication technologies for the enrichment of the teaching material is also very good. While the advice given by the students are mostly proposed for use in learning that requires the demonstration.

**Discussion and recommendation:** Learning by using Microsoft PowerPoint and Camtasia 8 can enhance students' attention so as to improve the ability of students. It is very appropriate for use in Psychiatric Nursing learning with nursing problems hallucinations ranging from the discovery of the core data, the orientation phase, the phase of work until the termination phase.

**Keywords:** Nursing Learning, hallucinations , Camtasia Studio 8.

## INTRODUCTION

Learning media is designed to stimulate learners to be focused on learning materials, happy to follow the learning, want to think, and can increase the ability for better results (Permana , M.S., Johar, D., Bunyamin, 2014). So that lecturers should be able to design a learning medium well so that learners easily accept the material according to the learning objectives (Nurseto, T., 2011) . Similarly with the lecturer nursing main nursing soul. On learning Nursing with hallucinations supposed to be served well so as to arouse the interest of students to see , hear, pay attention, understand carefully the learning material that is in progress and is able to interpret a concept that has been accepted. Supposed to educate participants that determines how the medium of learning was to be made and designed , so easy to be seen, heard and

understood so that they feel comfortable to participate in the learning process. Nurhidayati, O., Tunggul, E. P., Wahyono, B., (2012) argues that the media used in learning should be adapted to the characteristics of learners so that what is presented is acceptable. For the design of instructional media should be designed so that the requirement of" interactive, challenging, interesting and fun" (Listyawati, M., 2012).

Besides learning media conveyed to students should be conditioned as learners in a situation of real experience , with the hope of learners are able to adopt and accustomed to determine their own strategies implemented in accordance with the character and capabilities in applying nursing care Hallucinations in total and in accordance with the objectives to be achieved. However, at the time of clinical practice , many different students in applying the strategy of implementation of nursing actions hallucinations ranging from the discovery of the data core, the orientation phase to the termination phase . The obstacles faced by learners is unclear how to apply these strategies because of the classroom learning experience gained from the process of discussion among students and professors lecture, so it is very varied.

It required a suitable learning media as a means of conveying the material to enable the perception and interpretation when applying strategies for implementation of nursing actions hallucinations ranging from the discovery of the data core , the orientation phase to the termination phase. Suwaryo, A.W., Kristianto, H., (2015) says that the lecturers in the learning process in nursing science , the theory must be practiced until at the level of clinical practice so that lecturers should be able to provide a sample or samples of nursing actions are applicable. This will facilitate understanding and improve retention of subjects received during the learning process. According Handhika, J (2012) "Humans can absorb the material as much as 70% of what is done , 50% of what is heard and seen (audio- visual), while he saw only 30% , of which he had heard only 20% , and of read only 10% ". For that learning Mental Nursing in applying the strategy of implementation of nursing actions should hallucinations applicable and easily emulated . Lecturers need creativity and imajenatif in designing visualization instructional media strategies for implementation of nursing actions hallucinations that seemed to attract the attention of students, presenting the material content of learning exciting to be a conflict of cognitive of the students in learning, learning atmosphere is warm so memorable more vibrant and meaningful to participants students learning strategy concluded that implementation of nursing actions very pleasant hallucinations.

This is what determines the success in the learning process. Thus the selection of instructional media by a a lecturer as a means to transfer activities to student learning are very influential in determining the success of the learning process (Suwaryo, A.W., Kristianto, H, 2015). Motivation and mood into increased student in the learning process because the learning process is conditioned very pleasant. Learning with hallucinations nursing care through nursing actions streategi implementation requires foresight and rigor in the process of observation . Students should be able to identify the client's behavior a mental disorder with hallucinations through critical observation, analytical and systematic in order to provide and perform competent nursing care. All behaviors shown clients of mental disorder is a behavior that is unnatural or unusual occurs in humans generally. While the client's behavior displayed by hallucinations is a behavior that does not correspond to reality. Stimulus obtained by hallucinations clients come from internal stimulus which is considered as an external stimulus. This is because there has been a misperception result of neurobiological or neurochemical disorder that occurs in the brain so that clients with hallucinations, a reverie considered a fact caused by an error identification and interpretation of the stimulation that comes from the senses. Stuart, G.W (2013) says that hallucination is a sensory distortion due to misperceptions that cause deviations identification and interpretation of sensory stimuli received causing the behavior is not appropriate. Stuart,



G.W (2013) mentions that the inaccuracies neurotransmission in response neurobiological psychiatric disorder or scizofrenia client will generate thoughts that are not related (incoherent) thus obtained is not appropriate behavior. This is what happens on the client mental disorder with hallucinations. Whereas patients with hallucinations are a major problem in clients with mental disorders or scizofrenia.

In clients with mental disorders, frequent hallucinations and even by Keliat B.A (2015: 298) 70 % of people with mental disorders have hallucinations that hallucinations are always associated with a psychiatric disorder or scizofrenia. For the processing of information becomes a major factor to get the logical thinking or connected, and the information can be processed by the brain if there is involvement of consciousness and assessment of sensory stimuli captured. Interventions provided to clients with mental disorders with hallucinations focused on the return to the conditions of reality or logical thinking through the implementation of strategies for implementation of nursing actions. Cognitive restructuring that involves awareness and assessment will be able to restore the client hallucinations to realistic conditions by introducing what has been perceived and that has been done. It's very important show to clients with hallucinations in order to realize what you have done is not in accordance with the received stimulus. The complexity that occur on the client with a mental illness that causes hallucinations students are less accurate in determining the nursing problems. The utilization of technology multimedia would help students to understand matter college delivered by lecturers so as to enhance student motivation , exploration and improvement of the subject matter or curriculum. Learning with Power Point application is modified with Applicative Fucking screening of patients with hallucinations nursing actions through Camtasia 8 will simplify and clarify the understanding of the applicative so easy to put into practice on a real level. So that the application of multimedia technology in the form of tutorials, simulations, virtualization and all the supporting infrastructure to make it easier to get information, transmission, data analysis and processing of routine tasks automatically.

## **METHODS**

This research method is the design of the product , which in this learning media will produce video learning media. The procedures for making audio - visual learning media is using a guide or guided at different stages of development of multimedia formulated by Luther, which includes six steps, namely: concept, design, Obtaining Content Material, assembly, testing and distribution (Sutopo, Hadi, A. 2012).

### **1. Concept**

The formulation of the concept is done by formulating the Strategy Implementation Measures of Nursing Hallucinations be selected as a topic in media manufacturing of audio - visual learning thi . It also formulate the concept of media types to be used, namely to create a video in which there are some parts of the video and PowerPoint are equipped with a sound explanation.

### **2. Design**

This stage provides a script that will be practiced by the cast each ranging from being the main patient, nurses and other patients. After this major patient portray behavior that lead to core data or key data as the basis to begin discussions with patients with hallucinations. In the orientation phase confrontasi and nurses perform validation on the behavior displayed by the patient so that the patient found the answer to that will serve as a topic of conversation. Having

found a topic of conversation, then the nurse started working phase that discuss the events of hallucinations are found both the content, frequency, time and patient response to hallucinations experienced. After the nurses she finds the results of hallucinations, the nurse returns hallucinatory experiences that happened into the real conditions through communication techniques clarification. When the patient is confused in answering, the nurse explained the events experienced by patients that are experiencing is not real or tangible, which endured as a result of reverie. Once patients understand what happened and understand that the patient had been daydreaming considered true, then the patient is taught how to rebuke hallucinations with hallucinations repel way, in his heart only. Subsequently forwarded to the termination phase is to ask back on disukusi made earlier and advocate for follow-up activities such rebuke through daily activities. Furthermore, nurses make a contract forthcoming meeting both topic, time or place.

### **3. Obtaining Content Material**

The material will be incorporated into Camtasia 8 collected that is material power points and recording videos about strategies for implementation of nursing actions ranging from the determination of core observation data until the termination phase.

### **4. Assembly (formulation and manufacture)**

The final completion of this learning media using Camtasia Studio 8 applications by combining video from observation phase to determine the core data until the termination stage Nursing Strategy Implementation Measures Hallucinations first part and PowerPoint. The videos are combined and edited by aligning the appropriate background sound, then continued last step that is produced in the form of instructional videos to Mp4 format. All processing is done in the editing and produce the video creation of this learning using a computer (laptop) Dell Inspiron Model N430 Intel (R) Core 13

### **5. Testing**

Testing is done with a presentation in front of the supervisor and several writer friends to assess eligibility for display and a media project good learning.

### **6. Distribution**

Learning Media in the form of video learning about nursing patient explanation of the action next hallucinations taught to students of Nursing Academy Gresik regency fourth semester in order to increase attention for the students thus increasing the ability to provide nursing care in patients with hallucinations. By using this learning media also serves to get feedback from students that can be in the form of criticism and suggestions that will be useful to improve learning media.

## **RESULTS AND DISCUSSION**

### **1. Result**

Video media that already contains measures of Nursing created in clients with hallucinations overall duration of 17 minutes. Definition video content about the review hallucinations, signs and symptoms of hallucinations, and strategies for implementation of nursing actions consisting of SP1, SP2, SP3 and SP4. Video of nursing actions on the client hallucinations done by involving students of fourth semester Nursing Gresik regency while maintaining the principles of therapeutic communication and action in accordance with Standard Operating Procedures

(SOPs). Following below is the screenshot video media with the title " Nursing Measures clients with Hallucinations", namely:



Figure 1. View the beginning and opening contains it title or topics learning about video media strategy the implementation of the act of nursing hallucinations and identity video learning maker media

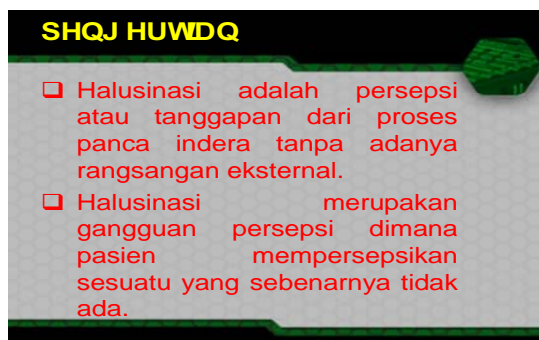


Figure 2. Screenshoot teori 1

WDQGD GDQ J HMDOD		
Jenis Halusinasi	Data Objektif	Data Subjektif
Halusinasi Dengar/suara	Bicara atau tertawa sendiri Marah-marah tanpa sebab Menyedangkan telinga ke arah tertentu Menutup telinga	Mendengar suara-suara atau kegaduhan Mendengar suara yang mengajak bercakap-cakap. Mendengar suara menyuruh melakukan sesuatu yang berbahaya.
Halusinasi Penglihatan	Menunjuk-nunjuk ke arah tertentu Ketakutan pada sesuatu yang tidak jelas.	Melihat bayangan, sinar, bentuk geometris, bentuk kartoon, melihat hantu atau monster
Halusinasi Penghidu	Menghidu seperti sedang membaui bau-bauan tertentu. Menutup hidung.	Membaui bau-bauan seperti bau darah, urin, feses, kadang-kadang bau itu menyenangkan.
Halusinasi Pengecapan	Sering meludah Muntah	Merasakan rasa seperti darah, urin atau feses
Halusinasi Perabaan	Menggaruk-garuk permukaan kulit	Mengatakan ada serangga di permukaan kulit Merasa seperti tersengat listrik

Figure 3. Screenshoot teori 2

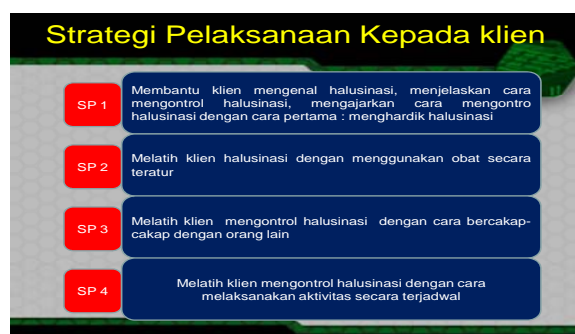


Figure 4. Screenshoot teori 3

The theory which contains about nursing care to clients with hallucinations that contains the definition, signs and symptoms as well as four (4 ) strategies for implementation of nursing actions on the client with hallucinations, namely: (1) Helping clients recognize hallucination, explaining how to control hallucinations, teaches how mengontro hallucinations the first way : rebuke hallucinations, (2) Train hallucinations clients using drugs on a regular basis, (3) Train client control hallucinations way of conversing with others, (4) Train clients control hallucinations in the way of executing activity in a scheduled.



**Figure 5. Screenshoot Video 1 clien observed**



**Figure 6. Screenshoot Video 2 Orientations Phase**



**Figure 7. Screenshoot Video 3 Work Phase**



**Figure 8. Screenshoot Video 4 Terminations Phase**

The act of learning media video display on clients with hallucinations Nursing contain observations on the implementation of core data to determine continued with the communication process for the management of clients with hallucinations that starts from the interaction phase, working phase and termination phase. Implementation of nursing actions through the application of strategies for implementation of nursing actions on the client by utilizing hallucinations Gresik regency Nursing students who have received lectures Nursing hallucinations as a client with my own clients and their caregivers.

## **2. Discussion**

Instructional media nursing actions on the client Hallucinations are made in the form of videos using media microsoft Microsoft PowerPoint 2013. PowerPoint is very suitable to be developed by faculty therefore very interesting from the students so that students are encouraged to see, understand and want to practice into the clinic level therefore attractive design, It is therefore interesting learning media that is designed , according to Handika, J (2012) will bring benefits :

"(1) Submission of materials can be made uniform, (2) The learning process becomes more interesting, (3) The learning process of the students, the students more interactive, (4) The amount of time learning and teaching can be reduced, (5) The quality of student learning, students can be improved, (6) the process of learning can happen anywhere and anytime, (7) the role of teachers, lecturers can turn towards a more positive and productive."

Application software Microsoft PowerPoint that is often used for presentations can be optimized usage by utilizing a variety of its facilities such as hyperlink, insert picture, table, graph movie, sound as well as the effect of the animation (custom animation) in displaying images wake, lines, text and images collaboratively. While the display element consists of a slide, text, images and fields of color that can be combined with a background that has been provided. So Microsoft PowerPoint is very effective for use in learning therefore has many advantages mainly used in the presentation. Suyono, Nugroho, G.K. (2012) in research mengidentifikasi excess of Microsoft Office PowerPoint 2010.

"Microsoft Office PowerPoint is software from Microsoft that has the specs usefulness as presentation software. The advantages of this software is to enable the delivery of information such as text, graphics, images, animation, sound (audio), and video with effects limited and can be associated with a variety of other file formats, and a variety of features customize the background as needed, including in the manufacture of electronic modules".

While the results of research carried out by Oki Nurhidayati. O., Tunggul, EP, Wahyono, B (2012) to the fourth grade students of SDN Sukorejo 02 and SDN 03 Sukorejo Gunungpati District of Semarang found that media power point is effective in improving oral health knowledge in grade IV SDN Sukorejo 02 and SDN 03 Sukorejo Gunungpati District of Semarang in 2011. in this literature, learning media making strategic implementation of nursing actions on the client with the hallucinations do a combination of Microsoft PowerPoint 2007 with Camtasia Studio 8, which is expected in the process of the presentation will be available results increased increases. Camtasia Studio 8 's app allows users to select codec , resolution , size and other details with the right, before finally rendering video . Users can also export directly from Camtasia Studio to sites like Youtube.com . Lodang , H , Syamsiah , Isaac A. Paramma, I.A. ( 2014 ) say that Camtasia Studio is a software that has the ability to do the recording for any ongoing activity on the monitor screen so it is easy to make and vidio vidio tutorial presentation. While the results of the research showed that learned student learning by using media Camtasia Studio is higher than student learning outcomes that learned using Powerpoint media. This

indicates that the two software is able to increase the quality of learning for students and students therefore complementary and mutually supportive.

## CONCLUSIONS AND RECOMMENDATIONS

### 1. Conclusion

Learning by using Microsoft PowerPoint and Camtasia 8 can enhance students' attention so as to improve the ability of students. The manufacturing processes of learning of nursing actions in patients using the media application hallucinations powerpoint 2007 and Camtasia Studio 8. PowerPoint is a medium that is simple and can be used in learning because it has certain advantages to facilitate the teaching and learning of participants to more easily grasp the contents of the material. Camtasia studio as a video recording program can be used in the learning process and proven to provide benefits to participants learning because it can increase the interest, attention, and learning outcomes. Both media can be used together to support the learning process by including PowerPoint slides into Camtasia Studio.

### 2. Suggestion

The use of multimedia, especially the use of PowerPoint and Camtasia 8 by featuring video applicative about nursing actions in patients with hallucinations very precisely done by the lecturers so that the absorption rate of lectures to students is very accurate because there is no display video applicative. However, you should do further research in order to know the benefits of using this instructional media containing mainly on learning demonstrations nursing actions.

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# THE INFLUENCE OF FAMILY SUPPORT : SOLUTION FOCUSED FAMILY THERAPY MODEL ON HBA1C LEVELS in PATIENTS WITH TYPE 2 DIABETES MELLITUS

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## ABSTRACT

**Background:** Diabetes mellitus is an epidemic in Indonesia. uncontrolled diabetes mellitus complications cause more rapid. Clients who have complications of diabetes mellitus become a burden on families and the impact of high maintenance costs. Family support is needed for the management of diabetes. Family Support the model solution focused family therapy will change the pattern of interaction and relationship between type 2 DM client with other family members. so that DM is more controlled blood sugar levels so as to achieve a therapeutic target HBA1c <6%. By controlling blood sugar levels remain normal DM client is said to be controlled, so that the same as a normal person. Clients to be comfortable, safe, quality of life Aims: The research objective was to analyze the influence of Solution Focused Family Therapy Model on HBA1C Levels in type 2 Diabetes Mellitus patients. Methods: The research was a quasi experimental with pre-post test control group design. Population was the whole family and clients with type 2 diabetes treatment at Puskesmas Tambakrejo Surabaya. Dependent variable was blood sugar levels while Independent variable was family support. The research instrument was the result of laboratory HbA1c, SFFT guide and questionnaire. Results: Data analysis was conducted using statistical analysis chi square and T test. The results revealed that in the control group, there was no effect of Family Support on Difference average HbA1c levels ( $p = 0.975$ ). most of the control group (86.6%) have increased HbA1c levels by an average of 0.562% (SD = 0.73%) In the treatment group showed the influence of Family Support on Difference average HbA1c levels ( $p = 0.000$ ). Most (73.3%) Type 2 DM client experiencing a good family support had a reduction in average A1C of -1.160% (SD = 1.20%). The test results obtained for family support differences between the control group and the treatment group ( $p = 0.001$ ). In the control group the majority (86.6%) have a sufficient family support, whereas most of the treatment group (73.3%) have a good family support. The test results indicate a difference in the average difference in HbA1c levels of type 2 DM client in the control and treatment groups ( $p = 0.000$ ). In the control group gained an average HbA1c levels increased by 0.55% (SD = 0.67%). In the treatment group gained an average HbA1c levels decreased by -1.28% (SD = 1.15%). Conclusion: Clients type 2 diabetes who use Solution Focus models Family Support Family Therapy has controlled blood sugar levels. Most clients with Type 2 diabetes had average blood sugar levels (HbA1c) were controlled. Most Type 2 DM client that is using a model Solution Focus Family Support Family Therapy

experienced an average reduction in blood sugar levels (HbA1c). recommended For families and clients should enhance the active participation and involvement of families in the management and prevent complications of diabetes mellitus

**Keywords:** HBA1C levels, Solution Focused Family Therapy Model, DM

## INTRODUCTION

Diabetes mellitus is a major issue in the field of public health is growing, and has emerged as a worldwide epidemic. Indonesia has entered the epidemic of type 2 diabetes mellitus lifestyle changes and urbanization seems to be an important cause of this problem, and continually increased in this new millennium.

WHO, the International Diabetes Federation (IDF) in 2009 (in (PERKENI 2011b) predicted a rise in the number of persons with DM 7.0 million in 2009 to 12.0 million in 2030. Although there are differences in the prevalence rate, both reports show an increase the number of people with diabetes as much as 2-3 times as much in 2030. Diperediksi 2035 diabetis world's population reached 14.1 million, ranks sixth largest and 6.67% prevalence of diabetes in the adult population (National diabetes 2011).

Indonesia ranks seventh of the world population is affected by diabetes. Every three minutes there is one person died with diabetes. Seven out of ten people diabetes many developing complications that decreases quality of life and accelerate the occurrence of death.

Complications of diabetes can be prevented with optimal glycemic control. Optimal glycemic control is important. Evidence of the results showed that the target of achieving glycemic control in Indonesia itself has not been reached.

Results of research Utomo, et al (2015) in Type 2 DM client in the health center Malalayang Manado Bahu contained 72.3% (17 of 22) had uncontrolled HbA1c levels (> 7%). Larasati research results (2013) in hospitals Abdul Moeleok Lampung province also shows the majority (71.7%) had a poor HbA1c levels (> 7%).

In addition the results of random blood sugar levels in some studies also showed no glycemic control in patients with type 2 diabetes research results (Windriya., Sutjahyo, 2013) at the Hospital Dr. Soetomo shows also the results of average blood sugar levels of Type 2 diabetic patients randomized majority (20%) are still in the range of 201-300 mg / dl; 24% are in the 301-400 mg / dl and 18% of over 400 mg / dl.

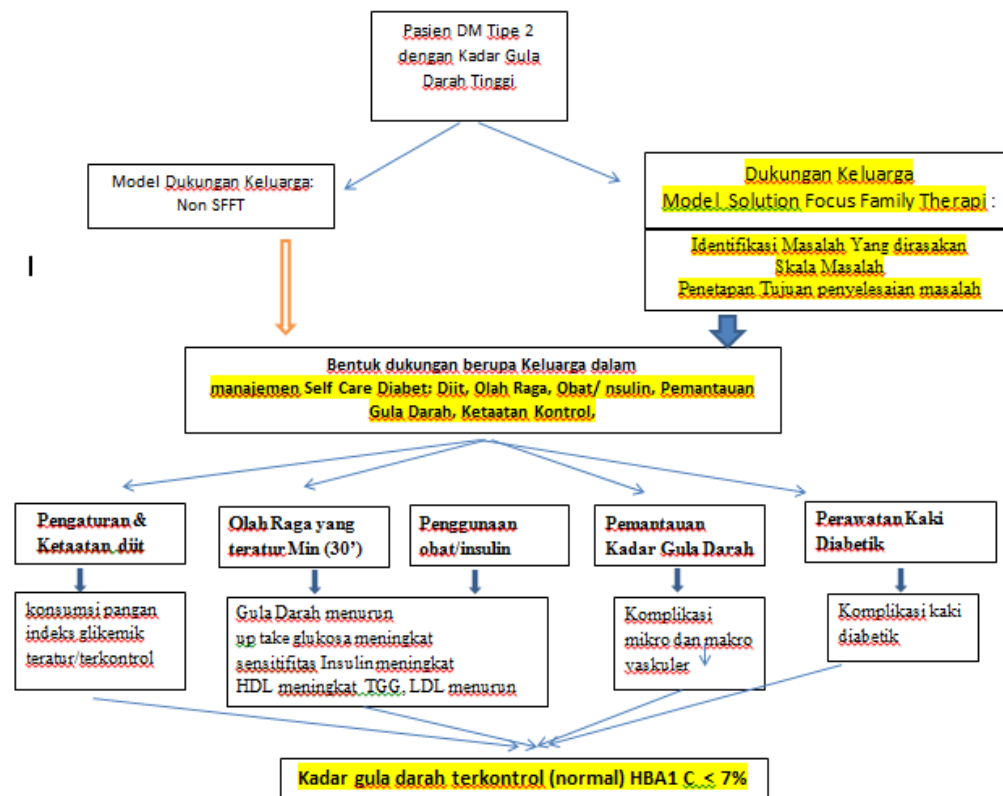
Likewise, the results of research Wulandari and Martini (2013) on the tongue Kulon Surabaya Health Center shows the majority (38.9% of 69 clients DM) has an average random blood sugar levels more than 308.071 mg / dl) and most did examine HbA1c  $\leq 5$  times a year. Failure to achieve good glycemic control with the result of the deterioration of physiological clients, not doing preventive behaviors. Control DM DM control four pillars, namely exercise and diet settings (high and low-carbohydrate), education and drug consumption ((PERKENI 2011b)



Diabetes mellitus is a chronic disease that will suffer a lifetime. DM client should implement the four pillars of diabetes control that do not experience acute and chronic complications throughout his life. It is therefore very necessary family support in controlling the disease by carrying out four pillars of the DM control. The following studies associated with the model solution focused family therapy are: research Mutiah (2014) concerning the effectiveness of the solution focused family therapy to improve social support for families in mothers of children with Down Syndrome in the State SDLB Rantauprapat North Sumatra. Other studies (Intannia 2011) which examined the Influence of Family Education Program To Control Blood Sugar Levels in Patients with DM Outpatient Hospital Ulin Banjarmasin using a questionnaire SDSCA (The Summary of Diabetes Self-Care Activities) and laboratory results HbA1C measurements to control their blood sugar levels.

One family support for DM client using a model of Solution Focused Family Therapy. In this model the failure DM client in maintaining glycemic control was not seen as a problem or failure, but a part of the development of family support in overcoming the DM client (Gottlieb, BH 1983). The emphasis in this therapy model is what might be changed, rather than what is not possible. The model focuses on taking small steps to initiate change. The focus in therapy model is the solution and competence and not on the problem. The main goal is to find the failure of the family that appear in treating DM client. An important component in the model is to create a dedicated solution formulation family destination that began in the first session. (Specific, measurable, achievable, and challenging). Nurses with family define therapeutic targets that can be implemented. Targeted Therapy of Diabetes Mellitus clients according to ADA (2010) are: control of HbA1c <6.5%, Fasting Blood Sugar 90-100 mg / dl, blood sugar after the meal <140 mg / dl, blood pressure <130/80 mmHg, Fat: LDL-cholesterol <100 mg / dl, triglycerides <150 mg / dl, HDL-cholesterol > 40 mg / dl.

Clients with Type 2 diabetes have uncontrolled blood sugar levels. Through the Family Support provided by the families and the model solution focused family therapy in the other group aims to improve the functioning of the family as a support system that is given to the client DM in carrying out the management of self-care patients with diabetes mellitus (four pillars, namely; arrangements diet, exercise, regularity of treatment and examination blood sugar levels). With the support of the family to perform obedience given diet will regulate the amount of carbohydrates or foods that have a glycemic index the body needs. So that the blood sugar levels in the body is controlled. Obedience family support to exercise or use of the drug resulted in lower blood sugar levels, increased glucose uptake, increases insulin sensisitifitas, increase HDL levels and lower LDL kakdar and TGG. Obedience clients to monitor blood sugar levels will reduce the risk of complications micro and makrovaskuler. Ketaatan doing foot care will menghindarkan away from complications of neuropathy and prevent diabetic foot as early as possible. If all components are implemented with discipline by DM client resulted controlled HbA1c blood sugar levels (see figure 1).



**Figure 2.1 Effects of Model Framework Concepts Family Support Solution Focused Family Therapy Against Blood Sugar Levels Clients Pegendalian DM Tipe 2**

The research objective was to analyze the influence of Solution Focused Family Therapy Model on HbA1C Levels in type 2 Diabetes Mellitus. Benefits Research For families and clients are increasing the active role and participation of the family in the business management and prevent complications of diabetes mellitus. The form of application for nurses as professionals in nursing care services are one of the family members are experiencing Diabetes mellitus type 2 by modifying the model of nursing interventions with Solution Focused Family Therapy

## METHODS

The research was a quasi experimental with pre-post test control group design. Population was the whole family and clients with type 2 diabetes treatment at Puskesmas Tambakrejo Surabaya. Dependent variable was—blood sugar levels while-. Independent variable was family support. The research instrument was the result of laboratory HbA1c, SFFT guide and questionnaire. Results: Data analysis was conducted using statistical analysis chi square and T test.

## RESULT

### 1. Normality Of The Data

The test results indicate normality of the data in the control group most variables normally distributed, except for the variables: family support when post HbA1c tests and variable delta. For the data will be carried out using non-parametric statistical tests.

Results of normality test data showed the treatment group mostly normally distributed variable, except variables: family support post test. For the data will be carried out using non-parametric statistical tests.

**Table 1 Normality of data**

Variable	Skewness/ SE	
	Control groups (n=15)	treatment group (n=15)
Family support pretest	0,44	1,3
Level HBA1C pretest	1,17	0,75
Family support post test	2,9	3,5
Level HBA1C Posttest	0,54	2
Delta HBA1C	3,37	1,6

### 2. Homogeneity Test Results

Homogeneity demographic characteristics between treatment and control groups in the form of categorical data using Chi Square test, whereas the form of numerical data using independent t test of proportionality tes.Hasil variable Gender and Employment between treatment and control groups using Chi Square test showed the two comparable groups ( $p = 0,651 \geq \alpha = 0.005$ ) in table 1

Homogeneity of variance test results on varabel gender, occupation, age, disease duration and HbA1c levels pre-test between the treatment and control groups showed two homogeneous groups ( $p = 0,651 \geq \alpha = 0.005$ ) in table 1 and 2.

### 3. The Demographic Characteristics Of Patients

**Table 2 Distribution and Homogeneity Test Results Age, Old sick, and HbA1c of pre-test on Type 2 DM Client in Puskesmas Tambakrejo Surabaya, June - November 2015**

Variable	Control groups (n=15)		treatment group (n=15)		P
	f	%	f	%	
Sex					0,075
Male	2	13,3	4	26,7	
Female	13	86,7	11	73,3	
Total	15	100	15	100	
Job					0,340
Not working	-	-	1	6,7	
Housewife	7	46,7	10	66,7	
PNS	1	6,7	-	-	
Retirement	-	-	1	6,7	
Entrepreneur	5	33,3	1	6,7	
Private	2	13,3	2	13,2	
Jumlah	15	100	15	100	

Research results in Table 2 show the majority of clients with type 2 diabetes are women both in the control group (86.7%) and the treatment group (73.3%). Homogeneity of variance test results showed no gender differences between the two groups ( $p = 0.075 > \alpha = 0.05$ ).

The results showed in the control group most clients work as much as 7 orang housewives (46.7%) and the self-employed as many as five people (33.3%). While the treatment group the majority of clients with type 2 diabetes as well as housewives as many as 10 people (66.7%). Homogeneity of variance test results in Table 2 showed no difference between the work of the two groups ( $p = 0.340 > \alpha = 0.05$ ).

**Table 3 Distribution and Homogeneity Test Results Age, Old sick, and HbA1c of pre-test on Type 2 DM Client in Puskesmas Tambakrejo Surabaya, June - November 2015**

Variable	Control groups (n=15)		treatment group (n=15)		p
	Mean	SD	Mean	SD	
Age (years)	50,07	9,68	61	9,83	0,387

The results of the analysis in Table 3 obtained the average age of the control group with Type 2 DM client is 50.07 years (95% CI: 44.71 to 55.43) with a standard deviation of 9.68 years. In the treatment group gained an average age was 61 years (95% CI: 55.56 to 66.44) with a standard deviation of 9.83 years. Homogeneity of variance test results showed no difference in average age between the two groups ( $p = 0.387 > \alpha = 0.05$ ).

#### 4. Family Support

**Table 4 Distribution and Test Results proportionality variable Family Support When Pre Tests on Type 2 DM Client in Puskesmas Tambakrejo Surabaya, June - November 2015**

Family support	Control groups (n=15)		treatment group (n=15)		P
	f	%	f	%	
Not good enough	2	13,3	-	-	0,113
Good enough	8	53,4	5	33,3	
Good	5	33,3	10	66,7	
total	15	100	15	100	

The results of the analysis in Table 4 obtained no initial differences between the control group and the treatment group on family support variables ( $p = 0.113 > \alpha = 0.05$ ). In the control group the most family support is enough for 53.3%. While the family support group pre-test treatment is the most good by 66.7%.

**Table 5 Distribution and Test Results Homogeneity Lama sick, and HbA1c of pre-test on Type 2 DM Client in Puskesmas Tambakrejo Surabaya, June - November 2015**

Variable	Control groups (n=15)		treatment group (n=15)		p
	Mean	SD	Mean	SD	
Long illness DM (Years)	4,63	3,55	6,77	3,57	0,972
highest Levels of Blood Sugar (mg%)	397,47	113,12	335,80	141,22	0,198
Lower Levels of Blood Sugar (mg%)	155,47	54,17	144,13	52,36	0,567
HBA1C pre test (%)	9,04	2,02	8,44	1,59	0,341

The results of the analysis of a long illness variables of type 2 DM client in table 5 obtained an average was 4.63 years in the control group with a standard deviation of 3.55

years. In the treatment group gained an average length of hospital clients type 2 diabetes mellitus is a standard deviation of 6.77 years to 3.57 years. Homogeneity of variance test results showed no difference in the average length of hospital clients with type 2 diabetes between the two groups ( $p = 0.972 > \alpha = 0.05$ ).

On average the highest random blood sugar levels in type 2 DM client control group of 312 mg% and 152 mg% lows. While the average blood sugar levels are highest in randomized treatment of 395mg% and terendah142mg%. Both of them there is no difference ( $p = 0.198$  and  $p = 0.567$ ).

The results of the analysis of pre-test measurements of HbA1c levels of type 2 DM client obtained an average was 9.04% in the control group (95% CI: 7.92 to 10.16) with a standard deviation of 2.02%. In the treatment group gained an average HbA1c of pre-test client type 2 diabetes mellitus was 8.44% (95% CI: 7.58 to 9.23) with a standard deviation of 1.59%. Homogeneity of variance test results showed no difference in average A1C test pre clients with type 2 diabetes between the two groups ( $p = 0.341 > \alpha = 0.05$ ).

## 5. Effect of Family Support To Control Blood Sugar Levels Type 2 DM Client Control Group

**Table 6 Differences Family Support Client Type 2 diabetes mellitus when Pre Test and Post Test on PHC Tambakrejo Control Group in Surabaya, June - November 2015**

Family Support	Pre Test		Post Test		P
	f	%	f	%	
Not good enough	2	13,3	1	6,7	0,123
Good enough	8	53,3	13	86,6	
Good	5	33,4	1	6,7	
total	15	100	15	100	

The results of the analysis of Family Support in Type 2 DM Client Control Group in Surabaya Tambakrejo health center in the control group obtained when Pre test and post test portion is sufficient respectively 53.3% and 86.6% (Table 6). No differences in family support at the time when the pre-test and post test with p value of  $0.123 > \alpha = 0.05$ .

**Table 7 Differences in average A1C pre test and post test in Type 2 DM Client Control group in Surabaya Tambakrejo Regional Health Center, June - November 2015**

Variable	Pre Test			Post Test			P
	Mean	SD	95% CI	Mean	SD	95% CI	
HBA1C level (%)	9,04	2,02	7,92 -10,16	8,920	2,49	7,51 – 10,29	0,870

The results of the analysis in Table 7 obtained pre-test measurements of HbA1c levels of type 2 DM client average is 9.04% a year during the pre-test (95% CI: 7.92 to 10.16) with a standard deviation of 2.02%. From the estimation interval can be believed to be 95% of the average pre A1C test is between 7.92% to 10.16%.

At the time of the post test obtained an average HbA1c of client type 2 diabetes mellitus is 8.92% (95% CI: 7.51 to 10.29) with a standard deviation of 2.49%. From the estimation interval can be believed to be 95% of the average A1C test post is between 7.51% to 10.29%. The test results paired t test showed no difference in average A1C clients with type 2 diabetes when the post test and pre-test ( $p = 0.341 > \alpha = 0.05$ ).

**Table 8 Effect of Family Support Against Average Difference A1C in type 2 DM Client Control Group in Puskesmas Tambakrejo Surabaya, June - November 2015**

HbA1C Family support	Average Difference Levels				P
	f	%	Mean	SD	
Not good enough	1	6,7	0,500	0,00	0,975
Good enough	13	86,6	0,562	0,73	
Good	1	6,7	0,400	0,00	
total	15	100	0,547	0,67	

The results of the analysis Effect of Family Support Against The average difference in the HbA1c levels in Table 8 Control group obtained majority (86.6%) with Type 2 DM client gets enough family support have an average increase in HbA1c levels of 0.562% with a standard deviation 0,73%. The test results paired t test showed no effect of Family Support Against average A1C difference in control group ( $p = 0.975 > \alpha = 0.05$ )

#### 6. Effect of Family Support To Control Blood Sugar Levels Type 2 DM Client Group Treatment

**Table 9 Difference current Family Support Pre and Post Test Test on Type 2 DM Client Group Tambakrejo treatment at the health center Surabaya, June - November 2015**

Family support	Pre Test		Post Test		P
	f	%	f	%	
Good enough	11	73,3	4	26,7	0,027
good	4	26,7	11	73,3	
total	15	100	15	100	

The results of the analysis in Table 9 obtained Family Support Client Type 2 diabetes during the Pre test is largely sufficient (73.3%) and at the post test (after the family support models SFFT) most of Type 2 DM client to have a good family support (73.3%). Results obtained chi-square test of differences in family support at the time when the pre-test and post test with p value of  $0,027 \leq \alpha = 0.05$ .

**Table 10 Differences in average A1C pre test and post test in Type 2 DM Client Group Tambakrejo treatment at the health center Surabaya, June - November 2015**

Variable	Pre Test			Post Test			P
	Mean	SD	95% CI	Mean	SD	95% CI	
HbA1C level (%)	8,44	1,59	7,56 – 9,32	7,16	1,56	6,29 – 8,03	0,002

The results of the analysis in the treatment group obtained pre-test measurements of HbA1c levels of type 2 DM client average is 8.44% a year during the pre-test (95% CI: 7.56 to 9.32) with a standard deviation of 1.59%. From the estimation interval can be believed to be 95% of the average HbA1c levels when pre-test is between 7.56% to 9.32% (Table 10).

At the time of the post test obtained an average HbA1c of client type 2 diabetes mellitus is 7.16% (95% CI: 6.29 to 8.03) with a standard deviation of 1.56%. From the estimation interval can be believed to be 95% of the average A1C was between 6.29% to 8.03%. The test results paired t test showed the difference in average A1C test pre clients with type 2 diabetes during the pre-test and post test ( $p = 0.341 > \alpha = 0.05$ ).

**Table 11 Effect of Family Support Against Average Difference A1C in type 2 DM Client Group Treatment in Regional Health Center Tambakrejo Surabaya, June - November 2015**

Dukungan Keluarga			Rata-rata Selisih kadar HbA1C		P
	f	%	Mean	SD	
Good enough	4	26,7	-1,375	0,86	0,000
Good	11	73,3	-1,160	1,20	
Jumlah	15	100	0,547	0,67	

The results of the analysis in Table 11 on the Influence of Family Support Against average A1C difference in treatment group obtained majority (73.3%) with Type 2 DM client gets a good family support had a decrease in the average HbA1c levels of -1.160% with a standard deviation of 1.20%. The test results paired t test indicated the presence of Family Support Against average A1C difference in treatment group ( $p = 0.000 < \alpha = 0.05$ ).



**7. Differences Influence of Family Support Model Solution Focused Family Therapy Against Families Against Controlling Blood Sugar Levels Type 2 DM Client Between the control group and the treatment group**

**Table 12 Differences Family Support Clients Between Type 2 diabetes control group and treatment group in Puskesmas Tambakrejo Surabaya, June - November 2015**

Family support	Control groups (n=15)		treatment group (n=15)		P
	f	%	f	%	
Not good enough	1	6,7	-	-	0,001
Good enough	13	86,6	4	26,7	
Good	1	6,7	11	73,3	
total	15	100	15	100	

The results of the analysis in table 12 in the control group most (86.6%) of type 2 DM client has sufficient family support, whereas most of the treatment group (73.3%) have a good family support. The test results of independent samples t test obtained their family support differences between the control group and the treatment group ( $p = 0.001 < \alpha = 0.05$ ).

**Table 13 Difference Difference average HbA1c levels in Type 2 DM Client Between control group and treatment group in Puskesmas Tambakrejo Surabaya, June - November 2015**

Variable	Control groups (n=15)			treatment group (n=15)			P
	Mean	SD	95% CI	Mean	SD	95% CI	
average levels HBA1C (%)	0,55	0,67	0,173 – 0,920	-1,28	1,15	-1,915 - -0,645	0,000

The results of the analysis in table 13 in the control group gained an average HbA1c of clients with type 2 diabetes has increased by 0.55% during the posttest (95% CI: 7.56 to 9.32) with a standard deviation of 0.67%. From the estimation interval can

In the treatment group gained an average HbA1c of clients with type 2 diabetes decreased by -1.28% during the posttest (95% CI: -1.915 - -0.645) with a standard deviation of 1.15%. From the estimation interval can be assured there is a 95% average reduction in HbA1c levels of between 0.645% to 1.915%. Independent test results of the samples tested showed an average difference difference in HbA1c levels of type 2 DM client in the control and treatment groups ( $p = 0.000 < \alpha = 0.05$ ).

## DISCUSSION

### 1. Effect of Family Support To Control Blood Sugar Levels Type 2 DM Client Control Group

The results of the study in the control group showed enough family support to families whose pain is normal and is a habit in our society. Support it happened because of an emotional bond as a family. Family support is an attitude, action and family acceptance towards ill patients (Friedman, 2003). The family has a function as a support to other family members who are always ready to provide assistance when needed. This support, the most common and frequent, obtained from spouses, family members, close friends, relatives who are familiar and have a harmonious relationship.

According to Rook and Dooley (in Kuncoro, 2002) there are two sources of family support is a source of natural and artificial sources. Natural family support received by someone through social interaction in his life spontaneously with people who were in the vicinity, such as family members (children, wives, husbands, and relatives) close friend or relative. Family support is non-formal.

The results of the analysis in Table 7 found no difference in average A1C test pre clients with type 2 diabetes between pre and post test ( $p = 0.341 > \alpha = 0.05$ ). The results of pre-test measurements of HbA1c levels of type 2 DM client average is 9.04%, and when the post test was 8.92% (95% CI: 7.51 to 10.29).

This indicates poor conditions in the control group. The results of measurements of average A1C shows HbA1c exceed normal levels (target therapy). Targeted Therapy of Diabetes Mellitus clients according to ADA (2010) is a control HbA1c  $<6.5\%$ . From the estimation interval can be believed to be 95% of the average HbA1c of Type 2 DM client post test is between 7.51% to 10.29%. Various complications can occur on the client's diabetes mellitus complications include acute (coma hypoglycemia, ketoacidosis, hyperosmolar coma nonketotik) as well as the development of Chronic complications (makroangiopati, Mikroangiopati, neuropathy, nephropathy, retinopathy, a disease Kardiovakuler). This condition Must be a serious concern for the health team with family dank lien DM for lowering blood sugar levels to achieve therapeutic targets so that clients avoid further complications.

The results of the analysis in the control group (Table 8) found no effect Family Support Against average A1C difference in control group ( $p = 0.975 > \alpha = 0.05$ ). Most (86.6%) with Type 2 DM client family support has considerable increase in the average HbA1c levels amounted to only 0.562% with a standard deviation of 0.73%. It can be explained that family support is obtained only naturally without the addition of any knowledge to lower blood sugar levels normal and optimal. In Table 5 the average value obtained blood sugar levels are lowest in the control group 155,47mg% and the highest was 397.47 mg%. These values indicate blood sugar control group client is a client exceeding the target therapies according to ADA Diabetes Mellitus (2010), which Fasting Blood Sugar 90-100 mg / dl and after the meal blood sugar  $<140$  mg / dl.

The conditions according to the results of research Windriya, et al. (2012) at the Hospital Dr. Soetomo indicate the results of average blood sugar levels of Type 2 diabetic patients randomized majority (24%) are in the 301-400 mg / dl and 18% of over 400 mg / dl. Likewise Wulandari research and Martini (2013) on the tongue Kulon Surabaya Health Center shows the majority (38.9% of 69 clients DM) has an average random blood sugar levels more than 308.071 mg / dl).

Besides sufficient family support in the control group was also influenced by a factor of education or level of knowledge of the family. In table 2 and 3 shows the majority (46.7%) were housewives and factor the average age is 50.07 years DM client. Someone who works as a housewife or an elderly person has to understand the limitations of adequate knowledge about DM including the ability to understand how to prevent further complications of DM.

## **2. Effect of Family Support To Control Blood Sugar Levels Type 2 DM Client Group Treatment**

In the treatment group implement family support model solution focused family therapy is more emphasis on families with the client to understand the problem uncontrolled blood sugar levels as well as the DM client makes the goal to jointly establish treatment goals family members. Family to monitor and record adherence of type 2 DM client in implementing the four pillars of diabetes self-care management. Resulting in increased support for the family at the time of the post test. In the table of results obtained perceived problem of Type 2 DM client families in the treatment group was mostly (53.3%) complained of the extremities (hands and feet) is stiff, numb, there is a small fraction complain blurry eyes and fatigue, weakness, and drowsiness respectively 20.0% and 26.7%

Their symptoms accomplice stiff, numb and have their eyes blurred showed microvascular complications (neuropathy and diabetic retinopathy) (Ignatavicius, M & Workman, L. 2010). The emergence of symptoms of tiredness, weakness, sleepiness that often interfere with the client is a complaint from complications of chronic degenerative vascular and nerve (Mansjoer, et al, 2000). The complaints are due to a deficiency of insulin or does not exist so that glucose can not get into the cells. This causes the cells in a state of hunger, despite increased blood glucose in the body. Glucose can not be used as energy (Brunner & Suddart. 2001; Asdie, 2000).

Table 5 shows the results of the analysis of differences in average A1C pre test clients with type 2 diabetes during the pre-test and post test ( $p = 0.341 > \alpha = 0.05$ ) in the treatment group. Measurement of A1C pre-test client type 2 diabetes mellitus average was 8.44% in pre test and post test at the time obtained an average HbA1c of client type 2 diabetes mellitus is 7.16% (95% CI: 6.29 - 8,03).

From the estimation interval can be believed to be 95% A1C treatment group was between 6.29% to 8.03%. This means that in the treatment group in part has reached the target client Therapy Diabetes Mellitus according to ADA (2010) is a control HbA1c <6.5%.

But there are still who have HbA1c levels up to 8.03%. Correlation HbA1c of 6% up to 8.03% represents the average plasma blood glucose 126 mg / dl up to levels of 183 mg / dl.

This suggests a target of achieving glycemic control has not been achieved. Several previous studies Larasati (2013) in hospitals Abdul Moeleok Lampung province also shows the majority (71.7%) had a poor HbA1c levels ( $> 7\%$ ). Research Wulandari and Martini (2013) on the tongue Kulon Surabaya Health Center shows most do HbA1c examination  $\leq 5$  times a year.

It is very important to get special attention from the health care team and family to make optimal glycemic control. Complications of diabetes can be prevented with optimal glycemic control. The four pillars of controlling diabetes is exercise and diet settings (high and low-carbohydrate), education and drug consumption (PERKENI, 2011). The results of the analysis in Table 10 shows the influence of Family Support Against average A1C difference in treatment group ( $p = 0.000 < \alpha = 0.05$ ). Most (73.3%) with Type 2 DM client treatment group received a good family support had a decrease in the average HbA1c levels of -1.160% with a standard deviation of 1.20%. This proves the success of the DM client maintain glycemic control as a result of a good family support. Diabetes mellitus is a chronic disease that will suffer a lifetime.

Educating the client and his family aims to provide an understanding of the course of the disease, prevention, complications, and management of DM (Ignatavicius & Workman, 2010). Support become indispensable, family participation in efforts to improve the management results so as to obtain the greatest possible benefit for people with diabetes. Solution Focus model of family support Family Therapy is one of the alternatives that will enhance their active role in the management memodiikasi DM.

### **3. Differences Influence of Family Support Model Solution Focused Family Therapy Against Families Against Controlling Blood Sugar Levels Type 2 DM Client Between the control group and the treatment group**

The difference in the effect of family support in both groups due to the modification of the control group did not do family support for DM client. Family support there is a form of family support because of the emotional attachment as part of family members. According Sarason (1983) in Zainudin (2002) Family support is an objection, sorrow and concern from people who are reliable, appreciate and love us, view samajuga proposed by Cobb (2002) defines family support as their comfort, attention, appreciation or helping with acceptance kondinya, family support is obtained from individuals or groups.

While in the treatment group, family support is done using a solution focused approach to family therapy models. Family Support the model solution focused family therapy aims to improve the functioning of the family as a support system that is given to the client in implementing the four pillars DM DM control. In the pre sessions conducted Problem Identification development DM 3 months ago (whether worse, remain undeveloped or better). At this stage of the session conducted assessments perceived problem of the family and the patient's problems and the scale of the perceived problems of patients and families

(number 0 means new problems begin to be felt and the number 10 means that the problem is felt to have completed).

Further stages of goal setting settlement of the issue of desirability family and patients. In this stage the family are taught to solve the problem by providing learning family of management self-care patients with diabetes mellitus (four pillars, namely; arrangements diet, exercise, regularity of treatment and examination kaadar blood sugar). Furthermore, at the stage of breaking families were given the opportunity to implement support for patients in carry out the task of monitoring the management of self-care patients with diabetes mellitus. at the stage of ending performed on stage next meeting to help families identify precisely what has and has not been done by the family and the patient as well as reassess the scale of the problem at this stage is also conducted monitoring of blood sugar levels to two. As well as doing positive feedback on the changes in the family. In the final stage researchers revisited the stage or start again. So that family support is carried out by treatment group equipped with the proper knowledge and understanding to solve the problem of type 2 DM client.

The analysis showed differences in the average difference in HbA1c levels of type 2 DM client in the control and treatment groups ( $p = 0.000 < \alpha = 0.05$ ). In the control group gained an average HbA1c of clients with type 2 diabetes has increased by 0.55% during the posttest (95% CI: 7.56 to 9.32).

The difference in these conditions due to the DM client in the control group is not supported by the family in carrying out management of diabetes therapy such as adherence to diet, exercise support, adherence to taking medication or using insulin properly. So that in the control group actually increased the average HbA1c levels of 0.55%.

While on treatment treatment group obtained an average HbA1c of clients with type 2 diabetes decreased by -1.28% during the posttest (95% CI: -1.915 - -0.645) with a standard deviation of 1.15%. Decrease in HbA1c levels of 1% will reduce 21% of all deaths DM, 14% incidence kardiavaskuler, lose 37% of microvascular complications, lose 43% of peripheral arterial disease (BMJ, 2000).

Decrease in HbA1c levels in the treatment group obviously resulting from the influence of family support model SFFT. This was evident at tabel13 obtained an increased change problems experienced by clients improved from pretest when the average scale of the problem is increased to 2.87 to 4.07 when the post test ( $p = 0.000$ ). Although there has been a reduction in HbA1c levels in the treatment group and the presence of elevated levels of HbA1c in the control group showed the need for the health care team and family to keep improving self-care management DM client to achieve glycemic load control. Failure to achieve good glycemic control with the result of the deterioration of physiological clients, not doing preventive behaviors Control DM (Smeltzer & Bare, 2002). Suggested DM client still perform self monitoring blood sugar levels regularly and record the results to determine the progression of the disease.

## CONCLUSIONS AND RECOMMENDATIONS

Conclusion The results of the study are as follows: Clients type 2 diabetes who use Solution Focus models Family Support Family Therapy has controlled blood sugar levels. Most clients with Type 2 diabetes had average blood sugar levels (HbA1c) were controlled. Most Type 2 DM client that is using a model Solution Focus Family Support Family Therapy mengalami decrease in average blood sugar levels (HbA1c). Some of the things recommended are:

- For families and clients should enhance the active role and participation of the family in the business management and prevent complications of diabetes mellitus
- For caregivers should provide nursing care that one of the family members are experiencing Diabetes mellitus type 2 by modifying the model of nursing interventions with Solution Focused Family Therapy
- For Institutional Services provide an understanding of the importance of the client and family to monitor blood sugar levels regularly and make a note to documentation

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# THE APPLICATION OF MONOPOLY GAME MEDIA FOR INCREASING PHBS (CLEAN AND HEALTHY LIVING BEHAVIOR) ON AMONG PRIMARY SCHOOL CHILDREN

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(Poster Presentation)

## ABSTRACT

**Background:** PHBS (clean and healthy living behavior) in children is still less so that the child can not instill healthy habits optimally. Educational games are very useful to improve the ability to speak, think, and associate with their environment. Monopoly is one of the educational games that is attractive media and can be used as health education media related to PHBS

**Aims:** To explain the application of monopoly game media for increasing PHBS (clean and healthy living behavior) on among primary school children

**Method:** Design of this research a qualitative approach. The subjects in this study were a group of primary school age children in grades 2 and 3 elementary school SDN 01 Banjarsari, Ngajum, Malang. The sampling method used was a purposive technique sampling with the number of subjects gained as much as 12 subjects. The research data were taken using interviews and observation. Data analysis using descriptive qualitative analysis through the reduction of data, a data display, an overview conclusions or verification.

**Results:** The results showed that after health education about PHBS using media of monopoly game among primary school children it found that the knowledge and behavior of all children as research subjects increased.

**Conclusion:** The health education using media monopoly game is important to increase knowledge about PHBS and can alter behavior in line with the health sciences.

**Keywords:** Monopoly Game Media, PHBS

## PRELIMINARY

During this time the children's health education as a clean and healthy living behaviors (PHBs) are still less so that the child can not know optimally healthy habits. Children experience difficulties in absorbing material in the school health for health education that do not correspond with the age of the child (Kemenkes RI, 2011). Educational games is an activity that is fun and can be a way or means of educational games that are educational. Educational games are very useful to improve the ability to speak, think, and associate with their environment. Monopoly is one of the media of educational games that can be used as a medium of learning including health education (Andriana, 2013). Until now the use of a game of monopoly as a means of health education on PHBs in children remains to be investigated.



## MATERIALS & METHODS

In this study, researchers used a descriptive qualitative research design in which researchers aim to conduct health education about clean and healthy living behaviors (PHBs) in children of primary school age are using game media monopoly in SDN 01 Banjarsari ngajum.

Selection of qualitative descriptive approach because researchers want to provide health education with educational games and know in depth understanding of PHBs to children of primary school age that aims to raise awareness about the importance of clean and healthy in their lives.

The study was conducted pada 12 primary school age children in grades 2 which is at SDN 01 Banjarsari and 1 teacher students as partners and supporting existing activities in SDN 01 Banjarsari, District ngajum, Malang Regency with the criteria subject to the grader 2 already can read a sentence properly, have good eyesight, being in good health. Collecting data in this case study is using structured interview techniques, which previous researchers have set up a research instrument in the form of a question - written questions.

The data collection process, there are three stages:

1. Pre Fields, that takes care of licensing bureaucracy research
2. Field Activity (Execution)
  - a. After receiving permission research, researchers go into the classroom to see the condition of the children and are looking for a group of children according to the characteristics
  - b. After the researchers asked the help of the class teacher to take data / identity of the children were included in the investigators characteristics
  - c. Once you've got a group of children according to the characteristics in question, researchers informed consent concerning the availability to become a research subject voluntarily without any compulsion on the relevant class teacher in charge of her students.
  - d. After that, the researchers conducted interviews with the children about healthy hygiene practices to determine their knowledge.
  - e. Once the interview is completed, the researchers started health education activities by using monopoly game by starting the game include an explanation of the procedure rules of the game and how the game.
  - f. For one game contains a maximum of 4 children from getting too rowdy and can follow the flow of the game very well.
  - g. After completion of the game is done post test with questions to find out the results of the health education provided.
  - h. Post-Process Data Collection Researchers made the conclusion after doing research.
3. Activities Golf Post is compiling and processing the results  
Methods of data analysis using the method of triangulation. Triangulation in testing kredibilitas this study was defined as checking data from various sources in various ways and at various times.
  - a. Triangulation source for assessing the credibility of the data is done by checking the data which have been obtained through several sources, namely the subject of the study itself and the teacher concerned of the results of in-depth interviews

- b. Kredibilitas triangulation technique to test data is done by checking the data to the same source with different techniques, ie for example the data obtained by interview, then check with the observation and documentation.
- c. Triangulation can also affect kredibilitas time data, because a good time to conduct interviews or data collection will provide more valid data

## **RESULTS AND DISCUSSION**

Data focus in this study consisted of a 18-point answer to the question of PHBs relating School, before and after health education about PHBs School and also data from PHBs behavior after Health Education Schools. At any answers to these questions one by one based on the analysis of facts and theories, then the results of the analysis that:

### **1. Knowledge Before Health Education**

From 18 questions given to researchers, S1 only able to answer 13 questions correctly, S2 was able to answer 10 questions correctly, S3 was able to answer 8 questions correctly, S4 able to answer six questions correctly, S5 able to answer 10 questions correctly, S6 able answered nine questions correctly, S7 able to answer 12 questions correctly, S8 able to answer 7 questions correctly, S9 able to answer 11 questions correctly, S10 able to answer six questions correctly, S11 was able to answer 10 questions correctly and S12 able to answer 8 questions correctly. According the above theory that a person's knowledge gained through the eyes and ears, yet pernahnya health education about PHBs School and the lack of information obtained and given to the students about PHBs in the life of the school and the home can affect their PHBS knowledge.

### **2. Knowledge after Health Education**

From 18 items of questions were given to researchers, the subject has been able to answer questions correctly. this is evidenced by S1 only able to answer 17 questions correctly, S2 was able to answer 15 questions correctly, S3 was able to answer 14 questions correctly, the S4 was able to answer 15 questions correctly, the S4 was able to answer 15 questions correctly, S5 able to answer 16 questions correctly, S6 able to answer 17 questions correctly, S7 able to answer 14 questions correctly, S8 able to answer 16 questions correctly, S9 able to answer 15 questions correctly, S10 was able to answer 13 questions correctly, S11 was able to answer 14 questions correctly and S12 was able to answer 16 questions. From exposure to the above researchers argue that health education is important for a person's life, given health education a person can acquire knowledge about their health and able to change health behavior in order to improve the quality of health of the individual.

### **3. Conduct Phbs Having Given Health Education**

Behavior PHBs School has increased characterized the behavior of PHBs such as hand washing with 6 steps are correct, behavior snack at school is good and healthy, the behavior of trash already in place, have followed a regular exercise, behavior tubs and chapters in place, maintaining the cleanliness of toilet and is able to conduct inspection of mosquito larvae. Based on the above exposure researchers found the increased knowledge and age,

sex, order of children in the family, education and occupation of parents, influential in the knowledge and ability to live a clean and healthy behaviors in children as subjects aged 1 to 8.5 years had knowledge and behavior is better than the other subjects and one female subject, the more prominent the ability of the subjects were male sex, the subject of one is also the second child to have two sisters and parents who work as civil servants. in the presence of older brothers from the age of the subject and parental education are higher, can provide knowledge and teach better health behavior to his family.

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# THE EFFECT OF DISTRACTION THERAPY FOR RELIEVING PAIN IN PATIENT WITH HERNIA IN AMELIA HOSPITAL PARE KEDIRI: AN APPLICATION OF CALLISTA ROY ADAPTATION NURSING CARE MODEL

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## ABSTRACT

**Background:** Distraction therapy is one kind therapy used to divert attention for something problem in nursing, such as; pain. The pain is main nursing problem in the hernia, it is felt by the patient before and after surgery.

**Aims:** The purpose of the study was to analyze the effect of distraction therapy for relieving pain in patient with post-operative hernia treated by nurses applying Roy's adaptation model (RAM) in Amelia Hospital Pare.

**Methods:** The research design was qualitative within depth interview technique. It's was conducted for 2 client who have first day post operative herniotomy.

**Results:** The results of this study showed that an adaptation model Roy was a good nursing care model for reducing pain in application with distraction therapy intervention. The Participant have survive from pain after intervention less than 48 hours. The patient's pain gradually reduced after the intervention of distraction. The first patient had adapt to pain quickly because having the experience of more severe pain before. Thus, patients with the individual coping (internal adaptation) could manage the pain better. While the second patient experienced severe his pain and never he goted before. Internal adaptation this patient could not be applied to manage the pain, but the patient's adaptation to its environment (external adaptation) can improve patient's patient to manage pain.

**Conclusion:** It could be noted that distraction therapy intervention within the application of Callista roy nursing model can be used for pain management of patients with post surgery hernia.

**Key words:** Roy's adaptation model, Pain management, Distraction

## INTRODUCTION

The pain is a reaction to an unpleasant situation or anything not in accordance with the normal situation. In human being the pain can be influenced and caused by many factors; each individual will be different perceptions and behaviors are being made to overcome the problem of pain. Pain can be caused by various conditions, such as in the effects of surgery. From the medical records of Amelia Pare Hospital Operating Theater in the period from August to October 2013 the number of operating as many as 427 measures and 31 cases (6:58%) is a hernia surgery. The main nursing problems is a pain before surgery and after

surgery. Pain is a physiological thing because the people has mechanisms to manivestation that pain, dependinghowthey manage themselfe to the pain or coping by humans. Human as a holistic beings and different each other so they have different problems and experiences in dealing with pain. The ability of individuals to adapt the pain will different each other. Roy focus implementation of nursing aims to increase individual adaptation to the environment able to respond positively to internalstimuli or external. Improved adaptation response can be done with the approach and actions capable of manipulating local stimulus, contextual and residual there. Nursing interventions can be focused on individual coping skills so that the entire stimulus in accordance with an individual's ability to adapt. Distraction techniques is one of the actions to create a positive stimulus on individuals to adapt to the problem of pain.

Pain is an individual experience of each person who happened as a warning of tissue damage and the prefix of incompetence. Someone may have negative perception of pain causes pain managment is not optimal. Individuals will anticipate and try to tolerate the possibility of a more severe pain when having previous experience of pain. Anxiety will lower pain tolerance which is physiologically, increased anxiety will decrease serotonin levels. As a neurotransmitter produced by the nucleus raphe magnus and locus nucleus acts as analgestik brain. Serotonin causes neurons secrete enkephalins are regarded as inhibitors of pain signals to the brain. Someone who is not aware of any pain or little attention to the pain will be a little bothered by pain and more tolerance to pain. Diversions will reduce the perception of pain by stimulating the descending control system so less pain stimulation is transmitted to the brain. But the effectiveness of this depends on the ability to distract attention and arouse the patient receives sensory input other than pain. Roy Adaptation Model describes a self defense mechanism responds to perform the role and function optimally to maintain the integrity of healthy,and the surrounding environment. As a holistic biopsychosocial beings in constant interaction with the environment will be an exchange of information, materials and energy. Roy identify input as a stimulus in the form of information material and the environment or herself as a response. Human adaptation rate adaptation system that acts as a stimulus to adapt the range with a reasonable response. Coping mechanism as adaptation of existing systems mentioned regulator and cognator. The central nervous system as the central regulatory system that controls the response and behavior. While on a processor cognator perception of attention is selected, it is shown and memories to make decisions.

## **METHODS**

Two patients with major problems of pain in postoperative hernia scrotalis incarserata. The research was done in the first hour post surgery until the second day, with a time difference of one hour post-operation between them, treated in the same room. Nursing care actions distraction therapy performed on two patients to overcome the problems of the patient in managing the problems of pain patients experience.

## RESULT

Two patients were treated in a one room after surgery herniotomy with the difference time is one hour after surgery. In the first case, the patient developed a hernia Scrotalis Incarcerata Dextra with severe pain (level 8 on a scale of 1-10) when pre operation. After 1 hour post surgery, intensity the pain was decreased (level 6 on a scale of 1-10) type the pain is different than before surgery. Patients say that the pain feels like pressured before surgery and after surgery as hot as a burning. Patients are able to manage and cope with pain problems in only about 1 x 24 hours. In the second case Hernia Scrotalis Irreponible Dextra, the patient came to the hospital was complaint of vomiting, that's response of pain experienced. Patients say the pain (level 6 on a scale of 1-10) in the preoperative and at one hour post surgery patients say the pain is not much different in rank (level 5 on a scale of 1-10).

People often experience pain in their lives tend to anticipate the pain more intense. The first patient said that postoperative pain is felt light than before the surgery so that this experience helps patients to minimize postoperative pain response. Diversion of attention (distraction therapy) to something other than the pain can create an environment that the patient's able to choice. A focused mind in addition to the pain it will produce integrity regulator and cognator patient to be good. The results of this action is the perception of pain will be invincible with the new situation and forming a behavior where the patient as comfortable as possible in perceiving pain. The system regulator on body has been able to manage severe pain, when the pain is lighter will enable cognator system. Besides that's, the anxiety of patients who previously high before the operation will automatically disappear after surgery by decreasing serotonin. Pain perception during the nursing care of patients is obtained from the stimulus cognator feedback regulator system. The processing of the information obtained is related to the patient's internal processes (internal adaptation) of concern have created a patient or a nurse with the distraction therapy. Patients find relief from pain and allowed to go home after the first 24 hours.

The adaptation to managing pain in the first case can not be found in the second case. In the second cases, patients experience postoperative pain with almost the same degree that is considered as a problem or a situation that needs attention. This situation causes the anxiety of patients who pose other nursing problems, such as; individual coping, anxiety, activity. The environment and the presence of the family can as a state that can reduce pain. But in this case the adaptation of the existing state of the environment during the treatment is supportive. The second case patients are motivated by the state of the first patient has been free of pain and was discharged within 1 x 24 hours. Of view, taking account of the first patients to make the patient's anxiety is to be reduced. Likewise, the family and the patient initially was terrified going success of the operation, but after seeing the first patient can survive the pain makes individual coping be good and motivated and enhance the spirit to be the same as the first patient. The patient's ability to adapt to the environment or the state of the environment will affect the condition of the individual. Distraction therapy in patients both with giving patients the opportunity to be able to adapt to the environment. The second patient can survive the pain after 2 x 24 hours.

In addition to the actions distraction therapy given, both patients also get the above provision of analgesic drugs (Novaldo) 3 x 1 ampoule in 24 hours as an act of collaboration with a team of doctors.

## **DISCUSSION**

Individual adaptability differ from one another depending on the stimulus received. In the first case, the patient is able to adapt to the pain through stimulus in the form of experience residual pain felt and focal stimulus created by nurses for the care of distraction. Diversion of attention and loss of feeling anxious effect to regulator body system that automatically effect on the response of the central nervous system. Adaptation model more influence such as physiological adaptations in the form of interaction in the functioning of the body affect each other.

In the second case, the patient is able to overcome the pain is more focused on adaptation of the outer body (environment / first patient) that stimulate the patient to think then to create a positive self-concept of the pain. Of view and observe the environment (the first patient) are a value, trust and positive emotions towards the patient's mindset. Environmental stimulation is able to manipulate the patient to seek anything best for them. Stimulus focal experienced by patients are able to change psychic and physical at the same time will have an effect on the response of patients with a reduction in pain.

Patient as an individual has the ability to adapt itself to the existing situation (internal and external). All systems of the body on the individual mutual support for the process of adaptation and circumstances outside the body also affects the process of adaptation. Upbringing made to collect data and find their behavior is a process of adaptation of existing patients to stimuli in the form of focal stimuli, contextual or residual deviations. Measures taken to manipulate causes distraction, driving factors and stimuli that is expected of patients were able to adapt and have good coping as a process of adaptation of the system and cognator existing regulator.

## **CONCLUSION**

Nurses perform distraction techniques in firstpatients and supported systems from the patient's are capabilities to adaptation so that the patient can survive with quickly. This situation is a response in a patient's body to distraction therapy coming good so that patients experience pain and anxiety as the regulator system and cognator coping mechanism influence against pain patients. While the second patient, the patient better coping mechanisms in dealing with pain is a response to environmental influences and cognator regulator so that the system in the body to produce a good adaptive behavior towards pain.

It could be Noted that distraction intervention therapy within the application of Callista roy nursing models can be used for pain management of Patients with post-surgery hernia.

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# HEALTH EDUCATION FOR IMPROVING THE ABILITY TO WASH HANDS IN PRESCHOOL CHILDREN POSTER PRESENTATION

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## ABSTRACT

**Background:** Hand washing with soap is a healthy behaviour scientifically has been proven to prevent the spread of infectious disease. In the preliminary survey, it was found that the majority of hand washing in preschool has not been done properly.

**Aims:** The purpose of this research was to know the influence of health education about hand washing using the soap on the ability to wash hands correctly

**Methods:** Quasi experimental with a one group pre-posttest design was utilized as the research design. The population of this research was all students in TK Pertiwi Kembangbahu as many as 30 students. A simple random sampling technique was chosen to recruit participants according to the inclusion criteria. There were 28 participants involved in the study. Data were collected using observation sheets and analyzed applying Wilcoxon sign the rank test.

**Results:** Almost entirely (85,8%) children have the capacity to wash hands correctly after given health education about hand washing. Statistical test obtained that  $p \leq 0,001$  where  $p \leq 0,05$  which means any impact of health education concern with hand washing using the soap on ability to wash hands correctly.

**Conclusion:** It could be concluded that there is a significant influence of the provision of health education on the ability of a child to always washing hands properly in TK Pertiwi I Kembangbahu district Lamongan. It is suggested that education about practicing hand washing properly in preschool should be provided sustainably for improving healthy habit for life.

**Keywords:** *Health Education, Handwashing, Preeschool children*

## INTRODUCTION

Hand washing hands with soap (CTPS) is a healthy behavior that has been scientifically proven to prevent the spread of infectious diseases such as diarrhea, upper respiratory infections (ISPA) and bird flu, even recommended to prevent transmission of influenza. Many people who have introduced this behavior as a health intervention that is very easy, simple and can be done by the majority of Indonesian society. Various field surveys indicate declining child absenteeism due to illness caused by the diseases mentioned above, after intervention by CPTS (DepKes RI, 2009).

Failure to perform hygiene and hand hygiene are rightly considered as the main cause of nosocomial infections that transmit in health services, the spread of microorganism multi-resistant and has been recognized as a contributor to the increase in the incidence of problems of health behavior in school-age children usually relate to personal hygiene and the environment, one of them is the habit of washing hands with soap. *Survey Health Service* program in 2006 on perceptions and attitudes towards hand washing habits found that the soap has almost been at every home in Indonesia, but around 3% who use soap to wash hand, in the village the figure is even lower. According to the *World Health Organization* (WHO) washing hands with soap can reduce the risk of diarrhea by 50% (Tazrian, 2011).

In the world as much as 6 million children die every year from diarrhea, most of these deaths occur in developing countries. It is estimated that over 10 million children aged less than 5 years old die each year, about 20% died due to diarrhea. Besides diarrhea, a disease that is dangerous because of unhealthy and unclean behavior is worms (DepKes RI, 2011). Based on the initial survey in the TK Pertiwi I Kembangbahu, Lamongan district in November 2013 be obtained in 10 children as much as 80% can't do wash their hands with the proper technique. The information obtained by the students about hand washing technique has not been maximum. They only know that they have to wash the hand after playing without get education about the proper hand washing technique.

The hand is the center of germs, begin when shaking hands, holding the door of the restroom, touching objects that contain germs, after urination (BAK) or defecate (BAB) and touching everything that much touched people like holding money, and so on. The hand that looks clean is not enough to prevent infectious diseases. Moreover, the hand which directly contact with human and animal feces, body fluids, contaminated food or drinks when not washed with soap can remove bacteria, viruses, and parasites to others. Hence the importance of cleaning our hands from various types of germs is to wash your hands. Washing hands just with water is not enough to protect a person from germs that stick in hand. Using soap when washing hands is very important because the soap helps remove germs that are not visible, oil, grease and dirt on the surface of the skin. So, we can get hygiene combined with the fragrance and fresh feeling after washing hands with soap, this will not be obtained if only use water only. Good habit is not realized by most children. They know the soap is only useful for removing dirt and odors. To undertake a program of hand washing with soap, water existence and soap for washing is not really a problem, but the main problem is factor of children's habit.

Factors that influence child's ability to wash hands are: predisposing factors that motivate a person to wash the hands with soap include knowledge, traditions, and society's values system. Good knowledge and experience gain from the surrounding environment will be able to improve the child's ability to perform good hygiene habit such as handwashing with soap, factor that support the child's ability to washes their hands with soap is a support in form of the physical environment such as facilities and supporting infrastructure. To alter the child's ability to wash their hands with soap is also required behavioral example of the community leaders and health workers. (Yuhanna, Bella Vicky, 2010).

Health handwashing behavior with soap is one of the behaviors of clean and healthy living has happen the world's attention, this is due to the lack of practice of hand washing is not only in developing countries, even though the developed countries many people also still

forget to do the behavior of washing hands. Focus on hand washing with soap is the school children as agents of change with the symbolism of the union of all components of the family, home and community in celebrating the commitment to better changes in healthy behavior through hand washing with soap. (DepKes RI, 2007). One of attempts to cultivate handwashing is to give health education. Washing hands properly begin to be taught when the child has a lot of play, and the food has been varied. The goal of health education is giving knowledge about the basic principles of healthy living, rising attitudes and healthy life behavior and creating healthy life behavior (Fitriany, S, 2011). By giving health education, it can increase the knowledge children and may influence a child's behavior to wash hands properly (Apriany, Dyna 2011).

## RESEARCH METHOD

This study uses a pre-experimental design with one group pretest Design approach (Nursalam, 2008). This research method is using Simple Random Sampling. The population is 30 children with sample of 28 respondents, namely students in kindergarten Pertiwi I Kembangbahu, Lamongan. This study was conducted in March and April 2014. Data collection is using observation sheet. Data were taken based on observations at the pupil while they are washing hand, both before and after giving Health Education and analysis of statistical tests using the Wilcoxon Sign Rank Test with the help of a computer program SPSS 16.0 for windows with a 0.05 significance level.

## RESEARCH RESULT

### 1. General Data

#### a. Age Group

**Table 1 Frequency distribution of children in kindergarten Pertiwi I Kembangbahu, Lamongan 2014.**

No	Ages	Frequency	Percentage
1	3 years old	9	32.1%
2	4 years old	14	50.0%
3	5 years old	5	17.9%
Amount		28	100%

Based on Table 1 shows that the majority (50.0%) students aged 4 years and a fraction (17.9%) was 5 years old.

#### b. Sex Group

**Table 2 The frequency distribution sex of children in kindergarten Pertiwi I Kembangbahu, Lamongan 2014.**

No	Sex	Frequency	Percentage
1	Male	17	60.7%
2	Female	11	39.3%
Amount		28	100%

Based on Table 2 shows that the majority (60.7%) students male sex.

## 2. Special Data

### a. Child's Ability To Wash Hands Before Giving Health Education

**Table 3 Frequency distribution abilities of children before being given Health Education in kindergarten Pertiwi I Kembangbahu, Lamongan 2014.**

No	The Ability of washing hand	Amount	Percentage
1	Less	6	21.4%
2	Enough	22	78.6%
3	Good	0	0%
		28	100%

Based on Table 3 shows that almost all (78.2%) children had a sufficient ability to wash their hands and none (0%) children had a good ability to wash their hands before given Health Education

### b. The Ability of Children To Wash Hands After Given Health Education

**Table 4 Frequency distribution abilities of children before being given Health Education in kindergarten Pertiwi I Kembangbahu, Lamongan 2014.**

No	The Ability of washing hand	Amount	Percentage
1	Less	0	0%
2	Enough	4	14.2%
3	Good	24	85.8%
	Amount	28	100%

Based on Table 4 shows that almost all (85.8%) he child has the ability to wash hands Welland none (0%) children had a less ability to wash their hands after given Health Education

### c. The Effect of Health Education in Washing Hand With Soap Toward Child's Ability To Wash Hands

**Table 5 the effect of health education on child's ability to wash hands in kindergarten Pertiwi I Subdistrict Kembangbahu,Lamongan 2014.**

No	The Ability of washing hand	Before		After	
		N	%	N	%
1	Less	6	21.4	0	0
2	Enough	22	78.6	4	14.2
3	Good	0	0	24	85.8
	Amount	28	100	28	100

Based on Table 5 shows that nearly all (78.6%) children have enough capability to wash hand and none (0%) children have good capability before giving health education. Almost all (85.8%) children have good capability and none (0%) children have lack ability to wash hands after giving Health Education. So that it can be conclude that there are significant differences between the child's ability to wash their hands before and after Health Education. Furthermore, the results of Wilcoxon Sign Rank Test with significance  $p$  signing 0.001 ( $p < 0.05$ ), this shows that giving of health education can improve the ability of children to wash their hands properly.

## **DISCUSSION**

### **1. Child's Capability Washing Hands before Provided Health Education**

Based Table 3 shows that nearly all (78.6%) of the children have enough ability to wash hand and none (0%) of the children have good capability to wash their hand. It means children's ability to wash their hand properly are at levels less until enough. Thus there are still many who have not been able to wash their hands properly. this was caused by several factors that hasn't been supported the child's ability to wash their hand correctly include: 1) information factor has not been obtained by the child so the child's knowledge is still lacking, 2) the unavailability of facilities to wash the hand for children in the school, 3) there has not been the example given by teachers, parents or health workers how to wash hands properly.

These conditions become attention for nurses and health workers to be able to give health education to improve the skills to wash hands properly that has a very valuable effect in the clean and healthy living behaviors (PHBS). Health workers can work together with the community in giving health education to improve the child's ability to wash hands properly (DepKes, 2008). Factors that affect child's ability to wash their hands with soap in proper technique, namely: 1) predisposing factors include knowledge, education, attitudes, beliefs, and convictions of individuals on matters related to health, with a positive attitude will create motivation for children to wash their hands with soap, 2) possible factors: the support of rising the child's ability so the motivation to wash handwith soap become reality. The manifestation of these contributing factors is such as the physical environment and resources that exist in society. The availability of facilities allows the child's ability to wash their hands with soap, 3) booster factors: a very important source for the formation of the individual's ability coming from someone else that become a reference of such behavior such as attitudes and parents behavior, peers, teachers and surrounding environment. to improve the child's ability to wash their hands with soap not only need knowledge and positive attitudes and support facilities alone, but also required a reference sample of health workers, teachers, parents, and community (Utami, Widya, 2010).

Some of the factors that influence someone does hand washing with soap epidemiologically can be explained in the epidemiological triangle are the host, agent and environment. Hosts include internal factors, namely human characteristics (age, education, gender) and the motivation will influence the knowledge and attitudes that will give birth to one's intention to take action. Environment is an external factor, namely the physical environment (availability of sanitation facilities), social environment (social sanction, support and the role of teachers), health facilities. The agent is the way of life: the use of soap,

school rules, parents parenting, the availability of educational media, information, and the existence of UKS (Kushartanti, 2012).

## **2. The Child's Ability to Wash Their Hands After Giving Health Education**

In Table 4 shows almost entirely (85.8%) children have good ability to wash hand and none (0%) children has lack of ability to wash his hands. A change in the level of ability of children to wash their hands properly through giving health education because health information and the practice that given can improve children's knowledge and motivate them to be able to do hand washing with proper technique, so the children can create healthy life behavior. According to the *Committee President On Health Education*, (1997) that health education is a process that bridges the gap between health information and health practices, that motivates a person to obtain the information and do something so that they can keep themselves become healthier by avoiding bad habits and forming habits that give health benefits. (Mubarak, Wahid, Iqbal, 2007). Education has an impact and influence on a person's behavior changes. Because it is in line with the goal of health education aims to change a person's behavior to be the better and know more, especially regarding to hand washing. The more one knows and has more information, the better his capabilities and behavior (Apriany, Dyna, 2012).

## **3. Effect Of Health Education On Hand Washing With Soap To The Child's Ability To Wash Hands Properly**

From the results of data analysis showed a change or an increase in the ability of children to wash their hands properly. The test results *Wilcoxon Sign Rank Test* with significant  $p$  signing  $\leq 0.001$  ( $p > 0.05$ ), this indicates the provision of health education can improve the ability of children to wash their hands properly. Health education can give experiences that can influence knowledge and attitudes as well as the ability of children to wash their hands properly. Increasing child's ability to wash their hands properly is also influenced by the support of the surrounding environment ranging from health care workers, teachers and maximizes the existing facilities to wash hands so that children are motivated to be able to perform hand washing with the proper technique.

The Increasing of the child's ability to wash their hands properly, because they want to learn and follow the practice of hand washing has been given. Through the study children get a variety of new things that haven't they get, so they want to fix the deficiencies that exist in themselves and improve its ability to maintain health especially wash their hands correctly through the various stimulus and support given. Change of learning behavior is not merely acquiring knowledge only, but also including gaining a change in attitude and skills.

Changes in behavior that occurs as a result of learning include a change in the region (domain) cognitive, affective, and psychomotor, as well as the level of its aspects. The process of health education is not another learning process has three main components, namely input, process, and outcome. The health education's input are individuals, families, groups and communities who are learning with various problems. Process is the mechanism and the interaction to get change capability (behavior) in the subject of learning. The output is the result of learning itself, namely in the form of ability or behavior change of the learning subject. In the process of feedback on a variety of factors that may affect each other (Notoatmodjo, Soekidjo, 2007). J.Guilbert, grouping the factors that affect the

learning process is divided into four major groups, namely: 1) the material or things learned in determining differences in the learning process. Such as learn the knowledge attitude and skill will determine the differences of learning process 2) the environment, which are grouped into two, namely the physical environment consisting of temperature, air and humidity of place of learning. While the second environmental factor is the social environment, namely human with all their interactions, 3) The instrument consists of hardware such as school supplies, props and software like curriculum, 4) The condition of the individual subject of study are divided into the physiological and psychological condition.

## CONCLUSION AND RECOMMENDATION

### 1. Conclusions

- a. The majority of preschool children in kindergarten Pertiwi I Kembangbahu Lamongan have enough ability in practice to wash hands before being given Health Education
- b. Most children in kindergarten I Pertiwi Kembangbahu Lamongan district have a good ability in practice to wash hands after given Health Education.
- c. There is the influence of Health Education on the ability of children to wash their hands properly in TK Pertiwi Kembangbahu Lamongan.

### 2. Recommendation

This research can be used as input for institution of education and health services for the success of the movement of clean and healthy behaviors (PHBS), especially for children that can later be applied in daily life.

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# THE ANALYSIS OF FACTORS CONTRIBUTED TO MEDICATION ADHERENCE IN HYPERTENSIVE PATIENTS IN SAIFUL ANWAR GENERAL HOSPITAL OUTPATIENT CLINIC

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## ABSTRACT

**Background:** Hypertension is a global challenge and fulfilled outstanding ranked third as a cause of death each year. Uncontrolled hypertension resulted in 7 million deaths. It required an act of antihypertensive medication therapy. The success of a therapy was not only determined by the diagnosis and appropriate drug selection, but also patient's compliance toward therapy including taking medication.

**Aims:** The purpose of this study was to identify how noncompliance was one of the biggest problems in the control of antihypertensive therapy and investigate factors associated with medication adherence in the population studied.

**Methods:** This study used a cross sectional which was conducted with a purposive sampling of 83 patients with hypertension who visit in Cardiovascular Clinic dr. Saiful Anwar Hospital with inclusion criteria which is patients who suffered hypertension diagnosed by the doctor did ambulatory treatment regularly in the last 4 months, willing to be a research respondent. Medication adherence was assessed using Morisky medication adherence scale with scores ranging from 0-5 (low compliance), 6-7 (medium compliance), and 8 (high compliance). Regimen was assessed by counting the number of types of drugs consumed. Knowledge variables were assessed using levels 0-4 (low level of knowledge), 5 (high level of knowledge).

**Result:** Based on research one of the factors associated with medication adherence in hypertensive patients in our sample is the regimen of drug administration that has been done the variable age ( $p = 0.185$ ), gender ( $p = 0.225$ ), and knowledge ( $p = 0.225$ ) show no association. The bivariate analysis found a significant relationship between the amount of drugs consumed as regimens to patients and medication adherence ( $p < 0.05$ ). It means that the higher amount medication consumed, the lower medication adherence level.

**Conclusion:** So it is advisable for institutions to create a program based on evidence based nursing to improve nursing care related to the provision of health education in hypertensive patients. Nurses can provide health education to families regarding the knowledge of signs and symptoms as well as to always support during treatment schedule that is constantly reminded to take medication, preparing medications and always control routine to the health service.

**Key words:** age, sex, knowledge, drug regimen, drug compliance, hypertension

## INTRODUCTION

High blood pressure is one of the most common causes of cardiovascular, cerebrovascular, renal diseases or other end organ damage leading to premature death (Aghababaei *et al.*, 2012). According to the World Health Organization (WHO), approximately 75% of hypertensive patients are not sufficiently controlled. As they reported, one of the main reasons for this failure is low medication adherence so that more than half of the patients treated for hypertension do not adhere to their recommended medication regimen (Smeltzer *SCet al.*, 2008). Nonadherence to medication regimen may worsen the disease, increasing morbidity and mortality, frequent hospitalization, and significant healthcare costs (Lavsa *et al.*, 2011). Nowadays, hypertension patients centralized in the advance economical states which their prevalence reach 37,3% which developing countries will feel the bigger effect of hypertension because the developing countries population is bigger than advance economic countries. In 2025, was expected three-quarters of hypertension population in the world will raise in developing countries.

Uncontrollable hypertension is a risk factor of cardiovascular disease, half from cardiovascular disease experiencing coroner heart disease and two-third of cerebrovaskuler disease. Based on World Health Report, uncontrollable hypertension caused 7 million death in productive age and caused 64 million disability (WHO, 2005). In Indonesia, among hypertension patients who come to polyclinic, only 39,3% reach the blood pressure target (Rohman *et al.*, 2008). According Lukitasari, 2011 previously in dr. Saiful Anwar Hospital shows that 20,8% hypertension patients who come to cardiovascular polyclinic reach the blood pressure target. This show that uncontrollable hypertension prevalency still high in the world, so it's required the right therapy.

The patients recovery also depends on the patients obedience of consuming medicine. Obedience in consuming medicine in hypertension treatment is very important, because by consuming antihypertension medicine regularly, it can control the hypertension patients blood pressure. So, it can reduce the damage risk of important part of body such as heart, kidney and brain in a long term. Thus, it required the right medicine selection to increase the obedience and reduce the death risk. The fact, the obedience toward antihypertension therapy very low. Retrospective analysis shows the diagnostic that 40% patients had hypertension, they will stop the hypertension medicine during the first year. According WHO (World Health Organization), obedience is a someone's behaviour to consume the medicine or implement lifestyle change (life style modification) according to the paramedical advise.

Based on the explanation above show that a variety factors related to consuming hypertension medicine obedience, among those factor might be one of estimated factor that caused disobedience to the hypertension patients. There are no research undertaken remain related to it In Indonesia. So, it's very important to undertake the research about factors analysis which has the most relationship with patients obedience in consuming medicine toward hypertension patients.

A succesfull therapy is not only determined by diagnostic and the right medicine selection only, but also patients compliance to do the therapy including consuming medicine compliance. Therefore, the researcher interested to know" Factors analysis related to consuming medicine compliance towards hypertension patients in Cardiovascular Polyclinic dr. Saiful Anwar Hospital Malang.

## RESEARCH METHODOLOGY

This research design is using descriptive correlational with cross sectional approach. Cross sectional approach research is a research that have a purpose to know the factors relationship at that time. Research undertook in Cardiovascular Polyclinic dr. Saiful Anwar hospital at December 9<sup>th</sup> 2011 until January 13<sup>th</sup> 2012. This research population is hypertension ambulatory patience cardiology department in Cardiovascular Clinic dr. Saiful Anwar Hospital Malang. Sample in population is hypertension patience who visit in Cardiovascular Clinic dr. Saiful Anwar Hospital with inclusion criteria which is patience who suffered hypertension diagnosed by the doctor did ambulatory treatment regularly in the last 4 months, willing to be a research respondent, all of the ASKES/ JAMKESMAS patience or medical treatment patience who support their own costs, patience who have not psychological problem,  $\geq 18$  years old patience.

Patience population average in the last three months July, August, September 2011 in Cardiovascular Polyclinic dr. Saiful Anwar Hospital Malang with population amount 493 respondent.

On this research instrument, the researcher using primer data from the respondents with the researcher assistance questionnaire. Measuring the 8 items compliance by using questionnaire measurement equipment MMAS-8 (Morinsky Medication Adherence Scale) who know the hypertension patience compliance. Meanwhile, the knowledge measured by using 5 questions that considered as right or wrong according to the respondents answer. Previously, do the validity and realibility test of the questionnaire. Validity and realibility test using 25 hypertension patience sample who has the same characteristic with research population. Doing the validity test is using Pearson moment product correlation techniques. Meanwhile, reliability test with cronbach alpha formula. So, only valid and reliable question items are used in this research.

To know the factors variable corelation with medicine consuming compliance is using Chi-Square correlation and Spearman correlation with SPSS 16 for windows assistance. It using credibility level 95%,  $\alpha = 0,05$ . So, a correlation will meaningfull if  $p \leq 0,05$

## RESULT

Following will be presented the results of research and analysis of data on Analysis of factors associated with medication adherence in hypertensive patients at the Heart Clinic Regional General Hospital Dr. Saiful Anwar Malang.

### 1. Characteristics of Respondents by Age Type

**Table 1. Characteristics of Respondents by Age at the Hospital Dr. Saiful Anwar Malang.**

No	Age	Frequency	%
1.	40-54	9	10.8
2.	$\geq 55$ year	74	89.2

Table 1 above shows that the age of the respondents that most of the respondents were aged  $\geq 55$  years as many as 74 people (89.2%) who suffer from hypertension.

## 2. Characteristics of Respondents by Gender

**Table 2. Characteristics of Respondents by Gender in Regional General Hospital Dr. Saiful Anwar Malang**

No	Gender	Frequency	%
1.	Man	37	44.6
2.	Women	46	55.4

Based on Table 2 obtained the characteristics of respondents by sex of 83 respondents survey indicated that the number of female respondents more than the male respondents. There are 46 respondents (55.4%) were female and 37 respondents (44.6%) male sex.

## 3. Characteristics of Respondents by Type Regimen (Number of Drugs)

The following will describe the distribution of respondents based regimen (amount of drug).

**Table 3. Distribution of respondents by Regimen (Number of Drugs)**

No	Number of Drugs	Frequency	%
1.	2	1	1.2
2.	3	17	20.5
3.	$\geq 4$	65	78.3

Table 3 above shows that most respondents are using a lot of  $\geq 4$  types of drugs as many as 65 respondents (78.3%) and the least use two types of drugs as one respondent (1.2%).

## 4. Characteristics of Respondents Based on Knowledge Level of Treatment

The following will describe the distribution of respondents by the level of knowledge of treatment.

**Table 4. Distribution of respondents by Knowledge Level of Treatment.**

No	Knowledge Level	Frequency	%
1.	High Knowledge Level	18	21.7
2.	Low Knowledge Level	65	78.3

Based on Table 4 above can be seen that out of 83 respondents showed that most respondents found that lower levels of knowledge many as 65 people (78.3%), and the smallest high knowledge level of respondents as many as 18 people (21.7%).

## 5. Characteristics of Respondents Based Medication adherence.

The following will describe the distribution of respondents by medication adherence in hypertensive patients.

**Table 5 Distribution of respondents by Compliance DrinkDrugs In Hypertension Patients**

No	Compliance	Frequency	%
1.	Compliance High Level	22	26.5
2.	Compliance Medium Level	32	38.6
3.	Compliance Low Level	29	34.9

Table 5 above shows that most levels of adherence included in the category of medium-level keptauhan as many as 32 people (38.6%), while the least level of complianceto take his medication included in the category of a high level of compliance by 22 people(26, 5%).

## DISCUSSION

Based on data from the study, it was found that most respondents with hypertension aged  $\geq 55$  years. In addition, it can be seen that the respondents have a high level of compliance mostly aged  $\geq 55$  years. From the results of Pearson correlation test for variables of age with medication adherence in hypertensive patients there is a significance value of 0.141 ( $p > 0.05$ ), which means there is no relationship between age and medication adherence in hypertensive patients. According to Levinson (1978) in Potter & Anne (2005) age is the life span of the respondents expressed in units of the respondents' statements. The incidence of hypertension increases with age. Increasing age will lead to physiological changes. Hypertension is a multifactorial disease whose emergence because of the interaction of various factors. With increasing age, the blood pressure will rise. With the increase in blood pressure, the level of adherence to take his medication also increased this is because during the period of growth and physical maturation in adulthood end to old age occur physiological changes regarding health issues is on final adult / elderly they pay more attention to their health and able to be responsible in their lives , They chose to remain independent and prevent disability. They started to prevent the inability to perform initial screening by collecting baseline data that can be used to determine the health, health needs, and designing health care program.

The data above are supported by the results of the study in hypertensive patients at Hospital Dr. Saiful Anwar Malang similar to previous research in Pakistan by Hashmi et al. (2010) declared the results based on a survey of 348 patients with hypertension (2007) showed that the age, the level of adherence higher hypertension. Several other studies also show that there was no correlation between the decline in adherence with increased In total, 250 hypertensive patients were assessed. The mean age of participants was  $55.94 \pm 9.06$  years. More than 65% of them were men. Nearly 70% were married who their partner were alive. The mean duration of Hypertension was  $42.45 \pm 28.09$  months and the mean period of hypertension drug therapy was  $40.81 \pm 27.9$  months. Nearly 86% of participants had insufficiently controlled blood pressure (Maghlagha *et al.*, 2015).

Based on the description above, it can be concluded that in this study, age is not one of the factors associated with medication adherence in hypertensive patients.

Based on the research, the result show that women has lower medicine consuming compliance than men. From Spearman result test for gender variable with medicine consuming compliance there is significant value amount 0,225 ( $p > 0,05$ ), which means there is no correlation between respondent gender with medicine consuming compliance.

Based on women high presentation theory caused by women are more concerning about their health compare with men. The research result is suitable with Pin-Hsuan Wu et al research result. (2010) in Taiwan that gender is not the predictor which effect to medicine consuming compliance. It is because women has the perseverance to the medical treatment because they feel their disease is a chronic disease that need continuous treatment. Therefore, they are more carefully with the treatment that they has got.

Different with medicine consuming compliance in men, men are prefer to be motivated concerning about the treatment. It is because the credibility level toward the treatment decreasing. They also started to feel the medicine side effectis very disturbing.

Based on explanation above, it can conclude that in this research , gender is not one of the factor that related to medicine consuming compliance toward hypertension patience.

The study is consistent with research Unniet. al (2013) who explained that there is an inverse relationship has been researched between medication adherence and the number of drugs recommended by medical personnel. Patients with 1 therapy has a high compliance with an average of 79% compared to 90% of people who consume three or more drugs. This is also supported by research Reynoldset. al (2012), which explains the difference in adherence between 1 medicine with > 2 types of drugs with no evidence of eight studies reported that the average adherence to one type of drug dose significantly higher multiple types of drugs, (91.4% vs 83.2%, danP <0.001).

Based on the above, it can be concluded that the regimen is one of the factors associated with medication adherence.

Based on the research conducted, the average knowledge of the respondents included in the category of low-level knowledge that 78.3% of respondents whose knowledge is low. Spearman test results for the variable knowledge with medication adherence is there a significance value of 0.106 ( $p > 0.05$ ), which means there is no relation between knowledge and adherence.

Information and empathy from the doctor to the patient can be a powerful motivator for patients to undergo treatment. Most patients do not understand what it was hypertension, a risk factor for hypertension overall, complications, and treatment required (Korbet *al.*, 2012). In this research note that the lack of knowledge about the treatment can cause moderate adherence rates. The results of this research together with research similar to Maghlaghaet *al.*, (2015) who found that patients' knowledge of treatment may improve patient adherence to treatment.

Based on the description above, it can be concluded that in this study, knowledge is not one of the factors associated with medication adherence in hypertensive patients.

## CONCLUSION

Based on the research that has been done, it can be concluded as follows: Age of hypertensive patients in our sample mostly aged  $\geq 55$  years, with 74 (89.2%) of respondents from 83 respondents and age do not have a relationship with medication

adherence. The number of hypertensive patients in our sample is the most dominant female that as many as 46 (55.4%) of respondents from 83 respondents and gender did not have a relationship with medication adherence. The majority of patients with hypertension in our sample received medical therapy with  $\geq 4$  types of drugs as many as 65 (78.3%) of respondents from 83 respondents. Regimen (amount of drug) have a relationship with medication adherence. The greater the amount of drug consumed, the rate of medication adherence decreased. The level of knowledge in the treatment of hypertensive patients in our sample relatively low knowledge that as many as 65 (78.3%) of respondents from 83 respondents. Knowledge has no relationship with medication adherence. The level of medication adherence in hypertensive patients at Poly Heart RSSA classified as moderate adherence Malang as many as 38.6% of 83 respondents. One of the factors associated with medication adherence in hypertensive patients in our sample is the regimen of drug administration.

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# THE EFFECTIVENESS OF EXTRACTS CLOVE FLOWER BUDS (*SYZYGIUM AROMATICUM*) IN ACCELERATING THE HEALING TIME OF INCISIONAL WOUNDS IN RATS

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## ABSTRACT

Wound care is a factor that can affect wound healing process. One of the herbal medicine used to treat wound care is the extract of clove flower bud (*Syzygium aromaticum*). The purpose of the study was to know the effect of extracts clove flower buds *Syzygium aromaticum* in accelerating the healing time of incisional wounds in rats (*Rattus norvegicus*) strain wistar. The study design was true experimental by method post test only control group design. The study used 25 rats (*Rattus norvegicus*) strain wistar. Wounds incision were made with three treatment groups and two control groups. Three groups of treatment were given extracts of clove flower buds with three different doses (20%, 40% and 60%). Wound care were carried out on the 3<sup>rd</sup> day, 6<sup>th</sup> day, 9<sup>th</sup> day, 12<sup>th</sup> day and 14<sup>th</sup> day. The average length of time of the incisional wound healing group extract clove flower bud 20% was 9.4 days, group extract clove flower bud 40% was 8.4 days, group extract clove flower bud 60% was 5.4 days, group of povidone iodine 10% was 11.2 days, and group of normal saline was 11.6 days. Clove flower bud contain saponins, tannins, and flavonoids. Such active substances can be instrumental in the process of wound healing. The conclusion showed the existence of a significant differences between extract clove flower bud 60% with povidone iodine 10% ( $p = 0.01$ ) and normal saline ( $p = 0.006$ ). Extract clove flower bud 60% has tendency to shorten the healing time of incisional wounds.

**Keywords:** clove flower bud, wound incision, wound healing time

# **BARRIERS NURSING STUDENTS UNDERTAKING THERAPEUTIC COMMUNICATION IN NURSING MENTAL DISORDER PATIENTS: LITERATURE REVIEW**

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## **ABSTRACT**

**Background:** The relationship between people is the basis of the interaction and communication between health workers as health care workers with clients as users of health services. Human relations in health care that occurs between the nurse and the client is the therapeutic relationship. Communication is an important component in the practice of nursing. Human relations in health care that occurs between the nurse and the client is the therapeutic relationship. Communication is an important component in the practice of nursing.

**Purpose:** The purpose of this paper is to get a general overview of the barriers to nursing students in carrying out therapeutic communication in nursing care of patients with mental disorders.

**Methods:** The method used is a literature review. Literature In writing this review using data compiled and analyzed from various literature were searched using electronic data sources such as Science Direct, Nature and Proquest database. The data taken on therapeutic communication, implementation and obstacles that occur.

**Results:** In addition there are the characteristics of effective communication, also identified barriers to effective communication. Nurses need to be aware of this and avoid obstacles. Nurses also need to recognize obstacles the event so that they can be composed to a more effective communication. These barriers can occur because nurses fail to listen, inaccuracies interpret the message the client, and the nurse put the needs above the needs of clients as a major obstacle terapeutik communication.

**Conclusion:** Effective communication is the basis of nursing professionals, including nurses with patients, nurses and other nurses and nursing students themselves. Effects of communication barriers not only on the quality of nursing care, but also can increase the cost of care.

**Keywords:** barrier, therapeutic communication, student

## **INTRODUCTION**

Human relations are fundamental interaction and communication between health workers as health care workers with clients as users of health services. The relationship with the good will facilitate the transfer of knowledge, behavior and health culture. The process of interaction often involves feelings and words spoken in the communication that reflects

the feelings and emotions in communicating. Human relations in health care that occurs between the nurse and the client is the therapeutic relationship.

Communication is an important component in the practice of nursing. Listening to the client's feelings and explain the procedure of nursing actions are examples of communication techniques performed by nurses during practice. Communication is also done in an effort to maintain good cooperation with clients in meeting the health needs of clients, as well as with other health professionals in order to help solve the client's problem. Communication is a professional skill that must be owned by a professional nurse in order to create a therapeutic relationship (Mundakir, 2006).

Interactive process between patient and nurse who helps patients cope with stress while to live in harmony with others, adapt to something that can not be changed, and overcome the psychological barriers that hinder the realization of this so-called therapeutic communication (Liliweri, 2008). Different therapeutic communication of social communication, ie the therapeutic communication is always a purpose or a specific direction for communications; therefore, therapeutic communication is planned communication. Most therapeutic communication takes place when the patient and the nurse both show respect for individuality and self-esteem (Kathleen, 2007). In addition there are the characteristics of effective communication, also identified barriers to effective communication. Nurses need to be aware of this and avoid obstacles. Nurses also need to recognize these obstacles when there so they can compose for more effective communication. These barriers can occur because nurses fail to listen, inaccuracies interpret the message the client, and the nurse put the needs above the needs of clients as a major obstacle terpaeutik communication (Kathleen, 2007).

Nursing students as prospective nurse should also understand about communication especially therapeutic communication, so if the student has completed his education, it can apply the knowledge they have gained communication. According to Law No. 12 of 2012 on article 13, paragraph 2, states that students are actively developpotential by doing the learning, the search for scientific truth, and / or acquisition, development, and practice of a branch of science and / or technology to be scientists, intellectuals, practitioners, and / or professional cultured. Based on that nursing students are also required to constantly develop ability, one of them in terms of communicating.

From the research that already exists terpaeutik showed that communication was influential in the process of interaction of nurses and patients. According to the research Ibn Darmawan (2009), there is a significant relationship between implementation of therapeutic communication with client satisfaction. Chapelain P., MORINEAU Gautier T. & C. (2015), in his research on the effects of student communication in their performances during the simulated emergency situations it was concluded that the ability to communicate information and the ability to ask contribute to the appearance when providing care to patients.

Negarendeh, Oskouie and Ahmadi (2006) in his research on patient advocacy: obstacles and his facilitator stated that there are several factors that cause limitations in the advocacy role of nurses to clients, one of which is a limitation factor communication. Awe (2014) also wrote on the practice field in Finland, the communication model between different adviser to those already taught in the classroom, then the language differences may also lead to the ineffectiveness of student communication with the patient. This fits well with the results of research Bolderstonetal. (2006), Green (2008), Roganetal (2006), wrote that the experience

in clinical practice, including the competition to get an effective method to language and readiness to face the new environment.

The results of observations be counselors writer for Nursing students who are doing professional practice of Psychiatric Nursing, student nurses often complained of difficulties when want to do the assessment on the patient management. The reason given by students also varies, scared when they want to interact with patients, unable to initiate communication, patient communication and managed hard to get confused what to ask their patients. It is often complained of students, although in practice the semester before they've got a theory on Communication in Nursing.

Barriers in the communication process have led to incomplete assessment data or study time becomes longer than the target should be. To overcome the above should students prepare well before fulfilling their soul nursing practice, apply theory on Communication in Nursing and practice of science that has been obtained as well as possible. Besides the main role Clinical Instructur (CI) also plays an important role in overcoming obstacles therapeutic communication students.

## **WRITING PURPOSE**

The purpose of this paper is to get a general overview of the barriers to nursing students in carrying out therapeutic communication in nursing care of patients with mental disorders. While the benefits that can be drawn from this paper include providing information about obstacles nursing students in carrying out therapeutic communication in nursing care of patients with mental disorders.

## **LITERATURE REVIEW**

According to Law No. 12 of 2012 students are learners at Higher Education level, students as members of the academic community is positioned as an adult human being who has self-awareness in developing potential in Universities to be intellectuals, scientists, practitioners, and / or professional. Students are actively developing their potential to do the learning, the search for scientific truth, and / or acquisition, development, and practice of a branch of science and / or technology to be scientists, intellectuals, practitioners and / or professionals cultured. By reference to the above, nurse graduate level Diploma of Nursing serves as a nurse skilled in resolving nursing problems independently and in groups are planned in accordance with the standards of nursing care, the ability to assume responsibility for the decisions and actions of nursing care professional, according to the scope of practice and legal / legislation (AIPDIKI East Java, 2014).

Learning gains courses Diploma Nursing Indonesia include attitudes and values, the acquisition of knowledge / knowledge, skills general work, work skills specifically described as follows: shows the attitude responsible for the work in his field of expertise independently, mastered the concepts, principles and techniques of therapeutic communication as well as the obstacles that are often encountered in the implementation of nursing care, therapeutic able to communicate with clients and provide accurate information to clients and or family / companion / adviser on nursing action plan which it is responsible (AIPDIKI East Java, 2014).

Therapeutic communication is different from komunikasi sosial, i.e. the therapeutic communication is always a purpose or a specific direction for communications; therefore, therapeutic communication is planned communication. Most therapeutic communication takes place when the patient and the nurse both show respect for individuality and self-esteem (Kathleen, 2007).

This is consistent with the opinion of NasirA, (2011) that the communication also contained several stages of the pra-interaksi, orientation, employment, and termination so there grew a sense of trust between the patient's family with a nurse. Where the therapeutic communication is a communication performed by a nurse or nurse to patient based on the patient's family trusting relationship in the communication there is a healing art.

The aim of therapeutic communication include a) Helping patients to clarify and reduce the burden of feelings and thoughts and can take action to change the situation when the patient believes when the things necessary. b) Reduce doubt, help in terms of taking effective action and maintain the strength of his ego. c) Influencing others, the physical environment and themselves in terms of health improvement. d) Strengthen relationships or interactions between patient and therapist (health workers) in a professional manner, proportionate to assist in the completion of patient problems (Mundakir, 2006).

In addition there are the characteristics of effective communication, also identified barriers to effective communication. Nurses need to be aware of this and avoid obstacles. Nurses also need to recognize these obstacles when there so they can compose for more effective communication. These barriers can occur because nurses fail to listen, inaccuracies interpret the message the client, and the nurse put the needs above the needs of clients as a major obstacle terapeutik communication (Kathleen, 2007).

Communication barriers can lead to difficulties in the interaction of two people of different cultural and language differences. It is important to note that in interpersonal communication and group (Bolderston et al, 2007). Sanner et al (2002) wrote that the students involved in the study showed an attitude of isolation and discomfort. This happens because students feel isolated in its group due to the limitations of language. Students use a defensive coping mechanisms such as not acceptance, or withdraw from their environment. According penilitian Noor, Novial, and Ismahmudi (2013), of the therapeutic communication data there are 35 nurses carry out therapeutic communication with either or by 52.36% and the rest is as much as 32 (47.37%) nurses did not do well. Prihatiningsih study (2012) showed therapeutic communication is done is good enough (53.3%).

This therapeutic communication itself plays an important role in helping patients solve their problems. As it aims for the therapy of communication in nursing called therapeutic communication (Suryani, 2005). Therapeutic communication applied by nurses in dealing with patients to increase mutual trust, and if not applied will disrupt the therapeutic relationship that impact on patient dissatisfaction. Patients will feel satisfied when the performance of health services gained equal or exceed expectations and conversely, dissatisfaction or feeling disappointed patients will appear if the performance of health services obtained it not in accordance with expectations (Pohan, 2007).

Based on the results of research conducted in 2010 on the relationship Huda therapeutic communication nurse with patient satisfaction level that client satisfaction is strongly influenced by therapeutic communication nurse, of the 31 patients as respondents obtained in 19 patients (61.3%) said they were satisfied. And the results of research conducted

Husna, et al (2009) about the relationship of therapeutic communication nurse with patient satisfaction that nurses have applied therapeutic communication (100%) and patients were satisfied (84.6%). Results of research conducted in 2008 on the relationship Ibrahim therapeutic communication nurse with patient satisfaction level, indicating that the implementation of therapeutic communication in nurse's own good as much as 9 nurses (56.3%), while for patient satisfaction as many as 10 people (62.5%) patients feel satisfied.

## **DISCUSSION**

Obstacles in therapeutic communication become a major issue in the relationship nurses and patients. Examples of cases occur in the ICU with existing patient, the nurse did not quite have the time to sit and listen to the complaints of his patients, patients see expressions, ask the patient's condition, a disease that affects families and promotive has been done to reduce the patient's complaint.

This problem can be overcome by nurses have a good relationship with the patient, taking more time to listen to patient complaints, not only perform routine service and then only writing in nursing reports. Ryanetal (1998) emphasized the importance of effective communication in nursing students to improve the quality of nursing services. Effective communication is the basis of nursing professionals, including nurses with patients, nurses and other nurses and nursing students themselves. Koff & Mc. Gowan (1999) states the effect of the communication barriers not only on the quality of nursing care, but also can increase the cost of care.

In addition to the above therapeutic nursing students communication barriers can be caused by several things, as follows:

From the results of research conducted found four in carrying out therapeutic communication techniques that show reception, offering information, classify, and ask questions related. In terms of the theory of many techniques that have not been applied by nurses in providing nursing care. As repeated utterance of patients using the nurse's own words, focusing problems, said the observation of the patient, summarizing the results of observation, gave awards to patients and offered to help and give yourself time to reflect on the patient (Meidiana, 2008). In terms of the theory of many techniques that can be applied by students in providing nursing care.

Nasir, A (2009) said that in carrying out therapeutic communication, the nurse must have the capabilities include: sufficient knowledge, appropriate skills and techniques and ethics of good communication. The experience is a source of knowledge, or experience is a way to acquire the knowledge of truth, therefore, personal experience or work experience can also be used as an attempt to gain knowledge. The process is done by repeating the experience gained in solving the problems faced in masalalu.

Strengthening the role of CI, this can be done if the CI by being a role model for students bimbinganya, showing how it should be an effective therapeutic communication, providing directexamples and guidance when guiding students perform therapeutic communication with patients



## CONCLUSION

Based on the descriptions above it can be concluded, as follows: 1). Communication is essential to patient care 2). Barriers in therapeutic communication can occur because of cultural differences and language differences 3). Students always improve skills in communicating, trying to return if there are no obstacles, as well as reducing barriers in communication.

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# SELF MANAGEMENT EDUCATION ON PATIENTS UNDERGOING HEMODIALISA: A LITERATURE REVIEW

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## ABSTRACT

Chronic renal failure is a progressive disorder of renal function and irreversible where the ability of the body fails to maintain the balance of fluid and electrolyte metabolism. Dialysis be patient choice for survival. In Indonesia, where the prevalence is increasing mortality rate of CRF patients undergoing hemodialysis account for about more than 20% annually. One effective way to reduce the incidence of mortality and complications and improve the quality of life of patients undergoing hemodialysis is the improvement of the patient's level of self-management. Self-management education is a strategy that is quite able to rely on a renal failure patients undergoing hemodialysis. This literature review aimed to give an overview about self management education of patients with chronic kidney failure who undergoing hemodialysis. The research conducted by doing reviews on the results of research published from year 2000 until 2015 obtained from several journal database such as CINAHL, ProQuest, and EBSCO. The data searching done by using these key words, self management education, chronic kidney disease, hemodialysis. Self-management education renal failure patients undergoing hemodialysis therapy include fluid management, nutrition management, medication and vascular access. To determine the extent to which education can be carried by the patient required an evaluation that can be measured by the index of knowledge in the form of Chronic Hemodialysis Knowledge Survey (CHeKS) instrument. If the score indicates a small value, the patient only has a little motivation to change behavior.

**Keyword:** self management education, chronic kidney disease, hemodialysis.

## BACKGROUND

Chronic Renal Failure (CRF) is renal function disorders are progressive and irreversible failure in which the body's ability to maintain metabolism and fluid and electrolyte balance which causes uremia (Smeltzer & Bare, 2010). The number of patients with CRF prevalence is increasing in all parts of the world. In the United States, reported that 64.9% of patients with CRF receiving hemodialysis therapy while 4.8% receiving peritoneal dialysis therapy (United States Renal Data System, 2012). According to the Register Kidney Indonesia (2012), in 2011 there were 12.804 CRF patients undergoing hemodialysis. One effective way to reduce the incidence of deaths and complications and improve quality of life for patients undergoing hemodialysis is the improvement of patient self-management level (Griva et al, 2011). CRF patients undergoing hemodialysis have to make changes to the pattern of his life. The changes, among others, regularly come to the dialysis unit to undergo hemodialysis therapy, restricting fluid intake, diet restriction, and taking drugs - drugs (Wang & Ma, 2005).

Changing patterns of life is very influenced by the involvement of individual patients concerned or in other words the patient improve his management. Therefore, interventions that aim to improve the level of self-management in patients must be effective in order to support the adaptation to changes in lifestyle made during hemodialysis (Li, Jiang and Lin, 2013). Self management is a strategy that is enough to be able to rely on patients with renal failure undergoing hemodialysis. Lately, self-care management used as an alternative to improve compliance or patient compliance, especially for patients with end stage renal failure (end stage renal disease). Until self-management has been used as a protocol in Nephrology Nursing Standards of Practice and Guidelines for Care (Burrows-Hudson & Prowant, 2005; p. 396 in this issue of NNJ). In another study mentioned that patients with chronic renal failure receiving hemodialysis therapy often does not adhere to treatment and also oral fluid restriction. With self-management patient education for self-care and ability to make decisions relating to the treatment, monitoring symptoms, designing goals and develop relationships with health care providers to be increased (Barlow, Sturt, & Hearnshaw, 2002; Lorig & Holman, 2000 in Lucia 2008).

Other studies suspect that patients with end-stage renal failure (ESRD) undergoing hemodialysis have a perspective that is similar to the self-management (Curtin, Mapes Petillo & Oberley, 2002 in Richard 2006). With their self-management education is expected to be more restrained patient noncompliance. Although self-management education has been given but nevertheless necessary to evaluate whether the patient really able to control himself and adhere to treatment. With that background, so it is important to review some of the literature related to self-management education chronic renal failure patients undergoing hemodialysis.

## **PURPOSE**

The purpose of this literature review is to provide an overview of self-management education of adult patients with chronic renal failure undergoing hemodialysis therapy based research journal literature related.

## **METHODE**

This literature review using multiple databases obtained from CINAHL, ProQuest, EBSCO with a range of time from 2000 to 2014. Criteria for literature searches were the English and Indonesian, and published in peer review journal. By keyword used is self-management education, chronic kidney disease, hemodialysis. Articles that meet the criteria are then read, analyzed, compared with one another, and then discussed and concluded.

## **RESULT**

In a literature study obtained 5 to review the literature on self management of patients with chronic disease program. As quoted in the journal entitled Self Care Management in Adult Undergoing Hemodialysis (Richard, 2006) review of 64 studies on self management in patients with end stage renal failure or end stage renal disease. Much research has focused on compliance or adherence. 2 also obtained literature discusses efforts to improve the self-

management program renal failure patients receiving hemodialysis therapy. In the literature is clear that efforts to increase self-management program can be reached by providing a comprehensive patient education. Where before educating first participants were given a questionnaire to evaluate the patient's knowledge or understanding of the treatment regimen including restrictions on fluid intake.

Richard (2006) stated that the management of patients with renal failure undergoing hemodialysis therapy are:

### **1. Management Of The Patient's Fluid**

Fluid restriction in patients with renal failure undergoing hemodialysis is the most important thing. Limiting fluid intake is important for renal failure patients undergoing hemodialysis. Although the patient already understands that failure in fluid restriction can be fatal, but about 50% of patients who undergo hemodialysis therapy does not comply with the recommended fluid restriction. Measurement of fluid restriction using variable interdialytic weight gain (IDWG). IDWG influenced by body surface area, volume of urine output, output intake, sodium intake, presence or absence of diabetes mellitus, blood glucose levels and the weather (Brenner, 2000). The proper parameters to be followed in addition to data intake and discharge were recorded precisely the measurement of body weight daily. Research conducted by Hidayati et al (2013) stated that there is the effect of the decrease IDWG transactional counseling.

### **2. Diet Daily**

Management diet is an important aspect of self-care management for patients with kidney failure. In chronic renal failure and protein energy deficiency occurs approximately 30-40% of cases in the world. Eight research conduct an assessment of the nutritional status of patients with kidney failure and suggested a positive correlation between adherence and high levels of phosphate in the blood and low levels of albumin (Lee & Mollasitois, 2002). Disobedience is essentially preceded by a less self efficacy so that patients are less able to understand the importance of proper management. In addition to the patient should be able to regulate foods that contain high levels of salt that patients should also be able to regulate foods containing high protein.

### **3. Medication**

Renal failure patients have barriers to administering treatment, especially in terms of doses taken. Research conducted by Cleary, et al (2000) states that each patient on average mengkosumsi oral medication drug 9-12 per day. Renal failure patients with hemodialysis generally consumes a lot of drugs for various purposes. And most patients are inconsistent with the treatment due to several reasons. Some patients require antihypertensive therapy, dislipidemi, antiplatelet, and a decrease in blood glucose levels. To that patients are expected to have a positive self-efficacy to improve compliance to treatment.

### **4. Vascular Access**

Vascular access is a pathway to sustain the lives of patients with chronic renal failure undergoing hemodialysis. The most frequent problem is the blockage and infection. In addition the results of qualitative research conducted by Lucia (2008) suggested that patients with chronic renal failure undergoing hemodialysis at first he learned to adapt to

the circumstances, participants also stated that they require specific information related to the treatment.

## **DISCUSSION**

Treatment regimens mentioned above should be understood and implanted in the patient that compliance with the treatment regimen is crucial in a self-management. Curtin & Mapes (2001) meyakini that patients with chronic renal failure undergoing hemodialysis therapy who have good self management then it will have a positive effort to come to health services and to build good relationships with health care providers. Besides Mark & Lorig (2005) also mentioned that the self-management will be able to improve the health status of patients with chronic disease and improve their quality of life. Restriction of fluid intake in patients with chronic renal failure undergoing hemodialysis is very important to note, because the intake of fluid overload can lead to weight gain fast (exceeding 5%), edema, ronkhi wet, swollen eyelids and shortness of breath due to the volume of excess fluid and uremic symptoms (Smeltzer & Bare, 2010).

Furthermore, lack of energy and protein in patients with chronic kidney disease who undergo hemodialysis due to a decrease in the amount of intake of various nutrients for anorexia patients feel and increased catabolism due to an inflammatory reaction that lasts longer. Besides the role of sodium restriction also plays an important role natural blood pressure regulation. In some studies found that increased consumption of sodium followed by deterioration of blood albumin levels. It is described as high-sodium diet will give negative effects to the effects of anti proteinemia.

In addition to a low-salt diet is also recommended for patients with protein restriction due to the restriction of dietary protein will slow down kidney damage by reducing the ratio of GFR decline of 0.53 ml / min / year. To assess the nutritional status of patients with chronic renal failure required an interview to evaluate diet diet for 3-7 days in advance, the calculation of protein intake, anthropometric, biochemical examination such as creatinine, bicarbonate, albumin, and cholesterol.

Richard (2006) found that patients who undergoing hemodialysis most of them need more efforts to improve adherence, both to treatment, as well as fluid restriction. In that study is still not portray an accurate self-management, so that the results of these studies need to be followed up by using an instrument that can be trusted. The instrument used to determine the extent of this education can be carried by the patient. If the result is less than satisfactory to expand the effort to improve or encourage self-management. That success can be measured by the index of knowledge. Knowledge can be measured by a measuring instrument ie Chronic Hemodialysis Knowledge Survey (cheks) instrument (Cavanaugh et al, 2009). If the score indicates the value is small, patients have little motivation to change behavior.

The motivation of patients to perform self management of patients with renal failure undergoing hemodialysis is influenced by several factors. Among them are financial reasons, values related to hemodialysis and also anxiety about the self management (Hand, 2013).

## CONCLUSION

From the literature review has been conducted conclude that the self-management of patients actually given responsibilities for control treatment. Therefore, it should be emphasized ongoing basis for good management of therapy and self membangun patient management and must maintain a positive self efficacy. Self-management education on chronic renal failure patients need to be addressed is the fluid restriction, diet regulation, treatment and vascular access. However, self-management education does not necessarily improve the motivation or patient adherence to treatment regimens, especially restrictions on fluid intake. To determine the extent to which this education can be carried by the patient required an evaluation by a measuring instrument ie Chronic Hemodialysis Knowledge Survey (cheks) instrument (Cavanaugh et al, 2009).

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# **STRATEGY IMPLEMENTATION HALLUCINATIONS IN PATIENTS WITH MERGING MEDIA LEARNING SYSTEM THROUGH THE PROGRAM CAMTASIA POSTER PRESENTATION**

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## **INTRODUCTION**

With an increase in the quality of education is one of the essential elements in improving the quality of human resources. Where is the important thing to note is the problem of learning achievements and ability of students in the applied science that has been obtained. Real development areas, including in the field of nursing, the nursing profession demanding to compete more profesional in applying the nursing of them. Along with these developments, the learning process in the field of nursing should also be able to follow the development of IT that exist today. One of the methods of learning that developed are using the program Camtasia, the program is utilized in the process of learning based on Informatika Technology and e-learning. This program can facilitate a merger between animation, powerpoint, video, and so on. Multimedia technologies have great potential in realizing the change the way a person to learn, so as to obtain maximum results. Thus it is hoped the students would be easier to determine the proper way in absorbing information quickly and efficiently.

Many of us know the sense of hallucination. Among them are hallucinations according to Stuart (2015), He said that hallucination is a false perception distortion that occurs in response to neurological maladaptif, the sufferer actually experience sensory distortion as the real thing and responded. Perception is identifikasi and the interpretation of the stimulus based on information received through sight, sound, taste, touch and smell. Perception is also said to be a definite single absorption at the five senses.

Hallucination can emerge from one of the five senses, during the hearing, smell, sight, taste, perabaan, kinaesthetic. And nearly 70% of patients experiencing hallucinations skizoprenia. Hallucinations can also occur on clients who had manic depression, delirium, organic mental disorder or substance abuse disorder Hallucinations can also occur on clients who had manic depression, delirium, organic mental disorder or substance abuse disorder. It is important to understand that the hallucinations and waham can occur in diseases that disrupt brain function (Stuart, 2015).

Rapid development of nursing and the development of IT, this can simplify the process of learning on learners and educators. One of the utilization of media-based learning and e-learning is to use the program camtasia, that is by using the TechSmith Camtasia Studio v 8.6.0. The utilization of information technology in the world of nursing is very important and

well applied in the process of learning, so the students are able to master the science of nursing and will be easier in utilizing IT in its application later.

One example that we can take in the nursing of the soul is how we are able to socialize about hallucinations with the ease of understanding of hallucinations, in the learning process we are able to shorten presentations from some of the media learning programs bundled into Camtasia. So from the efficient time and ease in understanding the material will be fulfilled in a short exposure. However we also recognize that not all people are interested and able to apply the methods of media-based learning and e learning. Then the author tried to put into practice the learning media with Camtasia.

## METHOD

In the development of learning methods Kemp and Dayton (Feb 2012, in Pt Yogi, 2014) mention there are eight benefits of media of instruction in the learning process, among others: 1) message of learning can be more standard, 2) learning can be more dynamic, 3) more interactive learning by applying learning theory, 4) defenders-jaran implementation time can be shortened, 5) quality of learning can be enhanced, 6) the process of learning can take place whenever and wherever needed, 7) positive attitude students/students towards learning material as well as the learning process can be improved, 8) the role of educators in a positive direction. And, as a model of development of learning methods theory from Luther is referable, where Luther had already developed models systematic and rests on a foundation of theoretical instructional design. Advantages in using the method of multimedia development with model Luther is the stages of making the product more structured so that further facilitates the development and produce products that comply with the initial concept.

This model of Luther consists of 6 phases of activity, namely: 1) Concept stage, where the stage was carried out to determine the purpose, type, usability and targeted the creation of learning media. And the purpose of learning this media so that media content is delivered can be understood by students of nursing. This type of learning media is an interactive learning application that is targeted is a student of nursing, 2) Design stage, at this stage aims to make learning media specifics such as architecture, projects, learning styles and material needs. This stage consists of 3 stages, namely to choose and set the standards which are used, developed a power point and design a slide show, animation, 3) *Material collecting stage*, at this stage the activities performed are collecting or learning material needed to manufacture products like animated images, power point, theme, video, audio, image and clip art 4) The assembly stage, this stage is the stage of creation of the project based on the design created on stage design, Stage 5) testing, this stage is the stage of testing against the media learning made, 6) phase of distribution, this stage is the stage of publishing the results of product development (Sutopo, 2009).

In the process of making this learning program using the Hardware of acer Aspire E14: E5-471-3G5B, 2015 with a processor Intel (R) Core (tm) i3-4030U (1.2 GHz, 3 MB hard L3 cache), NVIDIA (R) GeForce (R) 820M with 2 GB of Dedicated VRAM. And the process of recording video using camera HP Samsung Galaxy note 5, 16MP. The output of this process is the product in the form of instructional video about the nursing care of patient with Hallucinations and implementation of S.P.1. *The resulting video is the result of produce by*

*using software camtasia studio v 8.6.0 Build 2054.* Software camtasia studio v 8.6.0 is software that is licensed by Tech-Smith who has special ability in the design of video animations. The resulting product in video form and then published in the pages of your blog and social media (youtube, facebook) that can be accessed by anyone, especially to students of nursing.

## RESULTS

After rendering and editing as well as add different animations as needed by using the program Camtasia v 8.6.0 then end results/products are produced in the form of video formats such as mp4 which lasted 14 minutes 39 seconds.

The design of this product is a merging of the facilities of the power point program on a laptop acer Aspire E14: E5-471-3G5B, 2015 with through the process of rendering the program Camtasia v 8.6.0, and recording video using camera HP Samsung Galaxy 5, note by adding a variety of animation, image, theme, music to add to the appearance of the video to make it more interesting in the end result of this product.

The results will be presented a form of image process start making the program Camtasia to final product results in the form of video as a medium of instruction in full.

- Make sure that the hardware is already installed on the program Camtasia v 8.6.0 as a medium that can combine multiple media learning.
- Do the rendering on power point which will be included in the program Camtasia.
- Setting up a video results that will be processed in the program Camtasia
- Enter the power point and video into the program Camtasia v 8.6.0 and prefaced by adding animation, photos, music and themes.
- The end result of editing after the merger of the media by adding some animation and a trial, then do the product and share the video to get the merger.
- The final result in the form of video display using a Cam-tasia v 8.6.0 program

## DISCUSSION

The delivery of learning material to students using media to multimedia-based learning and e-learning in modern times this has been applied to the means of both public and private education. Because of the demands of progress IT currently then we should be able to follow the demands in order not to be left behind from the global development.

It can be said that in general the benefits gained in learning using multimedia is ; the learning process to be more interesting, more interactive, the amount of time teaching becomes shorter, the quality of the learning learners can be enhanced and the process of teaching and learning can be done anywhere and anytime, as well as the attitude of learning to learners can be improved (Daryanto 2010).

Applying the method of multimedia-based learning and e-learning by using learning video is part of the development of learning methods that exist today. In accordance with the expectations of the Government against the world of education so that more innovative with increased development with a wide range of research in order to produce learners who are more competent and empowered the high competitiveness and more international standard.

Other opinions on the use of media of instruction according to Suparman and Rudi (2007), They also mentioned that there are three benefits of learning media, namely: 1) clarify the presentation of the message so that it is not too overwhelmingly verbalitas (in the form of words); 2) limitations of space, time and the power of the senses; 3) by using media education appropriately and passive attitude can overcome the varied student because it may cause excitement and interest in learning, allows more direct interaction between the student with the environment and reality, and allows student learning independently according to ability and interest.

Products generated by the program Camtasia v 8.6.0 be shorter video and interactive , the incorporation of various media can produce a video becomes more interesting because it comes with a variety of animation, so that the delivery of the learning material will be easier, shorter and the students will better understand the content of the learning material.

And the resulting ease of programm Camtasia v 8.6.0 will be very appropriate given on the process of learning the material of nursing , in particular the material soul, so the nursing students will better understand and more simplify in the learning process. As material generated on the nursing care of patient with hallucinations , be aware that the explanation of theory of hallucination would be easier acceptance at learners as there is a demonstrated through role play videos directly from the theories that are already described in advance.

## **CONCLUSION**

The use of Video as a medium of instruction is one way that can be utilized in carrying out the process of learning on learners. Through this video, not only learning system based on a method that is simple but capable of adopting information and communication technology that exists today. The advantages of the use of this medium is study time for students who are more flexible where this kind of service can be easily accessed and studied at anytime and anywhere. While the lack of the use of this method lies in the limitations of using human resources and facilities, Moreover, the program is a paid program. The utilization of this kind of media yet thoroughly accessible due to the ability of the ruler of the 80s the computer of the student and supporting facilities for students in accessing that have not been evenly distributed.

For students of nursing at this time should be more developed and should always follow the progress of IT in order for the utilization of information technology in the process of learning and practice of nursing can be applied. The nursing profession in Indonesia at this time should be better able to offset global developments that occur at the international For students of nursing at this time should be more developed and should always follow the progress of IT in order for the utilization of information technology in the process of learning and practice of nursing can be applied. The nursing profession in Indonesia at this time should be better able to offset global developments that occur at the international level.

Science and the ability of nurses in carrying out the practice of nursing is more professional and capable and competitive power are not left far from the profession of nurses who are in foreign countries.

## ADVICE

Learning methods the program Camtasia v 8.6.0 can be used and evolved by the nursing profession, especially for the nursing of the soul, because the process of interaction and understanding of the material presented will be more easy and takes only a short time. This program can be applied when giving a patient or family at the IEC in patients because the submission of material in the form of videos that are more interesting and more interactive and easy understanding.

Nursing graduates in order to have the ability for IT so it can be applied in the practice of nursing, it is necessary in the process of learning the existence of additional material on computer science and the applications. This science must be given by educators, although basically from a different educational background but very well applied in science collaboration, resulting in more professional nurse graduates, competent, controls the progress of IT, so that nurses can be more creative in providing nursing care in community.

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# THE EFFECTS OF AROMATHERAPY ON RENAL COLIC, ANXIETY, STRESS AND BLOOD PRESSURE

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## ABSTRACT

**Background:** Aromatherapy is a natural and non invasive modality therapy, that could reduce the symptoms or illness, as well as helps the body's natural ability to balance, regulate, heal and maintain with the correct use of essential oils . Aromatherapy is non invasive treatment that can be applied continuously to patients who do not have allergies odors. Aromatherapy, which has a variety of applications and is easy to deploy, recently attracted a lot of attention. In particular, the scientific effort shows the effect of aromatherapy as a holistic intervention and as a mediator of relaxation has been actively used in nursing . Aromatherapy in nursing care continues to be popular in many places. Most of the nursing literature relating to the use of essential oils in low doses for a massage or the use of oil as fragrances environment. Information from the wider literature can expand the evidence base for the use of aromatherapy in nursing

**Aim:** Provide evidence of research the benefits of aromatherapy application in the Emergency Departement for nurses

**Methode:** This study is an assessment of nonequivalent control group nonsynchronised research method uses one group pretest-posttest quasi-experimental designs with random retrieval of aromatherapy effects on renal colic, anxiety, sleep, and Blood Pressure

**Result:** Research in the emergency room (ER) with the title Investigate Effects of Aromatherapy in Patients with Renal Colic conducted by Murat Ayan, Ufuk Bags, Erkan Sogut, Mustafa Suren, LeventGurbuzler, and Feridun in 2012. The purpose of this study was to investigate the usefulness of rose essential oil as a supplement and an additional therapy to relieve renal colic, because the essential oils of rose are soothing and muscle relaxant. In this study, eighty patients diagnosed with renal colic in the Emergency Room (ER) included in the study, 19-64 years old. Half of the patients (n = 40) were treated with conventional therapy (diclofenac sodium, 75 mg intramuscularly) plus placebo (physiological serum, 0.9% NaCl), while the other half (n = 40) were given aromatherapy (essential oil of rose) in addition to therapy conventional. In each patient, the severity of pain was evaluated using Visual Analogue Scale (VAS) (0 [no pain] 10 [very severe pain]).Research Findings VAS value before treatment, 10 and 30 minutes after treatment was  $8.18 \pm 1.36$ ,  $5.60 \pm 2.02$  and  $3.75 \pm 2.08$  for the conventional therapy plus placebo, whereas for conventional therapy plus aromatherapy group, VAS score was  $8.63 \pm 1.03$ ,  $4.25 \pm 1.72$  and  $1.08 \pm 1.07$ . There is no statistically significant difference between the initial VAS score of the two groups, but the values of VAS 10 or 30 minutes after the start of therapy was statistically lower in the group that received conventional therapy plus aromatherapy. This study showed that administration of rose essential oil therapy along with conventional therapy proven effective in reducing pain renal colic. Research conducted by Mi-Yeon Cho, EunSil Min, Myung-HaengHur, and MyeongSoo Lee in 2012 with the title Effects of Aromatherapy on the Anxiety, Vital Signs, and Sleep Quality of Percutaneous Coronary Intervention Patients in Intensive Care unit. Aromatherapy has a positive effect in reducing anxiety,

improve sleep, and stabilize at ICCU BP in patients after cardiac stent insertion, therefore, can be used as an independent nursing interventions. Aromatherapy group anxiety levels were significantly lower compared with the control group After treatment, the level of anxiety was 0.36 (SD, 0.73) in the aromatherapy group and 3.11 (SD, 2.31) in the control group ( $t = 0.599$ ,  $p < 0.001$ ). Changes in the level of anxiety was 5.10 (SD 2.06) in the aromatherapy group and 2.07 (SD 2.55) in the control group. There was a significant reduction in the aromatherapy group compared with the control group ( $t = -4.90$ ,  $p < 0.001$ ). Systolic blood pressure ( SBP ) and diastolic blood pressure ( DBP ) on the day of entry is used as a covariate for analysis . There were no significant differences by the time nor the interaction between time and group , but no significant differences between groups in both systolic blood pressure ( SBP ) (  $F = 4.63$  ,  $p = 0.036$  , and diastolic blood pressure ( DBP ) (  $F = 6.93$  ,  $p = 0.11$  ). Research on Nurse in the Emergency Care Unit (ICU) in Australia conducted by Wellness Committee Vanderbilt University Medical Center. The ED Adult Wellness Committee assumes that the nurse in the emergency department often experience significant stressors while undergoing their work. Nurses who work in the ER and ICU and recent graduates experience high levels of stress. This study evaluated the use of aromatherapy massage and music as an intervention to reduce work stress and anxiety levels of ER nurse. This Perceived stress level staff assessed 12 weeks pre- and post-massage aromatherapy and music. Anxiety levels were measured before and after the session massage with aromatherapy. Number of sick leave were also measured (Davis, Cooke, Holzhauser, Jones, Finucane, (2005).The findings indicate that aromatherapy massage and music to significantly reduce anxiety levels. Despite the high level of work stress in relation to the work load there is no significant difference after the 12-week intervention period. The use of aromatherapy and music has the potential to increase staff job satisfaction and reduce the amount of sick leave.

**Conclusion:** Various studies have proven the benefits of aromatherapy , either as a primary or adjuvant. Some types of aromatherapy can be used in the emergency unit case on renal colic, anxiety and stress. Nurses can develop further the use of aromatherapy to therapeutic modalities nursing, through the pre- hospital and intra research hospital , especially in the emergency unit . Modalities treatment included in the essential learning materials to enhance the ability of holistic nurse.

**Keywords:** Aromatherapy, Renal Colic, Anxiety, Stress, Blood Pressure

## BACKGROUND

Aromatherapy is a natural modality therapy, non-invasive designed to affect humans not just the symptoms or illness, but also helps the body's natural ability to balance, regulate, heal and maintain itself with the correct use of essential oils (NAHA, 2012). Aromatherapy is the act noninvasive and can be applied continuously to patients who do not have allergies odors. Aromatherapy, which has a variety of applications and is easy to deploy, recently attracted a lot of attention. In particular, the scientific effort shows the effect of aromatherapy as a holistic intervention and as a mediator of relaxation has been actively used in nursing (Cho, Min, Hur, Lee., 2013). Aromatherapy in nursing care continues to be popular in many places. Most of the nursing literature relating to the use of essential oils in low doses for a massage or the use of oil as fragrances environment. Information from the wider literature can expand the evidence base for the use of aromatherapy in nursing (Jenning M, Wilkinson, 2004). Aromatherapy is the controlled use of essential oils to maintain and improve the physical, psychological, and spiritual (Mojay G, 2012). Aromatherapy is the art and science of using naturally extracted aromatic essences from plants to balance, harmonize and improve the health of body, mind and soul. It is an art and

a science that seeks to explore the natural physiological, psychological and spiritual individual response to aromatic extracts as well as to observe and enhance the healing process of the individual (NAHA, 2012). Aromatherapy as old as the human relationship with the plant kingdom so early aromatherapy shrouded mists of time. No one knows the identity of the first to recognize the healing properties of plants but detailed recipes using the aromatic compound is given in the Old Testament and well sealed jars filled with aromatic resin has been found in the tomb of Pharaoh. The therapeutic use of essential oils extensively recorded in ancient China and India and most of the Middle East. Roman army in the campaign had their wounds treated with honey and nuts. Terra Cotta refiners have recently been found in archaeological excavations, but the widespread

Use of essential oils distilled from Europe began after the discovery of the mechanism of distillation glass in the 16th century and this opens the door to extract the volatile components of Chamomile, Lavender and Rosemary and other plants are found mainly in the northern areas (NAHA, 2012). Aromatherapy is not only beneficial for the patient, but also the duty nurse caring for the patient. Especially in the Emergency Room and Intensive Care Room with a higher level of stress, the use of aromatherapy is indispensable (Davis, Cooke, Holzhauser, Jones, Finucane, (2013).

## LITERATURE ANALYSIS

Here are some of the research related to the benefits of aromatherapy:

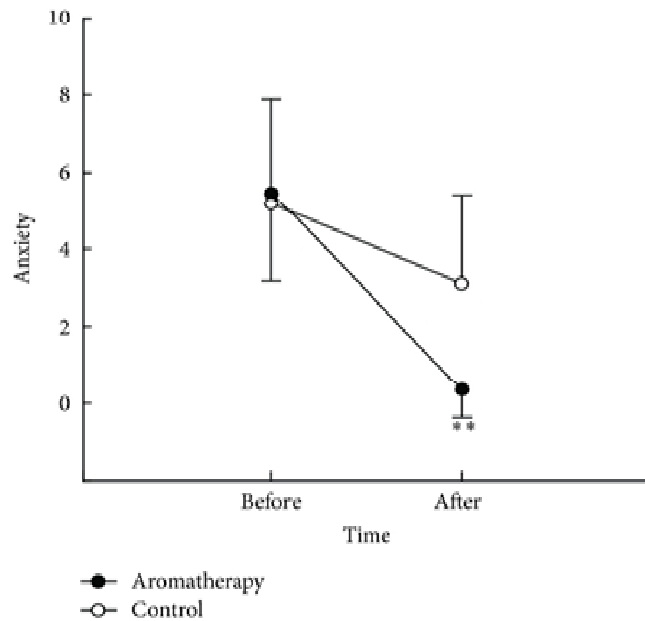
1. Research in the emergency room (ER) with the title Investigate Effects of Aromatherapy in Patients with Renal Colic conducted by Murat Ayan, Ufuk Bags, Erkan Sogut, Mustafa Suren, LeventGurbuzler, and Feridun in 2012. The purpose of this study was to investigate the usefulness of rose essential oil as a supplement and an additional therapy to relieve renal colic, because the essential oils of rose are soothing and muscle relaxant. In this study, eighty patients diagnosed with renal colic in the Emergency Room (ER) included in the study, 19-64 years old. Half of the patients (n = 40) were treated with conventional therapy (diclofenac sodium, 75 mg intramuscularly) plus placebo (physiological serum, 0.9% NaCl), while the other half (n = 40) were given aromatherapy (essential oil of rose) in addition to therapy conventional. In each patient, the severity of pain was evaluated using Visual Analogue Scale (VAS) (0 [no pain] 10 [very severe pain]). Research Findings VAS value before treatment, 10 and 30 minutes after treatment was  $8.18 \pm 1.36$ ,  $5.60 \pm 2.02$  and  $3.75 \pm 2.08$  for the conventional therapy plus placebo, whereas for conventional therapy plus aromatherapy group, VAS score was  $8.63 \pm 1.03$ ,  $4.25 \pm 1.72$  and  $1.08 \pm 1.07$ . There is no statistically significant difference between the initial VAS score of the two groups, but the values of VAS 10 or 30 minutes after the start of therapy was statistically lower in the group that received conventional therapy plus aromatherapy. This study showed that administration of rose essential oil therapy along with conventional therapy proven effective in reducing pain renal colic (Ayan, M., Bags, U., Sogut, E., Suren, M., Gurbuzler, L., Feridun, 2013).
2. Research conducted by Mi-Yeon Cho, EunSil Min, Myung-HaengHur, and MyeongSoo Lee in 2012 with the title Effects of Aromatherapy on the Anxiety, Vital Signs, and Sleep Quality of Percutaneous Coronary Intervention Patients in Intensive Care units. Coronary artery disease such as myocardial infarction and angina pectoris generally cause



inpatients in intensive care units. Most patients have a physical effect on the examination of the heart as well as the foreign environment, isolation from family, and the stress of dealing with strangers. As a result, most patients experience a level of relatively severe psychological anxiety because of the constantly changing medical environment. Stress and anxiety disturb the environment of unresolved patient safety, care, and sleep. Anxiety, stress, and insomnia significantly affects the treatment of coronary artery disease, which can lead to increased infarction and arrhythmias even. Therefore, independent nursing interventions to reduce anxiety and stress and improve sleep quality ICU patients with coronary artery disease who required (Cho, Min, Hur, Lee., 2013). Nursing interventions before coronary angiography have been proven effective, structured care and education by providing information before the procedure has been applied in a clinical setting. Aromatherapy, which has a variety of applications and easy to use, has recently invited a lot of attention. In particular, the scientific effort shows the effect of aromatherapy as a holistic intervention and as a mediator of relaxation has been actively used in nursing. Aromatherapy has been reported to reduce stress, and decrease anxiety and improve sleep in cancer patients, hemodialysis patients, and patients colonoscopy. Aromatherapy is the act non invasive and can be applied continuously to patients who do not have problems with odors. Therefore, the effects of aromatherapy on anxiety, stress, and sleep in the short term to undergo coronary angiography should be assessed. Aromatherapy has been proven effective in reducing anxiety and improving sleep in hospitalized patients undergoing cardiac angiography. Therefore, we examined the effect of aromatherapy on anxiety, blood pressure, and sleep of patients with ischemic heart disease who underwent stenting during coronary angiography and cardiovascular ICU (Cho, Min, Hur, Lee., 2013). Experimental treatment is a mixture of oil of lavender (*Lavandula officinalis*) is cooled, roman chamomile (Roman Chamomile), and neroli (*Citrus aurantium*) with a ratio of 6: 2: 0.5 as determined by expert aromatherapy. Lavender suppress stimulation of the heart and lower blood pressure, therefore, it is useful in the treatment of cardiac acceleration and high blood pressure. Chamomile has a calming effect and is effective in reducing anxiety and stress, and neroli has a calming effect and is effective in treating insomnia. Application methods are inhale essential oil dropped on the stone aroma. In the aromatherapy group, two drops of a mixture of lavender, Roman chamomile and neroli oil at a ratio of 6: 2: 0.5 were inhaled, through 10 deep breaths, before and after PCI, and aroma stone pillow placed under the patient until the next morning , While the control group receiving conventional care. In this paper I show is only the effect of aromatherapy-related emergency unit, namely its effect on anxiety and blood pressure.

#### a. Effects of Aromatherapy on Anxiety

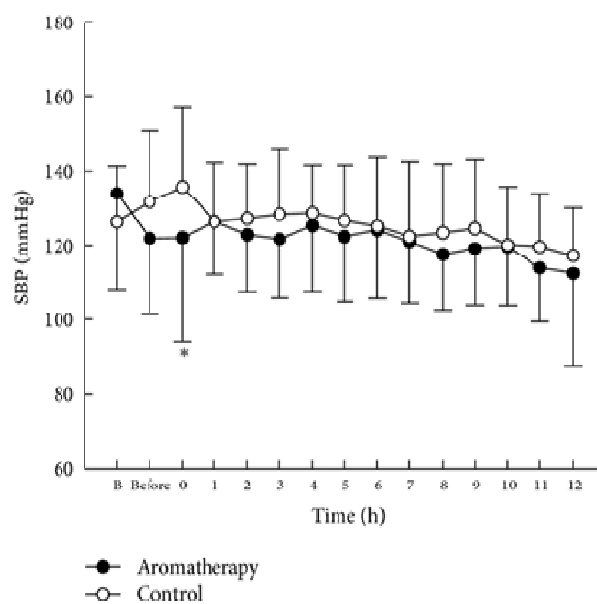
After treatment, the level of anxiety was 0.36 (SD, 0.73) in the aromatherapy group and 3.11 (SD, 2.31) in the control group ( $t = 0.599$ ,  $p < 0.001$ ). Changes in the level of anxiety was 5.10 (SD 2.06) in the aromatherapy group and 2.07 (SD 2:55) in the control group. There was a significant reduction in the aromatherapy group compared with the control group ( $t = -4.90$ ,  $p < 0.001$ ). (Figure 1)



**Figure 1. Anxiety Decrease Levels Before and After Giving Aromatherapy .**  
Data were expressed as mean and standard deviation.

b. Aromatherapy Effect on Blood Pressure

Systolic blood pressure ( SBP ) and diastolic blood pressure ( DBP ) on the day of entry is used as a covariate for analysis . There were no significant differences by the time nor the interaction between time and group , but no significant differences between groups in both systolic blood pressure ( SBP ) (  $F = 4.63$  ,  $p = 0.036$  , and diastolic blood pressure ( DBP ) (  $F = 6.93$  ,  $p = 0.11$  ) .



**Figure 2. Changes in Systolic Blood Pressure on Aromatherapy and Control**  
Data were expressed as mean and standard deviation.

This study is an assessment of nonequivalent control group nonsynchronised of aromatherapy effects on anxiety, sleep, and BP which has a stent heart patients who were treated in the ICCU. Aromatherapy has a positive effect in reducing anxiety, improve sleep, and stabilize at ICCU BP in patients after cardiac stent insertion, therefore, can be used as an independent nursing interventions. Aromatherapy group anxiety levels were significantly lower compared with the control group (Cho, Min, Hur, Lee., 2013). These results are consistent with the effects of aromatherapy decreased anxiety in patients before surgery, during menstruation, in hemodialysis patients, and during the colonoscopy. Comparison of these results with previous studies showed that the type of oil and its properties affect the results of blood pressure. The scent of essential oils used in this study has a calming effect and a decrease in blood pressure, therefore, they may have caused a decrease in systolic blood pressure and diastolic blood pressure. However, due to changes in blood pressure does not deviate significantly from the normal blood pressure range, more research is needed to determine the clinical utility of these effects. It should be noted that the blood pressure in the control group increased immediately before and after the PCI procedure compared with the sign, while, in the group of aromatherapy, blood pressure after an aromatherapy treatment and before the PCI procedure is about 12 mmHg lower than on the day of admission, and blood pressure was maintained at the same level. Therefore, aromatherapy can negate the effects of blood pressure, increased stress, though more rigorous research on this topic is needed (Cho, Min, Hur, Lee., 2013). During this study, there were no reports of headaches or nausea associated with the use of aromatherapy. Most of the subjects reported that inhaling aromatherapy has a pleasant smell. They also showed their satisfaction in being treated in an unfamiliar environment such as ICCU after implemented procedure. In short, aromatherapy reduce anxiety, improve sleep, and stabilize the blood pressure of patients who underwent cardiac stenting. Among the newly introduced alternative therapy, aromatherapy is easy to apply, fast-acting and can be used in independent nursing interventions. Further research is needed for it to be appropriate nursing interventions in practice (Cho, Min, Hur, Lee., 2013).

3. Research conducted by Jeffrey J. Gedney, PsyD., Toni L. Glover, MA., RN., And Roger B, Fillingim, PhD. In 2004 with the title "Sensory and Affective Pain Discrimination After Inhalation of Essential Oils".The method used is a randomized crossover design with 26 healthy people doing research, not smoking, and not in treatment (13 men and 13 women premenopausal). In this study demonstrated that inhalation of lavender and rosemary essential oils do not find the results of their analgesic effect. But the subject of a retrospective evaluation of the influence of aroma on the change in pain intensity and pain uncomfortable showing them the benefits that are profitable, especially for lavender. So in a retrospective clinical evaluation of the effectiveness of treatment, aromatherapy can cause changes in the clinical relationship in the patient report of pain. Hence the tendency of side effects obtained from this study is that aromatherapy can help in treatment related to pain and tissue damage (Gedney JJ, Glover TL, Fillingim RB., 2004).
4. Research conducted by Miguel A. Diego, Nancy Aaron Jones, Tiffany Field, Maria Hernandez-Reif, Saul Schanburg, Cynthia Kuhn, Virginia McAdam, Robert Galamaga, and

Mary Galamaga, in 1998 under the title "Aromatherapy Positively Affects Mood, Patterns of Alertness EEG, and Math computations ". Research using the scent of lavender and rosemary on 40 students and staff from the University of Miami Medical School, consisting of 30 women and 10 men. This study is divided into three stages. First phase of research uses data direct reports indicate that the two groups both lavender and rosemary had a significant reduction in scores anxiety levels were tested using a questionnaire STAI (State Anxiety Inventory), only groups of lavender that has improved the mood significantly after administration of aromatherapy, which known from POMS scores decline (The Profile of Mood States), both groups feel more relaxed, and rosemary groups tend to feel more alert. The second phase uses math computations showed that both groups can fill math computations faster after being given aroma therapy, but only a group of lavender that have increased the accuracy or precision in filling. Research the third stage using EEG data at the time before, during, and after using aroma therapy, the results showed that the group that had increased alpha waves in the frontal area significantly is the group lavender marked an increase sleepiness, while the strength of alpha waves in the frontal decreased in rosemary group marked an increase alertness. Both groups aromatherapy increased beta waves are characterized by drowsiness. Both studies use the same scent of lavender and rosemary as an object of research and equally examined the effects caused by both the aromatherapy. The first study, examined the effects of lavender and rosemary to pain or analgesic effect. The second study examined the effects of lavender and rosemary to the improvement of mood, alertness, and the effect on sleepiness. According to the results of several research journals, it was concluded that the essential oil of lavender can provide relaxation benefits (carminative), sedatives, reduce anxiety levels, and were able to improve one's mood (Diego AM, Jones NA, Field T, Hernandez-Reif M, Schanberg S, Kuhn C, McAdam V, Galamaga R, Galamaga M., 1998).

5. Research on Nurse in the Emergency Care Unit (ICU) in Australia conducted by Wellness Committee Vanderbilt University Medical Center. The ED Adult Wellness Committee assumes that the nurse in the emergency department often experience significant stressors while undergoing their work. Nurses who work in the ER and ICU and recent graduates experience high levels of stress. This study evaluated the use of aromatherapy massage and music as an intervention to reduce work stress and anxiety levels of ER nurse. This research method uses one group pretest-posttest quasi-experimental designs with random retrieval. Perceived stress level staff assessed 12 weeks pre- and post-massage aromatherapy and music. Anxiety levels were measured before and after the session massage with aromatherapy. Number of sick leave were also measured (Davis, Cooke, Holzhauser, Jones, Finucane, (2005)). The findings indicate that aromatherapy massage and music to significantly reduce anxiety levels. Despite the high level of work stress in relation to the work load there is no significant difference after the 12-week intervention period. The use of aromatherapy and music has the potential to increase staff job satisfaction and reduce the amount of sick leave (Davis, Cooke, Holzhauser, Jones, Finucane, (2005)).
6. The results Dember and Warm on the effect of aromatherapy as a result of work stress, shows that the alertness of workers increased dramatically. In Indonesia research on the effects of aromatherapy (lavender) to changes in blood pressure, pulse, respiration

- mother childbirth kala1 shows an increase in BP, HR, and decrease in RR in the control group, while the treatment group BP, HR, decreased and RR increased (Wahyuni, 2012).
7. Research by Sri Wahyu, 2012 on The Effect of Aromatherapy Essential Oils Roses against Stress Levels Students in Learning Following PSIK Clinic in the Faculty of Nursing, University of Andalas. The results obtained are Aromatherapy Essential Oils influence of Roses on Stress Levels Students in the learning stage clinical profession with 0,000 pvalue significance ( $p < 0.05$ ) (Sri Wahyu, 2012).
  8. Effect of Citrus Aromatherapy To Decrease Anxiety In Pre Client Operations at the Space SectioCesareaKanjuruhanKepanjen Hospital Brawijaya Malang by Ignatius Yuliadi S, YulianWijiUtami, LilikSupriati. The study says that in general from this study can be concluded that the granting of citrus aromatherapy can influence a decrease in anxiety on the client pre sectio cesarean operation in Kanjuruhan Hospital Kepanjen Malang. With reference to the following results:
    - a. The level of anxiety in the experimental group before giving citrus aromatherapy has an average score (mean) anxiety 12.95 (sd  $\pm$  2.089). While in the control group before giving a deep breath relaxation technique has an average score of anxiety 11.65 (sd  $\pm$  3.014), the value is in the range of moderate anxiety.
    - b. The average score of anxiety after the citrus aromatherapy in the treatment group was 8.90 (sd  $\pm$  1.889) with a decrease in average anxiety score of 4.050 (1.356  $\pm$  sd). While the average score of anxiety after the relaxation breathing techniques in the control group was 9.75 (sd  $\pm$  2.845) with a decrease in average anxiety score of 1.900 (0.968  $\pm$  sd). This shows a decrease of range anxiety moderate to mild anxiety.
    - c. Results of analysis of anxiety pre-post treatment groups resulted in a P-value of 0.000 for the value of  $P < \alpha$  (0.05)  $H_0$  is rejected, it means citrus aromatherapy effect of reducing anxiety. While in the control group P value 0.000 also stating relaxation techniques can also reduce anxiety. But in the mean difference test 2 free (Independent T-test) 0.037 P values obtained for the P value is smaller than  $\alpha$  (0.05), we conclude that the granting of citrus aromatherapy is more effective in reducing anxiety than that of a deep breath relaxation techniques (Utami, WY, Supriati, L., Yuliadi SI, 2011).

## CLINICAL SIGNIFICANT

Nurses in everyday life often use aromatherapy, both for patients as well as themselves. Especially in Emergency Departement, be it pre-hospital or intra-hospital. Indeed, many types of aromatherapy, in the Intensive Care Unit we need aggregated where appropriate and less appropriate. The use of aromatherapy is not the primary therapy. That remains the standard therapy given and equipped with aromatherapy, as in the case of renal colic. The results showed that in the group given aromatherapy. Additional results proved effective in reducing pain. While the use of aromatherapy pre hospital already very familiar in the community. Almost every house in fact everyone had a stockpile of aromatherapy, which is used in the home or on the go. Aromatherapy has been used passed down from our ancestors, from the age of infancy to older people using it. Aromatherapy much help nurses work with a variety of properties. Aromatherapy has been used for therapeutic purposes for

nearly 6,000 years. The ancient Chinese, Indian, Egyptian, Greek, and Roman menggunakan in cosmetics, perfumes and medicines. The essential oil is also commonly used for spiritual, therapeutic, hygienic, and ritual purposes. More recently, Rena Gattefossé Maurice, a French chemist, discovered the healing properties of lavender oil when he applied for burns on his hands in an explosion in the laboratory. He then began to analyze the chemical properties of essential oils and how they are used to treat burns, skin infections, gangrene, and wounds in the army during World War I. In 1928, Gattefossé founded the science of aromatherapy. In the 1950s a massage therapist, beauty, nurses, physiotherapists, doctors, and other health care providers begin using aromatherapy (Ehrlich, 2011). Nurses can provide aromatherapy treatments topically or by inhalation. In aromatherapy sessions, the nurse will ask about clinical history and symptoms, as well as the scent of what is desired. Patients may be directed to inhale essential oils directly from a piece of cloth or indirectly through the withdrawal of steam, vaporizers, or sprays. Essential oils can also be diluted into the skin during a massage.

In most cases, the nurse will tell how to use aromatherapy at home, for example by mixing essential oils into the bath. Aromatherapy is used in various health facilities, one of them in the hospital to treat a variety of conditions. In general, it can be to relieve pain, improve mood, and increasing the sense of relaxation. In fact, some essential oils - including lavender, rose, orange, bergamot, lemon, sandalwood, has been shown to reduce anxiety, stress, and depression. Several clinical studies have shown that when essential oils (mainly rose, lavender and frankincense) are used appropriately by the nurse / midwife, can reduce the anxiety and fear of pregnant women, increase strength, reduce pain during labor. Many women also report that peppermint oil reduces nausea and vomiting during pregnancy. In one study, Neroli oil helps lower blood pressure and anxiety among those who underwent colonoscopy. In a test tube, a chemical compound of some essential oils have demonstrated antibacterial and anti-fungal properties. Some evidence also suggests that the citrus oils can strengthen the immune system and that peppermint oil may help digestion. Fennel, aniseed, sage, and clary sage to have estrogen-like compounds, which can help relieve the symptoms of premenstrual syndrome and menopause. However, further research is still needed. Other conditions that can be helped by aromatherapy include: Alopecia areata, agitation, may include agitation associated with dementia, anxiety, constipation (with abdominal massage using aromatherapy), insomnia, pain, and headache (requiring medication less pain when they are using aromatherapy). Aromatherapy can also be used at the complaints of itching (a common side effect for those who receive dialysis) and psoriasis. The use of aromatherapy has become a common thing for the community, but vigilance in its use must still be addressed. Nurses need to continue to tell the community that the selection of aromatherapy, checking expiration dates, as well as the use of aromatherapy in special cases such as pregnancy, allergies odors, skin hypersensitivity, as well as the storage of the reach of children is important to note.

## CONCLUSION

Various studies have proven the benefits of aromatherapy , either as a primary or adjuvant .Some types of aromatherapy there that can be used in the emergency unit ,eg in case of renal colic , anxiety and stress .Nurses can develop further the use of aromatherapy

to therapeutic modalities nursing , through the pre- hospital and intra research hospital , especially in the emergency unit .Treatment modalities included in the essential learning materials to enhance the ability of holistic nurse.

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# STUDY OF ELDERS' KNOWLEDGE ABOUT UNPRESCRIBED MEDICINES TO RHEUMATOID ARTHRITIS IN TABANAN REGENCY

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## ABSTRACT

**Background:** The elder can be defined as someone who reaches age above 60 years old, signed by flabby skin and, white hair who commonly experience, decrease of hearing, viewing, slowing motion, disorder to many vital organs, increase on emotional sensitiveness and low in passion. These decrease condition tend to make the elders experience arthritis / rheumatic. It's not surprising that the elders who do not know about rheumatic treatment tend to cure their disease by consuming unprescribed medicines that are easily found in medicine stores.

**Aims:** The purpose of this research wawais to identify elders'knowledge about unprescribed medicines to treat rheumatoid arthritis in Bendul Sub Village WongayaGede Village Sub District Tabanan Regency.

**Methods:** Research design used descriptive method. Population and samples consisted of all the elders in Bendul Sub Village WongayaGede Village Sub District Tabanan Regency consisted of 20 respondents by using total sampling technique. The single variable was elders' knowledge related to unprescribed medicines to cure rheumatoid arthritis. Research instrument used questionnaire to collect data, then being percentaged and interpreted. Research was conducted on 15th of March – 10th of April 2013.

**Results:** From research result showed that from 20 respondents, almost all of respondents namely 16 respondents (80%) had low knowledge and a few of them namely 4 respondents (20%) had fair knowledge. This low knowledge wais caused by factor of low education and old of age. Low education wais caused by factor of the number of members of family (have many members in a family) that makes someone difficults to continue to the higher education level. In addition, experiencing decrease in the memory system was considered lead to the elders having limited knowledge.

**Conclusion:** From explanation above, it is essential for the elders to increase their knowledge for better understanding about unprescribed medicines. It can be implemented by joining regularly some program provided by the Integrated Health Service Unit and looking for information about the danger of unprescribed medicines from medical staffs of media.

**Key words:** knowledge, the elders, unprescribed medicines, rheumatoid arthritis.



# THE RELATIONSHIP BETWEEN UREA SERUM LEVELS, SERUM CREATININ LEVELS AND BLOOD PRESSURE OF CHRONIC KIDNEY DISEASE PATIENTS IN GAMBIRAN HOSPITALS KEDIRI 2014

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## ABSTRACT

Chronic Kidney Disease is a kind of disease, which has a big effect of people's morbidity and mortality level in the world. Chronic kidney disease patients were usually followed by a hypertension. On the other hand, chronic kidney disease is known as the cause of secondary hypertension. According to earlier survey data, Chronic Kidney Disease was at the 3<sup>rd</sup> Ranking after CVA and Hypertension. The purpose of this research was to know the relationships between urea serum levels, serum creatinin levels and blood pressure of Chronic Kidney Disease patients in Gambiran Hospital, Kediri 2014. This research was an observational analytic with cross sectional approach. The participants were 43 patients of chronic kidney disease in Gambiran hospital, Kediri at 2014. The participants were selected by using systematic random sampling method. Data was collected from the medical record, then analyzed by using Pearson Correlation Test, which was achieved a significant relationship if p value < 0,05. The x1 variable was Urea serume levels, v2 variable was serume creatinine, and y variable was blood pressure. Statistic test showed that the mean of urea serum = 88,635 mg/dl, the mean of serum creatinine = 10,4449 mg/dl and the mean of blood pressure = 148,140 mmHg. Pearson Correlation test between urea serum levels and blood pressure show P-value = 0,000 and r = 0,520, instead of serum cretinine levels and blood pressure show P-value = 0,000 dan r = 0,605. So, by the Pearson Correlation test could be concluded that there was a positive and significant relationship between plasma ureum and blood pressure in chronic kidney disease person. There was also a positive and significant relationship between creatinine serum and blood pressure. While the other variables (age, job and sex) did not show a significant relationship with blood pressure.

**Keywords:** blood pressure, creatinine serume, ureum, chronic kidney disease.

## INTRODUCTION

Chronic kidney disease is a pathophysiological process with kind of etiology, which resulting in a progressive decreasing kidney function and generally ended up with kidney failure. Furthermore, kidney failure was a clinical condition, which marked by irreversible decreasing of kidney function at a time requiring kidney replacement therapy still in the form of dialysis or kidney transplantation. Chronic kidney failure was a terminal disease and if it did not get the right and appropriate therapy, it could cause a condition called *uremic state* / uremic syndrome, which resulting in death (USRDS, 2007).

The prevalence of kidney failure patients in Indonesia until now was estimated at 50 people per one million inhabitants, a lower prevalence compared to patients with kidney failure in developed countries like the United States, Japan, Australia and the UK, which

could reach 77-283 per million inhabitants. In addition, the prevalence who received a dialysis were between 476-1150 per million inhabitants (Yagina, 2001).

Based on a data which obtained by the researchers, cases of chronic kidney failure that occurred the last one year in Gambiran Hospitals of Kediri in 2014 (starting from January through August), ranking as a third chronic degenerative disease after hypertension-CVA and Diabetes mellitus, with number of 233 cases and number of deaths by 55 cases or 23.6%. The data showed the high mortality rates and susceptibility of peoples to get chronic kidney disease along with increasing occurrences other degenerative diseases, such as hypertension and diabetes mellitus. While in reality patients with chronic kidney failure was usually get an increasing of blood pressure in both normotensive and with a history of hypertension. The results showed the high level of blood pressure in patients with chronic renal failure in Gambiran Hospitals of Kediri in 2014.

Pathogenesis of increasing blood pressure in patients with chronic kidney failure are complex and may consist of many factors. However, that have been known that the sodium, fluid volume and the sympathetic nervous system have an important role in this regard. Intravascular fluid volume is the main factor causing an increased blood pressure in patients with chronic kidney failure. Meanwhile, intravascular volume in patients with chronic kidney failure is usually increased because of kidney failure in carrying out its functions.

Micro impact that arisen from a changing of blood pressure which occurs in patients with chronic kidney failure include stroke, heart failure, and other cardiovascular diseases cerebro, which basically will provide progress that is not good for the health of patients with chronic kidney failure. While the impact of the macro for the country is the growing demand for the purposes of medical care of patients with chronic kidney failure and hypertension thus increasing the budget for health and lower state revenue due to lost workdays of workers which are a chronic kidney failure.

Based on above phenomenon that many disorders that occurred in patients chronic kidney failure will have a negative impact on development of patient's health. Besides chronic kidney failure also cause many kind of complications which are threatening life. Discarding the excess fluid through hemodialysis will be able to decrease patient's blood pressure back. If this does not happen, then have to use other techniques to decrease a blood pressure, for example by controlling the composition of the constituents in the intravascular plasma.

## **METHODS**

The designs of this study were described as follows: based on the scope of the research, including the type of inferential research (quantitative). Based on the research site, the type was clinical research. Based on the timing of data collection, the type was cross sectional design. Based on the presence or absence of treatment, the type was observational research (expose facto). Based on the data collection, the type was the survey. Based on the research objectives, the type was analytic correlation. Based on data sources, this study was used secondary data.

The technique sampling in this research was systematic random sampling. Research procedure was to record all patient medical record numbers with Chronic Kidney failure in

Gambiran hospitals of Kediri city, then were randomly assigned by calculating the sample interval in the population.

The independent variable in this study were urea and serum creatinine. While dependent variable in this study was the blood pressure, the systolic blood pressure. The third variable was numerical data (ratio). For continuous or numeric data, data summarization could be done with the report of its spread. Distribution of data that could be used was the average (mean), the mean (median), and the mode (mode). While the size distribution that could be used was the minimum value, maximum, range, standard deviation, and percentiles. From these measurements, the most commonly used was the average and standard deviation (Junaedi, 2010).

Statistical test in this study using Pearson correlation test ( $r$ ). This test was used to determine the degree of relationship between independent variables and the dependent variable by using the ratio data and the ratio chosen at random and normally distributed linear patterned. Normality test would be interpreted if the  $p$  value  $> \alpha$  then the distribution of data was normal, whereas if the  $p$  value  $< \alpha$ , then the distribution of data was not normal. Linearity test interpreted if the  $p$  value  $< \alpha$  data was not linear, whereas if the  $p$  value  $< \alpha$ , the data revealed a linear (Sugiyono, 2011). If the normality test results showed that data distribution was not normal or linearity test states that the data was not linear, the conditions were not met so that parametric test was taken as an alternative test was non parametric Spearman Rank.

Multivariate data analysis was intended to determine the strength of the relationship between several independent variables and the dependent variable. This study used multiple correlation multivariate analysis techniques (multiple correlations). Double correlation associated with intercorrelation independent variables as their correlation with the dependent variable. Correlation Double (multiple correlation) in this study consisted of two independent variables ( $x_1$ ,  $x_2$ ) and one dependent variable ( $y$ ).

## RESULT AND DISCUSSION

### 1. Result

**Tabel 1.1 Frequency Distribution of Respondent's Ages in Gambiran Hospital Kediri in 2014**

No.	Age	Frequency	Percent (%)
1.	< 20 years old	1	2,33
2.	20-45 years old	12	27,91
3.	> 45 years old	30	69,76
Total		43	100

**Tabel 1.2 Frequency Distribution of Respondents Cardiovascular Disease History in Gambiran Hospital Kediri 2014**

No.	Cardiovascular Disease History	Frequency	Percent (%)
1.	Not have a history	18	41,86
2.	Have a history	25	58,14
Total		43	100

**Tabel 1.3 Frequency Distribution Occupation of Respondents in Gambiran Hospital Kediri 2014**

No	Occupation	Frequency	Percent (%)
1.	Students	1	2,3
2.	Government employees	8	18,6
3.	Private employees	20	46,5
4.	Labor	5	11,6
5.	Farmer	8	18,6
6.	Merchant /entrepreneur	1	2,3
Total		43	100

**Tabel 1.4 Frequency Distribution of Respondents' Gender in Gambiran Hospital Kediri 2014**

No	Gender	Frequency	Percent (%)
1.	Women	17	39,54
2.	Men	26	60,46
total		43	100

**Tabel 1.5 Data Distribution of Urea Level of Respondents in Gambiran City Hospital Kediri 2014**

	Value
<i>Mean</i>	88,635
<i>Median</i>	78,000
<i>Modus</i>	65,0
Sandart Deviation	53,06
<i>Range</i>	241,3
<i>Minimum</i>	26,0
<i>Maximum</i>	267,3
<i>Q1</i>	53,000
<i>Q2</i>	78,000
<i>Q3</i>	5,000

**Tabel 1.6 Data Distribution of Serum Creatinine Level of Respondents in Gambiran Hospital Kediri 2014**

	Value
<i>Mean</i>	10,4449
<i>Median</i>	9,7000
<i>Modus</i>	9,20
Sandar Deviasi	5,38226
<i>Range</i>	28,70
<i>Minimum</i>	1,80
<i>Maximum</i>	30,50
<i>Q1</i>	6,50
<i>Q2</i>	9,7000
<i>Q3</i>	13,3000

**Tabel 1.7 Data Distribution of systolic blood pressure of Respondents in Gambiran Hospital Kediri 2014**

	Value
<i>Mean</i>	148,140
<i>Median</i>	150,000
<i>Modus</i>	130,0
Sandar Deviasi	23,1204
<i>Range</i>	1,0
<i>Minimum</i>	120,0
<i>Maximum</i>	230,0
<i>Q1</i>	130,000
<i>Q2</i>	150,000
<i>Q3</i>	160,000

Most of the age of the respondents in this study were in the age group > 45 years old. As generally, an older person will increase the risk of cardiovascular disorders. At the age of 45 years, the decreasing of the elasticity of blood vessels and causes increase the voltage of blood vessels were occurred. An elderly people had less elastic blood vessels. High blood pressure occurs because of the systemic degeneration due to aging.

The results showed that most of the respondents had a history of cardiovascular disease showed that people with a history of cardiovascular disorders at greater risk of renal dysfunction. This shows that high blood pressure in patients with Chronic Kidney failure occurs because of a history that was already there and then coupled with metabolic disorders of kidney damage or it may be secondary occurs due to Chronic Kidney failure.

Most respondents were private sector workers, it is estimated that this type of occupation affected the occurrence of Chronic kidney Failure. The possible explanation was that each type of work requires the difference of stamina, nutrition, hydration and physical exercise. If demand was high stamina, filled with a variety of drinks, was not accompanied by exercise, and adequate hydration, it will increase the risk of CRF.

Most respondents had male gender, this was consistent the theory that men at risk of developing hypertension than women. It was estimated that the incidence of hypertension in women was lower than men. This was because women have the hormone estrogen plays a role in maintaining immunity until menopause and as protection or protective vascular degeneration process. However, after the woman-experiencing menopause, the risk of major cardiovascular disease between men and women was equal. Many studies show that when the production of estrogen was reduced in the process of menopause, the risk of cardiovascular disorders in women increased dramatically. In addition, men were at higher risk because many men had many other risk factors than women. Furthermore, men tended to smoke, consume alcohol, drink energy drinks, and so on than women. Meanwhile, the risk of CRF increased with the occurrence of cardiovascular disorders, one of which was hypertension.

**Tabel 1.8 Pearson Test Results The Relationship between Level of Urea Creatinin and Blood Pressure in Gambiran Hospitals of Kediri 2014**

		Number of creatinin	Sistole of blood pressure
Number of creatinin	Pearson Correlation	1	,615**
	Sig. (2-tailed)		,000
	N	43	43
Sistole of blood pressure	Pearson Correlation	,615**	1
	Sig. (2-tailed)	,000	
	N	43	43

Based on Pearson Correlation test, P-value was 0.000 meaning  $<0.05$  to P-value  $<\alpha$ , then  $H_0$  rejected  $H_1$  accepted and means there was a relationship between the urea with blood pressure in patients with chronic kidney failure in Gambiran hospitals City Kediri 2014. The value of  $r = 0.520$ , which meant had the power relationship "being" and the direction of the relationship was positive, meaning that the higher the levels of urea, the blood pressure will increase in patients with Chronic kidney failure in Gambiran hospitals 2014 or conversely the lower levels urea, the blood pressure will fall in patients with Chronic kidney failure in Gambiran hospitals 2014.

**Tabel 1.9 Pearson Rank Correlation Test Results The Relationship between Serum Creatinine Levels in Blood Pressure in Gambiran Hospitals of Kediri 2014**

		Number of Ureum	Sistole of blood pressure
Namber of Ureum	Pearson Correlation	1	,520**
	Sig. (2-tailed)		,000
	N	43	43
Sistole of blood pressure	Pearson Correlation	,520**	1
	Sig. (2-tailed)	,000	
	N	43	43

Based on Pearson Correlation test data that obtained from the PH value of 0.000 meaning  $<0.05$  to  $P < \alpha$ , then  $H_0$  rejected  $H_1$  accepted and there was a relationship between the mean serum creatinine levels with blood pressure in patients with chronic kidney failure in Gambiran hospitals Kediri 2014. The value of  $r = 0.615$ , which meant having the power relationship "strong" and the direction of the relationship was positive, meaning that the higher levels of creatinin serum, the blood pressure will further increase in patients with Chronic kidney failure in hospitals Gambiran 2014 or conversely the lower serum creatinine, and blood pressure will fall in patients with Chronic kidney failure in Gambiran hospitals 2014.

**Tabel 1.10 Table *Model Summary* of relationship between urem levels and Creatinin Serum levels with blood pressure in Gambiran hospital Kediri 2014**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,615 <sup>a</sup>	,379	,363	18,447	1,628

**Tabel 1.11 Table *Coefficients* of relationship between urem levels and Creatinin Serum levels with blood pressure with blood pressure in patients with chronic kidney disease in Gambiran hospital Kediri 2014**

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1	Cons.	120,534	6,199		19,444	,000
	Number of creatinin	2,643	,529	,615	4,998	,000

**Tabel 1.12 Tabel *Excluded variable* of relationship between ureum levels and Creatinin Serum levels with blood pressure in patients with chronic kidney disease in Gambiran hospital Kediri 2014**

Model	Beta In		t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	Number of Ureum	,224 <sup>b</sup>	1,446	,156	,223	,614

**Tabel 1.13 Tabel ANOVA of relationship between ureum levels and Creatinin Serum levels with blood pressure of chronic kidney disease patients in Gambiran hospital Kediri 2014**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8499,044	1	8499,044	24,975	,000 <sup>b</sup>
	Residual	13952,119	41	340,296		
	Total	22451,163	42			

## DISCUSSION

Levels of urea in the blood was influenced by several factors, including intake of protein consumed and the degree of kidney damage in patients with Chronic kidney Failure. Moreover, it could also be influenced by the increase in tissue protein catabolism, which was accompanied by a negative nitrogen balance. For example there was fever, a disease that causes atrophy, thyrotoxicosis, diabetic coma or after trauma or major surgery. Excessive protein breakdown, e.g. leukemia, leukocyte protein release supports high plasma urea.

In patients with chronic kidney failure, there would be an interference in matters related to renal excretion functions, one of the excretion of urea were supposed to be on the physiological state which would be excreted with urine, feces and sweat. Disruption would cause the excretion of urea and accumulating retained most of urea in the blood so that it would increase the molecular content of the blood.

The amount of creatinine were prepared for one day almost unchanged unless a lot of muscle tissue once damaged by trauma or by a disease. Under normal circumstances, the kidney could excrete creatinine without any difficulty. Reduced blood flow and urine creatinine excretion did not change, because the fleeting changes in blood flow and glomerular function could be offset by increasing the creatinine excretion by the tubules.

Creatinine in the blood increased when kidney function was reduced. If the reduction of renal function occurred slowly and besides that muscle mass also composed slowly, then there was a possibility of serum creatinine levels remained the same, although excretion per 24 hours less than normal. A twofold increase in serum creatinine levels indicated a decrease in kidney function by 50%, as well as increased levels of krearinin tripled signaled a decline in kidney function by 75% (Soeparman et.al, 2001).

Some of the variables that affected the regulation of cardiovascular including cardiac output (cardiac output), prisoners peripherals (peripheral resistance), and blood pressure (blood pressure). Cardiovascular regulation aimed to maintain blood flow changes in time, be in the right area and did not cause changes in pressure and blood flow drastically in the vital organs. Mechanisms that affected the cardiovascular regulatory mechanisms that local auto regulation, neural, and hormonal (Martini, 2001).

Blood pressure was a form of pressure that arisen when circulating in the blood vessels. Organ heart and blood vessels played an important role in this process where the heart was a muscular pump that supplied pressure to move the blood, and the blood vessel walls were elastic and strong resilience (Hayens, 2003).

Patients showed signs and symptoms of uremia real like, anemia, increased blood pressure and calcium phosphorus metabolism disorders, pruritus, nausea, vomiting and so forth. Patients were also susceptible to infection such as urinary tract infections, respiratory tract, and gastrointestinal infections. There also will be water balance disorders such as hypo-or hypervolemia. In this situation, the patient was said to be up on stage kidney failure.

These circumstances lead to disruption of the function of filtration, absorption and renal excretion resulting in the return of substances that were supposed to be metabolized by the kidneys. In uremic syndrome stage, where an increase in urea levels in the blood, there will be an increase in the number of constituents in the plasma. These cause increased blood viscosity and led to increased peripheral resistance. This situation will affect the peripheral



systemically resistance, and will cause an increase in blood pressure. The results of this study showed the average value of the urea respondents of 88.635 mg / dl and the average value was 148.140 mm Hg blood pressure which meant that the higher the levels of urea, the higher the blood pressure in patients with Chronic Kidney failure.

Same with urea, creatinine was a waste product that was supposed to be excreted by the kidneys. However, on condition of Chronic Kidney failure, not all the waste products that were excreted by the kidneys should be eliminated. These cause patients to experience Azotemia Chronic Kidney failure and fell on condition Uremia (Corwin, 2009).

In this condition, which should be excreted creatinine will remain in the blood vessels. Creatinine cannot extravasations, unlike urea can extravasation to the integument system. This causes creatinine levels will continue to multiply and accumulate in the blood vessels and lead to vascular getting full contents of creatinine will then metastasizes to the heart and to the destruction to these organs. This situation led to increase viscosity of the blood and circulatory disorders. Therefore, patients with chronic kidney failure required hemodialysis therapy to overcome these problems.

High serum creatinine concentration was a marker for increased risk of cerebrovascular disease both in people with normal blood pressure as well as in patients with hypertension. These findings support the evidence that showed that the decline in kidney function was a factor for increased risk of cardio-cerebrovascular disease (Wannamethe, 2005).

## CONCLUSION

An urea and creatinine excretion (garbage) metabolism that should be removed along with the urine at physiological conditions. Serum creatinine was constantly produced by the body based on muscle metabolism due to progressive damage to the kidneys in which the kidneys are unable to excrete metabolic products such as creatinine so creatinine will continue to accumulate in vascular and will significantly affect blood pressure. Urea which was also a metabolic waste was not forever be in renal vascular although it had undergone progressive damage. Urea could be out of the vascular (extravasation) and then spread throughout the body, even to damage the skin.

From the results of this research could be used as a baseline for further research in the future about how to handle the high levels of urea and serum creatinine in patients with Chronic Kidney failure, in addition to using the techniques of hemodialysis which in fact have the risk was high enough on the system cardiovascular.

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# QUIET TIME INTERVENTION AND NURSING ROLE BASED ON KOLCABA COMFORT THEORY: A LITERATURE REVIEW (POSTER PRESENTATION)

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## ABSTRACT

**Background:** It is estimated that approximately 75% of patients who come to the emergency department with experience a complaints of pain. This represents more than the number affected by heart disease, diabetes, and cancer combined. Over the course of a lifetime, pain is one of the most frequent reasons for physician visits, taking medications, and one of the things that is often encountered by nurses and particularly in the department of emergency medical services. As an emergency nurse must have a good awareness of the existence of the inadequate in controlling pain in the emergency room. In most cases the nurse is the first person to evaluate patients presenting to the emergency department both initial assessment in the triage area and or procedure room.

**Objective:** The purpose of this literature review was to identify the effectiveness of the use of Quiet Time Intervention in Cardiac Patient.

**Methods:** This literature review conducted by searching and analyze all eligible studies from electronic databases including Science Direct, Clinicalkey and Proquest database. It emphasized on the articles investigating the application of Kolcabay Theory or Comfort theory and the effectiveness of quiet time intervention. The following terms that used in the research are: Kolcaba theory, pain management, and quiet time intervention. Twelve study with the span of time between 2005-2015 were analyzed.

**Results:** One theory that has been developed related to the concept of quiet time intervention: theory comfort which is expressed by Katrine Kolcaba. The specific intervention of quiet time is described for its potential use within this population as a comfort measure that addresses Kolcaba's four contexts of comfort: physical, psychospiritual, environmental and sociocultural. Fourth context are then combined with three types of convenience becomes a taxonomic structure that will describe the pursuit of comfort that will be done by nurses to patients. Patients with cardiac disorders requires a condition that quiet and free of distractions to be able to rest in peace for the smooth process of the treatment of heart problems they experienced. In the quiet time intervention its primary purpose is to provide comfort to the patient in making a rest in the recovery process.

**Discussion:** Patient as an individual who is unique and holistic have the right to live without pain, peaceful, and comfortable. There are several roles of nurses in providing quiet time intervention, providing a state where the patient can sleep quietly without interruption, facilitate the patient to be able to do meditation, providing emotional support, set the environment for example the lighting

patient to slightly dim, reducing noise in along the road near the bed of the patient, the therapeutic interpersonal relationships with patients by providing patients and their families in the form of education, and emotional support that can create a level of comfort transcendence. Implementation of cardiac patient treatment utilizing "quiet time intervention" consists of physical, psychospiritual, environmental, cultural and socio comfort. If patient experience comfort, then they are more satisfied with care given, it would increase the best patient outcome.

**Keywords:** quiet time intervention, Kolcaba theory

## **BACKGROUND**

Critical care units can be hectic, chaotic, and generally over-stimulating. The interventions that critical care patients require can interrupt normal sleep/wake cycles, causing cognitive and physiological disturbances such as delirium and hemodynamic instability (Fildman and Bonillo, 2014). A nurse in demand to work hard to realize the convenience for the patients in their care anywhere where the nurse worked. Key to the approach to be taken by nurses in providing the comfort of a form of intervention is to create a conducive environment for the healing process of patients (Kolcaba 2003 in Krinsky, Murillo, and Johnson).

Environmental factors that could petrify quiet interventions, among others, is the fresh air, adequate nutrition, rest, and so forth. The nurse, as a health care provider, sometimes not observed when it is in the heart of the unit, so sometimes patients experienced noise and interruptions, originating from alarm monitoring innumerable. Comfort theory can be used to modify the environment, especially patients in cardiac care room by using intervention quiet time. Noisy and rowdy environment can hinder the healing process of patient

Quiet Time was devised to promote adequate rest for cardiac patient. Two blocks of time (2–3 pm and 2–4 am) have been designated during which lights are dimmed, noise-reduction strategies are implemented, and procedures are minimized. The main goal is to implement strategies that will lower the noise level, promote rest and healing, and increase patient satisfaction. To improve cardiac patient experiences of comfort across four domains of care is by applying a quiet time intervention (Krinsky, Murillo, and Johnson, 2014).

## **REVIEW OF THEORY**

### **1. Comfort Theory**

Nursing is described as the assessment of the patient's needs, providing interventions in attempt to specifically increase the patient's comfort then reassessment of whether the interventions were successful. Assessment can be subjective or objective; subjective as in asking the patient if they are in pain and objective as in measuring a wound healing (Kolcaba, 2011). There are many specific statements made in this theory that guide it and clarify its use in practice.

Kolcaba describes comfort as holistic, illustrating there are three aspects to comfort; relief, ease and transcendence. Thus when the patient's needs of relief, ease and transcendence are met in all four contexts (physical, psychospiritual, social, and

environmental) than he/ she feels direct strength. Relief is stated as when the patient feels "pain by administering prescribed analgesia, the individual experiences comfort in the relief sense" (Kolcaba, 2010). Ease is felt when fear or anxiety is subsided about a treatment. Transcendence, for example, is felt when the patient reaches a goal. The physical concerns bodily sensations and homeostatic mechanisms, the psychospiritual pertains to the internal awareness of self, the environmental is the external surroundings and conditions, and sociocultural refers to interpersonal and societal relationships (Kolcaba, 2010b). The three types of comfort and the four contexts of care can be incorporated into a hospital's model of care (Kolcaba, Tilton, & Drouin, 2006).

## 2. Comfort Theory Applied To Care Of Cardiac Patient

Kolcaba's Comfort Theory is readily applicable to cardiac patients. Table 1 presents an example of applying comfort theory. Data were entered into the 12 cells of the table, organized according to the four contexts of care and the three types of comfort needs. Comfort is dynamic and an ever-changing state, and the entries in the table may also change over the course of a patient's hospital stay.

**Tabel 1 Kolcaba Taxonomy Comfort Need for cardiac patient**

<b>Comfort / Context</b>	<b>Relief</b>	<b>Ease</b>	<b>Transcendence</b>
<i>Physical</i>	Chest pain	Implement pharmacological and holistic interventions for pain	"What if this pain gets worse?" "What if I need heart surgery?"
<i>Psychospiritual</i>	anxiety regarding the "big heart attack"	provide supportive interactions that promote sense of calm in the midst of cardiac event	What if I had the "big heart attack?" Reflecting on uncertainty of future
<i>Environmental</i>	noise, alarms, visual congestion of beds and stretchers, repetitive questioning	organize a social and physical environment that supports needs for privacy and limits interruptions.	Seeking a soothing environment that promotes healing, "I want to get out of here"
<i>Sociocultural</i>	Unable to contact family, lack of sensitive nursing care	facilitate family presence and patient advocacy	Unfamiliarity with hospital culture, "What does going upstairs really mean?"

## 3. Quiet Time Intervention

To be able to go through stages such comfort, the intervention of "quiet time" needs to be done in a way not only reduces the stimulus that triggers an inconvenience, but also create a personalized environment that is adaptable and supportive interaction to the patient. Protocol of "quiet time" from the comfort theory elaborated by prioritizing

interventions in four contexts comfort. In the physical domain, nurses are required to be able to provide a state where the patient can sleep quietly without the slightest interruption. In the context of physical, noise that is recommended in the treatment of heart patients <45 decibels to expectations with the noise level, patients can rest in peace so that they can control the hormonal mechanisms that can increase heart rate and blood pressure. On the domain psychospiritual in patients with chest pain due to heart problems may indicate a decrease in anxiety.

Quiet time is a time which is designed so that patients can have time to do meditation, worship, and also break with full peace of mind without the burden of another. In the domain of environmental procedures quiet time to do is to control the exposure of the patient to slightly dim, reduce noise along the road near the bed of the patient, and lowers the volume of the tools used by the patient such as: pulse oxymetri, bedside monitors, syringe pump, and IV pump. At the sociocultural domain of intervention "quiet time" explained that nurses need to establish a therapeutic interpersonal relationships with patients by providing patients and their families in the form of education, information, validation, and emotional support that can create a level of comfort transcendence.

Intervention quite time as providing an innovative intervention in the patient's heart and can give good results in patients with heart problems. This research can help nurses in hospitals, especially in the emergency room to be able to provide appropriate interventions to provide a convenience for the patient with chest pain due to heart failure so the recovery process can be achieved quickly (Krinsky, Murillo, & Jhonson, 2014 )

## **METHOD**

Method of this literature review study was by collecting and article analysis and books related to treatment on cardiac patient and comfort theory. These books and articles were collected by electronic data taken from books and articles published since 2005 to 2015.

## **RESULT**

The result of this literature review is to portray the activity of quiet time intervention for cardiac patient such as how to enhance confort in physical, psychospiritual, environmental, and sociocultural context.

## **DISCUSSION**

A quiet time intervention has significant potential for not only reducing noxious stimuli but also for creating opportunities for needed privacy and supportive interactions. Research findings have shown that quiet time can improve patient outcomes and increase consumer satisfaction with acute care health services, both of which are of increasing importance in the contemporary health care environment (Gardner, Collins, Osborne, Henderson, & Eastwood, 2009). Other research findings indicate that quiet time in a chaotic, noisy neuro-intensive care unit can create an atmosphere of recuperation (Dennis, Lee, Woodard, Szalaj, & Walker, 2010).

The quiet time intervention has not yet been studied in the emergency department. However, the taxonomy of data from the cardiac care case in Table 1 indicates targets where this intervention can be especially relevant to care of cardiac patients. A quiet time protocol was derived from comfort theory to promote comfort across the four contexts of care.

In the physical domain, quiet time can help minimize events in the cardiac care setting that have detrimental physical effects on an already compromised patient. Of particular concern is a patient's sleep, which is essential for multiple physiological and psychological processes. Numerous mechanical devices as well as hospital routines and procedures can significantly impair a patient's ability to sleep. Sleep deprivation has been linked to rising incidence of patient falls, confusion, and increased use of medication and restraints (Mazer, 2006).

However, studies have shown that the peak hospital noise levels exceed 90 decibels, which is similar to the levels of heavy truck traffic. Prolonged effects of excessive noise exposure on patients and staff alike can have deleterious effect on their health and well-being (Christensen, 2007). The chemical epinephrine and other endogenous stimulants are released in response to environmental stimuli, which in turn increase the patient's heart rate and blood pressure (DeKeyser, 2003). Quiet time interventions can prevent stimulation of the sympathetic nervous system that occurs with an environment of constant noise, bright lights, and interruption of sleep, and promote Kolcaba's form of comfort called relief.

In the psychospiritual domain, most cardiac patients can express a range of feelings from mild anxiety to impending doom related to their symptoms. Studies have indicated that there is a positive correlation between stress levels and serum cortisol, which can ultimately result in a depressed immune system (DeKeyser, 2003).

Patients' exposure to increased stimuli and noise levels contributes to agitation. Quiet time can be a designated time in which patients may meditate, pray, rest, or converse with significant others. The resulting restfulness and decreased anxiety supports what Kolcaba's form of comfort called ease. In the environmental domain, the nurse can initiate quiet time procedures that provide all forms of comfort for the patient (Olson, Borel, Laskowitz, Moore, & McConnell, 2001). Dimming the lights in the patient's room and hallway can reduce unnecessary stimuli.

Maintaining correct limits and volume of cardiac monitoring alarms, pulse oximetry, blood-pressure cuffs, and IV pumps can minimize inappropriate alarming. Alarms are addressed quickly, overhead paging and unnecessary conversations in patient care areas are limited, and staff and visitors are asked to speak in low tones. Health care team rounding, consultant visits, routine deliveries, and other services can be scheduled to observe periods of quiet time so as to maximize the patient's rest time (Taylor-Ford, Catlin, LaPlante, & Weinke, 2008).

In the sociocultural domain, quiet time provides an opportunity to assess interpersonal and cultural aspects. This is a period of time when the nurse can have an unhurried and meaningful conversation with patients and significant others, and facilitate patient and family needs for information, respect, validation, and emotional support that promote comfort in the form of Kolcaba's transcendence.

## CONCLUSION

Experience of working nurses and which has been proven by research that contribute to the comfort care. Implementation of cardiac patient treatment utilizing "quiet time intervention" consists of physical, psycho spiritual, environmental, cultural and socio comfort. If patient experience comfort, then they are more satisfied with care given, it would increase the best patient outcome.

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# CHARACTERISTICS OF PARENTS OF CHILDREN USING SICK CHILD CARE CENTER, AND THE QUALITY OF SUCH CARE

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## ABSTRACT

**Object:** Sick child care is nursing care provided temporarily by nurses or nursery staff for sick children when they cannot be cared for by their parents, for reasons such as having to work. Although the greatest merit of sick child care is the health recovery of sick children, benefits regarding their parents' work are often reported. Against this background, to clarify the benefits of sick child care, we investigated the characteristics of both care users and their parents, as well as the quality of such care.

**Methods:** The study subjects comprised 6 nurses and 6 nursery teachers from a total of 6 sick child care centers in a prefecture. We conducted semi-structured interviews to inquire about care users, parents, and the quality of such care. The obtained data were analyzed in a qualitative and inductive manner. The study was conducted with the approval of the ethical committee of a facility to which the researchers belonged.

**Results:** The care users' families were nuclear (with both parents working) or single-parent households. Most of the care users were children with infectious diseases aged 1-2 years. In addition, the care users included children with disabilities (autism, developmental disorder, and physical impairment) and those with chronic diseases (asthma and epilepsy). Nurses and nursery staff perceived the roles of sick child care as the early recovery of sick children and childraising guidance/consultations for their mothers. These staff members were aware that parents had insufficient child raising skills and depended on such care. Mothers' inappropriate care included being unable to care for children with a fever, being unable to medicate children, being unable to administer suppositories to children, and giving children foods that are inappropriate for their symptoms. To help mothers suffering from a lack of knowledge and experience, as well as from excessive anxiety over the symptoms of their children, nurses showed them how to medicate children, and provided guidance on how to care for children and monitor their symptoms. In addition, nurses and nursery staff cared for children who had problems at their school, or who were subject to stress due to domestic violence or their parents' divorce, in a manner so that the children felt comfortable being open and honest.

**Conclusion:** The results of our study suggest that sick child care plays an important role not only in supporting working parents, but also in supporting their children's health and helping mothers with child raising.

# INSTRUCTIONAL MEDIA ABOUT INFUSION PROCEDURE WITH MULTIMEDIA AUDIOVISUAL BASED

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## ABSTRACT

**Background:** An infusion is an act of inserting the fluid or medication directly into the blood vessels in a long time by using a set of tools for infusion. This action is an action that must pay attention to sterility and to be quick and precise. If these actions can be done well with the expectations of patients, they can be served well too.

**Aim:** The aim of this study was to design instructional media and how to install a drip infusion-based video that is interesting and easy to understand.

**Method:** The method used in this study is media design using multi-media development according to Luther (1994) conducted in six phases, namely the concept, design, collection of materials, manufacture, testing and distribution. This instructional media was created using Microsoft Power Point 2013, Windows Movie Maker 2.6, and Camtasia Studio 8.

**Results:** Results of this research was a product of learning about the media and how to install a drip infusion. In this study, researchers used Acer Aspire 4315 series to create media with specs Intel Core i3-3217U CPU @ 1,80GHz, 2 GB RAM, screen dimensions HD Graphics 4000. The study took place in several stages, the first stage and merging video recording. In the making of this learning media researchers used four video pieces that created itself using a digital camera is the first video of the opening preparation tools. The second video about the installation of infusion antiseptic principle, third-way video infusion, the fourth video about the installation fixation infusion. The fourth video is combined using Windows Movie Maker 2.6 applications.

**Conclusion:** Multimedia-based learning media was developed that has already include interactive multimedia instructional media because it already contained text, images, sound, and video animation. Instructional media developed by researchers currently has some advantages and disadvantages of the product. Excess media software products of this learning is learning media does not require installation on your computer. Fill material and questions presented are in accordance with the Basic Competencies to be achieved by students and also patients lay. Media that has developed through the stage is limited and revised so that the media have a decent learning to use. And can also be accessed freely on the internet through youtube and blogs researchers. For further research focuses on audiovisual laboratorium.

**Keywords:** Study Media, Infusion, Multimedia, Audio-visual

## INTRODUCTION

Infusion is an action to perform on a patient who requires the input of fluid or medication directly into a vein in the specific number and time by using an infusion set (Potter, 2005).

Additionally, giving intravenous therapy is to correct or prevent fluid and electrolyte imbalance in acute and chronic diseases, and it is also used for intravenous drug administration (Potter, 2005).

Intravenous therapy can cause some of mild disease and can cause fatal damage to veins that causes death. As for the interference that can occur during intravenous therapy such as phlebitis, thrombophlebitis, purulent, and bacterial (Prajitno dalam Sugiarto, 2006)

Additionally the disease, there are several things to note in the infusion through the veins. Line installation is contraindicated as follows:

- Inflammation (swelling, pain, fever) and infection at the site of infusion.
- The area of the forearm in patients with renal failure, because this location will be used for the installation of arteriovenous fistula (A-V shunt) on the action of hemodialysis (dialysis).
- Drugs that have the potential irritant to the small veins that slow blood flow (eg, the veins in the legs and feet).
- There are several complications that can occur in the installation of IV line therapy according to Sugiarto (2006), namely:
- Hematoma, is the blood collects in the tissue due to rupture of arteries, veins, or capillaries, occurs due to lack of proper pressure when inserting the needle, or "prick" over the same area.
- Infiltration, is the entry of intravenous fluids into the surrounding tissues (not the blood vessels), caused by the end of the infusion needle pass through the blood vessels.
- Phlebitis, thrombophlebitis, or swelling (inflammation) in the veins, occurs as a result of the infusion installed that it is not closely monitored and properly.
- Air embolism, is the entry of air into the blood circulation. occurs due to the inclusion of air contained in the fluid infusion into the blood vessels extravasation, is the entry of fluid infusion into the extracellular tissue.

The phenomenon that is there are still many students who practice in the hospital and health care workers in hospitals are still difficulties in the installation of infusion. Complications arise while doing infusion can lead to failure in the installation of infusion. Here is how students and nurses to obtain information about and learn how to do infusion, either by using information technology.

Information technology has brought a tremendous change for the advancement of education. The development of technology, especially information and communication technologies many offer a wide range of ease in learning. One of the media is used in learning that is interesting is the audio-visual media. Audio-visual media is one of the alternatives in the process of technology-based learning. Packaging of learning material in the form of audio-visual broadcasts capable of achieving 90% of the information into the human soul through the eyes and ears. Audio-visual media can make people generally remember 50% of what they see even if only once aired. In other words generally someone will remember 85% of what they see from an impression after 3 hours later and 65% after 3 days later (Prabowo, 2009).

Based on this background, researchers interested in doing Learning Media Design And Installation infusion of Infusion-Based Multimedia Audio-Visual. The purpose of this research is to design instructional videos and how to use a drip infusion attractive and easy to understand.

## METHODE

The design of this learning media using multimedia development by Lutherin (Binanto 2010) doing in six stages, namely Concept (concept), Design (design), Materials Collection (collection of material), Assembly (manufacture), Testing (testing) and Distribution (distribution).

- *Concept*  
The concept of this learning media involves a mix of presentations and video. The target of users learning media are nursing students and healthcare practitioners.
- *Design*  
The design of the learning media is using the theme infusion and the final form of video lessons by using an attractive appearance and can be accessed by nursing students and nurses at the hospital.
- *Material Collecting*  
The collection of materials and instructional media materials in the form of infusion materials, images, photographs, animations, video infusion, as well as music and sound audio.
- *Assembly*  
This learning media created by using Microsoft Powerpoint 2013, Windows Movie Maker 2.6, and Camtasia Studio 8.
- *Testing*  
The testing phase is done after completing the stages of manufacture (assembly) by running the application/program and see if there is a mistake or not.
- *Distribution*  
After learning media finished and no errors during the test, then the learning media is ready to be distributed to be accessed by students and medical practitioners. This learning media distribution via YouTube and blog WordPress.

## RESULT

The results of this research is a product of learning about the media and how to insert a drip infusion. In this study, researchers used the Acer Aspire 4315 series to create media with specs Intel Core i3-3217U CPU @ 1,80GHz, 2GB RAM, screen dimensions HD Graphics 4000.

The study takes place in several stages, the first stage and merging video recording. The making of this learning media researchers used four video pieces that created itself using a digital camera is the first video of the opening preparation tool. The second video about the installation infusion antiseptic principle, three ways of video infusion, the fourth video about mounting fixation infusion. This, coupled with the fourth video using Windows Movie Maker 2.6 application.

The second stage is the making of a slide presentation. In this second phase researchers are using Microsoft PowerPoint 2013 for the manufacture of slide presentations with power point adding template, animations and slide transitions in order to look more attractive.

The third stage is the last stage of making this learning media, where the presentation slides and videos that have been put together and recorded was made into a video by clicking on the produce and share the application Camtasia Studio 8, and then select the video format MP4 only (up to 720p) for the video quality HD images.

After learning media video has been completed with the mp4 video format and video file uploaded to YouTube and shared to a WordPress blog that can be accessed by many people, especially nursing students to address <http://karyo.wordpress.com>

## DISCUSSION

Learning media video uploaded to YouTube website and distributed to a WordPress blog. Once the video is shared to YouTube and WordPress blog has been viewed 10 times, getting two comments from WordPress blog site visitors.

One comment came from an account Kusno of which states that overall the core material is good, all-encompassing but images and writings are less clear in the video, comments and suggestions from the account Kusno are very constructive in the making of the video for further learning. Indeed, when shooting in video researchers used a 3-mega pixel digital camera finished, the possibilities make the picture less than the maximum.

Another comment comes from an account no.ribet 212 which states that the video was made very useful learning and adding new knowledge about infusion.

During the production process, the researchers found several problems that cause results in instructional video media is not optimal. The obstacles in the form of the results of the first video made using a 3-mega pixel digital camera. The output of the producing of the first video file with a camcorder from MOV file types. MOV file type is not supported for application windows movie maker 2.6, and Camtasia Studio 8. So the researchers are looking for an additional application to change the MOV file type to a file type that supports applications for windows movie maker Camtasia Studio 2.6 and 8. Researchers decided to use the application Xilisoft Video Converter Ultimate 6. The reason for the selection of applications Xilisoft Video Converter Ultimate 6 for the application is able to convert video and audio files to various types of files you want without reducing and minimizing the quality of the file.

## CONCLUSION

Conclusions of this study is the establishment of video learning how to install infusion interesting and easy to understand, in expect it to help the process of learning and sharing knowledge for students and health practitioners

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# THE EFFECTS OF DISCHARGE PLANNING TOWARD DISCHARGE READINESS OF DIABETES MELLITUS PATIENTS

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## ABSTRACT

Discharge planning is preparing the patient and family to the continuously treatment in the process of recovering and maintaining the health. Based on the earlier survey on April 2014 in Gambiran Hospital Kediri, the results showed that before facing the repatriation, the majority of patients was not ready to discharge caused by non-optimal discharge planning program. The purpose of the research was to know the influence of discharge planning toward discharge readiness of diabetes mellitus patient. The research used pre-experimental design with 7 respondents. The sample was diabetes mellitus patients in Gambiran Hospital of Kediri City on June 2014. Total sampling was used to select the participants. Questionnaire was used to collect the data. The identification of the various readiness levels to face the repatriation a patient of pre and post discharge planning was analyzed by using wilcoxon statistic. The result of this research showed that before discharge planning, most of the respondents (57,1%) had score 30-35 which means lack of readiness. After discharge planning their score increase upto 42-48 in (57,1%) patient. This number means that they had a well readiness. The result showed that  $p = 0,02$  (  $p$  value  $< 0,05$  ). The conclusion from this research was that discharge planning affected toward discharge readiness of diabetes mellitus patients. Therefore, the research could give the advantage for every health care providers in which health care providers should do a discharge planning optimally for the patients' readiness to go back home.

**Key words:** discharge planning, the readiness to go back home, diabetes mellitus.

## INTRODUCTION

Diabetes Mellitus (DM) is a disease which is characterized by the occurrence of hyperglycemia. DM can cause the increasing of blood pressure and can lead to damage the nerves, blood vessels, and heart. In diabetes mellitus patients, hyperglycemia is usually accompanied by the increasing of blood pressure. Although diabetes mellitus patients can also accompanied with normotensive or hypotension.

In 2007 the prevalence of diabetes mellitus in Indonesia was 1.2%-2.3% (Bustan, 2007). Based on data from the City Health Office (2009), the number of people with diabetes mellitus was 1020 people. Based on data from the medical records of Gambiran Hospital of Kediri City on February 2014, the data showed that the number of people with DM was 46 with distribution of women were 28 people (61%) and men were 18 (39%).

Based on interviews conducted by researchers in Tuberose ward Gambiran Hospital of Kediri City on May 12, 2014, the results showed that the implementation of discharge planning was only done on a patient's departure. When researchers interviewed 7 patients, 5 patients were not ready to face repatriation because of the patient's lack of understanding

and clear information about self-care at home. Thus, the patients had a doubt and worry if they could not take care of themselves after returning at home. From the data above, the problem was lack of discharge readiness of diabetes mellitus patients.

The cause of discharge unpreparedness of diabetes mellitus patients due to lack of knowledge about how to manage the provision of home care, the patient was discharged quickly. Thus, the diabetes mellitus patients had a high risk of complications of DM after discharging. The other cause was also due to the unplanned repatriation (return force) which can result in the hospitalization reset (Perry & Potter, 2006). Discharge planning was one of nursing interventions to prepare the discharging. Discharge planning is a process commencement of patient health services followed with continuity of care both in the healing process as well as in maintaining the health status until the patient feels ready to return to the environment.

Micro impact of a lack of patients facing discharge can cause the worsening of patient's condition or the increasing of complications of disease recurring after arriving home. Thus, patients could experience recurrent hospitalization. While the success of the patient's discharge planning actions capable of taking action continued maintenance of safe and realistic after leaving the hospital. Meanwhile, the macro impact that occurs in diabetes mellitus is declining health status (Perry & Potter, 2006).

The solutions to control further complications should be given to the DM patients before discharging. Thus, DM patients have the high preparation for repatriation. The solution consists of information the independence of self-care activities, such as exercise, diet regulation, and diet to control blood glucose levels. The success of discharge planning is that the patient is able to take action to continue maintaining of safe and realistic after leaving the hospital (Perry & Potter, 2006).

## METHOD

Inferential (quantitative) with cross sectional approach was used in this study. The sample in this study was 7 diabetes mellitus patients. The total sampling was used to select the participants. The variable in this study was the readiness of return prior to discharge planning (Y1) and the readiness of the home after discharge planning performed in patients with diabetes mellitus (Y2).

Data were analyzed by using the Statistical Product and Service Solution (SPSS) for windows and tested by using the Wilcoxon Match Pair Test with a significance value  $<0.05$ .

## RESULTS AND DISCUSSION

### Characteristics of Respondents by Gender

**Table 1.1 The Frequency Distribution of Respondents by Gender**

Category	Frequency	Percent (%)
Men	5	71,4
Women	2	28,6
Total	7	100

In the table 1.1, the distribution of the participants by gender could be clearly seen that the majority of the participants was men (71.4 %).

### Characteristics of Respondents by Age

**Table 1.2 The Frequency Distribution of Respondents by Age**

Category	Frequency	Percent (%)
26-35 years	0	0
36-45 years	1	14,3
46-55 years	4	57,1
56-65 years	2	58,6
Total	7	100

In the table 1.2, the distribution of the participants by age could be clearly seen that the majority of the participants was 56-65 years old (58.6%).

### Characteristics of Respondents by Education

**Table 1.3 The Frequency Distribution of Respondents by Level of Education**

Category	Frequency	Percent (%)
Basic	2	28,6
Medium	3	42,9
High	2	28,6
Total	7	100

In the table 1.3, the distribution of the participants by level of education could be clearly seen that nearly half of the participants was medium (42.9%).

### Characteristics of Respondents by Occupation

**Table 1.4 The Frequency Distribution of Respondents by Occupation**

Category	Frequency	Percent (%)
Farmer	4	57.1
House wife	2	28.6
Entrepreneur	1	14.3
Total	7	100

In the table 1.4, the distribution of the participants by occupation could be clearly seen that the majority of the participants was farmer (57.1%).

### Characteristics of Respondents by History of Diabetes Mellitus

**Table 1.5 The Frequency Distribution of Respondents by History of Diabetes Mellitus**

Category	Frequency	Percent (%)
Yes	4	57,1
No	3	42,9
Total	7	100



In the table 1.5, the distribution of the participants by history of diabetes mellitus could be clearly seen that the majority of the participants had a history of diabetes mellitus (57.1%).

### **Characteristics of Respondents by History of Hospital Admission**

**Table 1.6 The Frequency Distribution of Respondents by History of Hospital Admission**

Category	Frequency	Percent (%)
Once	4	57,1
Twice	3	42,9
Total	7	100

In the table 1.6, the distribution of the participants by history of hospital admission could be clearly seen that the majority of the participants had a history of diabetes mellitus once (57.1%).

### **Round readiness Respondents Before Granted Discharge Planning.**

**Table 1.7 Frequency Distribution of Respondents by Discharge Readiness before Being Given a Discharge Planning**

Category	Frequency	Percent (%)
unprepared	0	0
poor	4	57,1
prepared	3	42,9
ready	0	0
very ready	0	0
Total	7	100

In the table 1.7, the distribution of the participants by discharge readiness before being given a discharge planning could be clearly seen that the majority of the participants was poor preparation (57.1%).

### **After Round Respondents readiness Given Discharge Planning**

**Table 1.8 The Frequency Distribution of Respondents by Discharge Readiness after Being Given Discharge Planning.**

Category	Frequency	Percent (%)
unprepared	0	0
Poor	0	0
ready	3	42,9
very ready	4	57,1
Jumlah	7	100

In the table 1.8, the distribution of the participants by discharge readiness after being given a discharge planning could be clearly seen that the majority of the participants was very ready (57.1%).

## The Effects of Discharge Readiness Planning toward Discharge Readiness of Diabetes Mellitus Patients

**Table 1.9 The Effects of Discharge Readiness Planning toward Discharge Readiness of Diabetes Mellitus Patients.**

	AFTER									
B	Category	Unprepared		Poor prepared		Ready		Very ready		
E		f	%	f	%	f	%	f	%	
F	Unprepared	0	0	0	0	0	0	0	0	0
O	Poor prepared	0	0	0	0	2	28,6	2	28,6	4
R	Ready	0	0	0	0	1	14,2	2	28,6	3
E	Very ready	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	3	42,8	4	57,2	7
		p-value: 0,02					α: 0,05			

Based on table 1.9 above can be interpreted that the four respondents who had been granted discharge planning had most of the readiness of discharging (57.2%) was very well prepared, while some of the readiness of the home ( 42.8 % ) or 3 people that were ready .

Based on the statistical test by Wilcoxon then obtained p value of 0.02 , then the p value  $< \alpha$  (  $0.02 < 0.05$  ) . This means that ( $H_0$ )is rejected and ( $H_1$ ) was accepted. Thus, thus the results showed that discharge planning affected discharge for patients with diabetes mellitus in GambiranHospitalsof Kediri 2014.

## DISCUSSION

### 1. Round readiness in Patients with Diabetes Mellitus before Granted Discharge Planning

According to the table 1.7 showed readiness return diabetes mellitus patients before discharge planning given the vast majority ( 57.1 % ) or 4 of the respondents in the category of less prepared, because in this condition the patient was able but in doubt which was the condition that the patient was still need of further care mainly handling develop the ability to instill motivation and positive knowledge so as to foster motivation and ultimately a higher level of readiness to be the degree of readiness was very well prepared.

Perry and Potter (2005) said that on the way home, the patient must have the knowledge, skills, and resources needed to meet the treatment itself. The success of discharge planning is that the patient is able to take action to continue maintaining of safe and realistic after leaving the hospital (Perry & Potter, 2006).Readiness was already owned by respondents in this study include a high motivation to perform self-care after being in the house, both in terms of treatment measures at home, danger signs, wound care, activity at home, diet at home, or in the case of advanced treatment, preparation of a good return was expected to prevent the patient back into a state of emergency.

The results of the study showed that diabetes mellitus patients in GambiranHospitalsof Kediri in 2014 mostly less prepared for repatriation. Based on the age of the respondents in this study was almost entirely at the age of 46-55 years. In this age group the patient's level

of productivity decline due to decreased physical function, so that patients have a high motivation to heal; therefore patient will pay more attention to the information, which was provided by health care providers and motivated to maintain her health after discharge from the hospital. In addition to age, which can increase patient motivation was a history of diabetes mellitus descendant of the family, so that patients were motivated to lower the risk of diabetes mellitus to maintain their health. Thus, high motivation and extensive knowledge of the expected readiness home patients in the study will increase.

## **2. Round readiness in Patients with Diabetes Mellitus after Cast Discharge Planning**

According to the table 1.8 showed that readiness return diabetes mellitus patients after being given of discharge planning was the vast majority (57.1 %) or 4 of the respondents, the category of very well prepared. Where respondents were able and willing or able and confident doing activities that were taught after being at home.

According to Santrock (2002), when a middle age are already feeling the decline in physical function, middle age would be more concerned about their health. This was because someone who had already started to feel the decline in physical function would be more careful to their health problems, so in this study the respondents tend to pay attention to the information that had been acquired and motivated to perform live and do appropriate things that had been acquired.

The results of this study was supported by the previous study (Marthalena, 2009) that showed that the patient was able to predict their needs for information related to the healing process, and they want information that easy to understand as much as possible before they faced repatriation and the need for information was not influenced by age and education level of patients.

The results of the research in Gambiran Hospitals of Kediri consistent with other researchers as mentioned above. The level of preparedness of the patients in this study after discharge planning including the category of supportive-educative system, in which patients were able to do or learn about self-care and nursing interventions that need to be done more nurses to motivate respondents to the knowledge that has been received. The success of discharge planning actions performed optimally ensure the patient was able to take action continued maintenance of safe and realistic after leaving the hospital .

## **3. The Effects of Discharge Readiness Planning toward Discharge Readiness of Diabetes Mellitus Patients**

Based on Table 1.9 shows that 4 respondents who have been granted discharge planning have largely home readiness were very prepared (57.2%), while some of the readiness of the home that was ready for that (42.8%). Based on test results obtained statistically significant effect of 0.02 (  $p$  value < 0.05) thus concluded this research study  $H_0$  and  $H_1$  which receives no influence on the readiness return discharge planning diabetes mellitus patients in Gambiran Hospitals of Kediri in 2014 .

The success of discharge planning is that the patient is able to take action to continue maintaining of safe and realistic after leaving the hospital (Perry & Potter, 2006). Therefore, the patient was declared ready for discharge when the patient knows the treatment, signs of danger, the activities undertaken, as well as follow-up care at home. Patient and family

understand the diagnosis, the anticipation level of function, medication and treatment measures for the return, in anticipation of follow-up treatment, and responses taken in emergencies, Effect of discharge planning was critical to readiness return the patient to whom the discharge planning is to promote the stage of self-reliance highest in patients, friends, and family with presents, independence of self-care activities. Discharge planning can be one of the factors that could make healing process longer at home. While the success of the patient's discharge planning actions capable of taking action continued maintenance of safe and realistic after leaving the hospital (Perry & Potter, 2006)

This study was also consistent with the previous study (Marthalena, 2009), where nearly all respondents (85.7%) prior to discharge planning including category 3 level of readiness that was capable of performing a task but hesitate to do it themselves or capable of performing the task but do not want to use them and more than half (71.43 %) have a level 4 was able and willing to perform a task or capable and confident performing the task alone after discharge planning.

The results of the research in hospitals Gambiran of Kediri in line with several other researches as mentioned above. In this study the readiness of return patients who experienced an increase after a given discharge planning, because there may be several factors that affect the patient's readiness return was like a history of hospital admission, where the frequency of hospital admission which can often be used as experience by the patient to maintain their health more time at home. Formed the patient's readiness for experience and information received by the patient in the hospital. Negative experience and the lack of information received by the patient would form the patient unpreparedness to face repatriation to their environment. As for the readiness of return patients who had not improved after being given a discharge planning of patients due to the difficulty of thinking about beliefs, myths, motivation and self-confidence of the patient so it is difficult to change the pattern of the patients' knowledge towards the better. Thus, there was an influence on the readiness return discharge planning of patients with diabetes mellitus. Therefore, it is advisable for any nursing care should be given to the maximum discharge planning to increase the readiness of the patient's home.

## CONCLUSION

1. Most of the patients with diabetes mellitus in GambiranHospitalsof Kediri 2014 before being given a discharge planning was poorly prepared.
2. The majority of patients with diabetes mellitus in GambiranHospitals of Kediri 2014 after being given a discharge planning had increased to more than ready.
3. There was an effect on the readiness return discharge planning for patients with diabetes mellitus in GambiranHospitals of Kediri 2014.

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# **DESCRIPTION IN GRIEVING FAMILY RESPONSE TO CARE FAMILY MEMBERS IN THE ICU 1 Dr. ISKAK HOSPITAL TULUNGAGUNG**

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## **ABSTRACT**

Grieving is not always focused on the loss but grieving often occurs in an ill family member, so the family is waiting to feel frightened, restless, easily startled, not concentration, and bad feeling. Here the family is waiting for a sick family member will have a response grieving: denial (denial), anger (anger), bargaining (bargaining), depression (depression), accept (acceptance). The purpose of this study was to identify the 5 stages of grieving families in response to care for family members. The design of this descriptive study with a population of all families experiencing grieving response in family members caring for a total of 20 respondents and the sample amounted to 20 respondents, taken with a total sampling, variable in this study is a response to the bereaved family in caring for family members, and techniques of data collection using questionnaires, the collected data is processed and interpreted by the percentage of qualitative criteria, the study was conducted on 19 February to 6 March 2014. The results of this study is the response of the family in caring for bereaved family members at this stage of denial, the respondent had received no sign of the fact a number of 14 respondents (70%), respondents feel guilty angry stage number 9 respondents (45%), stage bargaining respondents sought the opinions of another number of 18 respondents (90%), depression stage confused some respondents 19 respondents (90%), and the last stage of the respondent resigned to accept a number of 19 respondents (95%). From these results it can be seen that the response of the bereaved families in caring for family members is each respondent not only experiencing a stage of grieving response, which is caused by gender, education, occupation, religion, relationships with family, how many times in the hospital, and how many days to go to the hospital. The conclusion of this study is the response of the bereaved family in caring for family members on the five stages of grieving responses that respondents not only experienced a stage of grieving response. Of the 20 respondents, a small portion of the respondents a number of 4 respondents (20%) had stage 3-4, and almost all respondents a number of 16 respondents (80%) experienced a 5 stage once in mourning. Therefore, health care workers should be more active in providing information about the development of the condition being treated family members.

**Keywords:** Grieving Response, Family

## **BACKGROUND**

Grieve is response normal to all losses .Behavior and feelings that relating to the process of grieve happened in individuals whose suffer the loss of such as the change physical or death close friend ( doka , 1993 quoted by potter & amp; perry , 2005 ) .One of the often led to the process grieve is a sick .If there is pain in one member of family and the house that wait will feel fear, unsettled, easily shocked, not concentration, a bad feeling and fear .

The world health organisation of mental health public health dilayananmenskrining more than 25000 people from 14 countries throughout duniadari the results of research 5500 people in detail .Ansietas 3.6 % of the adults having the symptoms meaningful clinically (each 1 percent to disorder phobia, disorder obsesif-komplusif and disorders panic) a depression 10 % of the adults suffer from depression in a week teifiondavies (2009) .But based on data riskesdas 2007, menunjukkan prevalence of an emotional disorder as disorder anxious and depression 11.6 percent of the population of adults .It to the number of the proportion of adults in indonesia to consume less 150.000.000 is 1.740.000 at present experiencing an emotional disorder .

Study research conducted jadoon et all for 2010 show clients by cancer will experience disruption anxiety of 66 % in the intervention and 40 % in the control group .Connor et all, (2010) said the ansietas for client with cancer was projected at 36.9 % and are likely to have ansietas of 19,18 % and that experienced ansietas and depression 25 % .Based on the study of the introduction that in implementing by the writer on the 1st 2014 to 6 2014 the number of all patients critical in the icu 1 rsuddr .Iskaktulungagung as many as 20 respondents .From the results of interviews 4 respondents, 2 respondents of them have a refusal ( denial who are mark with; family shock , pretend but does not occur what what , denial and do not believe , and dont accept the fact. Madder ( anger ) are characterized by; family sensitive, squeamish and irritability, family desperate, feel guilty , and family highly emotional.

The impact of response grieve caused by the condition of members of the family who are treated , so that family wait experienced stressor .Stressor could have come from internal for example: change hormone, and sick and external (for example: temperature).When someone had a situation danger , so response will appear .A response that not realized that at some point which is called by response koping .A change from a predicament from response due to stressor called with adaptation .Adaptation really happening when a balance between environment internal and external .Of a phenomenon have shown above then the researcher interested to have a research on picture response grieve family in treating family members in the icu 1 rsuddr .Iskaktulungagung

## **RESEARCH OBJECTIVES**

To identify response grieve: the refusal of ( denial in the family in treating family members in the icu 1 dr .IskakTulungagaungHospital

## **DESIGN RESEARCH**

The kind of research used in this research is research descriptive which is a research methodology used with the ultimate aim to make picture or a description about a state of being objectively (notoatmodjo , 2003).This is a description response grieve family in treating family members in the icu 1 dr .Iskak Tulungagung Hospital.

## **RESULT**

A frequency distribution of respondents for stages grieve

No	Grieve Stage	Frequency= 20	Prosentase
1	<b>Denial</b> Shock feel nothing happened feel do not believe d. dont accept the fact	2 2 7 14	10% 10% 35% 70%
2	<b>Anger</b> a. sensitive b. feel guilty c. emotional d. felt the loss	5 9 4 6	25% 45% 20% 30%
3	<b>Bargaining</b> a. Seek the opinion others b. Made an offer c. Wonder	18 14 12	90% 70% 60%
4	<b>Depression</b> Feel lonely Withdraw Are not willing Confused e. Uncommunicative	15 2 3 19 9	75% 10% 15% 95% 45%
5	<b>Acceptance</b> a. Capable of have a situation b. Not anxious c. Not old times and d. To accept reality e. Surrender	14 2 18 13 19	70% 10% 90% 65% 95%

## DISCUSSION

### 1. Denial Stage

Characteristic of education almost half of the respondents a number of 8 respondents (40%) of respondents educated junior high school and a small number a number of 1 respondents (5%) of respondents have six years of education. In this phase it individual deny because was surprised to see family members who are treated room intensive to the disease suffered suddenly, lack of support (motivation) of other family members and an absence of motivation of an individual itself, also koping these individuals inefektif in the face of trouble and inability judge in handling family members sick, so that arising feeling rejection and dont accept the fact will the condition of being suffered family members who are treated. Physical reaction shown among others faint, sweating, nausea, diarrhea, wheeze, the frequency of the heart fast, agitated, cry, insomnia and exhaustion and fear. With a physiological reaction this is that make a person did not receive ken



## **2. Anger Stage**

Based on characteristic of sex the majority of respondents a number of 13 respondents (65%) of respondents sex women and almost half of the respondents a number of 7 respondents (35%) of respondents sex that man, but based on occupation characteristics almost half of the respondents a number of 40% of respondents work as farmers , and the majority of respondents a number of 11 respondents (50%) of respondents work in the private .In the second phase happened response angry due to emotion a person cannot be in control by individual itself , individuals are stuck in the stress , lost tranquility and firmness to face the facts of life, always response to all things to the mind ego , and it is potential to complicate problems and made the situation become worse .Angry is the emotional important have function essential for human life, namely assist him in beware.

## **3. Depression Stage**

At this stage of respondents suffer from depression that respondents it is too centered to the problems and directly to the core problems , always think negatively on the condition of being faced by, gain less support from family and a medical team, and not being able to express how she feels, will not know how to deal with the problems, do not know what to do as well as not having a sense of confidence for decryption, so as to cause the condition of a person from plunging .Physical symptoms that indicated among others appetite declining even greatly exaggerated, trouble sleeping, concentration difficulties, headache, indigestion, the decline and the addition of weight, agitated, easily irritated, the decline in energy and readily exhausted .According to rando (1993) was quoted by a potter & amp; perry in 2005 said the level of the depression (depression) reality and the nature of the statutes of kehilanga had spotted, confusion, lacking motivation, not showing interest , does not make agreement.

## **4. Acceptance Stage**

At the acceptance respondents receive because a physiological reaction declining and social interaction continues.When the physically disturbed there is a possibility someone changed emotion.In these conditions, components spiritual someone very important to address change emotion.Faith in god is believed will facilitate someone to overcome change emotional during sickness, and lowering the hospital patients, so that family chose to surrender, because we have achieved a revenue.Kubler-ross ( 1969 ) quoted by perry& amp; potter ( 2005 ) define the more as face a situation than give up to surrender atudesperate.The family received the fact any condition that will happen to a member of his family, family surrendered to the almighty because the lord who manage evereything and family are accustomed to disease family members patients.

## **CONCLUSIONS**

from the results of research conducted then the researcher can draw conclusions that in five stage response grieve that is a refusal (denial), madder (anger), fresh -- bid (bargaining), the depression (depression), and receive (acceptance) , respondents not only was a a stage of response grieve. The number of respondents 20 respondents. Than 20 these respondents are, a small portion of respondents a number of 4 respondents (20%) of

respondents experienced 3 - 4 stage , and almost all respondents a number of 16 respondents (80%) of respondents experienced 5 stage as well as in response grieve.

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# THE RELATIONSHIP BETWEEN LEVEL OF EMOTION INTELLIGENCE AND THE IMPLEMENTATION OF THERAPEUTIC COMMUNICATION TECHNIQUE AT DR. RADJIMAN WEDIODININGRAT LAWANG HOSPITAL

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## ABSTRACT

**Background:** Psychiatric nursing is an interpersonal process to improve and sustain behaviors of the patient. they nurses must be able to communicate with a specific focus on the needs of clients . the effective information exchange between the nurse and the client is needed to provide care that is called therapeutic communication. There are several factors that influence the therapeutic nurse communication, one of which is the emotional intelligence.

**Objectivity:** This study aimed to determine correlation among the level of emotional intelligence with implementation of therapeutic communication technique in nurse of RSJ dr Radjiman Wediodiningrat Lawang.

**Methods:** This study was used an analytic observational with cross sectional method with fifty-one nurses as respondent.. Samples were selected using *cluster random sampling* technique and the statistical test used spearman Rho correlation with confident interval 95%.

**Result:** The result showed emotional intelligence level at 66.7% that belong to high categories, and implementation of therapeutic communication technique showed 60.8% that belong to good enough categories. The statistical test that's used Spearman Rho Correlation with confident interval 95%. The result of bivariat analysis showed that there is a significant relationship between level of emotional intelligence and implementation of therapeutic communication technique ( $r = 0.483$ ,  $p = 0.001$ ).

**Recommendation:** The result of this research suggests that the management hospital must do training how to manage emotion of nurse continuously to improve the ability of nurse in controlling the emotion condition.

**Key word:** level of emotional intelligence, implementation of therapeutic communication technique

## BACKGROUND

Mental health and psychiatric nursing is an specialization practices on nursing who applied the theory of human behavior and use ourself as therapeutic for patient (stuart and a sudden, 1998).The role of nursing is very important considering a problem of mental health that relatively high in indonesia. According the data in 2007, person with the age of over 15 years old as show 11.6% or approximately 20 million people had a mental emotional disorder such as anxious and depression, and as many as 0,46 % or approximately 1 million people experience heavy mental disorder (Depkes, 2008). Mental

health and psychiatric nurses must be able to communicate with clients to improve exchange of information and to focused on the special needs of patient in holistic care ( Videback, 2008).

This communication is called therapeutit communication. Therapeutic communication skills are influenced by several factors. They are perceptions of communication, value adoped, emotion intelligence, and communication knowledge. Emotion intelligence have great contributed influence to interpersonal communication skill on psychiatric nurses. The relationship between emotional intelligence and therapeutit communication is very closely because by having a good emotion intelligence, nurses have ability to recognize emotions, control emotions, self motivate, empathy and good social relationships. It will make more effective nursing care process and improve caring to the mental disorder patient (Goleman, 2001).

## METHOD

This research used analytic observational with cross sectional design. The population of this correlational study was nurses who worked at all department in dr. Radjiman wediodiningrat hospital. A sample size were 51 nurses was determined using the formula of the sample size, considering the Alpha 0.05 were enrolled using criteria inclusion by *cluster* random sampling technique. They were nurses who worked at adult and not acute departement room at least 1 years and they were as an implemting nurse not a structural nurses , and fill form willingness research to become respondents.

A variable level of emotion intelligence measured uses a questionnaire that adapted from the sri mulyani in 2008 of the theory robert k cooper and ayman syawaf which consist of 20 items. variable the implementation of the technique communication therapeutit measured uses a questionnaire that adaptation of communication theory therapeutit stuart and a sudden which consisted of 22 items. The questionnaire has been tested validity using a technique correlation pearson product moment and reliability test use the coefficients alpha cronbach. The result was a significance more than 0,06. The corelation between two variables used analytic statistics by spearman (alpha 5%). This study was approved at the meeting of the Vice Chancellor for Research Ethics Committee of Medical Faculty of Brawijaya University. Before, the aims of the study were explained to the respondent and the consent was obtained.

## RESULT

In this study, 56.9% (29 nurses) of the total participant were female, nurses ages ranged between 31 – 60 years old (76.47 %), all of nurses (100%) have java ethnic, participant majority have education diploma level 60.8 % (31 participant ) and mostly having work experiences more than 10 years (58.8% participant).The mostly level of nurses emotion intelligence in high levels intelligence (66,7%) but the implementation therapeutit communication skill of participant showed in good enough level (60,8%). The relationship between level emotional intelligence and Implementation therapeutit communication was moderate but significant ( $r = 0.483$  ,  $P = 0,001$ ) which swohn in table 1.

**Table 1. cross tabulation relationship between level emotion intelligence and implementation therapeutic communication in dr. Radjiman wediodiningrat Hospital**

Level emotion intelligence	Implementation therapeutic communication		Total	Sig (p)	r
	Good enough (n)	Very good (n)			
Moderate	16	1	17	0.000	0.483
High	15	19	34		
Total	31	20	51		

## DISCUSSION

The results showed that the level nurses' s emotional intelligence was higher than moderate or mostly in high level. Emotion intelligence influenced by some respects between r factors biological, psychological, culture and environment (Martin, 2006).The other said that emotion intelligence influenced by a factor of internal and external (walgito, 1993). Mayer, in goleman (2003), concluded that emotion intelligence developing in line with age, more importantly that intelligence emotional can be learned, be increased, and developed. By Increasing age, people can realize our sense of self and others (santrock, 2007).The results of the study about age respondents got that respondents mostly was 31 - 60 years old. There was a tendency levels of intelligence emotional in high level caused by the maturation.

Education could be one of of learning tools to develop emotion intelligence .Individual start learn forms emotion and how managing them through education (agustian, 2007) .The results of this research showed that education of participant in diploma level .This trend came to the conclusion that the higher the level of education someone hence the higher the intelligence out his emotions. Awareness emotion is capability to recognize emotion at the time that emotion happened. Awareness emotion means alert on mood, including can provide label every emotion perceived. Recognize emotion or self-awareness to emotions is the basis emotion (Shapiro , 2003). The implementation of the technique communication is a interpersonal interaction between nurse and client that during interaction held , nurse focus on client special needs to increase exchange of information effective between nurses and clients. Using a technique skills, nurse can understand and show empathic experience to the client (videback , 2008). Therapeutic communication consist of hearing, open question, repeating, clarification, reflection, focus, divide perception, identification the theme, silent, information, advice. Technique communication serves to help the achievement of the aims communication (Nurjanah, 2005).

The results of this study showed that the implementation technique communication in nurses at rsj dr.radjiman wediodiningrat lawangmostly in good enough level. This affected by perception, value, emotion, knowledge, the role and relations, and konisi environment (potter perry, 2002). Based on the results of the analysis with employing correlation rank the spearman, can be concluded that there is relationship between the level of emotion

intelligence and implementation of technique communication therapeutic nurses in rsj dr.radjiman wediodiningrat lawang. So that the higher level of emotion intelligence nurse will be getting better in therapeutic communication skill. The result of this research in line with the statement that people with good emotion intelligent will able to recognize emotion, control emotion, motivate self, empathy and social relations, so will be able to make good communicate with other people (goleman 2001). A nurse who have good emotion intelligence, the potential to know and how to handle of his own feelings and capable of being read, confronts feelings to others kindly. While a nurse with emotion intelligence in low level, they will difficult to control their emotion especially while nurse have interaction with mental disorder client.

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# APPLICATION METHODS PRECEPTORSHIP LEARNING BY CLINICAL INSTRUCTOR (CI) TO IMPROVE THE COMPETENCE OF STUDENTS

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## ABSTRACT

**Introduction:** Nursing education institutions have a duty to produce nurses who are competent and professional through learning clinical education. A very common problem is students were shocked by the clinical environment, not confident in providing nursing care to patients with mental disorders, fear is involved in the treatment of the environment and implementation of services under the supervision of nurses. Besides clinical instructor also has other duties including providing nursing services to patients and create documentation, many student from various agencies so that the accumulation of the number of students of all subjects and consequently clinical instructor becomes mind in guiding. From these reasons, the required method of learning by using preceptorship clinical instructors to increase student competence in providing nursing care.

**Aim:** To apply the learning method by instructors clinical preceptorship in improving student competence

**Methods:** The study was a literature review. The article used was taken from several databases like Ebsco host, Pub Med, Google Scholar, and Science Direct. The author analyzes on how the implementation of preceptorship learning methods can increase student competency.

**Results:** Implementation of preceptorship teaching methods are very effective for improving student competency. So that students observe and modify the behavior exemplified by clinical instructors and direct students the opportunity to practice these behaviors in nursing actions. This causes an increase in knowledge, confidence, and skills of students

**Discussion:** Preceptorship is concentrated practice model based on the concept of modeling, so the instructor clinic serves as a role model and teacher to student through interpersonal relationships. The papers said that using learning methods preceptorship with more intensive counseling support for students when compared to the independence of learners in learning. This is evident from the satisfaction of students, advocates, clinical instructor appearance (as a teacher, facilitator, role model, giving feedback, proficient in adult learning and advocates) strongly supports the learning preceptorship. Implementation of preceptorship very effective method to support student learning and helping students to apply theory to practice so it can increase student competency. Enhanced student competence through learning this preceptorship include improving critical thinking, improve clinical skills, improve self-confidence, increase knowledge, and improve interpersonal communication students in clinical practice.

**Keywords:** Preceptorship, Clinical Instructor, student competence.

## INTRODUCTION

Nursing is part of the health service which has the task of providing nursing care in a professional manner. Therefore, nursing education institutions are required to produce a competent and professional nurses. (Niederhauser, Schoessler, Howe, Magnussen & Cordier, 2012). One of them through the learning of clinical education. Clinical education is very important for them because it can equip students current students working world, and a lot of knowledge when performing nursing actions in patients (Franklin, 2013). The task of facilitating such clinical instructor, guide, and direct the students to apply the theories of academic to clinical practice (Noren, 2011).

Problems that occur in the clinic, especially in the hospital is a student was shocked with a clinical environment, not confident in providing nursing care to patients with mental disorders, and fear when engaging in environmental therapy and implementation of services with nursing supervision. Besides clinical instructor also has other duties including providing nursing services to patients and create documentation, many student from various agencies so that the accumulation of the number of students of all subjects and consequently clinical instructor becomes mind in guiding. If this is allowed then the student was not optimal in running clinical practice, therefore, it is necessary to guide the guidance of instructors clinics and reduce doubts and anxiety students practice (al-Hussami, Saleh, Darawad, & Alramly, 2011).

Seeing these problems, it is necessary to study methods of effective clinical instructors to increase student competency. Learning methods that have been developed such mental hospital conceptual methods, problem solving, conferences, self directed, nursing rounds. These methods have been applied by the clinical instructor in the hospital, may be less than the maximum execution resulting in increased student achievement of competence is not optimal. In the room at the hospital in need of new teaching methods so that the instructor can guide the clinic more leverage. One of the clinic instructors teaching methods to students that will be applied is the method preceptorship (Duteau, 2012).

From the results of the research survey conducted by Al-Husari, Saleh, Darawad, Al-Ramli (2011) explains that preceptorship by clinical instructors showed a significant increase in student knowledge up to 80% in Jordan. Nursing education institutions abroad using methods preceptorship and believed to have a significant effect for instructors clinic itself and to increase students' skills. Preceptorship program in Indonesia is still very rare. Therefore, in this rivew literature author would like to discuss more in depth about "Application of the method of learning preseptorship by clinical instructor (CI) to improve the competence of students ".

## METHOD

This research uses methods of literature study. The author tries to analyze the application of methods preceptorship in improving student competency. This paper takes from the literature such as PubMed, Science Direct, Ebsco host, and Google Scholar. After the authors analyze it to find some types of student competence is increased as a result of the application of the method preceptorship.



## DISCUSSION

Clinical instructor in teaching and learning activities must have a method of learning so that students can learn effectively and efficiently, regarding the expected goals. Clinical learning methods commonly used method is experiential, problem-solving, conferences, observations, multimedia, self directed, bed side teaching, nursing clinic. However, the lack of learning methods can improve clinical competence of students, so the impact on the student as the unpreparedness of students entering the workforce, a decline in students' skills. For that we need a new learning method for monitoring perkembangan achievement of learning objectives. Appropriate and effective method for students is preceptorship (Duteau, 2012). According to Rodrigues & Rigatto (2013) states that the application of the method preceptorship in Canada, it is very effective to support students learning and helping students to apply theory to practice so the method is highly acclaimed in the hospital.

Preceptorship is concentrated practice model based on the concept of modeling, so the instructor clinic serves as a role model and teacher to student through interpersonal relationships. So that students observe and modify the behavior exemplified by clinical instructors and direct students the opportunity to practice these behaviors in nursing actions. In addition, the excess is clinical instructor demonstrate behavior that is exemplary, a positive influence to the students so that their negative behavior can be limited. When using other learning methods the relationship between CI and students less close that direction, guidance, inspirational administration was not optimal and the impact of students are not informed about his mistake in giving action in patients (Morgan, 2012).

The learning process has the goal of using preceptorship able to increase student competency. According Kaddoura (2013) explains that the competence of student learning is enhanced through preceptorship includes first is the ability of students to think critically. Critical thinking is the main goal to be achieved by the students in the learning process preceptorship. Critical thinking is an important skill for students who must make judgments quickly effective in changing clinical situations well. Clinical instructor always encouraging and provide guidance to the students. This is shown by way of Preceptor give the case that the student must be prepared to critically analyze large amounts of information obtained from these cases that students can further consider the evidence and arguments that would support granting procedure to resolve the case. Before students perform the way for critical thinking in solving problems, the first clinical instructor pointed out in advance for clinical instructors to become role models. This can cause students to think critically. Critical thinking is an integral part of nursing education required for all students to develop themselves in practice (Kaddoura, 2013).

The second competency is to improve clinical skills. Through this preceptorship clinical instructor orient students toward nursing practice significantly through direct experience. Research conducted by Carlson (2013) states that the effect of preceptorship method performed by clinical instructors are very effective because students are able to experience being a nurse and change their perceptions of how nursing care is given in a clinical environment. This gives students an opportunity to provide direct care to the patient's actions continuously with instructor guidance clinic. The action will continuously improve the clinical skills of students. The third competency is to increase student confidence. Mostly students lack confidence in providing nursing actions in patients. However, with this preceptorship method teaches and encourages students to use independently thinking,

motivate students to instill in students about self-confidence that students are able to use the intellect and critical thinking to solve a client's problem. With the knowledge possessed critical thinking can foster the confidence of students.

The fourth competence is an increase in student knowledge. When the guidance and discussion Preceptor (CI) provides insight and new knowledge related to nursing information. When providing nursing care to patients, students have a great opportunity to increase their knowledge of the unknown time in clinical education. According to Rose (2012) Competence fifth is the creation of interpersonal communication between students and instructors clinic. In this preceptorship method of student guidance is of considerable concern that the CI to know the students' ability to communicate and if not good then be motivated. Preceptor (CI) teaches students to have behavioral and social skills in communicating. Social skills can help students to understand the situation and environmental conditions. While behavioral skills helping students to behave in society. Social skills consist of cognitive skills are skills at the level of understanding and includes four, the social perspective, sensitivity, knowledge of the situation at the time of communication. Behavioral skills include interactive engagement, interaction management, behavioral flexibility.

Competence above aligned with the research done by Hsu, Hsieh, Chiu, & Chen (2014). states that competence skills of nursing students be positively associated with participation in a clinical preceptorship program. In addition preceptorship has a positive effect on growth development of nurses through increased confidence, skills, knowledge, communication and clinical efficiency is higher. According Charleston implementation of preceptorship at room student life care, shows that there is a high satisfaction for the students and for instructors clinics become more competent in performing the role as a role model. Students can achieve the learning objectives in a psychiatric hospital with a maximum when applying the method preceptorship clinical instructor. This method aims to encourage the integration of theory and practice, assist students in the transition period to develop the practice further. This is reinforced by research Omer (2013) which states that using learning methods preceptorship with more intensive counseling support for students when compared to the independence of learners in learning. This is evident from the satisfaction of students, advocates, clinical instructor appearance (as a teacher, facilitator, role model, giving feedback, proficient in adult learning and advocates) strongly supports the learning preceptorship.

## **CONCLUSION**

Clinical education is very important for students such as can be equip students today in the world of work, and a lot of knowledge when nursing action on patients. Therefore it is necessary to effective learning methods one preceptorship. Preceptorship is concentrated practice model based on the concept of modeling, so the instructor clinic serves as a role model and teacher to student through interpersonal relationships. So that students observe and modify the behavior exemplified by clinical instructors and direct students the opportunity to practice these behaviors in nursing actions. This causes an increase in knowledge, confidence, and skills of students.

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# **THE CORRELATION BETWEEN NUTRITIONAL STATUS WITH GROSS MOTOR SKILL FOR TODDLER IN POSYANDU KALISONGO KECAMATAN DAU-MALANG**

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## **ABSTRACT**

Growth and development is the process that occurs in every human life. This process more important especially for children. One point of growth and development is the gross motor skill. Gross motor skill is development that involves central nervous system, nerves and muscles. Gross motor skill could be affected with nutritional status, health status and stimulation from their living. Inadequate nutritional status can be disturb child growth, development and the others. The aim in this study was to obtain and overview of Correlation Between Nutritional Statue with Gross Motor Skill for Toddler in Posyandu Kalisongo, Kecamatan Dau Malang. The research design is analytic correlation with cross sectional design. The technique used for sampling is purposive sampling with 43 toddler (18-30 month). The result showed that nutritional statue has correlation with development of gross motor skill with correlation p value  $<0,05$ . It can be concluded that in order to get a good gross motor development for toddler, each parents must provide adequate nutrition for their child.

**Keyword:** toddler, gross motor skill, nutritional status

## **INTRODUCTION**

Growth and development is a process that occurs in every human life . This process occurs mainly in childhood. One dimension of growth and development is the main motor development. Motor development is the development of the entire body involving coordination between the central nervous system, nerves and muscles. In general motor development received less attention and likely to be fair because it runs automatically. (Martha, 2014)

Child development is all of changes that occur in children, seen from various aspects, among others: aspects of motor, emotional, cognitive and psychosocial. One of the early childhood development is the motor development, motor development is divided into two: gross motor skill and fine motor skill. Gross motor skills are part of motor activity that involves large muscle skills. Movements such as the prone, sitting, crawling and neck lift include gross motor movements that occurred in the first year of age. Motor should be a skill that involves the movement of small muscles such as drawing, writing and eating. Fine motor skills have developed after gross motor skills develop. (Sari et al, 2012)

Motor development is strongly influenced by nutrition , health status , and movement in accordance with their development. So anatomically developments will occur in the structure

of the body of individuals who change proportionally with increasing age. Nutritional status less will inhibit the rate of growth experienced by the individual, as a result the proportion of body structures become incompatible with his age, which in turn will have implications for the development of other aspects. (Sari et al, 2012)

Nutritional status is one of indicator to determining health status. Good nutritional status can help the process of growth and p Indonesia Economic children to achieve optimal maturity (Mariani, 2015) . Good nutrition is a balanced nutritional intake of nutrients means must after with needs of the body. Nutritional needs to every person is different based on the metabolic and genetic elements respectively. Balance the nutrients that were not met in the long term can make a person has a poor nutritional status (Primadianti 2010). Assessment of nutritional status of preschool children used by Riskesdas 2013 as a growth indicator are converted into grades, standardized using the book anthropometry toddlers World Health Organization (WHO) can be seen in the range with weight for age ( W / A) height for age (TB/U) and weight for height (W/H). (Mariani, 2015)

Trisnawati research results (2013) about the relationship of nutrition balanced with the development of personal, social, preschool children in kindergarten Dharma WanitaKab .Jember shows that by the age of 4-5 years explained that nutrition is balanced to have a close connection with the development of social personal. Results of analysis Riskesdes 2013 reported that the nutritional status of children under three indexes W / A , H / A and W / H will look prevalence of malnutrition and malnutrition increased from 2007 - 2013. Currently impaired growth and development is still one problem in Indonesia. One aspect that can be monitored in the development of preschool children are rude or gross motor movement . Aspects that affect gross motor one of which is a nutrient .

## METHOD

This study was designed analitic-correlation with cross sectional. This research has 43 toddler as population and use all of them as total sampling.

## RESULT

### Nutritional Status of Toddler

**Table 1. Nutritional Status**

<b>Nutritional Status</b>	<b>Amount Child</b>	<b>Percentage</b>
ExcessiveNutrition	6	14,0%
Good Nutrition	25	58,1%
Less Nutrition	12	27,9%
Malnutrition	0	0%
Total	43	100%

Based on Table 1 it can be seen that out of 43 preschoolers in IHC Kalisongoexcl .Dau mostly had good nutritional status of as many as 25 children (58.1%) and 6 children (14%) had a better nutritional status

## Gross Motor Skills

**Table 2. Gross Motor Skill**

Gross Motor Skill	Amount Child	Percentage
appropriate stage	6	14,0%
Doubted	25	58,1%
Deviation	12	27,9%
Total	43	100%

According to the table 2 can be seen that as many as 26 children (60.5%) had gross motor development in accordance with the stages of its development .

## ANALYSIS

From Table 3 obtained significance value of Spearman Rank correlation of 0.000 with a significance level of 0.005 means that the data was significant where there is a relationship of nutritional status with gross motor development in preschoolers.

## DISCUSSION

Gross motor development of preschool children emphasis on gross motor coordination of movement in this case related to the moving body. At the age of 4 years, the child's motor coordination more precisely. Children can cut smoothly, it could draw box, draw vertical and horizontal lines, and learn to put the buttons. In supporting the development of rough mototrik children then the parents need to be selective functions with due regard to food intake consumed by children. If the child is malnourished will have an impact on growth restriction susceptible to infection and can ultimately hinder the development of children includes cognitive, motor, language, and skills compared with a toddler who has a good nutritional status. The results of this study recognized that most children have good nutritional status as much as 58.1% and the majority of these children have gross motor development in accordance with the stages of its development. Data analysis using Spearman Rank correlation test using SPSS obtained sig. (2-tailed) = 0,000 <  $\alpha$  (0,005), which means there is a relationship of nutritional status with gross motor development in preschoolers.

## SUMMARY

Nutritional status is one indicator in determining health status. Good nutritional status can help the process p Indonesia Economic growth and maturity of the child to achieve optimal. Motor development is strongly influenced by nutrition, health status, and movement in accordance with their development. Nutritional status less will inhibit the rate of growth experienced by the individual, as a result the proportion of body structures become incompatible with his age, which in turn will have implications for the development of other aspects such as gross motor skill.

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# ANTENATAL BREASTFEEDING EDUCATION INCREASE SUCCESSFUL BREASTFEEDING AT HOME ON POSTPARTUM MOTHER IN MALANG, INDONESIA

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## ABSTRACT

**Background:** Breastfeeding provides great benefits for both mother and baby, but the numbers of breastfeeding coverage are still low. Breastfeeding education in health care facilities generally done during the postpartum. The incorrect practice of breastfeeding, culture and lack of family support would impede successful breastfeeding.

**Objective:** To compare between antenatal and postpartum breastfeeding education to successful breastfeeding at home.

**Method:** A quasy experiment was conducted in this study. The data collection was conducted in obstetric outpatient clinic and postpartum room in Dr. Saiful Anwar general hospital (RSSA), on April-November 2014. Consecutive sampling was conducted and 34 sample was divided into antenatal breastfeeding education and postpartum breastfeeding education. Pregnant mother who never experience in breastfeed (both primigravida and multigravida), had gestational age  $\geq 32$  week, and had planned to delivery in RSSA was included in antenatal breastfeeding education group. While, postpartum mother who had never experience in breastfeed was included in postpartum breastfeeding education. Successful breastfeeding was evaluated in 7<sup>th</sup> days postpartum. Chi square was used for data analysis.

**Result:** Maternal age and education was influenced in breastfeeding education with p-value 0,024 and 0,036 respectively. Whereas, antenatal breastfeeding education was influenced significantly successful breastfeeding with p-value 0,016.

**Conclusion:** Antenatal breastfeeding education increase successful breastfeeding at home.

**Keywords:** antenatal, breastfeeding education, successful breastfeeding



## BACKGROUND

Breastfeeding provides great benefits for both mother and baby, but the numbers of breastfeeding coverage are still low. In Indonesia early initiation of breastfeeding rate reached 34.5%, while exclusive breastfeeding 30.2% (Balitbangkes, 2013). Breastfeeding education in health care facilities generally done during the postpartum. During pregnancy, focused about the development of the fetus and the mother's health, education of breastfeeding was not optimal. Factors that influenced a mother's decision to breastfeed include the influence of culture, media, health professionals, socio-demographic (age, education, occupation), and the support of her husband (Chapman and Durham, 2010; Klossner and Hatfield, 2010; Soetjiningsih, 2013).

The incorrect practice of breastfeeding, culture and lack of family support would impede successful breastfeeding. Antenatal breastfeeding preparation had proven effective to increase mother's breastfeeding self-efficacy, and improve support by father (Noel-Weiss et al., 2006; Maycock, et al, 2013). Based on this description, the purpose of this study was to compare between antenatal and postpartum breastfeeding education to successful breastfeeding at home.

## METHOD

A quasy experiment was conducted in this study. The data collection was conducted in obstetric outpatient clinic and postpartum room in Dr. Saiful Anwar general hospital (RSSA), on April-November 2014. Consecutive sampling was conducted and 34 sample was divided into antenatal breastfeeding education (ABE) and postpartum breastfeeding education (PBE). Pregnant mother who never had experience in breastfeed (both primigravida and multigravida), had gestational age  $\geq 32$  week, and had planned to delivery in RSSA was included in antenatal breastfeeding education group. While, postpartum mother who never had experience in breastfeed was included in postpartum breastfeeding education. Mother who had contraindication to breastfeed or her baby was passed way, was exclude from this study. Chi square was used for data analysis. This study was received approval from Research Ethics committee RSSA.

ABE was performed routine by lactation counselor when patient came to the hospital for pregnancy control. Whereas, PBE was performed during hospitalization. Successful breastfeeding was evaluated in 7<sup>th</sup> days postpartum. Criteria of success breastfeeding defined as mother who performed latch and position breastfeeding properly and gave breast milk only at home.

## RESULT

Thirty-four mothers participate in this study, they are divided into two groups, ABE and PBE groups. Their characteristics had shown in Table 1. From the table, it appears that age and education was influenced breastfeeding education during antenatal and postpartum.

Breastfeeding education evaluation results based on statistical test *Chi Square* had described in Table 2. Based on that statistical calculations showed that the breastfeeding education during pregnancy significantly influenced successful breastfeeding.

**Table 1. Baseline Characteristic**

Criteria	ABE (n=17)	PBE (n=17)	P-value
Age; years old	26,35±5,431	22,65 ± 3,445	0,024*
Education, (n;%)			0,036*
Elementary	1 (5,9)	3 (17,6)	
Junior high school	2 (11,8)	5 (29,4)	
Senior high school	8 (47)	8 (47)	
Diploma	4 (23,5)	0 (0)	
Bachelor	2 (11,8)	1 (5,9)	
Occupation, (n;%)			0,053
Housewife	9 (52,9)	14 (82,4)	
Employee	3 (17,7)	3 (17,7)	
Government employee	2 (11,8)	0	
Labor	1 (5,9)	0	
Nurse	1 (5,9)	0	
Teacher	1 (5,9)	0	
Delivery method, (n;%)			0,488
Pervaginam	7 (41,2)	5 (29,4)	
SC	10 (58,8)	12 (70,6)	
Parity, (n;%)			0,559
1 <sup>st</sup> child	15 (88,2)	16 (94,1)	
2 <sup>nd</sup> child	2 (11,8)	1 (5,9)	

**Table 2. Successful Breastfeeding Evaluation Results**

Criteria	ABE (n=17)	PBE (n=17)	P-value
Successful breastfeeding (n;%)			
Success	12 (70,6)	5 (29,4)	0,016*
Not	5 (29,4)	12 (70,6)	

## DISCUSSION

Antenatal breastfeeding education increase successful breastfeeding. Routine ABE provide better knowledge about good breastfeeding technique and method to resolve breastfeeding obstacles, so that mother breastfeed her baby properly. In this study shown that ABE was

influenced successful breastfeeding with p-value 0,016. The previous study shown that mother who not attended antenatal breastfeeding education, increase 3 fold to cessation breastfeed on first month breastfeeding (Artieta-Pinedo et al., 2013). Antenatal breastfeeding education on primipara increased breastfeeding skill, however education only would not increase breastfeeding self-efficacy and reduce breastfeeding anxiety (Craig and Dietsch, 2010).

In this study, maternal age and education level would affected breastfeeding education and successful of breastfed. Similar with the previous study shown that duration of breastfeeding influenced by maternal age and education (Pang et al., 2016). In the previous study was conducted by Kaneko et al., (2006) shown that mother with low education level increase cessation of breastfeeding.

Breastfeeding education which only performed in postpartum may not effective, due to short duration of hospitalization. Besides that, psychologically postpartum mother reached taking-in phase, which mother more focus to herself (Rubin, 1976 cit. Ward and Hisley, 2009). So that, education was performed may not effective. As a result, during breastfeeding at home mother may face breastfeeding obstacles which impeded successful breastfeeding.

## CONCLUSION

Antenatal breastfeeding education increase successful breastfeeding at home.

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# THE ANALYSIS OF PATIENT'S WITH EMERGENCIES MATERNAL SATISFACTION OF IMPLEMENTATION REFERRAL NATIONAL HEALTH INSURANCE PROGRAM AT RSUD NGANJUK (POSTER PRESENTATION)

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## ABSTRACT

**Introduction:** The referral process in emergencies maternal is a major cause of high risk maternal and neonatal mortality rate. Appropriate referral emergencies, planned and the optimization of the role National Health Insurance in a program of fee exemption for the health of maternity women, which aimed to improve access to maternity service in order to reduce maternal and neonatal mortality rate. By having National Health Insurance Program, the patients' satisfaction in terms of fee is fulfilled. Patient's satisfaction can also be seen by service quality such as reliability, assurance, tangibles, empathy and responsiveness.

**Aim:** The purpose of this research was to describe patient's with emergencies maternal satisfaction of the program referral at RSUD Nganjuk.

**Methods:** Frequency Distribution Analysis was used in this research as design to analyze all maternity women with emergencies maternal in RSUD Nganjuk during September until October 2015 with 144 respondents which is got by purposive sampling technique.

The result: This research can be identified conclude that there was satisfaction of the program referral National Health Insurance indicated dissemination satisfaction patient's related five dimensions: *Reliability, Assurance, Tangibles, Empathy, Responsiveness*. The analysis of the patient's with emergencies maternal satisfaction of the program referral National Health Insurance based on the distribution of the patient's satisfaction measured from the dimension of service quality revealed that most of patient's are satisfied of the service of the program referral National Health Insurance.

**Discussion and Conclusion:** Implementation referral process in emergencies maternal National Health Insurance Program at RSUD Nganjuk had been accomplished proven by research data by 138 respondents (96%) mentioned that BPJS Health Program. For further research in order to have a depth analysis, may conduct a research into the factors that can affect the level of patient's satisfaction of the program referral National Health Insurance.

**Key Terms:** National Health Insurance Program, Patient's satisfaction level, Dimension of service quality.

## INTRODUCTION

Maternal and neonatal mortality rate in Indonesia still high. This caused by late judge, late get transportation and handing of late in health service (Subagyo, 2011). Based on the

Demographic Health Survey Indonesia in 2007 maternal mortality reached 228 per 100.000 live births (Data Statistik Indonesia, 2011).

In order to reduce maternal mortality rate in Indonesia it is not possible without the support of various parties, including adana referral system effective and planned to specifically cases patiens with emergencies maternal. Referral process maternal in indonesia still experience complain about the process referrals have unsettled. But, the government is silence. The government through ministry of health import operational set a strategy one of which is health insurance program executed nationwide with insurance principle, the equity and his system of mutual cooperation where ambassadors to and healthy will help those less well off and hospital where program is often we knowing National Health Insurance Program or BPJS (Kemenkes, 2014).

Of an easier access to health care by the community especially since the implementation of National Health Insurance Program in 2014 the patients with emergencies maternal visits at Emergency Room (ER) increased even had overload. Data obtained from the RSUD Nganjuk just visits average in every two months to cases patients with emergencies reached 258 cases, so that the patients with kegawatdaruratan maternal treated at hospital forced to placed outdoors maternitas in RSUD (Ary, 2010). It makes challenges for health workers to understand the needs and consumer advocacy in this case patients is an important point that affects satisfaction patients.

Hardiyanto (2010) has saying some survey conducted by the agency ngos one of them is done by the international corruption watch (ICW) judged the service of health care for poor people via National Health Insurance Program had not yet been optimal. Although results of the survey showed the majority of participants program National Health Insurance Program (83,2%) said satisfied with the services provided but there are still participants who did not satisfied with the services provided doctors (5%), nurse (4.7%) and health workers as many as (4.7%). Observations ICW also show that the quality of health services for its participants National Health Insurance Program has not been good. Based on these phenomena above me interested to know what is the level the patient satisfaction with the implementation of the referral process of National Health Insurance Program in the RSUD Nganjuk .

## METHODS

The kind of research in this research Frequency Distribution Analysis was used in this research as design to analyzed all maternity women with emergencies maternal in RSUD Nganjuk.

### The population and the sample

Population in research it is a whole maternity mother who is residing in the RSUD Nganjuk in the period during september october 2015 the average a number of 258 people .As for the sample collection use purposive sampling so as to produce the sample of the as many as 144 respondents with the use the criteria of inclusion of:

Maternity mother uses National Health Insurance Program.

A kind of labor with sectio caesaria

Willing to become respondents

Variable research

subjects variable in this research is the level of satisfaction patients with emergencies maternal to the implementation of the referral process National Health Insurance Program.

Time and place research

Waktu pengambilan data

December 2015.

At RSUD NGanjuk Nganjuk.

## **RESULT AND DISCUSION**

### **1. Implementation of National Health Insurance Program Referrals Process**

Proven by research result was shown that nearly all respondents stated that National Health Insurance Program has implemented several indicators related to the successful implementation of the National Health Insurance Program which is based on respondents' answers to the questionnaire, it can be drawn by the public easy access to health care, an escalation in the number of maternal emergency patient visits of the Emergency Room (ER) RSUD Nganjuk and ease the public in using the facilities offered by the National Health Insurance Program itself. It can be concluded that the implementation of the National Health Insurance Program at the RSUD Nganjuk had been successfully implemented, this is supported by research data that show almost all respondents, or about 96% of the respondents stated that National Health Insurance Program was well implemented. With the implementation of the National Health Insurance Program at the RSUD Nganjuk, it will expected to help the government in its efforts to reduce maternal and infant death in Indonesia, according to the main purpose of executing of National Health Insurance Program.

### **2. Patient Satisfaction Level**

From the conducted research, there were 138 respondents (96%) said that they were satisfied with the service personnel, so that it can be said that almost all respondents were satisfied with the services provided. But there is a small portion of about 6 respondents (4%) were not satisfied with the implementation of the National Health Insurance Program. Although nearly all respondents said they were satisfied, but there are still a small portion of respondents who are not satisfied, it is believed to be due to several factors, including the subjectivity of respondents become a source of primary data from research using questionnaires. Similar to the results of similar studies conducted by the International Corruption Watch (ICW) to health care for the poor folks through National Health Insurance Program, although most participants of the National Health Insurance Program (83.2%) expressed satisfied with the program, but there were still people who not satisfied with the doctor's services (5%), nurses (7.4%), and health workers as much (4.7%).

Based on the above conditions, the agencies involved which in this case are RSUD Nganjuk, not necessarily satisfied with the results of patient answers obtained through a questionnaire. But on the contrary should be working harder to maintain patient satisfaction with the quality of service rendered either in general or services related to the implementation of the referral process of the National Health Insurance Program it self. So hopefully will be able to improve the image of health services in the future.

### 3. Comparative Analysis of Patient Satisfaction Based on Service Quality

Based on the five dimensions of service quality in measuring patient satisfaction rates, obtained during the study were as follows:

- *Reliability*  
Gambar 4 Distribusi Frekuensi Kepuasan Responden berdasarkan dimensi *Reliability*. Based on respondents' answers related to reliability dimension, the respondents felt that the service provided is fairly accurate and precise, and in utilizing the courses National Health Insurance Program in this regard respondents felt greatly facilitated, especially in terms of funding or cost, because the cost of care and action are guaranteed by National Health Insurance Program. Thus National Health Insurance Program has been giving satisfaction to the patients, especially in terms of price or cost..
- *Assurance*  
This dimensions is based on research data obtained from the respondents' answers on questionnaires distributed, respondents felt during treatment, the respondent treated with courtesy, and respondents felt safe during treatment in RSUD Nganjuk. Sothe agencies involved in this case RSUD Nganjuk can maintain the quality of service rendered as expected.
- *Tangibles*  
Based on respondents' answers related to these dimensions, almost all respondents said that health facilities provided by the hospital is quite adequate and the number of patients admitted were much too. RSUD Nganjuk as the executor of National Health Insurance Program was enough to give satisfaction to the patient associated this dimension, but to be able to maintain patient satisfaction would be better if it remains to evaluate and improve and equip the facility of medical equipment needed by the patient so that the patient satisfaction remains can be maintained.
- *Empathy*  
Gambar 7 Distribusi frekuensi Kepuasan Responden berdasarkan dimensi *Empathy*. Based on data of the results of research which conducted, all respondents said that the nurse was friendly in treating patients during treatment and emergency personnel give sufficient attention to the needs of the patient while in the Emergency Room. Thus friendliness and attention attendant to the needs of the patient during treatment must be maintained so that the patient satisfaction can be maintained
- *Responsiveness*  
Based on the comparison chart of the distribution of respondent satisfaction when seen from the dimensions of service quality percentage was the lowest compared to other dimensions. Although figures show 96% or nearly all respondents said the officer Emergency Room (ER) quite responsive in dealing with patients and in conveying information using a language that is easily understood by the patient / respondents, would be much better to be increased so that the patient satisfaction / respondent will increase because patient satisfaction is indicators of quality of health care will be able to increase the positive image of the service itself.



## CONCLUSION AND SUGGESTION

### 1. Conclusion

Based on the research that has been done, it can be concluded as follows:

- Implementation referral process in emergencies maternal National Health Insurance Program at RSUD Nganjuk had been accomplished proven by research data by 138 respondents (96%) mentioned that BPJS Health Program implemented.
- The level of patient satisfaction in the RSUD Nganjuk showed 138 respondents (96%) said they were satisfied with the services provided related to the implementation of the referral process in emergencies maternal National Health Insurance Program.

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### 2. Suggestion

- Education institutions

With the implementation of the results of research on the relationship National Health Insurance Program referral process to the level of patient satisfaction with maternal emergencies can add information in the development of nursing science and nursing students improve their knowledge, especially in the course of the emergency and maternity nursing.

- Hospital Related Agencies

From the results of this study can provide the information and understanding of the roles and functions of nurses as care giver in providing nursing care to further improve sensitivity or sense of empathy towards patients. Also in its function as advocates for patients, nurses can provide solutions or alternative solutions to the health problems faced by patients and families, especially related cost factors for pregnant mothers and childbirth, especially with the economic status are less able to utilize the National Health Insurance Program.

- Community

Based on the research that has been done that the level of patient satisfaction can be, for that I look forward to further research to better dig deeper into the factors related to anything that could affect the implementation of the National Health Insurance Program relationship with the level of patient satisfaction.

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# **ANALYSIS OF NURSING PRACTICE THEORY SEFL CARE OF HEART FAILURE: A SITUATION – SPECIFIC THEORY OF HEALTH TRANSITION ON CHRONIC HEART FAILURE PATIENT**

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## **ABSTRACT**

Cardiovascular system disorder on chronic heart failure patient is going to affect client physically and psychologically. Physical impact is going to cause the body's ability to decrease. As a result, it will give impact on psychology of client. Psychological impact on chronic heart failure is a change or disability on functional condition, ability to do the job and interact to each other. Psychological impact probably gives psychoanalysis problem on dealing with the illness to the client. In this case, the client decreases his life quality because of rehospitalization for couple of times. Chronic heart failure client who deals with psychoanalysis will have long healing process, severe physical symptom and long recovery process. CHF impact on psychosocial condition needs comprehensive management including family involvement. Adaptation inability of heart failure patient to adapt on his illness including recognizing early of disease symptom (such as shortness of breath, activity intolerance, and fatigue) will influence his daily life. To minimize the high rehospitalization on chronic heart failure patient is by doing self-care management. The aim of this literature review was to analyze Nursing Practice Theory Sefl Care Of Heart Failure : A Situation – Specific Theory Of Health Transition on chronic heart failure patient. Method of this literature review study was by collecting and article analysis and books related to treatment on chronic heart failure patient. These books and articles were collected by electronic data taken from books published from 2001 and articles published from 2010. The result of this literature review is to portray the activity of self-care of chronic heart failure patient such as self-care maintenance, self-care management, and self-care confidence. Self-care is an active thought process as a human effort to maintain his health or manage his illness. Self-care on chronic heart failure patients is a process in which the patients do active participation both cognitive and psychomotor in doing heart failure management by themselves, family assistance or health workers. Self-care is a combination between self-care behavior and self-care ability so that it can be concluded that self-care is a decision-making process naturalistically on attitude selection to maintain physiology stability (self-care maintenance) and respond to a symptom (self-care management), patient's confidence in doing activity daily living (self-care confidence).

**Key words:** Analysis, Theory, Self Care

## **BACKGROUND**

Chronic Heart Failure (CHF) is the highest priority in health care in developing countries (Stewart and Blue, 2001 in Riegel 2004). This is due to the high mortality rate in Chronic Heart Failure (CHF) and leads to decreased quality of life. CHF (Chronic Heart Failure) is a chronic disease that causes a significant burden for the client and family and when admitted

to the hospital because the condition is complex. This is because heart failure can have a negative impact on the fulfillment of basic needs, their changes in body image, lack of self-care, behavior and daily activities, chronic fatigue, sexual dysfunction, and worries about the future. The inability of patients with heart failure to adapt to the disease, including early know of symptoms (such as shortness of breath, activity intolerance, and fatigue) will affect the life she lived every day (Bui and Fonarow, 2012). Health services are particularly important given to patients with Chronic Heart Failure (CHF) since this disease is a very complex disease with a high incidence in people - older people, especially in males (Meleis, 2010).

Cardiovascular system disorders in clients with chronic heart failure will affect the client's physical and psychological. A physical impact will lead to the ability of the client's body will decrease. A physical impact would leave a psychological impact on the client. The psychological impact on clients with chronic heart failure is their inability to change or functional condition, the ability to do the job and in the relationship or interaction with fellow human beings. The psychological impact will allow clients to have psychosocial problems in the face of illness. In this case the client may also experience a decrease in quality of life for clients often experience rehospitalisasi. Clients with chronic heart failure who have psychosocial problems will undergo a process of healing and physical symptoms are more severe and the recovery process will take a long time. The impact of the CHF against the psychosocial condition requires a thorough treatment including family involvement.

To minimize rehospitalisasi high in clients with chronic heart failure is to do self-care management (Jensen, 2011). Besides, social support from family is also very important in helping clients perform self-care management. By implementing the right of self care management will help improve the quality of life for clients with chronic heart failure. By using situation -specific theory of heart failure ( HF ) self - care can we know about how and why patients with heart failure care of themselves ( Faulkner , et al , 2015) .

## **REVIEW OF THEORY**

### **1. Definition Of Self Care**

According to Riegel and Dickson (2004) in Meleis (2010) defines self-care as a decision-making process is done by using the naturalistic behavioral choices to maintain physiological stability is by monitoring of symptoms and adherence to treatment. Self Care is a thought process that is active as an effort for someone to maintain their health or treat disease (Rockwell & Riegel, 2001). Self care includes the combination of self-care behaviors and self-care ability so that it can disimpulkan in general that self care is a decision-making process naturalistically against electoral behavior to maintain physiological stability (self care maintenance) and response to symptoms experienced (self -care management).

### **2. Classification Self Care**

Distribution of self care by Riegel et al (2004) consists of:

- a. Self Care Maintenance
  - Activities to consider in self maintenance in patients with Heart Failure include:
  - Obeying the rules of treatment

- Having a diet that is low in salt
  - Maintaining regular physical activity
  - Monitoring vital signs and body weight every day
  - The ability to stop smoking
  - The ability to avoid m alcohol
- b. Self Care Management
- Self Care Management is a form of activity that aims to maintain health or a healthy lifestyle. Activities undertaken in self care management, among others:
- Individual ability to recognize changes in the body associated with signs and symptoms for example edema
  - Monitor or assess the changes that occur in the body
  - Taking the right decision with regard to handling to problems or changes that occur in the body
  - Perform predetermined treatment rules
  - Evaluate or assess the results of the remedial action undertaken
  - Self Care Confidence
  - Is the confidence of patients in performing the activity or activities of self-care which consists of:
    - The confidence of feeling free of signs and symptoms of the disease
    - Confidence in following the instructions or rules on treatment
    - Confidence in recognizing early health changes
    - Confidence in taking action to address the symptoms of the disease perceived
    - Confidence in evaluating or assessing the success of the measures taken for the treatment of disease

### **3. Self Care in patients with Heart Failure**

Self care in patients with heart failure is a process by which patients participate actively both in terms of cognitive or psychomotor in conducting activities related to the management of heart failure both independently , with family or with the help of health professionals. Overview of the activities conducted in patients with heart failure self-care is self care includes maintenance , management and self care selfcare confidence ( Riegel et al, 2004).

## **METHOD**

Method of this literature review study was by collecting and article analysis and books related to treatment on chronic heart failure patient. These books and articles were collected by electronic data taken from books published from 2001 and articles published from 2010.

## **RESULTS**

The result of this literature review is to portray the activity of self-care of chronic heart failure patient such as self-care maintenance, self-care management, and self-care confidence.

## DISCUSSION

According to Orem in Tomey and Alligood (2010), states that the universal self-care requisites are a major part in the life lived by each individual. Activities conducted with regard to universal self-care requisites are indicated with maintaining the adequacy of air, water, and food that is useful for metabolism and also produces energy. Universal self-care requisites could directly affect patients with heart failure, for example in patients with shortness of breath caused by edema will strive to meet the needs of oxygen. Developmental self-care requisites is an attempt being made to support the development process of the patient when experiencing discomfort due to illness suffered. While health deviation requisites often associated with pain conditions experienced by the patient, which is about how the patient's ability to feel pain condition or inability to perform the functions normally. Self care is very important for patients with chronic diseases, as well as in heart failure patients. Experience proved patients suffering from heart failure can significantly improve patients' knowledge related symptoms and signs of disease. It will also affect the ability of self care.

Self care capabilities gained through experience chronic illness will have an impact on lifestyle changes and can directly affect the quality of life of the patient's own (Smeltzer, Bare, Hinkle, & Cheever, 2010). The physiological changes to the health and chronic conditions greatly affect the change in quality of life (Black & Hawks, 2009). Such changes could indirectly also affect changes in quality of life that begins with the onset of functional limitations and distress for the patient. There are several studies that have been done related to the ability of self care and quality of life of heart failure patients, including research conducted by Britz and Dunn (2010), which studies the description to identify the ability of self-care in patients with heart failure is associated with changes in quality of life. The result showed that only confidence and perception of self care is good for the health that have a significant effect on improving the quality of life.

Britz and Dunn (2010) also mentioned that the majority of patients suffering from heart failure reported that they have not been able to carry out self care exactly as it has been taught for example comply with the treatment given, low-salt diet, regular physical activity, fluid restriction, monitor weight every day, as well as recognize early signs and symptoms. Those problems can be anticipated by providing motivation in the form of internal and external motivation. Internal motivation is done by increasing the knowledge and understanding of patients on self-care to improve the confidence and the confidence to recover while external motivation in the form of social support so as to improve the quality of life in heart failure patients (Burutcu & Mertz, 2013). the quality of life of patients with heart failure to effectively manage the symptoms of heart failure. Social support helps a person live life and be required to maintain physical and emotional well-being. Other research results also indicate that the presence of a close relationship between the quality of life in patients with heart disease who receive personal care and social support. The relationship shows that patients with heart failure need more support both internal and external when their physical health deteriorated (Burutcu & Mertz, 2013). In this respect individuals suffering from heart failure or chronic illness will experience stress related to changes - changes that occur in the body that cause disability or inability to decreased quality of life.

In the theory of social support by Marjorie A Scafer in Bredow and Peterson (2013) states that a person is experiencing stress need social support. Individuals are more often identify family and friends as one of the social support for the family is the part closest to the individual. In the treatment of heart failure patients is indispensable involvement of the family as a social support so that it can provide motivation to the patient because the patient feels no attention and support so that it can improve the quality of life of clients or individuals with heart failure. According Blauer, C et al (2015) that the motivation will give patients the strength and energy to develop a strategy in the face of heart failure disease and achieve good quality of life.

According to Pamela G Reed in Bredow and Peterson (2013) in the theory of self-transcendence that individuals have the ability to change from a state that is not good to be good, of a good situation for the better. In the theory of self-transcendence is how individuals develop skills or self-consciousness of the concept itself. In this case patients with heart failure in theory A Situation - Specific Theory Of Health Transition depicted in the model cell care of her is that there are self-care confidence that is part of the patient's awareness of the concept itself and patient confidence in what he had done to illness suffered

## CONCLUSION

Implementation of heart failure patient treatment utilizing "situation-specific theory of heart failure (HF) self-care" consists of self-care maintenance, self-care management, and self-care confidence.

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## CCU TEAM'S CARE BUNDLE<sup>+</sup> IN PATIENTS UNDERGOING FEMORAL ARTERY PERCUTANEOUS INTERVENTION

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### ABSTRACT

**Background:** Percutaneous coronary intervention (PCI) is an increasingly important revascularization strategy in coronary heart disease management. Considering the current frequency of the clinical pathway of the procedure, there are significantly limited useable data or information to sufficiently inform nursing care focusing on describing the nursing management in postPCI. In order to ensure that nurses provide quality care to patients, the study has developed the CCU TEAM's Care Bundle in order to be able to deliver the safer and more effective cares in both the independent and collaborative contexts of PCI management.

**Purpose:** To compare the effectiveness of the CCU TEAM's care bundle with usual care as the means of improving nursing care process and reducing the risk of hematoma complications for patients undergoing femoral artery percutaneous intervention.

**Methods:** Historically controlled study was conducted. The intervention group comprised 108 patients who were undergoing femoral artery percutaneous intervention and admitted in cardiac care unit (CCU) of Bumrungrad International Hospital, Bangkok. The control group (usual care) was a group of 124 patients who received femoral artery percutaneous intervention in the past and were selected from the hospital database. After the development CCU TEAM's care bundle, the content of care bundle was disseminated to all staff nurses who work in CCU. The care bundle consisted of seven elements: (1) Coagulation checking; (2) Consider skin barrier; (3) Urination; (4) Tightening and compression; (5) Extremity circulatory observation; (6) Activity restriction, and (7) Medication control. The statistics used in the analysis include descriptive statistics.

**Results:** In all, 232 patients were included in the study, with a mean age of 61 years (35-91). Women constituted 75.5%. In the result of the study on nursing outcomes and PCI procedure showed that there was a difference between the usual care and the CCU TEAM's care bundle. In addition, there was the decrease in the number of patients who have hematoma by 0.57 % after applying the care bundle compared to those who were treated by usual care. A review of clinical outcome in patients in cardiac care unit indicated that most patients were in stable enough condition to be on cardiology ward after a PCI procedure.

**Conclusion and Recommendations:** In order to ensure that nurses provide quality care to patients who have PCI procedures. Nurses play a critical role in delivering care in both the independent and collaborative contexts of PCI management.

**Keywords:** percutaneous coronary intervention, nursing, care bundle, coronary heart disease

<sup>+</sup> The CCU TEAM's Care Bundle is a set of nursing interventions for deliver the safer and more effective cares in both the independent and collaborative contexts in post PCI management

# APPLICATION OF PRECEPTORSHIP MODEL IN EMERGENCY NURSING PRACTICE: A LITERATURE REVIEW

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## ABSTRACT

**Background:** Nursing education has essential role to improve the competencies required for nurses. One method to increase the competence of nursing students is preceptorship. If you look at the fact now to preceptorship methods in nursing education institutions already applied, but to practice there are still a lot of shortcomings. The emergency room has unique characteristics, where the workload is quite high and require fast action, precise and skilled. Therefore, to be a Preceptor in the emergency room is a challenge for nurse. Preceptor tend not be able to guide students in large numbers, this is because a clinical practice is spread and some actions that require skill is high enough. Conditions in emergency rooms sometimes make learners do not feel guided properly, so are perceived by preceptor. Preceptor feel less satisfied and less than the maximum in guiding learners.

**Aims:** To discuss the application of preceptorship method in emergency nursing practice

**Methods:** This literature review was conducted by collecting and analyzing articles regarding preceptorship in emergency nursing practice. Articles were collected from electronic databases of Pub Med, Science Direct and Google Scholar. Fourteen articles were reviewed in this study. The criteria of articles were full text and published between 2010 and 2015.

**Results:** Preceptorship in emergency rooms basically have the same task with a preceptorship in the other room, it's just that the fundamental principle is the adequate skills, fast action, precise and meticulous. Basic responsibilities preceptor in the area of the emergency nursing is doing exercises bed side teaching and make nursing students to be independent in conducting assessments. From the review of articles, can be identified two things or themes in the implementation of preceptorship in the emergency room, among others: the role of preceptor and advantages of the preceptorship method. There are three things that greatly affect the role of preceptor include unclear roles, excessive workloads and opposition role. Preceptor more put its primary role as a nurse on the role as preceptor. Another problem experienced by preceptors is the limited time, differences in the level of education and differences in work schedules. On the other hand, the advantages of preceptorship in emergency nursing practice is that preceptor could help to improve nursing students' potency, mutual respect, support, the stability of self, adaptation process, improve knowledge and skills. Preceptorship help new practitioners, making the transition from student become a qualified nurse, developed a sense of community within the group and reduce the incidence of medical errors committed by nursing students.

**Conclusions:** Preceptorship is a short-term relationship between preceptor and learners who give individual attention based on the needs of learners. That requires support from all parties, both in education and service management. Preceptor amount should be sufficient, their clarity of roles, than the level of education and training for preceptor must be improved.

**Keywords:** ApplicationPreceptorship, Emergency Nursing Practice

## **BACKGROUND**

The nurse as one of the health workers should act professionally. The quality of nursing care given to the patient should be centered taking into account patient safety, accuracy and use the knowledge that has been obtainable. Nurses are not only required to have the knowledge but also have competence in providing nursing care, every nurse must meet education and experience to be able to perform nursing actions for patients. Indonesian National Nurses Association together with the Association of Indonesian Nurses Educational Institution as well as cooperation with the ministry of education, through the Health Profession Educational Quality (HPEQ) project, renew and recast the Indonesian nurse competency standards. All of these standards refer to Presidential Decree No. 8 of 2012 on Indonesian National Qualifications Framework and has now settled into state documents related to the direction and policies of nursing education in Indonesia. Nursing education in Indonesia is divided into several levels, among others: vocational education, academic education and professional education. Academic education includes undergraduate, master and doctoral (PPNI, 2008)

Nursing education is done to meet the competencies that must be owned by a nurse, one of which is a skill nursing action. To meet these competencies, in the process of nursing education to do their nursing clinical practice in the area of the hospital and the community. A nurse must be able to meet the achievement of competence stipulated by educational institutions. The achievement of competencies that must be met are prepared by various methods, one of which is the process of guidance by nurses in hospitals that have been designated as preceptor (Barker, E.R, 2010). If you look at the fact now to preceptorship methods in nursing education institutions already applied, but to practice there are still a lot of shortcomings, among others are:(1) Inadequate number of nurses with nursing undergraduate qualifications (2) The heavy work load of nurses, who became preceptor usually is the head of the room so that the counseling process was not optimal (3) The amount of too many students in the field of practice is not proportional to the number preceptor (4) Lack of funds for training preceptorship models is because the majority of funding comes from learners (Nursalam, 2010)

The emergency room has unique characteristics, where the workload is quite high and require fast action, precise and skilled. Therefore, to be a preceptor in the emergency room is a challenge for nurse(Patterson, B; Babley, E.W; Brunell, K & Rhoads, K, 2010). According to McClure, E & Black, L (2013) Preceptor as a key learning for students in the emergency room, but reality preceptor tend not be able to guide students in large numbers, this is because a clinical practice is spread and some actions that require skill is high enough. Conditions in emergency rooms sometimes make learners do not feel guided properly, so are perceived by preceptor. Preceptor feel less satisfied and less than the maximum in guiding learners (Cheung, R.Y.M & Au, T. K.-f, 2011). This the problems that occur in the application preceptorship in the emergency room. Based on the above problems, the authors are interested in discussing the applicationpreceptorshipmethod in emergency nursing practice.

## ANALYSIS AND DISCUSSION

Clinical learning is one of the experiential learning and a focus on real cases in which students can directly apply theory derived from academic. Learners are also expected to hone his skills as much as possible in nursing action. Learners are motivated by the appropriateness of competence which is done through the active participation of instructional clinics, while the thoughts, actions and professional attitude portrayed by preceptor. Clinical environment is a place for students to learn physical examination, clinical arguments, decision-making, empathy and professionalism are taught and learned as a whole (Nursalam, 2010)

One of the methods clinical effective is preceptorship. Preceptor are nurses who teach, advise, inspire, serve as role models, support the growth and development of students (Duteau, J, 2012). Preceptorship used as a means of socialization and orientation. Access the knowledge and clinical practice can be predicted by the students, so that discussions between preceptor and student is required to provide current practice in the clinical environment, with expectations of students will have the same ability with preceptor (Gaberson&Oermann, 2010)

Area emergency nursing practice is one area of clinical nursing specialty with the concept of independent nursing and collaborative. Emergency nurses need to have special skills in performing nursing care to patients in a fairly limited time as well as a relatively large number of patients(Emergency Nursing Association, 2010). The high workload in the emergency room, the lack of time to conduct guidance and the magnitude of the responsibility of a preceptor, often make some preceptor feel guilty for not being able to guide students well (Widyastuti, Winarni&Imadivike, 2012).

Emergency room into a room that is stressful for any student nurse who first assigned in the room. Nursing students who lack experience as a nurse in the emergency room would require an adjustment when they are placed in the emergency room. Competency must first be mastered by nurses or nursing students who will serve in the emergency room. The aim is to ensure the handling of patients which require fast and precise. Preceptorship will reduce the number of medical errors committed by new nurses or nursing students (Patterson, B; Babley, E.W; Brunell, K & Rhoads, K, 2010)

Preceptorship in emergency rooms basically have the same task with a preceptorship in the other room, it's just that the fundamental principle is the adequate skills, fast action, precise and meticulous. Preceptor responsibility in nursing practice is the first emergency exercise bedside teaching. In this exercise, Preceptor acts as a facilitator while nursing student as a practitioner. The second responsibility is to make new nurses or nursing students to become independent in assessing the patient. The second responsibility is the responsibility of the preceptorship most basic needs to be done by a preceptor.

There are three things that greatly affect the role of preceptor namely vagueness role as a preceptor, excessive workloads, and discrepancies between the role of being a nurse and as a preceptor. Role ambiguity occurs because of ambiguities in the definition of the concept of preceptor itself, such as what should be done by a preceptor in the face of a student. Conflicts of roles occurs when the preceptor must perform its primary role as a nurse, but on the other hand he also had to act as a preceptor. Nurses will receive additional responsibilities as a preceptor who should be responsible for the students, in addition also to act as a nurse responsible for the patient (Omansky, 2010).

When nurses performed the role of preceptor. Problems experienced by preceptor is limited time to provide learning and supervision of the student because of differences in working hours and the main task of a preceptor who is also a nurse who must provide nursing care to patients. Another obstacle that makes the role of preceptor be no maximum is differences in the level of education .Most Preceptor have lower educational level of students so that preceptor difficult to give instruction even though their abilities are masters (Liu, M; Lei, Y; Mingxia, Z &Haobin, Y, 2010).

Time constraints also a major problem, preceptor can not give quality time to the students. When students have difficulty with clinical learning, preceptor not have time to help them. Time constraints also felt because of differences in work schedules. A further problem is most Preceptor experience confusion about what should be done by a preceptor. They assume that being a preceptor is a complicated job and beyond their ability. High educational background necessary to become a preceptor(Mccarthy, B &Murphym, S, 2010). This problem will become complicated when the absence of support from the hospital or institution. The hospital only appoint nurses to become preceptor based work experience.

According to research conducted by Omer, T.Y; Suliman, W.A; Thomas, L & Joseph, J (2013), which saw the difference between the two models preceptorship, model A of which is preceptorship requiring intensive guidance and model B is preceptorship greater emphasis on learner independence in learning. Results obtained from these studies is on any variable studied ranging from student satisfaction, program support, preceptor appearance (as facilitator, role model, giving feedback and advocates) are significantly more supportive of the model A is preceptorship with intensive guidance. Preceptor must accompany the student for 24 hours when they are in the fields of practice. This is an obstacle in the process of optimal guidance on the practice field. Surely this will not be easy to do if the number of preceptor limited, increasing the number of preceptor should be considered, of course, it will go well if there is support from management.

Although in this program there are disadvantages, but there are a lot of advantages that we get as practiced by Eley, S.M (2010) in her research said that the relationship between preceptor and new nurses or nursing students can not be ignored. Preceptor behavior be role models for nursing students who are doing nursing practice (Hayajneh, F, 2011). Preceptor responsible in helping nursing students to develop their potency, mutual respect and support should occur in relation preceptor and nursing students. Moreover, it can be able to increase the stability of self and the adaptation process for nursing students (Gusnia, S.S &Saragih, N, 2012). In this program may also increase the knowledge and skills of nursing students. Preceptorship has an important role to help new practitioners, making the transition from student to become a nurse qualified (Moore, P & Cagle, C.S, 2012). This learning system to support and develop a sense of community within the group (Phillips, S; Tapping, J; Ooms, A; Marks-Maran, D &Godden, R, 2013). To overcome the problem of preceptorship of course the support of all parties would be fundamental in the implementation of this program, clear definition of the duties and responsibilities of preceptor. Preceptor amount should be sufficientso that the limited time guidance and services can be avoided. Than the level of education and training for preceptor should be further improved.

## CONCLUSIONS

Preceptorship is a short relationship between preceptor and learners are paying attention based on the needs of learners. Preceptor provide feedback based on the achievements of learners, teach students how to make their own decisions, set priorities, time management and patient-care activities. The main objective of preceptorship in the emergency room is to make nursing students in assessing patients appropriately and in a short time with regard to the focus data and can improving the knowledge and skills clinics

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# **A PROJECT FOR DEVELOPING AN APPLICATION COMBINING MICROSOFT OFFICE AND CAMTASIA STUDIO 8 AS LEARNING MEDIA OF SENSORY PERCEPTION DISORDER: HALLUCINATION**

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## **ABSTRACT**

**Background:** Hallucinations most often associated with schizophrenia, in which hallucinations are one of the positive symptoms that indicate a person suffering from schizophrenia. There is about 70% of people with schizophrenia experiencing hallucinations. An understanding of hallucinations and nursing interventions that can be implemented to treat patients with hallucinations is needed, it is certainly to be attributed to how the process of delivering the material to the audience.

**Aims:** The purpose of the project was to develop a new media for delivering learning materials regarding sensory perception disorders: hallucinations using instructional media in the form of video using Microsoft Office Powerpoint and Camtasia Studio 8

**Method:** Producing learning media material related to sensory perception disorders: hallucinations supported with the use of Laptop HP as the hardware and the application of Microsoft Office Powerpoint and Camtasia Studio 8 as software. Applying transitions, audio and animations on each slide in Microsoft Office PowerPoint and integrated into Camtasia Studio 8 makes instructional video display has a special attraction for the audience.

**Result:** Innovations media with material sensory perception disorders: hallucinations developed by the authors in the form of video which is a combination of Microsoft Office PowerPoint application software Camtasia Studio 8. Application software Microsoft Office PowerPoint has the advantage of which is the transition and animation to create a slide show more attractive. While application software Camtasia Studio 8 has advantages in terms of video editing with separate features image or audio script by default. It is very necessary because it can provide guidance language tailored to the audience. Video media learning disorders sensory perception: hallucinations uploaded into Youtube and blog authors in order to share knowledge and knowledge for the general public to be aware of and understand the hallucinations and how to control it.

**Conclusion:** It is essential for conducting a research related to the use of instructional media materials in the form of video applying Microsoft Office Powerpoint and Camtasia Studio 8 to enhance learner's understanding about sensory perception disorders: hallucinations.

**Keywords:** Halusinasi, schizophrenia, media pembelajaran, Microsoft Office Powerpoint, Camtasia Studio 8.



## BACKGROUND

Hallucinations most often associated with schizophrenia or psychiatric disorders, where hallucination is one of the positive symptoms that indicate a person suffering from schizophrenia. There is about 70% of people with schizophrenia who experience hallucinations (Stuart, 2013). Hallucination is a disorder that occurs in one's sensory perception, where there is no stimulus (Joseph, 2011). Patients who experience sensory hallucinations usually feel a false form of sound, sight, taste, touch or smell (Direja, 2011).

According to the World Health Organization (WHO), the number of people with schizophrenia or mental illness in the world is 450 million. Riset Kesehatan Dasar (Riskesdas) in 2013, explained that in Indonesia the prevalence of severe mental disorders or referred to as People With Mental Disorders (ODGJ) as much as 0.17% or approximately four hundred and twenty-five thousand people. While the prevalence ODGJ in East Java in 2013 accounted for 0.22% of the total population, as many as eighty-three thousand six hundred thousand people. Hallucination is one of the symptoms most commonly experienced by ODGJ.

Type hallucinations most often affects patients are auditory hallucinations which the patient feels heard voices when no sound stimulus, in this situation, if the stimulus audible voice of patients in the form of commands that can endanger the patient themselves, other people or the environment, the patient may commit suicide (suicide), kills another person (homicide), even damaging the environment. To minimize the impact of hallucinations, it needs proper handling. With the large number of events and the impact caused hallucinations because the hallucinations it is increasingly clear that it takes a nurse to assist the patient in order to control his hallucinations.

Hallucinations as well as an understanding of how to control the hallucinations they are most needed, especially for nursing students as candidates for mental nurse. For that, we need an innovation in media that is usually transmitted through the slide with the help of Microsoft Office PowerPoint is developed into a video by combining Microsoft Office PowerPoint with the application Camtasia Studio 8 order related to sensory perception disorders: hallucinations become more attractive so expected to improve understanding of the learners.

## METHOD

- Equipment  
Media instructional video with material shaped sensory perception disorders: hallucination is supported by an electronic device hardware and software in the manufacturing process.
- Hardware  
Laptop HP 240 G2 Notebook PC with an Intel (R) Core (TM) i3-3110M CPU, 2.40 GHz, 4096 MB RAM, system type 32-bit Operating System, Windows 7 Professional.
- Software  
The manufacturing processes of learning to use Microsoft Office Powerpoint and Camtasia Studio 8 of TechSmith Corporation.

- **Making procedures**

The collection of material on sensory perception disorders: hallucinations from various sources, both from textbooks, journal articles and videos in Youtube associated with hallucinations is the first step in the procedure of making this learning media. Once the material from various sources, it has support, the authors began to create a slide show with Microsoft PowerPoint. To make it more interesting, the authors add animation to the image displayed on the current slide. The author also uses transitions in each turn of the slide.

Concept about sensory perception disorder: hallucinations that have been packaged in Microsoft PowerPoint application is then started to be integrated with the application Camtasia Studio 8 through the recording process (recording) audio, which the authors presented the material to record sound or audio to the material in a Microsoft Office PowerPoint ended. Result of the audio recording from Camtasia is Trec format. Trec's format shaped file is what will be included in the application Camtasia to look more attractive again. All files that we will use with Camtasia application included in the Clip Bin. The author adds audio in the form of songs, video footage and callouts so that the end result of learning materials hallucinations video media is more attractive again. The last step is to produce the results of Camtasia into mp4 format and upload them to the blog done and Youtube.

## **RESULTS AND DISCUSSION**

Development or innovation of instructional media is expected to increase the understanding for the audience or learners. Learning material about sensory perception disorders: hallucinations are also expected to be well understood by nursing students as candidates for mental nurses to enable them to provide appropriate nursing interventions to control hallucinations. Innovations media with material sensory perception disorders: hallucinations developed by the authors in the form of video which is a combination of Microsoft Office PowerPoint application software Camtasia Studio 8.

Microsoft Office PowerPoint is used to display a slide of material hallucinations. There are ten slides for this hallucinatory material that consists of a cover title, definition, predisposing factors, precipitation factors, signs, symptoms, diagnosis nursing, nursing actions, as well as a thank you. The author then do audio recording when presented slide-by-slide PowerPoint in Microsoft Office applications with the help of application Camtasia Studio 8. The results of this in the form of an audio recording file trec format size 71.8 MB. This file is the author fill in the application menu in the Clip Bin Camtasia Studio 8 along with other supporting files such as video clips of gamma1, short films and video entitled hallucinations Hallucination Listen SP1 writer get through a website Youtube.

The author uses video footage clip of gamma1 as a video display in the opener of this learning media. To avoid plagiarism, the authors add Callouts with a greeting.



**Figure 1. The initial view on video instructional media**

Related material signs symptoms of hallucinations and how to control hallucinations rebuke accompanied with video support to further reinforce understanding of the material. Video of signs symptoms of short films sampled hallucinations hallucinations, whereas video on how to control hallucinations sampled from a video titled Hallucinations Listen SP1. Once that is done editing videos with Camtasia 8 to take video footage which is in accordance with the appropriate material and editing video with the sound of his own voice.



**Figure 2. The initial view video signs symptoms of hallucinations.**

Mp4 Format video with great video is 12.8 Megabytes and video length for 5 minutes is the end result of the editing process. After the video was produced, a video that serves as a medium of learning were uploaded via Youtube.com internet sites that can be accessed by users who need an understanding of the material hallucinations. The video can be accessed through the address <https://youtu.be/vaPpI2Zhfh0>. Here a picture to see video as a medium of learning with hallucinations material on the site Youtube.com



**Figure 3. The video display medium of learning in Youtube.com**

Video hallucinations learning media can also be accessed through the address wordpress <https://primahardhika.wordpress.com/>. Here's a picture to see video as a medium of learning the material rebuke hallucinations in wordpress.



**Figure 4. The video display medium of learning in Wordpress.com**

Application software Microsoft Office PowerPoint has the advantage of which is the transition and animation to create a slide show more attractive. While application software Camtasia Studio 8 has advantages in terms of video editing with separate features (separate) image or audio script by default. It is very necessary because it can provide guidance language tailored to the audience. Video media learning disorders sensory perception: hallucinations uploaded into Youtube and blog authors in order to share knowledge and knowledge for the general public to be aware of and understand the hallucinations and how to control it.

## CONCLUSION

Development of instructional media material disruption sensory perception: hallucinations in the form of video which is a mix of application software for the Microsoft Office PowerPoint and Camtasia Studio 8 makes the display more attractive in order for knowledge and understanding of the audience, especially for nursing students as prospective nurses soul can be increased so that they will more competent in providing nursing interventions, especially in the control hallucinations.

## SUGGESTION

Innovation in media-related learning materials that require special emphasis needs to always be developed so that learners do not get tired and more interested in listening for the delivery of the learning media. Therefore, educators need to update the software so that the media that will be delivered to attract the attention of the learner.

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# THE APPLICATION OF BETTY NEUMAN'S SYSTEM MODEL IN CARING FOR CLIENTS WITH CHRONIC DISEASES EXPERIENCING HELPLESSNESS PSYCHOSOCIAL PROBLEMS: A LITERATURE REVIEW

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## ABSTRACT

**Background:** A Chronic disease commonly occurs and needs a long term treatment. This kind of disease will result as psychosocial problems and helplessness. Patients with a chronic disease in Indonesia have 2.6 times greater risk for suffering from mental emotional disorder. In addition, patients with two and three more chronic diseases have 4.6 and 11 times greater risk respectively. One of the nursing care approach that can be used in caring for the patients is Betty Newman's systems model.

**Aims:** to analyse Betty Newman's concept model in patient with chronic disease with helplessness psychosocial problems based on literature reviews which appear in international journal such as Elsevier.

**Methods:** The literature review was conducted by collecting and analysing a variety of journals, theses, and e-books. Literatures which has been used for this were journals from 2005 to 2014.

**Results:** Betty Newman's concept model describes the assessment methods that has been used to cope with powerlessness clients, including intrapersonal, interpersonal, and extra-personal. In addition, the intervention includes primary prevention, secondary, and tertiary. All the items are working based on an open system that includes physical, psychological, social, culture, and spiritual development.

**Conclusion:** Betty Neuman's system model could be considered as a nursing care model to manage clients with helplessness.

**Keywords:** Betty Newman's system model, Chronic Diseases, helplessness.

## INTRODUCTION

Chronic diseases are illnesses that occur in chronic and treatment. It is also taking a long time to develop. The disease can lead to emotional disturbances both on the individual and the caregiver (Nurbani 2009; Widagdo & Besral, 2013).

Population affected by chronic diseases nearly half of the American population (Perkins, 2012). Patients with chronic diseases in Indonesia was 2.6 times greater risk for mental emotional disorder, and suffering from two chronic disease risk 4.6 times, which suffered three or more chronic disease risk 11 times (Widagdo & Besral. 2013).

Emotional disturbance which occurred due to ineffective individual coping. Ineffective coping can lead to a state of helplessness.

According to ministry of health Indonesia (2010) If helplessness lasts for a long time period, it can lead to despair. One intervention that can be done is the intervention approaches by Neuman. It is Newman 'system model (NSM).

This model is very important in nursing practice, especially in relation to clients who experience disability due to the complexity of the client with the characteristics of an open system (Bourdeanu & Dee, 2013).

## **METHOD**

This systematic review was obtained from the literature published from 2005 to 2015, through a number of journals, research, and e-book. Journals were used in this study, such as: Journal of Public Health Medicine, and international journal. Journals had been collected using Elsevier database and Science Direct in the form of original research, and article research. The result of research which has been used were from Nurbani, and Parkins. In addition, the text book in e-book form, such as from Alligood, MR, Lawson's, TG, Mullally, et al, Wills, McEwen. The total amount of literature review is eight literatures, all of it are associated with the application of Betty Neuman nursing models on client with a chronic illness psychosocial problems, helplessness. The author analyses the implementation of the assessment and nursing interventions by using a nursing model approach from Betty Neuman.

The result from study of investigation and analysis are include assessments and nursing interventions which has been used in handling clients with a chronic illness psychosocial problems helplessness.

## **RESULTS**

### **1. Assessment**

According to Alligood (2014); Lawson, TG (2014); Meleis, IA (2012); Wills, McEwen (2011), an assessment of the system models in the form of client identification of stressors that can be assessed as follows:

- a. Intrapersonal, include: physiological, psychological, socio-cultural, spiritual.
- b. Interpersonal, include: having a family and friends, social interaction, support systems, and interpersonal relationships.
- c. Extra-personal, include: affordable health care facilities, communication facilities, transportation, financial, and shelter.

### **2. Nursing Interventions**

According to Alligood (2014); Lawson, TG (2014); Meleis, IA (2012); Wills, McEwen (2011), nursing interventions which offered from Betty Neumann's system model is a preventive measure they are:

- a. Primary prevention

Primary prevention focuses on improving the body's defences through the identification of risk factors that occur as a result of potential and actual specific stressor. Primary

prevention emphasis on strengthening the flexible lines of defences by preventing the stress and reduce the risk factors, such as through health education to clients and families both on a physical illness or responses psychosocial (powerlessness) so that the client does not fall in a state of despair / risk of suicide.

b. Secondary prevention

Secondary prevention focuses on strengthening the defence and internal resources through prioritization and treatment plans on the symptoms appear.

Prevention includes measures that started after there are symptoms of a stressor. Secondary prevention emphasis on strengthening the internal lines of resistance, reducing the reaction and increase resistance factors so that the basic structure through actions appropriate symptoms. The goal is to obtain optimal system stability and maintain energy. If the secondary prevention did not work and the reconstitution is not the case, then the basic structure cannot support the intervention system and interventions can lead to death. Interventions that have been done is through the provision of both generalist individual psychotherapy and family therapy specialists as well as individuals, families and groups, which can assist in addressing the psychosocial problems experienced.

c. Tertiary prevention

Tertiary prevention focuses on the process of adaptation. Principles of tertiary prevention is to provide strengthening the body's defence against stressors, conducted after the system dealt with secondary prevention strategies.

Tertiary prevention is focused on improving optimally the return of client stability system. The main objective is to strengthen the resistance to stressors to prevent reactions recur or regression, so that it can maintain the energy. Activities include providing motivation to clients and family, teach families to participate in the care of the client, provide discharge planning, provide follow-up plan of psychotherapy that has been done.

## **DISCUSSION**

According to Parkins (2012), a chronic disease is a burden for individuals and society. Such conditions pose a psychosocial response to the client, one of which is powerlessness. Powerlessness can be viewed in terms of pathophysiology (which typically clients suffering from chronic diseases), situational (health status changes, the needs of the dependent are not met, the fear of rejection, the restrictions from health / hospitals) and maturation (age of the clients who were treated generally are elderly). The powerlessness experienced by both the client and the caregiver are characterized by the expression of uncertainty about the fluctuations in the level of energy and passive. The uncertainty perceived as a form of feedback on the service provided. The services provided must be holistic which can be reflected through an open system that is around the client. Involvement of clients around the system is to provide support to the healing process of the client. Therefore, the system model of Betty Neuman can be used as one in the provision of nursing care to clients with chronic illnesses psychosocial problems helplessness.



Neuman Systems Model using a systems approach to illustrate how clients cope with stress (stressor) in their internal or external environment. Nurses who use Neuman in their service practice focused on the client's response to the pressure (Meleis, 2012).

Neuman systems model highlights that health and illness of a person as a holistic system and environment affect health. Clients with nurses making goals and identify appropriate preventive interventions. Individuals, families or other groups, communities or social networks is the client system is seen as a combination of the interaction of physiological, psychological, social, cultural, developmental, and spiritual variables (Alligood, 2014).

Betty Neuman describes the system as a conceptual model of Neuman Systems Model the unique, open, based on a broad perspective to unite all relationships (Alligood, 2014).

Neuman Systems Model is an approach that is open and dynamic system to a client that was developed to provide a unified focus on the definition of nursing problems and the best understanding of client interactions with the environment. The elements that exist in open systems experiencing energy exchange of information in complex organizations. Stress and reaction to stress is a basic component of open systems. Client as the system who can be regarded as individuals, families, groups, communities or social networks (Alligood, 2014). Neuman believes that the client is a reflection of a holistic and multidimensional so that Neuman categorize the client as a system that has five variables: physical, psychological, socio-culture and spiritual development (Fawcett, 2005).

Physiological variables describing the structure and function of the body. While the psychological variables describe the mental processes that interact with the environment. Meanwhile, socio-cultural variables describe the influence and effects of social and cultural conditions. Variables associated with the development of the age. While variable illustrate spiritual beliefs and their influence (Neuman 2011 in Alligood, 2014). Thus, these five variables into the base and in the implementation of the guidelines on the assessment of chronic illness clients with psychosocial problems powerlessness (Alligood, 2014).

In addition to explaining the study variables, the model Betty Neuman's theory also explains about the stages of intervention that should be done on the client with a chronic illness psychosocial problems powerlessness (Alligood, 2014). As for the intervention in question is an act that aims to help clients hold, achieve, or maintain system stability. Intervention began when the stressor is suspected or identified. Interventions based on the likelihood or factual from the reaction rate, resources, goals, and results of anticipation (Neuman 2011 in Alligood. 2014). Neuman identified three levels of intervention, namely primary, secondary, and tertiary. Neuman connects four basic concepts that consists of people, the environment, health and nursing in a statement regarding primary prevention, secondary and tertiary (Alligood, 2014).

The nurse helps clients differently depending on primary prevention, secondary or tertiary necessary. In situations of each client care nurses assess and intervene differently. Example if the stressor in the environment of the client does not damage the normal line of defence (primary prevention level), the nurse may review the risk factors and seek the possibility to teach or assist clients in accordance with their needs. If the stressor has penetrated the defensive line normal (level of secondary prevention), nurse might be acting to determine the nature of the disease process and start dealing with the response maladaptive. If the stressor resulting in symptoms of residual (the level of tertiary prevention), a nurse trying to limit or reduce the effects, using sources of rehabilitation. In

summary nurses or other health professionals using the Neuman's model actively as evaluators and providers of active intervention (Alligood, 2014).

## **CONCLUSION**

Model systems of Betty Neuman explained that the individual was seen as an open system which is defined as a person's health condition and it will affect the systems that exist around the client and the reciprocal relationship between the client and the system during the treatment process. Based on the information gathering, this model will affect according to the condition of the clients who suffer from chronic diseases to emerge in the form of psychosocial response of powerlessness. Where it is necessary to have the support of the system around the client, the family, the neighbours, and the last is the role of health workers during maintenance.

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# INTERNAL FACTORS ASSOCIATED WITH THE BEHAVIOR OF NURSECARING FOR PATIENTS WITH TERMINAL CONDITION

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## ABSTRACT

**Background:** Caring is a universal phenomenon related to a person's way of thinking, feeling and attitude when dealing with others. Caring nurse is given to the patient in a holistic context. For ICU nurses are often involved in the process of nursing interterminal patients, more easily tempted to not behave caring and holistic, it is due to disruption of the patient's verbal response in addition to the absence of the patient's family constantly on the patient's side. Holistic paradigm not only looking at the patient as a unity of body, mind and spirit, and puts the patient at the center of the nursing activity (doing) but also brings nurses to be part of the holistic care itself (doing and being). To become a holistic care, the first step is self-care. To perform self-care nurses need to understand internal factors that he had, to take steps to become better individuals.

**Aims:** To analyze/synthesize the empirical data relating to internal factors associated with caring behavior ICU nurses to patient terminal.

**Method:** This paper was presented applying a literature review approach. The articles used were taken from some databases such as CINAHL, PubMed, EBSCOhost, Proquest, Science Direct also in various journals of nursing such as Critical Care Nurse, JAN (Journal of Advanced Nursing), ICNN (Intensive and Critical Care Nursing), AJCC (American Journal of Critical Care), British Journal of Nursing. The authors analyze the internal factors associated with the behavior of nurse caring for patients with terminal condition.

**Result:** Of the 33 articles obtained by entering a keyword into the database/search engine, it was found that internal factors associated with ICU nurse caring behavior toward terminal patients are age, work experience, education and training, moral distress, cultural competence, emotional intelligence. Some recommendations are given to support the holistic care nurses were plenty.

**Conclusion:** It is important for a nurse who works in the order of intensive care to understand the pros and cons and then take a decision to fix the shortcomings and personal problems and maintain or maximize its advantages in order to be individuals as well as nurses are better for all people around him (patient, family, co-workers).

**Keywords:** internal factors, caring behavior, ICU nurse, patient terminal.

## INTRODUCTION

One of the effects caused by globalization and the opening of free market competition in the health sector is increasingly competitive. Even more, by the way society is increasingly

critical thinking along with the rapid development of information technology, requires health care institutions to provide high quality services in order to keep a place in the hearts of the public. When compared to other professions in the health sector, nurses occupy the greatest proportion, nurses stood at the forefront of the process of healing a patient, is the closest and had hours of interaction with the patient much longer. So the quality of nursing service greatly affects the quality of health care, and even become a determining factor for the image of health care institutions/hospitals (Roberti & Fitzpatrick, 2010).

The essence of nursing care is caring. Caring is a universal phenomenon related to a person's way of thinking, feeling and attitude when dealing with others. Caring in nursing learned from a variety of philosophical and ethical perspectives. Nursing theory based on the concept of caring also helped develop by some nursing experts including Jean Watson, Meyeroff, Marriner, and Tomey (Dwiyanti, 2010; Way 2009; Muchlisin & Ichsan, 2008).

According to Roch (2006) contains elements that caring compassion, competence, confidence, conscience and commitment, then Puri (in Chang & Daly, 2007) added three other important elements, namely courage, culture, and communication. The concept of caring and holistic nursing cannot be separated. While doing caring containing eight essential elements above, nurses do it in a holistic context, it is called holistic care.

For ICU nurses are in daily frequently involved in the care of terminal patients, it will be easier "tempted" to not perform holistic care by disrupting the ability of patients to respond verbally. Absence of family members for 24 hours at the patient's side can also be a trigger for nurses to not provide a planary. Patients easily be considered as a robot who depend on ventilators, monitors and other sophisticated equipment. The results of several studies show caring behavior ICU nurses still not up, although the results of this study cannot be generalized in all places (Alspach, 2009; Roberti & Fitzpatrick 2010; Wysong & Driver, 2009; Widar, Ana-Christina & Ahlstrom, 2007). This is very unfortunate because it was supposed to technological advances in the health sector does not undermine the role of the nurses as an instrument of healing and a facilitator in the healing process (Frisch, 2001; Barnard, 2001; Crocker & Timmons, 2008).

Holistic nursing paradigm not only looked at patients and their families as an integral dimension of body, mind, and spirit as well as putting the patient at the center of the nursing activity (doing) but the nurses become part of holistic nursing itself (doing and being). While doing the doing and being of nurses is influenced by many factors, both internal factors and external factors nurse (Oskouie, Rafii & Nikraves, 2006; Supriatin, 2009). Many nurses who harbored problems and felt strong enough to continue to carry the burden of his personal conduct their daily work stressful day, without realizing it affects the quality of nursing care that it provides. On the threshold he could not tolerate, nurses can experience burnout, fatigue, irritability, decreased performance and quality of nursing care he did with the patient under management (Peery, 2006).

So it can be said before the nurses do holistic care to patients he must first do a self-healing, he needs to take the time to explore the internal factors such as the shortcomings and advantages as well as issues unresolved. Then take steps to become a better individual for others and the environment. So as nurses are ready and able to demonstrate a planary caring behavior towards patients and families with a variety of conditions and background (Taylor, 2000).

## **METHOD**

Literature searches performed on search engines, electronic databases CINAHL, PubMed, EBSCOhost, Pro-quest, Science Direct also in various journals of nursing such as Critical Care Nurse, JAN (Journal of Advanced Nursing), ICNN (Intensive and Critical Care Nursing), AJCC (American Journal of Critical Care), British Journal of Nursing. Searches related research results is also made to the digital library database of nursing faculty/university and abroad by adding the word E-prints at the end of keywords to get the results of research (thesis /dissertation unpublished) in the form of full paper.

The inclusion criteria of the search that has been done is as follows: (1) Publications in English and Indonesia, (2) research or studies related to internal factors associated with caring nurse ICU patient terminal in the form of full paper with format PDF, doc., or html, (3) Year of publication between the years 2009-2012. After reading the abstract and apply the criteria for inclusion in the article search, finally found 33 that are relevant to the topic and meet the criteria.

## **DISCUSSION**

Factors included into the internal factors are age, work experience, education and training, cultural competence, distress moral and emotional intelligence.

### **1. Age**

Increasing age was associated with the maturity of a nurse in the act, make decisions and the ability to build relationships with others. Some studies also concluded that with increasing age also increases the responsibility of a nurse to work (Hansen, Goodell & DeHaven, 2009; Supriatin 2009; Oskuie, Rafii & Nikraves, 2006; Dunn, Otten & Stephen, 2005). But this fact cannot say absolutely, because other studies conducted with samples and different places conclude that there is no significant relationship between ages with a nurse caring behavior towards patients under her care (Izzudin, 2006).

### **2. Work Experience**

Work experience is very important for all professions, including nurses. Work experience is associated with increasing expertise of a person in doing his job. Research conducted with various designs research, concluded that there is a significant relationship between experience working with ICU nurses caring behavior towards patient terminal. A senior nurse with experience more jobs accompanied with age inferred to have caring behavior better than a nurse who just started a career as a nurse (Otten & Stephen, 2005; Izzudin 2006, Hansen, Goodell, DeHaven & Smith, 2009; Supriatin, 2009).

### **3. Education And Training**

Education is one way to gain knowledge. The higher the level of education a person it means to think with a more systematic and logical, and the ability to gain knowledge from various sources is also better than someone less educated (O'Connell, 2008, Hansen, Goodell, DeHaven, & Smith, 2009 & Supriatin, 2009). Higher educated nurses who have the ability to initiate and maintain a therapeutic communication with patients and their families (Watson, 2008). Research conducted within the scope of patient care terminal suggests the data that nurses are more educated, better able to explain the patient's condition to his family (Dunn, Otten & Stephen, 2005) Education does not only come from

formal education, but can be obtained from the training / courses. It is important for nurses in general and in particular ICU nurses to constantly equip themselves with through formal education or training is not only related to the use of sophisticated medical instruments just as ventilators, but also about holistic nursing, nursing palliative and others. Research into the impact of the training provided to nurses showed a positive relationship to the behavior of the nurses (Russel, 2000, Dunn, Otten& Stephen, 2005; Sutriyanti, 2009).

#### **4. Cultural Competence**

Nursing is a profession that is dynamic, constantly changing and adapting to the stimulus of various aspects. One is the development of science and technology and an increasingly multicultural society, demanding nurses to not only master the latest technology in the world of nursing but also demanded to have the cultural competence. Especially for ICU nurses are often involved in the care of terminal patients, often a family member wants to do a special ritual that is believed to be very important to do before the members of his family died. When nurses do not understand the cultural differences, then behave antipathy or a priori, the patient's family will interpret the gesture as uncaring behavior.

Flowe D. (2004), explains that there are five essential components of cultural competence itself, namely (1) cultural awareness, which is preceded by self-examination of the culture and background of nurses alone (2) cultural knowledge which includes the process to seek information about other cultures (3) cultural skill is the ability to use the knowledge / information held to provide nursing care to patients with a background of different cultures (4) cultural encounter is described as a process that brings nurses to continue to engage directly with patients from different cultures and the latter, (5) cultural desire is the motivation of nurses to be sensitive or sensitive to cultural differences around. From the above explanation can be concluded that a nurse needs to have sensitivities against its own culture and the culture of the people around him to appreciate different cultures and have adequate knowledge to implement it into the nursing process (Andrew & Boyle, 2008; Faribors & Fatemeh, 2010).

Several studies have concluded that there is a relationship between cultural competence by nurses caring behavior, the better the cultural competence of the nurses, the better the behavior of the nurses caring (Oskouie, Rafii & Nikravesh, 2006; Supriatin, 2009). The results of the experiments carried out in various health institutions also showed a positive effect of training / courses cultural competence and application of models of caring in nursing care to nurses caring behavior (Russell, 2000; Soldwisch & Lockhart, 2003 & Yanti, 2009).

#### **5. Moral Distress**

Moral distress can be interpreted as a dilemma or conflict experienced by a nurse when he learned of the ethical aspects of what he should do, but cannot do so because of his particular limitations (Elpern, Covert & Kleinpell, 2005). Moral distress is a serious problem in the nursing profession, especially for ICU nurses. Conflicts role/authority, conflicts between nurses and doctors, decision-making on terminal patients, and many other things that are known as the source of moral distress on a set of ICU care in providing care to terminal patients. Research that examines the relationship of moral distress on nurses caring behavior especially ICU nurses is still very limited, but from the few studies that have been done show that moral distress influence on the quality of nursing care nurse performed on patients. Data found also that some nurses feel guilty and blame themselves, feel helpless, constrained to behave caring, so

it does not show caring behavior that actually wants to be given to the patient. Further moral distress associated with disruption of the ability to foster effective communication to patients and their families. Nurses who experience moral distress can lead to refusal to treat a particular patient and keep a distance with the patient and his family. It can be interpreted by the patient or family as uncaring behavior (Elpern, Covert & Kleinpell, 2005).

## 6. Emotional Intelligence

According to the image in Erwin (2010) nurse is a profession that is humanity that is based on a sense of responsibility and devotion. In performing its duties of nurses required to always be ready to provide excellent service at any time in a pleasant situation or unpleasant. Sometimes the physical and psychological burden is very heavy, so it is necessary to manage emotions intelligently by nurses. Managing emotions is so that nurses can still run a good job thus contributed to increasing caring behavior on a patient. Research conducted Erwin (2010) and Revo (2007) showed a positive relationship between emotional intelligence and nurses caring behavior in general. A study of ICU physicians and nurses also showed a significant relationship between emotional intelligence and caring behavior towards patients with terminal (Hu-Ching Weng, Shu-Ching Chi and Han-Jung Chen, 2008).

## CONCLUSION

This article aims to identify the internal factors ICU nurses to patients in terminal state. It is important for a nurse who works in the order of intensive care to understand the pros and cons and then take a decision to fix the shortcomings and personal problems and maintain or maximize its advantages in order to be individuals as well nurses are better for all people around him (patient, family, co-workers).

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# SEVERITY OF ILLNESS PERCEPTIONS RELATIONSHIP WITH DRUG COMPLIANCE OF PATIENTS HYPERTENSION IN POLIKLINIK JANTUNG RUMAH SAKIT UMUM DAERAH DR. SAIFUL ANWAR MALANG

Ratna Roesardhyati

## ABSTRACT

Hypertension was the third leading killer in the world, causing one of every eight deaths worldwide. Medication adherence was one of the factors responsible for uncontrolled blood pressure, making it important for hypertensive patients to comply with the treatment given by health personnel. This study aimed to determine the relationship of perception of severity of disease with medication adherence in hypertensive patients in the cardiac clinic of Dr. Saiful Anwar Malang. This study used cross-sectional design. Samples were selected using purposive sampling technique with the inclusion exclusion criteria and obtained samples of some 83 people. Based on the results of testing the validity of using the Pearson Product Moment, medication adherence questionnaire and perceptions of disease severity was valid for  $r_{count} > r_{table}$ . Reliability test was done using Cronbach alpha on both the questionnaire also showed that the questionnaire declared reliable because the value obtained coefficients greater than 0.60. The results shows that the majority of hypertensive patients have a perception in the severe category (84.3%) and drug compliance in hypertensive patients are mostly located in the medium category (48.2%), as well as a significant relationship ( $p$  value 0.660) between perception of the severity of the disease with medication adherence in a positive direction indicating higher perception of severity, the higher drug adherence. So it is advisable for institutions to provide education to patients about the disease and hypertension screening for patients immediately knew he was suffering from hypertension and immediately seek treatment before the disease gets worse.

**Keywords:** perception of severity, drug compliance, hypertension

## INTRODUCTION

Hypertension prevalence tends to be high, in the world as well as in Indonesia. Hypertension is the third leading killer in the world, causing one of every eight deaths worldwide (World Health Organization, 2003). The prevalence of this disease reached 972 million people around the world (Kearney PM, et al, 2005). It is estimated that the prevalence will increase from 26.4% in 2000 to 29.2% in 2025 (American Heart Association, 2006). In Indonesia, Health Research Association (RISKESDAS) in 2010 showed the prevalence of hypertension in Indonesia amounted to 31.7%. Based on research at Hospital Dr. Saiful Anwar, it was found that hypertension was ranked first out of ten diseases outpatient. Hypertension cases in 2010 reached 4.48% of the total of 327 373 cases. These events increased in 2011 reached 9.95% of the total of 211 629 cases (Mifetika, 2011).

Uncontrolled hypertension can lead to various complications to some other organs, even cause heart disease, stroke, and kidney (MOH, 2007). The degree of hypertension is controlled in clients who undergo treatment are still around 30% (Chobanian et al., 2003). Nearly 70% of the complications of hypertension are stroke, making strokes become

predominant complication for people suffering from hypertension. Hypertension increases the risk of heart attack and increase the possibility of the severity of a heart attack. Renal damage and hypertension is a circle that is mutually reinforcing, if hypertension causes kidney damage, damage to the kidneys will cause the blood pressure to be higher (Craig Weber, M.D., 2008).

Adherence to medication is the biggest factor that is responsible for the control of blood pressure. It is estimated that the average span of antihypertensive medication adherence 50-70% (WHO, 2003). Each year, the non-compliance resulting in 125,000 deaths from cardiovascular disease (Office of US Inspector General, 2009). Based on data from the Health Research (Risksdas) 2007, amounting to 37.1% from 76.1% the incidence of hypertension in Indonesia were not taking the drugs. Hospital Dr. Saiful Anwar, 60.5% of patients do not take medicine regularly.

Clients who do not adhere to treatment can worsen the condition of the client. Because clients who do not comply have a worse prognosis than clients who adhere to treatment (WHO, 2003). Noncompliance increase the number of cardiovascular disease events, more expensive health care costs and worsen the quality of health (Flack et al., 1996; Hodgson and Cai., 2001; Handler, 2005). Most patients with hypertension do not take medication regularly and taking medication if necessary. This is very dangerous because it can further increase blood pressure before and can increase the risk of complications due to hypertension (Haynes et al., 2002; WHO, 2003).

Based on the results of the WHO study, medication adherence is influenced by several factors. These factors are classified into five dimensions. The fifth dimension is the dimension associated clients, socio-economic dimension, the dimension of the health system, the dimensions relating to the client's condition and dimensions therapy treatment given to clients (Heart and Stroke Foundation of Ontario and Registered Nurses' Association of Ontario, 2005).

One of the factors included in the dimensions of the conditions is that the client's perception of the severity of the disease. Based on the research results of the Department of Medicine and Therapeutics, Medical School, University of Aberdeen support that client perceptions affect poor adherence to therapeutic regimens. Noncompliance is also due to the perception that the client has a healthy body condition, free from the symptoms of high blood pressure. So that clients feel do not require treatment to control their blood pressure and lead to poor adherence to the treatment (Horne and Weinman, 2002; Jessop and Rutter, 2003; Ross et al., 2004). Based on preliminary studies researcher at the Hospital Dr. Saiful Anwar Malang, from 10 people with hypertension found 8 people with severe perception.

Based on these results appears the assumption that the client's perception linked to compliance. The study also supports the importance of the client's perception in predicting compliance. Client perceptions about hypertension and its complications are the factors that have a positive effect on compliance. Client perceptions about the severity of his illness raised concerns that the client will feel in need of treatment to control the disease and concerns about the complications of diseases related to increased compliance (WHO, 2003).

Researchers wanted to examine the relationship between the perception of the clients with the level of medication adherence in patients with hypertension, because it has never been done research in Indonesia and it is important for nurses to know the client's

perception of the severity of the disease so that the information can be used to determine the suitability of treatment target and get a solution to improving adherence in hypertensive patients.

## METHODE

This study was a descriptive analytic correlation with cross sectional approach. Measurement variable perception of disease severity and medication adherence done at one time or point time approach to the control of hypertension when the patient's heart Polyclinic Hospital Dr.Saiful Anwar Malang.

The study took place at the Polyclinic Hospital Heart Dr.Saiful Anwar Malang in May-June 2012. The study population was all patients with primary hypertension at the Polyclinic Hospital Heart Dr.Saiful Anwar Malang. Samples were taken by using purposive sampling and inclusion criteria were patients with hypertension without complication at least 3 months of routine control to Poli Heart RSSA Malang and have the ability to communicate in Indonesian. Based on the identification at the time the study was conducted on 115 potential respondents, a total of 32 potential respondents refused to participate in the study so that the sample obtained is 83 respondents.

The instrument used in this study is a structured interview guides. Previously, the questionnaire was tested for validity and reliability first. Validity and reliability tests conducted on January 9, 2012. Collecting data for validity and reliability test conducted using a sample of 25 patients with hypertension at the Heart Hospital Polyclinic Dr.Saiful Anwar Malang that share similar characteristics with the study population. Validity test is done by using the Pearson product moment correlation technique with a significance level of 5%. While the reliability test with Cronbach alpha formula. So the only item that is valid and reliable questions were used in this study.

To determine the relationship perception variable severity of the disease with medication adherence using Spearman correlation with SPSS 19 for windows. Confidence level used is 95%,  $\alpha = 0.05$ . So that a meaningful relationship when  $p \leq 0.05$ .

## RESULTS

Following will be presented the results of studies Severity of Illness Perception Relationship with Drinking Drug Compliance in Patients with Hypertension in Clinic Heart Hospital Dr.Saiful Anwar Malang.

### 1. Characteristics of Respondents by Gender

**Table 1. Frequency Distribution of Respondents Hypertension by Sex**

No	Gender	Frequency	%
1.	Man	42	50.6
2.	Woman	41	49.4

Table 1 above shows that the gender of male respondents (50.6%) and women (49.4%) impartial.

## 2. Characteristics of Respondents by Blood Pressure

**Tabel 2. Frequency Distribution of Respondents Hypertension by Blood Plessure**

No	Blood Plessure	Frequency	%
1.	Sistole 140-159 mmHg, diastole 90-99 mmHg	76	91.6
2.	Sistole $\geq$ 160 mmHg, diastole $\geq$ 100 mmHg	7	8.4

Based on Table 2 it can be seen that most respondents (91.6%) had blood pressure of 140-159 mmHg systole, diastole of 90-99 mmHg, and the rest (8.4%) had a systolic blood pressure  $\geq$  160 mmHg, diastolic  $\geq$  100 mmHg.

## 3. Perception of Disease Severity of Hypertension

The following will describe the distribution of respondents by the perception of the severity of hypertension.

**Tabel 3. Distribution of respondents by Perception of Disease Severity of Hypertension**

No	Perception	Frequency	%
1.	Not too severe	0	0
2.	Not severe	13	15.7%
3.	Severe	70	84.3%
4.	Very severe	0	0

Table 3 above shows that most respondents have a perception of disease severity of hypertension in severe perceptual category (84.3%). While no respondents who have a perception of disease severity in the category of very severe and very severe.

## 4. Drinking Drug Compliance in Patients with Hypertension

The following will describe the distribution of respondents by medication adherence in hypertensive patients

**Tabel 4. Distribution of respondents by Drinking Drug Compliance in Patients with Hypertension**

No	Drinking Drug Compliance	Frequency	%
1.	Low	12	14.5
2.	Medium	40	48.2
3.	High	31	37.3

Based on Table 3 above it can be seen that most respondents have medication adherence at a moderate level (48.2%). While the least proportion is that having medication adherence at a lower rate (14.5%).

## **DISCUSSION**

### **1. Perception of Disease Severity of Hypertension**

Results of research on the perception of the severity of hypertension at the Heart Hospital Polyclinic Dr. Saiful Anwar obtained data is that 84.3% of patients with hypertension have severe perception. Respondents perceive the severity of hypertension based on clinical symptoms of hypertension, a risk factor for hypertension, blood pressure classification and complications of hypertension.

Based on the research conducted, the average respondent's perception of the clinical symptoms of hypertension had a score of 2.90, which is included in the severe category. Respondents were starting to get worried when emerging clinical symptoms, such as dizziness and others. According Tambayong (2000) clinical symptoms arise when hypertension entered the stage that were related to the rise in blood pressure. So patients should always be vigilant with clinical symptoms that arise so that immediate action can be done with appropriate treatment.

Based on the research conducted, the average perception of respondents to the classification of blood pressure has a score of 2.82, which is included in the severe category. Respondents who visited the clinic of the heart, most had blood pressure in hypertensive degree 1 in the classification by JNC 7 (The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure) is the systole blood pressure 140-159 mmHg and 90-99 mmHg diastolic. JNC 7 recommends that everyone with hypertension grade 1 and 2 to get treatment. The purpose of this treatment is that patients with hypertension can achieve blood pressure <140/90.

Based on the research conducted, the average respondent's perception of complications of hypertension had a score of 2.73, which is included in the severe category. Most respondents said that severe complications if respondents believe that hypertension is a serious disease and in the future of respondents likely to suffer serious complications include heart complications, kidney and so forth. According Susalit (2001) High blood pressure is a dangerous condition. If not properly managed, high blood pressure can eventually cause the heart to work too hard so that suffered serious damage. High blood pressure which generally increase the risk of congestive heart disease, stroke, vision impairment, and kidney disease. Untreated hypertension will affect every organ system and ultimately shorten the life expectancy of 10-20 years.

Based on the research conducted, the average respondent's perception of the risk factors of hypertension had a score of 3:26, which is included in the severe category. Most respondents stated that hypertension can be a serious disease if it can not properly control the risk factors. Most respondents perceived that the condition of obesity, stress and smoking can aggravate the disease. Respondents felt in unhealthy conditions because of unstable blood pressure when not doing physical activity regularly. Most respondents also felt that the disease can get worse due to hereditary factors. Respondents perceived that the older a person, the higher the blood pressure.

According Tambayong (2000) hypertensive patients also need to control the risk factors which raise blood pressure gradually. The more risk factors a person has, the severity of the disease is increasing. Several modifiable risk factor is genetics, race, age, and gender. While modifiable risk factors include obesity, smoking, physical activity, intake of salt and sodium, as well as stress.

## **2. Drinking Drug Compliance in Patients with Hypertension**

Results of research on medication adherence in hypertensive patients at the Heart Hospital Polyclinic Dr. Saiful Anwar obtained the data that medication adherence in the category of medium and high categories impartial. Most respondents in this study, said the moderate category for the adherence to take his medication, respondents never forget when he is traveling far did not bring a cure. Respondents were also said to be in compliance if unbeknownst to doctors reduce treatment on their own initiative when they feel his condition worse by taking the drug. So that the respondents did not take the medicine according to the schedule given by the doctor.

Most respondents said the high compliance because the respondents taking his medication regularly, never forget to take the medicine and take the medicine according to doctor's prescription. In addition, respondents adherence even when traveling away still carrying medicine and does not reduce the medication although feeling condition deteriorated after drinking. Respondents who felt his blood pressure has been controlled or down does not stop treatment also included respondents in the high compliance. Respondents also said to be in a high compliance because he felt that the treatment of hypertension obtained is not complicated and does not have trouble remembering the whole anti-hypertensive medication should be consumed.

## **3. Severity of Illness Perception relationship with Drinking Drug Compliance in Patients with Hypertension**

Based on the research that has been conducted, respondents with severe perceptual had medication adherence in the medium category. From the results of Spearman correlation test for the variable perception of the severity of illness with medication adherence are the significant value of 0.000 ( $p < 0.05$ ) and obtained correlation coefficient of 0.660, which means that there is a strong relationship between the perception of the severity of the disease with medication adherence in hypertensive patients. Respondents in this study perceived that hypertension is a severe illness, so that respondents feel that he must immediately take action treatment. It is encouraging patients to adhere to treatment that has been given to him by medical personnel.

Someone who has a severe perception of the disease of hypertension should adhere to treatment. This is according to research conducted by Kimberly M. Thalacker in Hmong in 2011 that if someone has a bad perception of the hypertension, so someone would be more likely to change their lifestyle for the better and follow the treatment recommended by health professionals. Lifestyle be changed include quitting smoking, reduce stress, increase physical activity, reduce excess weight and reducing sodium and animal fat in the diet has been recognized by health workers program. According to WHO (2003) perception of the severity of the disease has a strong association with medication adherence. Of the several factors that affect compliance, Meichenbaum and Turk suggests that the perception of severity is one of the factors that contribute to medication adherence. Medication adherence increased when the patient's perception of the disease getting worse. Patients who had more experience symptoms will have a higher severity, because these patients feel the risk of complications is higher.

## CONCLUSION

Based on the research that has been done, it can be concluded as follows:

1. Hypertensive patients have a perception of disease severity of the clinical symptoms, classification of blood pressure, the risk factors and complications of hypertension of 84.3% in the severe category.
2. Patients with hypertension have severe perception based on clinical symptoms. It is appropriate that patients always vigilant with clinical symptoms that arise so that immediate action can be done with appropriate treatment.
3. Patients with hypertension have severe perception is based on the classification of blood pressure. Most patients have blood pressure in hypertensive degree 1 in the classification of JNC VII. Where klasifikasi require medication to control his blood pressure.
4. Patients with hypertension have severe perception based blood pressure complications. This is appropriate because hypertension is a dangerous condition and if not managed properly hypertension will experience complications.
5. Compliance with taking medication for 48.2% of hypertensive patients in the medium category.
6. At the 95% confidence interval obtained a significant correlation ( $p$  value = 0.660) between the perception of the severity of the disease with medication adherence in hypertensive patients and those relationships have a positive direction which shows that the more severe the perceptions of the higher medication adherence.
7. Based on the findings that a significant relationship between the perception of the severity of the disease with medication adherence in accordance with the theory and research (Thalacker, 2011) that has been done. If someone has a bad perception of the hypertension, so someone will mengubah lifestyle for the better and follow the treatment recommended by health professionals.

## SUGGESTIONS

1. Saw the connection between the relationship of perception severity of the disease with medication adherence in hypertensive patients, it is expected that nurses can provide education to patients with hypertension so that patients understand the disease of hypertension and the screening examination that hypertensive patients soon learned he was suffering from hypertension and immediately seek treatment before the disease gets worse ,
2. For caregivers provide insight to the importance of hypertensive patients adhere to the treatment plan in order to improve medication adherence in accordance with a predetermined treatment.
3. For further research is expected to conduct further research using more appropriate study design, the cohort is more emphasis on time period approach, so that the dynamics of perception of disease severity and medication adherence in different time periods can be known.

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# **DEVELOPMENT INTERNET-BASED EDUCATION TO IMPROVE POSTPARTUM DEPRESSION AWARENESS IN INDONESIA (POSTER PRESENTATION)**

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## **ABSTRACT**

Depression is a psychological health problems in postpartum mothers that get less attention. Lack of information about postpartum depression be one of the main causes of this problem is not get much attention. The adaptation process of the new role as a mother bring the consequences of psychological adaptation to a mother after childbirth. This psychological adaptation process is poorly understood and taken seriously by the public. Inability of adaptation in this period bring the mother to a new problem called postpartum depression. Postpartum depression led mothers to serious problems. Postpartum depression will improve maternal and infant morbidity due to disruption in the relationship between mother and baby. The high rate of postpartum depression in mothers is also supported by research done on the first day postpartum at the Chaim Sheba Medical Center in Israel, showed 40.4% of 89 mothers experiencing postpartum depression. In Indonesia postpartum depression also has a high prevalence in community. Study conducted on 90 mothers in the postpartum hospital X in Medan get result that 43.3% of respondents experiencing postpartum depression. One of risk factors that contribute to high incidence of postpartum depression is low mother and public awareness. Lack public education about postpartum problems and less health workers attention to the psychological condition of postpartum bring bad impact on the prevention of postpartum depression. The community will be realized this problem after going on to more serious problems such as postpartum psychosis. Advances in technology provide an opportunity to increase public education on postpartum depression. The advances in information technology be an opportunity to increase public knowledge about postpartum depression. Development of Internet networks, especially the increase in android usage facilitate internet access for the whole community. Internet-based rated as an effective educational media to improve public awareness about postpartum depression. The method used to create the design of this educational media be formed in six stages starting from concept, design, collecting of material, producing, testing and distribution. This educational media produced using Microsoft Power Point 2013, Camtasia Studio 8.6 and published in personal weblog and video uploader.

**Keywords:** Postpartum Depression, Awareness, Internet-Based

## **INTRODUCTION**

Depression is a psychological health problems in postpartum mothers isn't too much get attention. Only small amount people in community realize that postpartum depression can become a psychological disorder that occur in postpartum mothers. Lack of information exposure about postpartum depression be one of the main causes of this problem is not get attention. The adaptation process of the new role as a parent bring the psychological

adaptation as consequences of a mother after childbirth. This psychological adaptation process is poorly understood and taken seriously by the public (de Camps Meschino, Philipp, Israel, & Vigod, 2015).

Adaptation process during the transition period is a vulnerable period for parents, especially mothers. The transitional period being a parent is a complex psychological process of development. Birth causes changes in personal and changes family patterns. Changes in lifestyle, sleep patterns, recreation, patterns of family relations and identity become characteristic of the transitional period. Both parents must be able to adjust both in terms of identity, change the family structure and the ability to take care children. Inability to adaptation in this period will lead to a new problem called postpartum depression (Epifanio, Genna, De Luca, Roccella, & La Grutta, 2015).

Postpartum depression led to serious impact. The inability to care newborn led problems in maternal and infant bonding. Problems in the process of breastfeeding is the unavoidable impact of postpartum depression. Postpartum depression will improve maternal and infant morbidity due to disruption in the relationship between mother and baby. Various problems in this transitional period and the impact of postpartum depression makes it one of the serious psychological problems faced by new parents, especially the mother (Epifanio et al., 2015).

Postpartum depression has a high prevalence in the community. Results of research conducted Epifanio et al (2015) showed 75 primiparas in Palermo and Trapani Italy, 20.8% of mothers experience postpartum depression within the first month of birth. The high rate of postpartum depression in mothers is also supported by research done on the first day postpartum at the Chaim Sheba Medical Center in Israel, showed 40.4% of 89 mothers experience postpartum anxiety (Shlomi Polachek, Huller Harari, Baum, & R, 2014). While in Indonesia, the research conducted in 90 maternal postpartum hospital X Terrain 43.3% of respondents experiencing postpartum depression (Basri, Zulkifli, & Abdullah, 2014). Some those results have shown high rates of postpartum depression in the community.

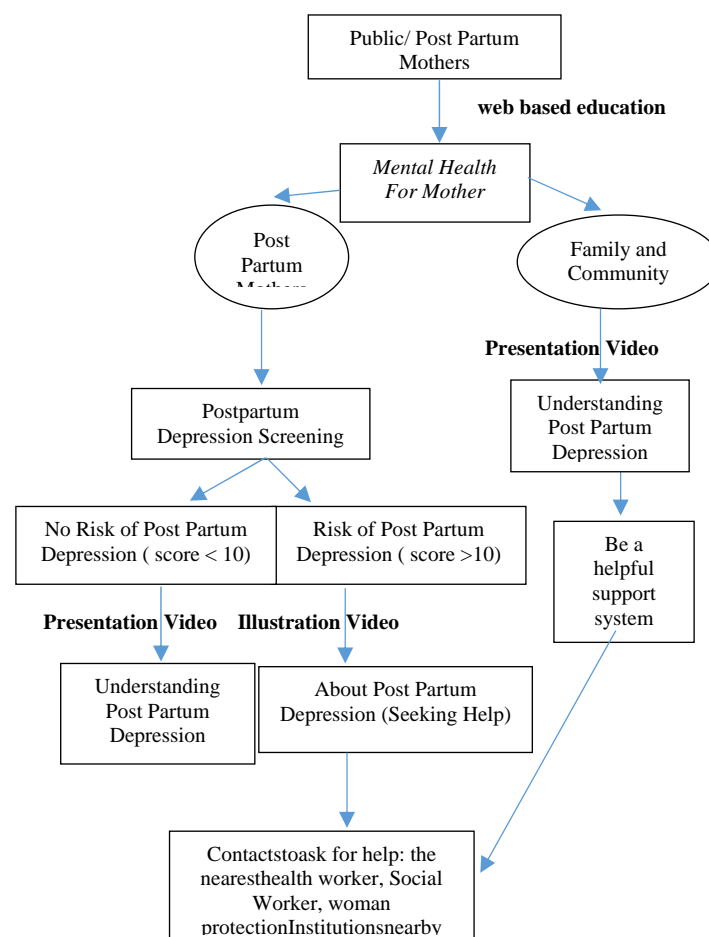
The high incidence of postpartum depression one of caused by low public awareness. Lack public education about postpartum psychological problems and poor attention of health workers to the psychological condition of postpartum bring bad impact on the prevention of postpartum depression. People will be realized after going on to more serious problems such as postpartum psychosis (Buttner, Brock, O'Hara, & Stuart, 2015).

Development in technology nowadays is potential to educate people in large area if used properly. The development of computer, Internet and the widespread use of social media bring opportunities to more easily and widely in in empowering community to care postpartum depression. The advantages to using the internet media such as web is it can be accessed anywhere and by a wider target. Web based is also considered to be very interactive as it can be inserted video as illustration or media outreach for the community (Wisner, Logsdon, & Shanahan, 2008). Many web-based interventions have been designed and documented has been shown to be effective in treating a variety of mental problems including depression, anxiety, and stress. The study of literature that people with mental disorders have greatly benefited from Web-based intervention and that intervention is a Web-based simple service with a wide coverage. More recently, two studies found support for the feasibility and usefulness of web-based interventions in addressing PPD (Haga, Drozd, Brendryen, & Slinning, 2013)

Web-based intervention has been found to be successful in reaching women of low socioeconomic status, which generally is a group that the success rate is low. Also according to the results of the study of literature young women (example, women in childbearing age) are the people who use the Internet most often when seeking health-related information (Haga et al., 2013). A Web-based intervention was considered potentially preventing progressively depressive symptoms and reach a lot of people who suffer but do not dare to seek help, and be preferred because it provides health services home-based therapy.

## METHODS

The media education design made used multimedia product design that developed by Luther (1994). This method done in six stages start from Concept , Design, Materials Collection, Manufacture, Testing and distribution. All of the making process follow this chart (blueprint design).



**Chart 1. Blueprint Educational Media Design**

1. Concept

The concept of educational media in that case Web-based educational media, with WordPress as a hosting. The contents of educational media combines presentations video made from the power point and illustrations video will be created using Camtasia version 8.

2. Design (design)

Design on education media is focused on introduction to public about postpartum depression such as definition, causes, symptoms and treatment. All of them will package as illustrations video about postpartum depression and what must they (public) do about it.

3. Material Collecting

The collection of materials to form this educational media about postpartum depression take from maternal and mental textbook that adapted in order to more easier for public knowledge such as signs and symptoms of postpartum depression, illustration photos from google image, videos about postpartum depression that build from picture and video and music as background sound

4. Assembly

This media education created using Microsoft Power Point 2013 and Camtasia Studio 8.6 to build presentation and illustration video and Wordpress to build the website as a hosting.

5. Testing

The testing phase is done after all the product is finished, it can be tested using multiple media to run this media such as Windows Media Player, GOM Player, VLC Media Player or K-Lite Mega Codec compatible with the result of presentation and illustration video product are MP4 as output type. The testing of the website use search engine as google, bing, yahoo to check visibility that website index by search engine so public will easier to access this website.

6. Distribution

After all the educational media making is complete it is ready to be distributed through the media that many widely known example youtube which will then be inserted into wordpress. And social media as facebook, instagram and tweeter can use to promote that website so public will know about this faster.

## RESULT

The result of the educational media is shaped as mp4 video consisting of a video presentation that was formed in 2013 from the power point and video illustrations were created using Camtasia 8.6. Making this media through several stages from the first is make a presentation using PowerPoint 2013 to introducing postpartum depression. Presentation video made with adding animation effects to make the transition effects, background and a catchy theme also accompanied by illustrative images that lead the reader understand about postpartum depression easily.



**Picture 1. process of making presentation video using Power Point 2013**

Presentation video arranged in order the animation and SmartArt can run linear at same time to lead a comprehensive explanation for community. The animation arranged attractive but not excessively so this presentation video gets more interesting.



**Picture 2. animation settings on the Power Point slides**

After the whole process of making power point is finished. Power point will be saved in mp4 format so it will be more interactive with the public.



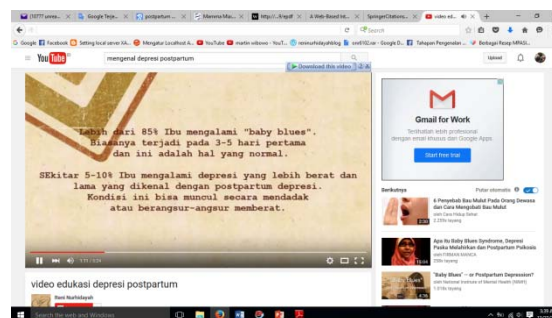
**Picture 3. Power Point that has become form mp4**

The next step is making a illustration video of postpartum depression by using Camtasia. This videos made by using images and text that arranged in such way to create a story. Not only picturebut also a part of videoalso included in the process of making this educational video. That video, written text as subtitle so all of Indonesian can understand the contents of the overall illustrations video. After the making process complete this video will produce into mp4 format.



**Gb.4 Videos that have been stored in the form mp4**

All making process done, the next step is distribute educational media through internet in YouTube and inserted in WordPress. The end product of educational media successfully uploaded via YouTube with addresses that can be visited: <https://www.youtube.com/watch?v=8BLOzSXx9jE> for illustrations video.



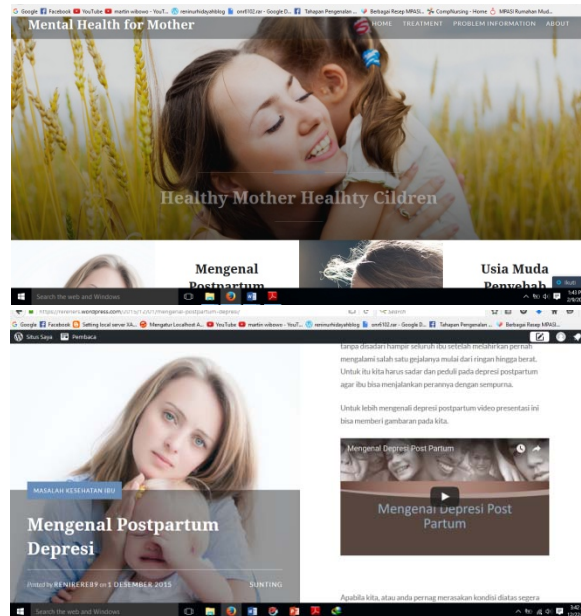
**Picture 7. distribution process of the final product learning project through YouTube**

For presentation video can be accessed direct in Youtube on <https://www.youtube.com/watch?v=Ak0TtvR3IkW>.



**Picture 8. distribution process of the final product learning project through YouTube**

After the product has been successfully uploaded, then all video inserted to wordpres as a hosting, to be more accessible to everyone.



Picture 9 Website display

## DISCUSSION

The main problem that causes postpartum depression is coping abilities and support system. It is important to educate mothers about how to manage roles or parenting stress. Not only about adaptation but also education about the institution or access that they can use to assist them in dealing with problems also important to be informed. With a proper education in the mother, when they face problems and feel no longer able to adapt to the problem, they know where the nearest place they can go to seek a help or where they can cool down their stress (Carlbring et al., 2013).

Internet-based one of interactive education media that allows two-way communication. This education media allow readers to provide feedback on the information obtained. Internet-based also considered as a home-based intervention that's because the reader does not need to pay such to health care centers. Internet-based interventions are also has high visibility to access than conventional, it is more spacious and allow the worldwide reach. Internet based regarded as a potential intervention to improve public knowledge (Haga et al., 2013).

Study that conduct in University of Troms (2011) give result that Internet-based self-help can be useful for early intervention among people experiencing elevated depressive symptoms. The present trial demonstrated that an unguided intervention can be effective in reducing depressive symptoms. The Internet-based intervention has the potential of reaching a target group with an unmet need for help. That result give us evidence that internet based education potential to prevent postpartum depression (Lintvedt, Griffiths, Wang, Eisemann, & Waterloo, 2013).

Internet-based or web-based learning media that combines video is expected to provide more stimulus to the reader. Video allows receiving better message for the reader than only article that writing on a blog (Wisner et al., 2008).

## CONCLUSSION

In literature review internet based education is potential to prevent postpartum depression. That internet based education developed to improve community awareness about postpartum depression in Indonesia because not much research was developed to resolve postpartum depression in Indonesia.

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# RELATIONS BETWEEN WORKLOAD AND WORK ENVIRONMENT WITH WORK STRESS AT NURSE EMERGENCY

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## ABSTRACT

**Introduction:** In the era of globalization, the development of rapidly evolving technologies, including technologies in the health sector. More complex disease, and hospitals are required to provide services properly and maximum. Nurses are required to maintain the quality and professionalism in providing services to patients. Nurses, especially nurse Emergency Room (ER) in their profession are particularly vulnerable to stress. Work stress associated with working conditions and physical health nurses. Hospital management should pay attention to work stress experienced by nurses. It is intended to maintain the quality of hospital care in order not to decrease.

**Aim:** To determine the relationship between workload and working conditions of nurses with work stress in nurses in the ER.

**Method:** This paper was presented applying a literature review approach. The articles used was taken from some databases such as Ebsco Host, Pub Med, Google Scholar, and Science Direct.

**Results:** The workload of nurses include: the face of a patient who is difficult directed, much in demand, it is difficult to be notified, the condition of total care, rowdy restless, doctors are difficult to contact, advice is not consistent, the number of nurses is still lacking, slow in solving problems, drugs run out, no rest time, the risk of disease transmission, self-protection facility for nurses is still lacking, gets complaints from relatives of patients, lack of services in accordance with the workload. Working conditions associated with higher levels of light and color combinations in the workspace, the circumstances in the study relate to the voices from outside the workplace, the air temperature in the work space and air circulation. Work stress can be subjective to each nurse, it is influenced by several factors, including: age, sex, duration of work, the last education, economic problems and innate personality characteristics.

**Discussion:** Job stress is influenced by the amount of workload to do too much, for that workload should be adapted to the capabilities of the nurses. High job stress will affect the performance of nurse, for it is important for the management to pay attention to the stress levels of nurses. Conditions conducive working environment in providing nursing care will affect occupational stress faced by nurses when performing nursing actions. With the number of workloads in accordance supported by a conducive work environment, the work stress will be lower.

**Keywords:** Workload, working conditions, work stress

## **INTRODUCTION**

In the era of globalization, the development of rapidly was evolving technologies, including technologies in the health sector. Diseases faced becoming increasingly complex, and hospitals are required to provide services properly and maximum. Hospital with medical personnel who are expected to serve the community with professional and qualified (Suryaningrum, 2015). According to Law No. 23 1992 nurses are those who have the ability and authority nursing action based on his knowledge gained through education and nursing. Nurse is a worker who is always there in every hospital that is responsible for the health of the patient. Nurses at the hospital have a duty in inpatient, outpatient or clinic, and emergency services.

Nurses, especially nurse Emergency Room (ER) in their profession is very prone to stress.. The condition is triggered because of the demands of the organization and its interaction with the job that often bring conflict over what to do. Stress is an excessive workload, hard feelings and emotional tension that inhibits individual performance (Robbins, 2004). Work stress associated with working conditions and physical health nurses (Gelsema et al., 2006). Stress can be caused by a variety of things, including that of the main tasks of nurses and responsibility, a heavy workload, the type of leadership, low job satisfaction, work experience or less), and low social support (Clegg et al., 2001; Gray, Toft, & Anderson, 1998; Gelsema et al., 2006; Sadovich, 2005).

Working conditions can also cause the appearance of job stress. Conditions conducive environment should support and in order to create a comfortable working atmosphere. Condition of the room was hot. Noise pretty hectic besides the room of the patient's family also of medical equipment such as machine monitor, suction machine and sound telephone often rang for their consul to the attending physician of the inpatient room. The absence of a special officer of administration to input billing the use of medical devices and actions, many forms documents, especially patients with health insurance, nursing care documentation is still narrative, locations diagnostic support pretty far are a few things that made into the extra workload of nursing services is not direct (Ridwanudin, 2012).

Hospital management should pay attention to work stress experienced by nurses. It is intended to maintain the quality of hospital care in order not to decrease. From the above problems, there should be research that identifies the relationship between workload and working conditions of nurses and nurses working in ER stress.

## **METHOD**

The method of this paper is literature review. Writer try to search some paper which talked about Relations Between Workload And Work Environment With Work Stress At Nurse Emergency. This paper took from many literature such as PubMed, Science Direct, Ebsco Host, and Google Scholar. After that, the author analyze it to find the factorswhich could influence for reducing the stigma.

## **DEFINITION**

### **1. Workload**

The workload of the work that was done by someone. Workload depends on how the person handling it. If someone who works with the state of disgruntled and unpleasant, your job will be a burden for him (Suryaningrum, 2015). Schultz and Schultz (2006) states the workload is too much work in the time available, or does the work that is too difficult for employees. According Manuaba (in Ambarwati, 2014), the workload of the body's ability to accept the job. Work capacity must be matched with the number of nurses available. From the opinions expressed by the experts can be concluded that the workload is the task or job to be done by nurses both in quality and quantity.

### **2. Workload measurement**

Indicators of high and low workload using the concept of Spector and Jex (in Kumalasari, 2014) which includes two aspects, namely the amount of work and speed. The amount of the excess workload and the workload is too little a plant stress. Nurses must work with the amount of load that varies depending on the type of ward. Speed in doing work related to the time available. Nurses in demand to work quickly and swiftly in serving patients, such as patients who are critically handle. The faster the work to be done, the higher the level of work stress.

### **3. Environmental conditions**

Working Conditions working environment includes the physical and social environment as the relationship with co-workers, superiors and subordinates relationship and a sense of security for the worker himself while doing the work (Anoraga, 2011). Physical environmental conditions can be too hot, too cold, overcrowding, lack of light and the like. The rooms were too hot was cause someone discomfort in the work, as well as the rooms were too cold. The heat not only in terms of air temperature but also the circulation or air currents. In addition, noise may also contribute in no small part the emergence of job stress, because some people are very sensitive to noise. As mentioned above, the work environment has the potential to work as a stressor. According to Selye (in Bakri, 2014) are all conditions of work stressors perceived job demands and employee as a job can be stressful. The same stressor can be perceived differently, which can be a positive event and harmless, or becoming dangerous and threatening events.

### **4. Work Stress**

Job stress is a thing that has been a part of human life and can be experienced by anyone. Stress usually perceived as something bad or negative when it is not. Depending on how individuals respond or responds to stressors in the face it. Stressors are causes that can lead to stress (Ambarwati, 2014). Robbins (2006) defines stress as a dynamic condition in which individuals face the opportunities, constraints, or claims related to what is really wanted and that the results are perceived as uncertain but it is important.

Nasir and Muhith (2011) which states that stress is a certain reaction that appears in the body that can be caused by a wide range of demands, for example, when human beings are facing challenges is important, when faced with the threat (threat), or when I have tried to deal expectations were unrealistic from the environment. However stressful for one person

may not necessarily be stressful for others because each individual has a different perception of the things which he considers become an obstacle or threat.

## **5. Work stress (Job Stress) indicators**

According to Robbins (2006) stress appears in some way. For example, individuals who experience high levels of stress can suffer from high blood pressure, upset stomach, difficulty making routine decisions, loss of appetite, prone to accidents, and others. All of this divided into three general categories into which the symptoms of physiological, psychological, and behavioral.

- **Physiological symptoms**  
Physiological symptoms include changes in metabolism, increased heart rate and breathing, increased blood pressure, cause headaches, and cause heart attacks.
- **Psychological symptoms**  
Psychological symptoms include tension, anxiety, irritability, boredom, and a procrastinator
- **Behavioral symptoms**  
The symptoms associated with behavior include changes in productivity, absenteeism, and the level of incoming and outgoing employees, as well as changes in eating habits, smoking and alcohol consumption increased, rapid speech, anxiety and sleep disorders.

## **6. Causes of work stress**

Robbins (2006) points out, there are three categories of potential stressors, namely:

- **Environmental Factors**  
As well as environmental uncertainty affects the planning of the organizational structure, uncertainty also affects the stress levels among employees in the organization.
- **Organizational Factors**  
There are so many factors in the organization that can lead to stress, among others, the demands of the task, role demands, the demands of interpersonal, organizational structure, organizational leadership.
- **Individual Factor**  
Individual factors include factors in the personal lives of employees. Especially regarding family issues, personal economics problems, and the innate personality characteristics.

## **7. Types of stress**

There are two types of stress, namely distress and eustress. Stress involves physiological changes which may be experienced as feeling good or bad (Nasir and Muhith, 2011):

- **Eustress (good stress) is something positive.**  
Stress is said to be good if someone tries to meet the demands for making another person or himself to get something good and worthwhile.
- **Distress (bad stress) or negative.**  
Distress resulting from a process to make sense of something bad, where the response has always remained negative and no indication of the integrity of self so that the bias is perceived as a threat. Work stress required to form individuals improve their performance, but should be aware when stress levels reach the point of optimal or

moderate levels of stress, because stress will rise to distress and can interfere with the performance.

## **DISCUSSION**

### **1. Workload**

Research conducted by Ratri and Parmitasari (2013), entitled Coping stress on the workload of nurses Psychiatric Intensive Care Unit rooms (UPIP) and Kresna room in RSJD dr. Amino Gondohutomo Semarang, indicating that the workload of nurses in the room UPIP among others when faced with situations such as: the face of a patient who is difficult directed, much in demand, it is difficult to be notified, the condition of total care, rowdy restless, suicide, doctors are difficult to contact, advice sometimes inconsistent or, poor coordination, the number of nurses is still lacking, solving problems that slow, when drug supplies run out and have to buy him out, experience the events unexpected from the patient, often no time for the rest, control patients were intensive, patients critical and not attended by his family, when a female nurse shift with a female nurse and treat patients raging, the risk of disease transmission from the patient, the facility of selfprotection for nurses is still lacking, gets complaints of the patient's family, wants to be rotated into the other room, less services in accordance with the workload.

The difference with the study conducted by researchers today is the location of a previous study conducted in UPIP moderating variable coping with stress while in the present study carried out in the ER with work stress dependent variable. The hospital used as a place of research is also different.

### **2. Working Environment Condition**

Based on the results of research conducted Noordiansah (2013) with the title of the work environment influence to stress nurses Muhammadiyah Hospital Jombang, obtained the data that the work environment variables showed that most respondents had felt that the working conditions in the Hospital MuhammadiyahJombang outline is good enough. Light levels and color combinations in the study is right, the situation in the working space is not disturbed noises from outside the workplace, the air temperature is already comfortable working space and air circulation is very smooth. It's all because employees generally require a comfortable working space and also the sounds of noisy can be reduced to support what is being done so as to produce good work. The difference with the study conducted by researchers in previous studies now was no variable workloads experienced by nurses in providing nursing care.

### **3. Work Stress**

Identification result of work stress experienced by nurses in the ER according to the study site based on the results of surveys and questionnaires conducted by researchers. Work stress can be subjective to each nurse, it is influenced by several factors, including: age, sex, duration of work, the last education, economic problems in the family and innate personality characteristics.

#### **4. Relationship Workload with Work Stress**

Research conducted by Ambarwati (2014) entitled Effect of Job Stress Workload against the Social Support as Moderating Variable in 2014, showed that the workload significantly and negatively related to job stress of nurses and variable increment the absolute value of social support workloads with a significant negative effect, which means social support may moderate the effect of workload on nurses job stress. In this case what distinguishes the research that will be conducted by researchers is the social support as a moderating variable, while that will be studied were additional independent variables namely working conditions. Social support is one that can affect job stress, which distinguishes the work environment is social support is a social environment, whereas the researchers referred to more emphasis on overall environmental conditions, namely the physical environment and the social environment.

#### **5. Environmental Conditions**

Working relationship with work stress Supardi (2007), conducted research entitled Work Stress Analysis on Conditions and Workload Nurse in Patient Classification in patient wards Rumkit TK II PutriHijauKedam I/ BB Medan, shows that there is a relationship meaningful personality type, working conditions and work load to the stress of work and working conditions of the regression coefficients showed the greatest contribution to the occurrence of work stress later personality type and workload. Research above has a variable that is similar to studies conducted by the researchers, the difference is in the analysis of previous studies describing whereas in a study conducted by researchers explain the relationship between the two variables. The research location is also different area of research that included a specialization in the previous study examined nurses working in the wards while the study conducted by researchers performed in the ER.

#### **6. Relations Workload and Working Conditions of Nurses and Nurse Work Stress**

Relations workload and working conditions of nurses and nurses working in ER stress is more and more workload faced by nurses in providing nursing care, the nurse work stress will be higher and better conditions the work environment of nurses work stress will decrease or lower.

### **CONCLUSION**

The identification of the ER nurses workload at different research sites with the workload of nurses Installing the others because there is a difference of duty and service in providing nursing care to patients that are tailored to the patient's condition.

- The identification of working conditions depends on the survey conducted by the researchers are currently conducting research at designated sites.
- The identification of job stress based on the results of surveys and questionnaires.
- Work stress is influenced by the amount of workload to do too much, for that workload should be adapted to the capabilities of the nurses so that no work stress. High job stress will affect the performance of nurse, for it is important for the management to pay attention to the stress levels of nurses.

- Conditions was conducive working environment in providing nursing care will affect occupational stress faced by nurses when performing nursing actions.
- The number of workloads in accordance supported by a conducive work environment, the work stress will be lower.

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# **A LITERATURE REVIEW: PSYCHOSOCIAL ASPECTS OF PARENTING A CHILD WITH AUTISM SPECTRUM DISORDER (ASD)**

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## **ABSTRACT**

This literature review examines the psychosocial aspects involved in parenting a child with autism spectrum disorder (ASD). Parenting a child with ASD not only has an impact upon the parents' psychological well being, but the family systems as well. Stress levels are significantly higher in parents of children with ASD than in parents of typically developing children and the parents of children with physical diseases. The literature also shows that social stigmas is a stressor for parent and influence their ability in parenting a child with ASD. Anxiety is the negative impact of social stigma for parents with ASD children. Financial stress is also happened to parent and lead to familial stress. Task-oriented coping strategy used by parent has a protective function in dealing with the challenges of parenting a child with ASD. These findings suggest the importance of mental health nurse to be aware of psychosocial aspect assessment and coping strategy used by parent involved in parenting a child with ASD, as well as providing them with professional and educational support. It can be used to prevent psychiatric and psychosocial disorder happened to parents of children with ASD.

**Keywords:** autism spectrum disorder, stress, parents, psychosocial supports

## **STRESSOR CHARACTERISTIC OF PARENT IN PARENTING A CHILD WITH AUTISM SPECTRUM DISORDER (ASD)**

Research suggests that mother and father of children with ASD have a high degree of parental stress (Davis & Carter, 2008; Keen, Couzens, Muspratt, & Rodger, 2010; Meltzer, 2011; Phetrasuwan & Miles, 2009). Mothers report higher levels of stress tend to experience more depressive symptoms and have lower levels of psychological well being (Phetrasuwan & Miles, 2008). There is a multitude of factors contributed to stress and depression in parents of children with ASD, such as the parents' inability to control their child's behavior (Davis & Carter, 2008), lack of rest (Sweeney & Hodge, 2008; Meltzer, 2011), acceptance of the disorder (Parkes & Weiss, 1983), familial stress (Meirsschaut, Royers, & Warreyn, 2010), marital stress (Rodrigue et al., 1990), financial stress (Davis & Carter, 2008; Keen et al., 2010; Meltzer, 2011; Phetrasuwan & Miles, 2009) and social stigma (Dehnavi, 2011).

## **PARENTAL STRESS DUE TO CHILD'S BEHAVIOR**

Child behavior of ASD children has been shown to be the best predictors of parental stress (Davis & Carter, 2008). Child behavior can be showed by level of severity of ASD. Davis and Carter (2008) examined parental stress symptoms among parents of children with ASD. Results showed that a mother's parental stress was associated with the child's deficits



with self regulation. Research showed that level of severity of ASD is the hard obstacles for parents and attributed to relationship between children with ASD and parents. It is happened due to inability of parents to control child behavior and inability of parents to teach communication skill and social interaction (Hobson, 2013). A father's parental stress was associated with the child's behaviors, such as aggressive and self injurious behaviors. Fathers especially found it most difficult to manage the child's behavior in public settings. The level of severity has negative impact to the relationship between children with ASD and parent. It has negative impact to parents' health, negative perception and lead to depression for parent (Hoffman, 2009).

### **PARENTAL STRESS DUE TO SOCIAL STIGMA**

Social stigma while having children with ASD is by avoidance behavior of community and negative appraisal. It happened not only to children with ASD but also to family as well (Bashir, 2014). Because of social stigma, there is a lot of discrimination not only of the autistic child but also of the family as a whole because the family is seen to be a part of the illness. Fear of discrimination and the stigmas surrounding disabilities lead many families to refuse to go to professionals and receive a diagnosis for their children. By refusing to be diagnosed, families can avoid having disability identities (Ecker, 2010). The troublesome symptoms such as tantrums, self-destructive acts and other inappropriate public behaviors associated with the disorder are difficult to cope with. Consequently, the parents with ASD children frequently encounter hostile or insensitive reactions from public, mostly because of the inappropriate behaviors shown by their children. The public reaction to such families is often stereotypical and negative. This social stigma increase the anxiety of parents about their children future (Gray, 1993)

### **FINANCIAL STRESS**

The average annual house hold income for a family with ASD children ranged from \$45,000 to \$49,000 Smith et al. (2009). With a limited house hold in come, many families are stressed about how they are going to financially afford their child's treatments (Valentine, 2010). As a result, it is mothers stay at home and care for their child and fathers hold two jobs (Smith et al., 2009). The annual higher consumption is happened to family who caring for children with ASD, followed by family of children with physical and mental disease. The family needs to afford therapy, supplement, special nutrition, and special education for their children. It happens for a long time till their child growing adult (Emery, 2014). Phetrasuwan and Miles (2008) found that the lower the education and income a mother possessed, the more stress she experienced. Since many families do not have the financial resources to seek respite care, mothers of ASD children tend to be the primary care givers for their child. In dealing with the demanding behaviors of a child with ASD, it can lead to familial stress (Smith, 2009) and mother are likely to experience parental stress (Davis & Carter, 2008; Keen et al., 2010; Meltzer, 2011; Phetrasuwan & Miles, 2009; Valentine, 2010).

## **FAMILIAL STRESS**

Research found that a positive correlation between familial stress and their children's symptom severity related to autism has been noted (Predescu, 2013). A negative correlation, however, has been suggested between familial stress and adaptive behaviors of their children with autism (Danesyar, 2012). Meirsschaut et al. (2010) examined 17 mothers' experiences with a child with ASD and the obstacles they faced in having to schedule around their child. Overall, reported mothers that their whole life had been changed. Mothers could no longer be spontaneous with their family outings. Every day had to be structured and planned in advance. The family's inability to be spontaneous make family were more likely to avoid social gatherings and community outing.

## **COPING STRATEGIES**

Parents used adaptive cognitive coping strategies by giving positive appraisal in parenting children with ASD because it can reduce level of distress. This coping is one of task-oriented coping strategy (Predescu, 2013). Parent of children with ASD engaged in three different types of coping strategies: task oriented, emotion oriented, and avoidance oriented. Parents who used task-oriented did not experience symptoms of distress and depression (Lyons, et al, 2010). Parents who used task oriented coping strategies and positive thinking to maintain positive point of view can help their family to faced obstacles in parenting children with ASD (Daneshyar, 2013). Task oriented coping strategies served as a protective function in dealing with the challenge of parenting a child with ASD.

## **IMPLICATION FOR MENTAL HEALTH NURSING**

Mental health nurse as a rehabilitation counselor may work in settings in which they interact with or serve parents of children with ASD. It is important for them to be aware of the symptom of ASD and the stresses prevalent in parents of children with ASD. It is also important for mental health nurse to understand the parents' feelings and to address any concerns that they may have. Not only will this reduce the parents' stress, it will also allow them to be more engaged in treatment (Ahmann & Dokken, 2009). Mental health nurse must be aware of psychosocial aspect assessment and coping strategy used by parent involved in parenting a child with ASD, as well as providing them with professional and educational support. It can be used to prevent psychiatric and psychosocial disorder happened to parents of children with ASD. Since parents are affected more by the behavioral problems of children with ASD (Meltzer, 2001), rehabilitation counselors can also provide parents with parent skills training and educate them on the use of problem-solving skills (Freedman & Boyer, 2000). With professional and educational support, parents will better understand ASD, the diagnostic process, and the treatments available to them and their child with ASD (Keen et al., 2010; Meirsschaut et al., 2010). Researchers have found that parents who have a high level of self efficacy and a low level of stress at the time of diagnosis can benefit from self directed in formation such as videos and internet resources (Keen et al., 2010). While assessing the parents' mental health at the time of diagnosis is important, parents receiving ongoing professional and educational support ultimately benefit the most.

## CONCLUSION

Parenting a child with ASD have a significant impact upon the parents' psychological well being (Phetrasuwan & Miles, 2008), as well as the family systems (Meirsschaut et al., 2010). Financial stress (Predescu, 2013) and familial stress is also happened to parent of children with ASD (Danesyar, 2102). It is important for mental health nurse to be aware of the psychosocial aspects involved in parenting a child with ASD and to assess parents' coping strategy (Lin et al., 2011; Twoy et al., 2007). Mental health nurse should also provide professional and educational support (Keen et al., 2010; Meirsschaut et al., 2010) to parents of children with ASD to address parental responses and coping strategies.

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# PROBLEM BASED LEARNING TO REDUCE THE GAP BETWEEN THEORY AND PRACTICE IN NURSING EDUCATION

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## ABSTRACT

There is a gap between the theory and practice in nursing education. The difference between academic education and practice make serious problems for nursing students. Students found it difficult to link what they learned in the academic education with the fact they faced in the complex clinical environment. The objective of this study is to analyse the effectiveness of problem based learning as a learning method to reduce the gap between theory and practice in clinical learning environment. A review of literature was performed using electronic data bases of articles and journals from 1998-2014 that were in English and Indonesian language. The studies revealed that problem based learning is one of the effective method to reduce the gap between academic and practice in nursing education. Problem based learning is a part of student center learning that give a chance to be active learner. Students will be asked to learn by themselves and responsible for their lesson. Problem based learning can be effective in clinical practice if students are given opportunities to practice what they have learnt in the academic and skills laboratory, provided with feedback in an environment where there is good relationships and communication between students, nurses and other healthcare. The information from this study could be useful for undergraduate students, nursing schools, and other healthcare.

**Keywords:** problem based learning, gap, nursing education

## INTRODUCTION

There are two parts of nursing education : the theoretical part and the practical part. The theoretical parts that reflects the knowledge, disease, interpersonal skills and critical thinking in the classroom (Landers, 2000) and the practical part, which focuses on enhancing student's skills, communication and problem solving in the clinical area (McKenna and Wellard, 2009). A part from learning the skills, students are able to experience the real world of learning environment for example the responsibilities of nursing care, communicate and develop interpersonal relationship with others (Sharif et al., 2005). But there is a gap between the theory and practice that make stressor for students when must study in the clinic (Saifan et al, 2015).

Students have serious problems in clinic environment because the difference condition they must faced for example uncomplete tools, emergency patient condition, etc what they have learned in the class. Students found it difficult to link what they learned in the classroom with the facts they faced in the complex clinical environment. The complexity and the continuous change in the clinical environment can increase the gap (Nabolsi, et al., 2012). New modifications and creative strategies are always needed to improve the quality

of learning in nursing education (Landers, 2000). Problem based learning is one of the approach to reduce gap when students study in the clinic. Problem based learning as an integrated pedagogical approach, rather than a distinct method of teaching, it results in deep learning by students to deal with the environment in the clinical area (Killen, 2003). Many nurse preceptors are unfamiliar with Problem Based Learning and lack own experiences from this educational approach (De Villiers et al., 2004).

The process of Problem Based Learning can give a chance for students to reflect their learning with respect to a complex situation and how they can use this experience in similar care situations, but in the different place and time. Problem Based Learning can prepare students for their working life by engaging them in authentic situations during clinical training, seminar, health education and by acquiring strategies for life-long learning in their professional careers. Clinical practice prepares nursing students to become competent practitioners who will be able to provide quality health care and promote health of the people they serve. This objective study is to analyses the effectiveness of problem based learning as a learning method to reduce the gap between theory and practice in clinical learning environment.

## **METHODS**

A wide range of data search was conducted by the authors to identify studies on nursing students' experiences of learning in the clinical practice. Electronic data research was done data engines included Nursing education journal, Psych Articles, and Psycinfo, and research. The inclusion criteria were research articles and reviews published in English in scholarly. The search included studies with all types of methods and yielded 30 articles.

Review of literature was done by answering the following question. Is the problem based learning effective to reduce the gap between theory and practice in nursing education? Key words used in the search were: Learning, clinical practice, nursing education, clinical education, clinical learning environment, student nurse.

## **RESULTS AND DISCUSSION**

### **1. Perspective Theory**

Students in the clinical setting should study skill, knowledge, procedure, critical thinking and problem solving to face the problems in learning environment. The theoretical and practical parts of nursing education are still often separated, where practical experiences can be illuminated and critically analysed by means of theoretical knowledge and then further redefined and extended within practice. This called 'theory-practice gap' is reinforced by the fact that nurses to a very low extent read and apply findings from nursing research to implement in their clinical practice (Nilsson Kajermo et al., 1998; Estabrooks, 2003; Wallin et al., 2003). Problem-based learning (PBL) is well established in health education, but still unfamiliar in clinical practice. Problem based learning can encourages self-conducted, individualised learning and thereby also the students' own responsibility for learning, it should need support the environment, personal and professional growth of the student. Nursing education still few experiences have been reported of using problem based learning

as a method to facilitate students and preceptors in clinical education (Biley and Smith, 1998; De Villiers et al., 2004).

## **2. Gap Between Theory and Practice**

The literature shows that there is a gap between the theory and practice components of nursing education (Allan, 2011; Chan, 2013; McKenna & Wellard, 2009). Several suggestions to close the gap between theory and practice in nursing education. It was suggested that learning be put in a context that makes it clearer to be understood and applied by students (Stockhausen, 2005). Several authors have warned of the danger of keeping students away from the clinical environment for a long time for example in nursing education that separated students in two parts, academy and clinical practice (Fulbrook et al., 2000). In Indonesia undergraduated student study the theory in academy for 4 years then will be continued in clinic for 1 year. It means there is a long time students could not expose in the clinical environment. It also can be a gap in nursing education.

The subjectivity in defining nursing terms and theories and giving different meanings to these terms formed challenges for nursing students (Upton, 1999). The development in nursing education and the move toward higher education also increased the gap (Fairbrother & Ford, 1998; McKenna & Wellard, 2009). It also the complexity condition of patient, the facility, the difference procedures and the continuous change will increase the gap in the clinical enviroment (Nabolsi, et al., 2012). Therefore, it could be argued that even very effective theoretical education in the academic context can be of little use when the student encounters the complexities of the clinical situation, which is not only about theory but also the environment in clinical setting (Nabolsi et al., 2012; Smith et al., 2007).

## **3. Problem Based Learning**

Problem based learning is an instructional method in which students learn through solving problems and reflecting on their experiences. In problem based learning, the teacher's role is to facilitate collaborative knowledge construction. Student-centered learning has its foundation in social constructivist theories. This perspective contents that learning occurs as knowledge is negotiated among learners, often facilitated by a more knowledgeable group member and that students need to be active, intentional learners (Palincsar, 1998). Instructional approaches derived from these perspectives use student-centered discourse as an instructional strategy. The role of the teacher becomes to guide the learning process rather than provide information. Effective supervision by clinical teachers in clinical environment is important for students learning. Clinical nurse educators' role is to enhance learning through provision of opportunities for learning (Papp 2003; Lambert and Glecken 2005). Clinical performance increases if students are given necessary support in the clinical environment (Elcigil and Sari 2007). The literatur showed the importance of opening channels of communication between the teachers in the classroom and the instructors in the clinical settings. By opening these channels of communication, the theory teachers could coordinate with the clinical instructors to focus on specific subjects in the clinical setting. For example, after attending a lecture about infark miokard acute in the classroom, the clinical instructor would ask the students to focus on infark miokard patients, and they try to link the information that was taken in theory with the clinical cases. It will be

better if the teachers is the same person who give theory in academy and clinic (Saifan et al, 2015).

Problem-based learning is an active learning method based on the use of nursing care of ill structured problems as a stimulus for learning (Barrows, 2000). Ill structured problems are complex problems that cannot be solved by a simple algorithm and need study together with others to make nursing care plan to solve patient condition. Such problems do not necessarily have a single correct answer but require learners to consider alternatives and to provide a reasoned argument, discuss the case and solution to support the problem solving that they generate. In problem based learning, students have the opportunity to develop skills in reasoning and self-directed learning. Empirical studies of problem based learning have demonstrated that students who have learned from problem based learning curricula are better able to apply their knowledge to novel problems as well as utilize more effective self-directed learning strategies than students who have learned from traditional curricula (Hmelo,1998; Hmelo & Lin, 2000;). A cognitive analysis found that the facilitator's moves helped scaffold an organized and coherent approach to reasoning and diagnostic inquiry (Frederiksen, 1999). A sociocultural analysis showed that the facilitator has an important role in creating a culture in which the participants work to reach consensus, validate each other's ideas, and establish norms (Palincsar, 1999). The facilitator played a pivotal role that advanced the problem based learning discourse and scaffolded learning.

## CONCLUSION

Problem based learning is effective method to improve the link between theory and practice. It means problem based learning can reduce the gap between theory and practice in nursing education. The information in this study could be useful for undergraduate students, nursing schools, nursing teachers and other healthcare. To be successful in implementing problem based learning in nursing education, students and preceptors need study, read a lot of information, and training to build their capability. Many nurse preceptors are unfamiliar with problem based learning and lack own experiences from this educational approach. Problem based learning can prepare students for their working life by learning in authentic situations during clinical practice and by acquiring strategies for life-long learning in professional enviroment.

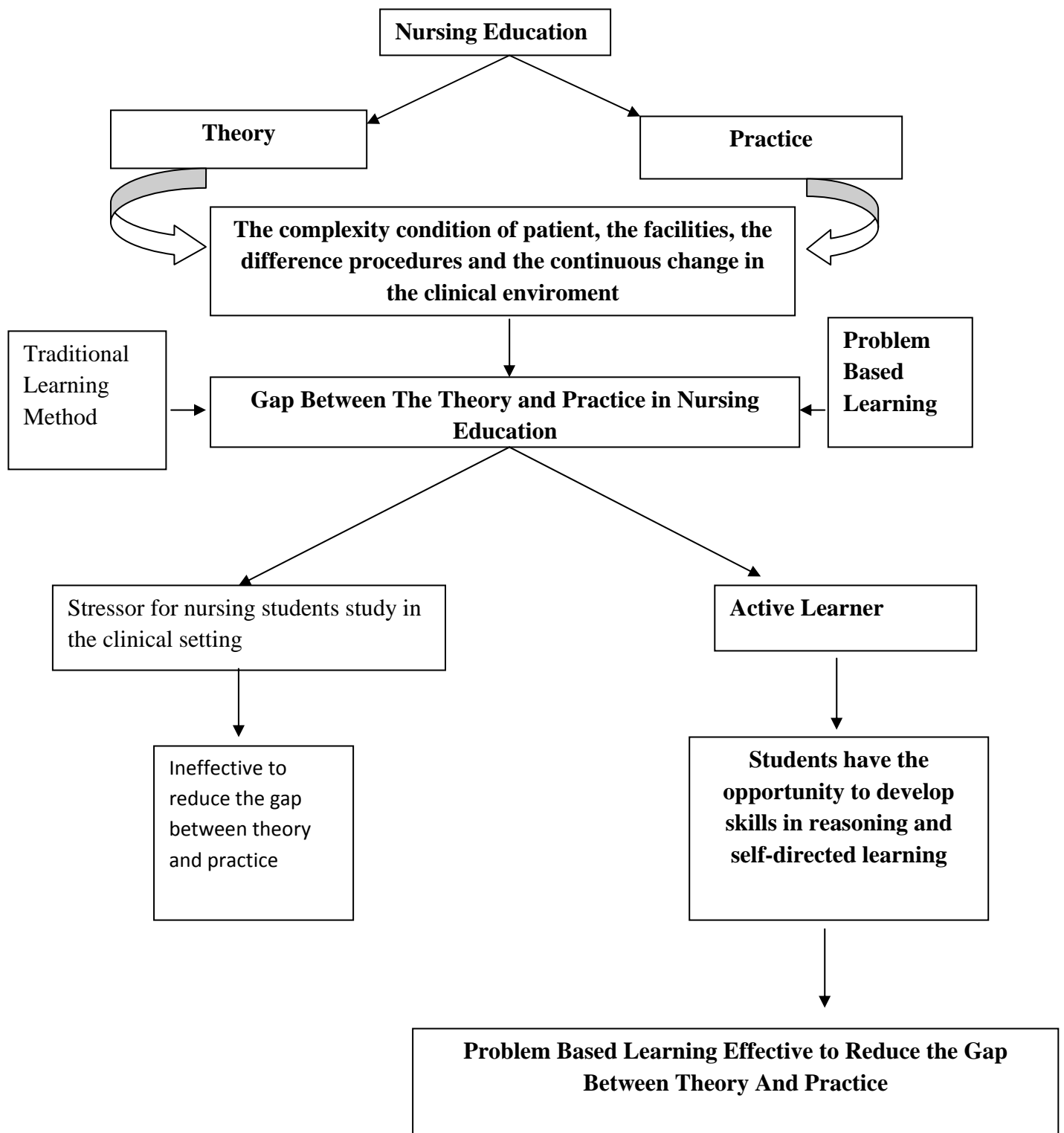
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# SOCIO-ECONOMIC CONDITIONS AND SELF-ESTEEM OF CLIENTS WITH DIABETES MELLITUS

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## ABSTRACT

**Background:** Diabetes mellitus is one of degenerative diseases that require a long process of treatment, requiring change of lifestyle and having the high risk for the complications. These conditions may lead to affect patients' self-esteem. The development of self-esteem influenced by social classes that determined by social and economic conditions.

**Aims:** The purpose of this study was to identify the relationship between social and economic factor and self-esteem of clients with diabetes mellitus.

**Methods:** This research used an observational analytic approach with cross sectional study. Sample consisting of 70 people were chosen with a purposive sampling technique. Data analyzed by chi square test.

**Results:** The results of this investigation were 44.28 % of respondents had a junior high school education background and 61.43 % of respondents had a high level of income. A large respondents who were pensioners, had married marital status and women were 40 %, 71.43 % and 58.5 % respectively. Self-esteem variable indicated that 74.29% of respondent had a positive self-esteem. In terms of the relationship social economic factor and self-esteem, it was found that all socioeconomic factors had no relationship with self-esteem except the level of income factor (p value 0.046).

**Conclusions:** Based on the results, It is suggested that the hospitals and nurses must provide the same comprehensive nursing care for all client and the family regardless their socioeconomic background. It is essential to prevent or reduce self-esteem disorder.

**Keywords:** socioeconomic, self-esteem, diabetes mellitus.

# **THE IMPORTANT OF APPLICATION REMOTE STATION EARLY WARNING SYSTEM (EWS), SMS GATEWAY AND SIMPLE TRIAGE ALGORITM AND RAPID TREATMENT (START) FOR HANDLING FLOOD VICTIMS IN DISTRICT MALANG: A LITERATUR REVIEW**

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## **ABSTRACT**

**Background:** Malang regency is a disaster prone because of geographical conditions, hilly and close to the source of the disaster. There has been no adequate preparation for disaster, early warning and mitigation. In addition there has been no maximization in risk reduction, disaster prevention, disaster risk analysis document formulation, education and disaster training and standart of procedure on disaster management. This study is to identify the important of application Remote Station Early Warning System (EWS), SMS Gateway and Simple Triage Algoritm And Rapid Treatment (START) for handling flood victims.

**Method:** This literatur review analyzed articles on Remote Station Early Warning System (EWS), SMS Gateway and Simple Triage Algoritm And Rapid Treatment (START). Articles collected using Proquest and Google with the keywords of Simple Triage Algoritm and Rapid Treatment, SMS Gateway for disaster, Early Warning System for flood. The criteria of articles were full text and published between 2008 and 2015 which serve in English and Bahasa Indonesia. Results: Conclusion: The application Remote Station Early Warning System (EWS), SMS Gateway and Simple Triage Algoritm and Rapid Treatment (START) is proper to handle flood victims in District Malang.

**Keywords:** EWS, START, SMS Gateway, Flood

## **INTRODUCTION**

Malang Regency is a disaster prone because of geographical conditions, hilly, the regions close to the source of the disaster as well as the history and records of disastrous events that never happened. The Disaster Policies have not been implemented optimally. There has been no adequate preparation for disaster preparedness, early warning and mitigation. In addition there has been no maximization of risk reduction, disaster prevention, disaster risk analysis document formulation, education and disaster training and standart of procedure on disaster management. Malang Regency geographical conditions and the hilly terrain which is difficult and the condition of infrastructure in the form of a communication facility, inadequate media of information and the location of distant health facilities will extend the waiting time relief effort. An important aspect in the act of rescue of disaster victims was a good triage system. Good triage system facilitates the provision of location disasters Life Support by non-medical personnel such as members of volunteer, PMI, a local resident who helped so that aid can quickly be given (Lumbu, R, S., Niswar, M., Bahharudin, M, 2013).

Delays in dealing with disasters can cause greater harm to society, so it takes a cycle of disaster management, natural disaster early warning system is absolutely indispensable in the stage of preparedness, early warning systems for each type of data, the method of approach and instrumentation. Arrangement in the form of natural disaster management system can be done by creating an integration of disaster management and integration with information technology systems, so that aid and handling of victims is done quickly through the application of Remote Station Early Warning System, SMS Gateway and START.

## **METHODE**

This literature review analyzed articles on Remote Station Early Warning System (EWS), SMS Gateway and Simple Triage Algorithm And Rapid Treatment (START). Articles collected using Proquest and Google with the keywords of Simple Triage Algorithm and Rapid Treatment, SMS Gateway for disaster, Early Warning System for flood. The criteria of articles were full text and published between 2008 and 2015 which serve in English and Bahasa Indonesia.

## **RESULTS AND DISCUSSION**

Arrangement in the form of natural disaster management system can be done by creating an integration of disaster management and integration of information technology systems, so that aid and handling of victims is done quickly. For the people of Indonesia, early warning systems in the face of disaster is important, considering the geological and climatological regions of Indonesia, including areas prone to natural disasters. Thus we hope will be able to develop appropriate measures to prevent or at least reduce the impact of natural disasters for the people.

EWS is enabled from before the floods, causing water overflow. Remote station serves as a sensor when there is an increase in the water level of the river. When we get a signal level rise in the water, then the activation SMS gateway initiated to provide preparedness information all related components, such as the nearest health centers, the nearest hospital, the SAR team, BPPD Malang and evacuation can be done through the predictions of EWS Albar, E., Affandi, A., Wirawan. (2010).

When found the victim, then triage begins. Step triage is done is the primary survey. If the victim can be called to answer and can walk, they are put in the category of minor and taken to the place that is secure, here in after be referred to the nearest health center. Furthermore, if the victim is not able to walk, to evaluate breathing, when the respiration rate is less than 30, then proceed with the examination of the pulse. When the negative pulse refer to hospitals type A or B. When the positive pulse and capillary refill less than 2 seconds, do a mental status examination, if the victim is conscious refer to the nearest hospital. If the victim is unconscious victim in the category of emergency and immediately refer to hospitals type A or B. when the capillary is less than 2 seconds, in the category of emergency and do referrals to hospitals type A or B Lumbu, R.S., Niswar, M., Bahharudin, M. (2013)

At the victim is not breathing, then was examined listen look feel. If there is still no sign of breathing do reposition, if still not breathing, the victim had died. For deaths can be directly submitted to the community to help care for and evacuate the bodies of victims  
Lumbu, R.S., Niswar, M., Bahharudin, M. (2013).

## CONCLUSION

The application Remote Station Early Warning System (EWS), SMS Gateway and Simple Triage Algoritm and Rapid Treatment (START) is proper to handle flood victims in District Malang.

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# COMMUNITY-BASED SCHOOL EMPOWERMENT IN HIV TRANSMISSION RISK PREVENTION IN ADOLESCENTS

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## ABSTRACT

Teen as risk group for HIV transmission is strongly influenced by growth factors and the influence of peer relationships. Peers in addition to providing a negative influence, it can also providing positive influence through empowered to form groups of peer educators. Schools into places that it is largely ideal teens at the time spent in school and the exchange of values, knowledge, attitudes, and behaviors. The purpose of writing scientific papers provide an overview of recent efforts to increase the participation of teenage students, teachers, and families in the prevention of HIV transmission risk. Scientific work has recently been applied using a principles management approach to community nursing, community nursing care, family nursing care and integrating comprehensive school health model and family nursing centers model with methods of school-community health empowerment. Participants are vocational students "RF" on Tugu Village Cimanggis District Depok City. The results of this application able to improve knowledge, life skill, health behavior and improve role of school and family self-sufficiency. The results of recent scientific work is expected to be the basis of adolescent health promotion program at school in increasing the ability to prevent HIV transmission risk behavior of adolescents in Indonesia.

## INTRODUCTION

Teenagers are the largest population in the world and in Indonesia, the World Health Organization (WHO) in 2005 estimated the number of teenagers in the world's population account for about half of the total population of the world, and about 990 million in developing countries (Utomo, 2003). Based on data from Indonesian Demographic Health Survey of 2007, the number of teenagers in Indonesia reached 30% of the total population of 231 million, or about 69 million people. The large number of adolescents may be the capital of a country to develop more advanced and adolescents as a resource for people who have passion and high motivation. However, teenagers may also be a threat to a nation if less attention and guidance. Teens have the properties and characteristics of the curious and try new things. This condition is one reason teenagers classed risk groups.

The risk factors of HIV transmission in Youth Vocational school age can be identified by understanding the characteristics of the population. Some risk factors for health problems by Stanhope and Lancaster (2002), among others; 1) social risks, associated with the incidence of social communities such as conflict areas, disaster areas, local crime, and the environment with violence psychology, 2) economic risk, associated with poverty, 3) risk lifestyle, associated with habitual patterns of behavior, and 4) risk events in life, associated with great events experienced in life, including growth and development. Califano (1997, in



Stanhope and Lancaster, 2002) divides risk factors, among others; 1) risks associated with biology, is associated with genetic factors of individual, 2) environmental risks, related to the physical environment and social environment, 3) risk behaviors, associated with the habit patterns in life, and 4) the risks associated with age, the health problems which appeared in certain specific age group.

According to data from the year 2010, both of BPS, Bappenas and UNFPA, the majority of the 63 million adolescents aged 10 to 24 years in Indonesia are vulnerable behave unhealthy. The most prominent problem among adolescents today, for example the issue of sexuality, so pregnant outside marriage and abortion. Then susceptible sexually transmitted diseases (STDs), HIV or AIDS and drug abuse. Surveys conducted Adolescent Reproductive Health Indonesia (IYARHS), youth aged 14 -19 years of ever having sex permipuan ie 34.7% for and 30.9% for men.

Based on the KPI annual report (2011) HIV/AIDS in Depok ranges from 1.7% of the total population of Depok City, and 75% of injecting drug abuse cases are from the age group of 10-18 years and 79% had high school education. Results of research Saprudin (2007) toward high school students and vocational Pancoran Mas, Depok on the prevention of the risk of drug abuse was found that the behavior is always smoking (4.9%), often (5.88%) and sometimes (47.06%), the reason students smoked 28.43% due by peers. The same thing is also consistent with the results of research Marsito (2008) on vocational students in Sub Pancoran Mas, Depok that the behavior is always smoking (8.1%), often (17.2%) and sometimes (35.4%), the reason smoking 90.9% due to the influence of peers , The smoking behavior could drive teenagers to drug use and drug injecting is the entrance of HIV transmission (Syarif, 2008).

Peer education as an approach believed to be effective in adolescents because of the characteristics of strong bonds within their own age among them. Teenagers are very influenced by their peers behave in positive and negative, such as: how to dress. hairstyles, perfume, body shape, style of talking, smoking, alcohol, drugs, promiscuity, and watch porn, internet, and magazines (Stone & Church, 1984; Okanegara, 2008). Peer groups influence each other and adjust to each other (Smith & Diclement, 2000). Brown and Theobald (1999, in Rice & Dolgan, 2005) says that the influence of peers make teenagers feel uncomfortable, because it always receives pressure when it is not in accordance with the behavior of their peers. Based on research Allen, Hape, and Miga (2008) in adolescents aged 13-20 years are the result of the 184 samples that adolescent girls are very influenced by their peers.

Implementation of some peer educators are currently still emphasizes community-based health efforts, while the adolescent health program based schools are not yet integrated with the family. Teens spend a large part of his time at school, a place to learn values and behavior with interactions among friends, and easy to reach. The weakness of community-level activities is difficult to megumpulkan teens, less intimacy, social and cultural influence is strong, and costs a great resource in the implementation.

The participation of the community, especially the involvement of the family is very important to help maintain continuity in school and continued efforts in the community through the oversight and direction at the family level. Based on the weakness of efforts over the years, resident offers innovation by combining the efforts of adolescent health at school-based approach to community empowerment (School-community based empowerment). This model seeks to integrate the role of schools and the community,

especially the role of the family in improving reproductive health and the prevention of transmission of HIV infection in adolescents.

Based on the description above Resident wants to know how to influence the implementation of School-community-based model of empowerment to changes in knowledge, skills (life skills), and adolescent behavior toward efforts to contain the risk of HIV transmission?

## **METHOD**

The purpose of this study was to determine the effect of the application of models of School-community based empowerment to changes in knowledge, skills, and behavior toward efforts to prevent the risk of HIV transmission. Implementation of this program is done on all vocational students "RF" grade X and XI in Depok, West Java. The sample was taken purposively that students who have been actively involved during implementation of the program totaling 61 students. Criteria sample is involved at least 80% attendance during implementation, joined a group of peer educators, grade X and XI, and is willing to be actively involved as a volunteer school health educator (peer educators). This program implementation activities carried out for 8 months.

## **RESULT**

### **1. Group Formation Peer Educators and Peer Counselors.**

The formation of a group of peer educators and peer counselors are made to strengthen the role of school health in improving the health status of students. Formed 22 volunteer of peer educators and peer counselors involved during implementation of the program. Determination of students involves principals, deputy chief wipe academic field and vice principal of student field to get students who have confidence and can be accepted by all students in the school for his task and responsibility as peer educators and peer counselors.

### **2. Training teacher coaches school health**

Teacher coaches and teacher counselors training become an important part of the program to assist in the supervision of school level and autonomy in running the program. The training was delivered by the health department, the faculty supervisor, department of education, and student resident. As evidence they have been trained, given a certificate as a sign that the candidate has ability and skills as a teacher teacher coaches and teacher counselors who will assist in the process of peer education. The results showed the average increase in value of training teachers' knowledge before and after training at 17.46 and the statistical test was concluded significant difference level of knowledge before and after training ( $p = 0.00$ ;  $\alpha = 0.05$ ).

### **3. Workshop of work program**

Workshop program activities of the peer educators and peer counselors focused on giving students the knowledge and skills to prevent HIV infection risk factors such as issues related to teenagers who are vulnerable to the transmission of HIV infection such as drugs, sexual behavior and reproductive health. Preparation of the work program involving many parties such as the health department, education department, districts

committee, health centers, and schools so as to produce complete planning and acceptable to all parties.

4. Candidates crawl and Training Peer educators

Of prospective peer educators involve the student teacher with some criteria and continued with the training that involves residents, teachers, and health center officer. The training was conducted over two days aims to provide the knowledge and skills of adolescent health issues. Knowledge is adjusted to the book department of health standards adolescent reproductive health (PKPR) compiled and given to all participants, while the skills provided through interactive training in addressing adolescent health issues. Results obtained training the average increase in the value of knowledge before and after training was at 15.32 and the test results obtained statistically significant difference in the level of knowledge before and after training ( $p = 0.00$ ;  $\alpha = 0.05$ ).

5. Preparation Training Modules Books, records, and Learning Media

Books module pembelajaran the peer educators organized in a way discussion and consultation involving Supervisor, resident, teacher, and a cadre of peer educators with the aim to produce books modules are structured, easily understood and applied by the students. During this training explained the importance of the curriculum, books modules, and media in the process of peer learning and oversee the production stages in modules such as books; create learning objectives, selecting instructional media, and make the evaluation.

6. Socialization Book Use Modules and Peer Educator Notes

Book material supplements peer educators and counselors that was made then to be disseminated way of use and recording the results of the activities of each meeting. Socialization is done together with teacher coaches the student with the expectations of the role of oversight of the program of peer educators and counselors.

7. The preparation and socialization Supervision Record Book Event

Supervising an important part in health services management as a credible form will be able to maintain and improve the performance of all components of the organization to achieve its intended purpose. Books record created along with teacher supervision, health center officials, and consultation with a supervisor. This book contains a record of credible form of peer educators and counselors by the supervisors of students and teachers to assist students in give material and counseling activities.

8. Dissemination of Trustees structure shool health District Level

Meeting with school health coordinating team at the district level is done with the purpose of socialization of adolescent health program especially efforts to contain the risk of HIV transmission has not been functioning properly. Attempts were made by inviting the Department of Health, Education, school health districts committee, primary health (puskesmas), and school management.

9. Activity Supervision Peer Educators and Counselors

Supervising the activities of peer educators and counselors is done with the aim to provide help and guidance for student health volunteers conducting health education for 10 meetings, accompanied by students residen, while mentoring by teachers do as much as 2 times. Supervision activities once done every week from March to early May, 2012 at the school every Tuesday at 15:30 to 16:30 and Friday hours 14:30 to 15:30 pm. The results showed that the appearance of supervision cadres peer educators the better of

the first supervision compared with last supervision. Comparative performance appearance peer educator pre test and post test showed the average first appearance on supervising the performance was 64.40 (SD = 1.50; 95% CI). The mean performance on supervision last appearance was 88 (SD = 1.70; 95% CI). Seen the average value of the difference between before and after the activities of peer educators was 23.6. Statistical test results can be concluded that there are significant differences between the appearance of peer educators on supervising the performance of the first and the last ( $p = 0.000$ ;  $\alpha = 0.05$ ).

#### 10. Home Visits

Home visits conducted on students who have high risk against the behaviors that lead to HIV transmission such as; smoking, excessive courtship, have problems related to academic, family and friends, the use of additives, and health problems. Home visits carried over from the school and the results are reported back to the principal. Efforts are being made at home is to provide intervention in the family and asked for their support and commitment in resolving the problems faced by students. During the eight months have made visits to 10 families. The results show the increasing independence of the family on a range of levels of independence III to IV. As many as 60% of families are at a level of independence III (family were able to identify the problems experienced and perform simple maintenance that resolve problems experienced), and 40% of families are at a level of independence IV (able to do prevention by conducting open communication within the family and be able to do health promotion by giving consideration to the youth in decision-making).

#### 11. Mini Workshop Final Program

Mini workshop final program of activities aimed at the final evaluation and submit the results of activity during the 8 month follow-protracted transfer of activities and events related parties such as the Department of Health, Education, Health Center, and Master. Program evaluation results obtained 1). 9 out of 10 students who were counseled show behavioral changes to stop smoking, stop drinking alcohol, and more healthy dating behavior, 2). Improving the life skills of students showed with pretest and posttest showed the average life skills of participants prior to the activities of peer educators was 63.72 (SD = 8.43; 95% CI). Average life skills of participants after the activities of peer educators was 87.44 (SD = 8.49; 95% CI). Seen the average value of the difference between before and after the life skills training is 23.72. Statistical test results found no significant differences between life skills of students before and after the activities of peer educators and counselors adolescents ( $p = 0.000$ ;  $\alpha = 0.05$ ), 3). The decline in risk behaviors of HIV infection as indicated by comparison of values before and after the activity showed the average-risk behaviors of the participants before the activities of peer educators was 88.97 (SD = 64.07; 95% CI). Average risk behaviors of participants after the activities of peer educators was 49.43 (SD = 12.21; 95% CI). Seen the average value of the difference between before and after the activities of educators is -39.54. Statistical test results found no significant difference risk behaviors of participants before and after the activities of peer educators in adolescents ( $p = 0.000$ ;  $\alpha = 0.05$ ).

## DISCUSSION

Peer educators and counselors who had been recruited teachers to be able to perform its functions need to be given knowledge about the role, duties and responsibilities in an effort to adolescent reproductive health and prevention of STIs / HIV. The activity is realized in the form of training for 2 days, followed by 22 students and 2 teachers counselor by the Department of Education, Department of Health, Supervisor, and resident students. Training is a form of orientation for new staff before they actually perform the duties and responsibilities of the actual (Gillis, 2000). This is in accordance with the opinion of McNamara (1999 in Huber, 2006) which states that the organization of human resources can be done through training and development.

The purpose of the training is to equip a cadre of peer educators and counselors teachers in order to understand the issues surrounding the development of the juvenile, adolescent problems, and the efforts that could be done to improve the health of adolescents, especially reproductive health and the prevention of HIV transmission. Harrison et al. (2010), the results of the research say that people who are involved in the organization must understand the culture and values of the organization received particular responsibility, because it will be very helpful in the decision-making process should be done to help the smooth running of the organization.

Marquis and Houston (2006) explains that in order to maintain the quality of services, standardization or guidelines in performing tasks ranging from input, process and output. Standardization of services can be achieved by the guidelines or standard operating procedures (SOP) is a portrait of success indicators, development of supervision in monitoring and evaluation. Kirby (2011), explains that the efforts of supervision, coaching, training, creating employment guidelines, and setting a good job in improving human resources organization.

Supervision activities by student peer educators resident made against the appearance of a volunteer of peer educators in delivering the material to the group and provide feedback and motivation each end of supervision. Supervision activities is expected to be able to improve the performance of peer educators in fostering group. According to Marquis and Huston (2006) explains that the direction of increasing the motivation to work or supervision, and interpersonal communication. Increased motivation to work to members of the moral and material can be shaped or verbal and nonverbal. Motivation will have a positive impact on members to strive to achieve the best. Work motivation should also be accompanied by an increase in interpersonal communication skills. Good interpersonal skills will be able to improve the cooperation among the members.

Coordination is done by building organizational communication in order to smooth any activity. Effective communication will reduce misunderstandings and will give workers a general view, a common understanding and unity of direction and effort in an organization (Gillies, 2000; Swansburg, 1999; Marquis & Huston, 2006). Bekker and Huselid (2011), research on organizational culture explained that in order to improve the appearance of their organization's performance needs to be clear communication culture organizations in providing direction or supervision. Family support becomes crucial in instilling healthy behaviors, especially to prevent and stop smoking behavior in adolescents. The family is the first and important institutions in an effort to instill the values, belief systems, attitudes, or behavior of the previous generation to the next generation (Durkin, 1995). The purpose of

socialization in the family value system is that the next generation has a value system that is in accordance with the demands of the norm desired by the group, so that individuals can be accepted in a group. Berry et al. (1992), make clear basically behaviors can be moved through vertical and horizontal. Vertical displacement perpetrated by parents through a permissive attitude towards smoking behavior of children and the horizontal displacement is done by peers via social environment.

The results of the evaluation of the level of independence of the family obtained the increase of the level of independence I before intervention into the level of independence III and IV after the intervention of family nursing care. This condition is strongly influenced by the characteristics of a healthy family that includes a commitment to family and family members, mutual respect, the ability to spend time together, the effectiveness of communication patterns, the degree of orientation of religion or spiritual, the ability to adapt to the crisis in a positive condition, motivation families, and clarity of the role of the family. The characteristics highly contribute to the functioning and structure of families to achieve the developmental tasks (Krysan, Morre, & Zill, 1990; Stinnett & DeFrain, 1985 in Gladding, 2002).

After the implementation of the program on aggregate vocational students to evaluate the students there is a change of behavior and life skills teenagers after using the methods of empowerment and peer education and peer counselors. This is a positive change in the aggregate adolescents in enhancing the ability to prevent the risk of HIV transmission. According to interviews with the students said he was glad to have friends who reminded to behave in school. Other students feel happy because of the negative behaviors, such as smoking, courtship, and do not go to school began to decrease after no activity by a cadre of peer educators. This is consistent with the results of research Ristianti (2009) of high school students found that the positive support of peers influence teenagers. According to research Bosma (1983), in Monks, Knors, and Haditono, (2004) on the behavior of teens find positive activities in adolescents with peers, such as: commitment to school, organization, work, and leisure time with sport. Positive activities students are supported with the provision of life skills training in order to improve confidence, potential, make decisions, and find the value of adolescents to develop positive attitudes and behavior (WHO, 2002). Knowledge and skills of adolescents on reproductive health, pregnancy prevention, and prevention of drug use can be improved through better health education given by peers (Komang, 2006; Mulyadi, 2010, Santoso 2010; Susanto, 2011).

Obstacles encountered during the implementation of the program is still the difficulty of coordinating with related parties, across programs and as dirty due to high workload. Besides, it is not yet a priority of school-based health efforts on teenagers becomes its own difficulties in finding time on the sidelines pembelajaran, so many activities carried out outside of school hours.

## **CONCLUSION**

Increasing the role of students and teachers through Community-school model approach based empowerment is able to increase the participation of students and teachers in an effort to prevent the risk of HIV transmission in the school. Improved knowledge, life skills and healthy behavior shown in students by increasing their ability to solve problems and the

ability to avoid risk factors for HIV transmission. Suggested the need for the involvement of the committee on HIV / AIDS (KPA) and make efforts to reproductive health and the prevention of HIV transmission risk becomes part learning activities by keying in the eyes of teaching counseling or teaching integrated in each eye.

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# SOCIAL MEDIA USE IN CLINICAL PRACTICE IN UNDERGRADUATE NURSING PROGRAMME

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## ABSTRACT

**Background:** Social media is a valuable tool in the practice of nursing, but it can also be an area of knowledge transfers for nursing students. Social media is a platform that can assist nursing programme in helping students to gain greater understanding of and/or skills in professional communication; health policy; patient privacy and ethics; and writing competencies. Although there are barriers to integration of social media within nursing education, there are quality resources available to assist faculty to integrate social media as clinical practice education.

**Purpose:** The authors conducted a literature review of the published literature on social media use in clinical practice in nursing education to answer two questions: (1) How using social media tools affected outcomes of satisfaction, knowledge, attitudes, and skills for undergraduate nursing programme in clinical practice? and (2) What challenges and opportunities specific to social media have educators encountered in implementing these learning model?

**Method:** The authors searched the Pubmed databases that published in 2011 until 2016, using keywords related to social media and nursing clinical practice. The authors independently reviewed the search results of English-language articles that discuss social media use in educational clinical practice in undergraduate nursing programme. Search words and phrases included Social Media, Social Media in Clinical Nursing Practice, Whatsapp, Web 2.0, Twitter, Facebook, Social Networking, Social Networking Sites, Blogs, and Clinical Nursing Practice in Undergraduate Students. The "snowball" method of using the most recent works to find relevant articles cited in them provided additional articles. Since keywords in research articles are not based on common lists, it is highly likely that some of the literature was missed.

**Results:** Eight studies met inclusion criteria. Interventions using social media tools were associated with improved knowledge (e.g., exam scores), attitudes (e.g., empathy), and skills (e.g., reflective writing) for nursing in clinical practice. Overall, the course session would aid their professionalism skills and behaviours, and supported delivery of the curriculum online. The most frequent areas of learning occurred in the following topics, such as email correspondence with patients, medical photography, and awareness of medical apps.

**Conclusions:** Most of the existing research on the utility and effectiveness of social media appropriate in clinical practice in nursing education in teaching and learning, with the purpose of enhancing the integration of the theory and clinical practice for individual or group skill. Although social media is an emerging field of scholarship that merits further investigation. Educators face challenges in adapting new technologies, but they also have opportunities for innovation. The authors provide guidelines for customizing instruction to complement each stage of development, recognizing that careful timing is not only important for optimal learning but can prevent inappropriate use of social media as students are introduced to novel situations.

**Keyword:** Clinical practice, social media, undergraduate nursing programme

## INTRODUCTION

The global change in, availability and affordability of mobile devices has made people to be social networking's addict. Such as mobile devices that embraced by young people, can giving them a sense of ownership whilst engaging with the devices (Willemse & Bozalek, 2015). There has also been an increase in the use of mobile technology to enhance teaching and learning practices (Rambe & Bere 2013; Sharples et al, 2013). However, integrating new technology into the classroom can be challenging with the varying levels of sophistication in both the learners and the educators (Bahner et al, 2012).

Social media have become a popular communication system that has transformed communication from the traditional to the Web-based model. Because social media use has no limitations to place and time, it is now used extensively at clinical facilities (Nyangeni, Du Rand, & Van, 2015). For nursing students in tertiary clinical practice, the simplicity of social media as communication tools can be advantage because the lecturer does not have to attend clinical practice area, but can interact with the students class from home or at work. Social media can facilitate online learning, allowing flexibility that accommodates adult learning through convenience of time and place (Akoh, 2012).

Social media are viewed as enabling technologies that support blended learning solutions, and can encourage active learning and knowledge construction through peer-to-peer interaction and forum group discussion (FGD) (Holden & Westfall 2010; Willemse & Bozalek, 2015). Another privilege of social media is serve the enhancing clinical expertise in healthcare. Expert guidance for learners and facilitators lecturers can be sought from specialists throughout the world. Furthermore, they can send messages or even pictures to people in resourced areas in order to receive the best advice to deliver better patient care (Martinez-Garcia et al. 2013). Social networking sites that popular use in students such as Twitter®, Facebook®, and LinkedIn®; blogs; and file sharing of scholarly can become the tools through which nursing students can learn and embrace these new opportunities. It becomes beneficial for undergraduate nurse to gain greater understanding of and/or skills in professional communication, health policy, patient privacy and ethics, and writing competencies (Schmitt, Sims-Giddens & Booth, 2012).

Nurse educators are beginning to explore the methods of application of social media into nursing curricula. In the United States, the Technology Informatics Guiding Educational Reform (TIGER) competencies; TIGER educational initiative; American Nurses Association (ANA) social media toolkit; and nursing informatics toolkit developed by the National League for Nursing (NLN) assist lecturers in developing nursing informatics courses that include sound social media content such as blogging or engagement through a medium such as Facebook® (ANA, 2011; Hebda & Calderone, 2010; The TIGER Initiative, n.d.; NLN, n.d.). Similarly in Canada, the Registered Nurses Association of Ontario (RNAO) (2012) recently released a faculty eHealth toolkit to help lecturers to provide informatics content within undergraduate education. Other resources both within and outside of nursing continue to be developed to aid nursing faculty to prepare nursing students for future demands (Center for Disease Control, 2011; Webicina, 2012).

In addition, risks of policy or privacy violation, time, cost, and lack of familiarity with technology continue as barriers for nursing faculty in adoption of new technology into curricula (National Council of State Boards of Nursing [NCSBN], 2011; Schmitt & Lilly, 2012).

The authors conducted a literature review of the published literature on social media use in clinical practice in nursing education to answer two questions: (1) How have forum group discussion (FGD) using social media tools affected outcomes of satisfaction, knowledge, attitudes, and skills for undergraduate nursing programme in clinical practice? and (2) What challenges and opportunities specific to social media have educators encountered in implementing these learning model?

## **METHOD**

The authors searched the Pubmed databases that published in 2011 until 2016, using keywords related to social media and nursing clinical practice. The authors independently reviewed the search results of English-language articles that discuss social media use in educational clinical practice in undergraduate nursing programme. Search words and phrases included Social Media, Social Media in Clinical Nursing Practice, Whatsapp, Web 2.0, Twitter, Facebook, Social Networking, Social Networking Sites, Blogs, and Clinical Nursing Practice in Undergraduate Students. The "snowball" method of using the most recent works to find relevant articles cited in them provided additional articles. Since keywords in research articles are not based on common lists, it is highly likely that some of the literature was missed.

## **RESULT**

A number of nurse researchers and educators have published accounts about the potential of social media. Each of these perspectives will be briefly explored.

Amgad & AlFaar, (2014) investigate the use of Web 2.0 tools in education and health care. Over two consecutive years, Children's Cancer Hospital - Egypt 57357 (CCH 57357), conducted a summer course that supports undergraduate medical students to cross the gap between clinical practice and clinical research. In that research, there was a greater emphasis on reaching out to the students using social media and other Web 2.0 tools, which were heavily used in the course, including Google Drive, Facebook, Twitter, YouTube, Mendeley, Google Hangout, Live Streaming, Research Electronic Data Capture (REDCap), and Dropbox. The evaluation survey was filled in by 156 respondents, 134 of whom were course candidates (response rate = 94.4 %) and 22 of whom were course coordinators (response rate = 81.5 %). Students' feedback was positive and supported the integration of Web 2.0 tools in academic courses and modules. Google Drive, Facebook, and Dropbox were found to be most useful.

Batt-Rawden, Flickinger, Weiner, Cheston, & Chisolm, M (2014) report how social media may be used to help promote the achievement of clinical excellence in medical learners by systematic review of the published literature on social media use in undergraduate, graduate and continuing medical education. Two authors re-examined the 14 evaluative studies to identify any examples of social media use that may facilitate the achievement of clinical excellence. Each study touched on one or more of the following domains of clinical excellence: communication and interpersonal skills; professionalism and humanism;

knowledge; diagnostic acumen; exhibiting a passion for patient care; a scholarly approach to clinical practice; and explicitly modelling expertise to medical trainees. No study addressed the role of social media to promote the skillful negotiation of the health care system, and in collaboration with investigators to advance science and discovery.

Willemse & Bozalek (2015) explore and describe data collected from a purposive sample of 21 undergraduate nursing students by qualitative, exploratory, descriptive, and contextual design. The study population was engaged in a WhatsApp discussion group to enhance their integration of theory and clinical practice of the health assessment competency of the Primary Health Care Module. Participants submitted electronic reflections on their experiences in the WhatsApp discussion group via email on completion of the study. The result of the study is seven themes were identified that included: positive experiences using the WhatsApp group; the usefulness of WhatsApp for integrating theory and clinical practice; the availability of resources for test preparation; opportunity for clarification; anonymity; exclusion of students as a result of the lack of an appropriate device, and the application caused the battery of the device to run flat quickly.

Social media also used for students in tertiary education institution, such as in Eastern Cape South Africa. Nyangeni, Du Rand, & Van (2015) explore and describe the perceptions of nursing students regarding the responsible use of social media by qualitative, descriptive, explorative and contextual research design. Twelve nursing students registered for the undergraduate nursing degree were purposely selected and interviewed individually using a semi-structured interview method. The results of this research study demonstrate that nursing students use social media irresponsibly. Although, this social media made nursing students experience blurred boundaries between personal and professional lines and lack accountability when using social media.

The ethical or professional implications surrounding the use of online social networking sites also researched by Englund, Chappy, Jambunathan, & Gohdes, (2012). Their result study is social media can become ambiguous and understudied. Faculty guidance is needed because students need to gain the necessary skills and values to appropriately use social media while maintaining professional accountability.

Nonetheless, the students risk of harm because lack appropriate ethical awareness during clinical years students make Bramstedt, Ierna, & Woodcroft-Brown, (2014) created a compulsory session in social media ethics (Doctoring and Social Media) offered in two online modes (narrated PowerPoint file or YouTube video) to fourth- and fifth-year undergraduate medical students that called SurveyMonkey®. This model can deliver the file links, as well as to take attendance and deliver a post-session performance assessment. All 167 students completed the course and provided feedback. Overall, 73% Agreed or Strongly Agreed the course session would aid their professionalism skills and behaviours, and 95% supported delivery of the curriculum online. The most frequent areas of learning occurred in the following topics: email correspondence with patients, medical photography, and awareness of medical apps. SurveyMonkey® will be valuable and efficient tool for curriculum delivery, attendance taking, and assessment activities.

## DISCUSSION

The use of mobile devices through social media made easier communication undergraduate nursing programme and lecturers in clinical practice area, but emphasised that a limited number of students were using smart phones. The author recognised that some students were not able to download WhatsApp or Facebook due to the model of their mobile device not affording this functionality or application. But another social media including Google Drive, Twitter, YouTube, Mendeley, Google Hangout, Live Streaming, Research Electronic Data Capture (REDCap), and Dropbox can be optimize.

Interventions using social media tools were associated with improved knowledge (e.g., exam scores), attitudes (e.g., empathy), and skills (e.g., reflective writing) for nursing in clinical practice. Overall, the course session would aid their professionalism skills and behaviours, and supported delivery of the curriculum online. The most frequent areas of learning occurred in the following topics, such as email correspondence with patients, medical photography, and awareness of medical apps (Willemse & Bozalek, 2015).

Nonetheless, the students risk of harm because lack appropriate ethical awareness during clinical years students can be solved by created a compulsory session in social media ethics (Doctoring and Social Media) offered in two online modes (narrated PowerPoint file or YouTube video) to fourth- and fifth-year undergraduate medical students, like SurveyMonkey® (Bramstedt, Ierna, & Woodcroft-Brown, 2014). Furthermore, applications of social media in nursing education by providing examples of sound and pedagogically functional use. Advantages and disadvantages of social media use will be suggestions for curriculum integration and future research potential (Schmitt, Sims-Giddens & Booth, 2012).

## CONCLUSIONS

Most of the existing research on the utility and effectiveness of social media appropriate in clinical practice in nursing education in teaching and learning, with the purpose of enhancing the integration of the theory and clinical practice for individual or group skill. Although social media is an emerging field of scholarship that merits further investigation. Educators face challenges in adapting new technologies, but they also have opportunities for innovation. The authors provide guidelines for customizing instruction to complement each stage of development, recognizing that careful timing is not only important for optimal learning but can prevent inappropriate use of social media as students are introduced to novel situations.

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# EFFECTIVENESS OF FAMILY PRESENCE DURING RESUSCITATION (FPDR): A LITERATURE REVIEW

Siska Christianingsih

## ABSTRACT

**Background:** Many family members deliberately left the room when one of their family members were in critical condition. It supported with 220 patients found to be present in there suscitation of cardiac arrest, 34 patients did not do resuscitation because the DNR. The success of resuscitation in the room resuscitation was 28.5 %. To overcome suspicion resuscitation effort sin private and family expectation sare unrealistic, the presence offamily members have the opportunity togive a final farewell and help one to understan dreality. Nowadays,family presenceduringresuscitationis agrowing trendinmanyareasof health care facilities.

**Objective:**The purpose of this literature review was to identify the effectiveness of family presence during resuscitation.

**Methods:** This literature review was conducted by searching and analyzing all eligible studies from electronic databases including Science Direct, Nature and Proquest database. It emphasized on the articles investigating the effectiveness of family presence during resuscitation.

**Result:**The results of an informal survey conducted in the United Foote Hospital nurse FPDR dissidents say they fear if the family members interrupt treatment in patients who do resuscitation and grief the family can make it difficult or even impossible to make medical personnel to control their emotions.From the interviews that have been conducted on the family and the patient that supports FPDR is patient believes that the presence of family members makes it convenient patients. The main concern was that the psychological trauma can occur to family memberswhoviewed theresuscitation process.Familyanxietycanaffect the quality ofresuscitationperformed bymedical personnel. However, many studieshave been doneonFPDRbutstill can not explainthe impactofatradition, values andculture of different countries that practicethisFPDR.

**Conclusion:** The presence of family induring invasive procedures and resuscitationis controversial, anethical dilemmaand contribute to conflicting opinions among health professionals in anemergencycondition. However, the movement that supports this FPDR increases associated with recent research that has been done and the request from the family because it is their right.

**Keywords:** Effectiveness, Family Presence, Resuscitation

## BACKGROUND

Many family membersdeliberatelyleft the roomwhenoneof their family memberswerein critical condition. Although theorganization ofnationalhealth workersadvisefamily presence during resuscitationin progress(Schmidt, 2010). Family presenceduringresuscitationisa growing trendinmanyareasof health care facilities(Balogh&Mitchell, 2012). Family member spresent duringresuscitationat high riskhave aburdenemotionally and physically. On the

other hand, the presence of family members can help families to understand that any action to maintain the life of a person has been done. Impact of family presence during resuscitation is still controversial (Jabre et al, 2014).

Data obtained from studies in Hospital Dr. Soetomo in 2007, for 4 months found there were 220 patients in the resuscitation of cardiac arrest, 34 patients did not RJP for DNR. After RJP, 53 patients Return of Spontaneous Circulation (ROSC) (28.5%). Patients leave the room resuscitation alive as much as 3 patients (1.4%). Median time RJP conducted in patients with ROSC shorter than those without ROSC (10 mins and 20 mins). Median age of the patients with ROSC younger than those without ROSC. EKG VF and VT 100% had ROSC. Old cardiac arrest more than 10 minutes at the most minor to the ROSC. Patients who had a cardiac arrest in the resuscitation room at most that get ROSC. Cardiac arrest patients diagnosed with noncardiac get higher ROSC compared with cardiac diagnosis, and the smallest was diagnosed with trauma. RJP successful action in the resuscitation room is 28.5%.

To overcome suspicion resuscitation efforts in private and family expectations are unrealistic, the presence of family members has the opportunity to give farewell and help one to understand reality, in the hope the process of losing is not too long, even to occur stress disorder posttraumatic (Jabre et al, 2014).

The purpose of cardiovascular emergency service is to preserve life, restore health as before, relieve suffering, limit disability and restore patients from clinical death (Basbeth & Sampurna, 2009). Expected family presence during resuscitation or more known Family Presence During Resuscitation (FPDR) associated with positive results in psychology and does not impede medical efforts, increasing the stress on the health care team and medical issues.

## DISCUSSION

Family Presence During Resuscitation (FPDR) can be defined, the presence of one or two family members who can physically see and touch someone with their closest resuscitation or other invasive measures (Balogh & Mitchell, 2012). According to Clark et al (2005), FPDR is defined as the presence of family in the area of patient care, in a location that gives a visual or physical contact with the patient during resuscitation. Trained facilitators choose a family member is allowed to enter the treatment area, providing constant supervision and emotional support for family members while observing resuscitation, provide counseling and spiritual support sustainable after resuscitation (Bradley, Lensky & Brasel, 2011).

Allowing family presence during resuscitation is the last stage of life of patients who should be rewarded. Patients and family members have the right fundamentally in FPDR. At the American Hospital Association's Patient's Bill of Rights to include some patient rights, one of which is the right to make decisions about treatment plans on themselves. The results of an informal survey conducted in the United Foote Hospital nurse FPDR dissidents say they fear if the family members interrupt treatment in patients who do resuscitation and grief the family can make it difficult or even impossible to make medical personnel to control their emotions. Nurses also feel fear if their words might offend members grieving keluarga (Balogh & Mitchell, 2012). Similarly, studies that evaluated regarding the involvement of family members in the decision to end life in the ICU found that ICU doctors need more training in the knowledge and skills of effective communication with families of critically ill



patients (Antonelli, Bonten, Chastre, et al, 2012). A qualitative study with Lind and colleagues reported that family members wanted a more active role in decision-making at the end of life. Clinicians expression "wait and see" hide and delay information communication honest and clear (Lind, Lorem, and Nortvedt, 2011).

The interviews that have been conducted on the family and the patient got seven main points that emerged from the data that supports FPDR is patient believes that the presence of family members makes it convenient patients, family members can help the patient to act as an advocate for the patient, presence of family members can help alert medical personnel that the patient is a man who has a personality, the presence of the family can maintain patient-family, family presence is a fundamental right, the presence of family members can have a negative effect mentally, but otherwise the patient can feel powerful if there is a family member, FPDR may affect the environment of care if the family was not prepared for what they will see. Contrary to those who disagree concept FPDR. There are four main points of concern is the possible trauma psychology for family members who viewed during resuscitation, litigation of medical, family anxieties can affect the quality of resuscitation performed by medical personnel, medical personnel can be distracted during resuscitation because family members interrupt (Balogh&Mitchell , 2012).

The advantages for patients who are unconscious shortly after resuscitation is successful, FPDR can provide comfort through the presence of loved ones, help the families of patients to understand the decline in the patient's condition and realize that medical personnel do a lot of possibilities that exist in order to save the patient as well as provide an opportunity to educate family members about the condition of the patient, while a family member assist medical personnel by providing information or acting as a spokesman (Bradley, Lensky&Brasel, 2011).

Family members present during resuscitation at high risk have a burden emotionally and physically. On the other hand, the presence of family members can help families to understand that any action to maintain the life of a person has been done (Jabreet al, 2014). Hospitals across the country began to implement a policy of Family Presence During Resuscitation (FPDR). This FPDR concept, began to be applied in the delivery room, emergency department, trauma room and hospitalization. To implement this policy, nurses, religious leaders and doctors need training on how to deal with a family member with a good reaction (Balogh&Mitchell, 2012). Their policies or they may be important in this context because it provides security/ protection and support of health workers legally (Fernandes et al, 2014).

The presence of family in during invasive procedures and resuscitation is controversial, an ethical dilemma and contribute to conflicting opinions among health professionals in an emergency condition. However, the movement that supports this FPDR increases associated with recent research that has been done and the request from the family because it is their right. In 2000, the American Heart Association began recommending that permission presence during resuscitation efforts should be given to all members of the family. But the contradiction with most studies, which show that some health care professionals do not support. This can be demonstrated by the high incidence in the professionals who perform resuscitation witnessed by family and relatives still believe that resuscitation was not feasible for the reasons already explained.

Many studies have been done on FPDR but still can not explain the impact of a tradition, values and culture of different countries that practice this FPDR. Most studies recommend to do more

research in the country of South America, Central America, Australia, India and Indonesia, which have cultural characteristics that are specific to a subject in the face of varied cultures, differences in the health system, the legal and ethical aspects. Differences of opinion and experience of the professionals among the countries of east and west is very relevant in this study, in this case shows that the different cultures and different health systems can influence professional practice. (Fernandes et al, 2014).

## CONCLUSION

Family presence during resuscitation (PDF) is a complex problem which is influenced by several factors related to everyday actions. Family presence during resuscitation did not affect the characteristics of resuscitation, patient survival or the level of emotional stress on the medical team and medicolegal demands. Similarly, the implementation of this FPDR policy can protect and guide professionals legally and outlines the hospital protocol and humane care among family members and patients by health workers, in the hope that the future presence of the family in the context of health-illness can be increasingly intertwined.

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# THE RELATIONSHIP BETWEEN THE CHARACTERISTICS OF MOTHERS AND THE BEHAVIOR OF GIVING FOOD SUPPLEMENT TO THE INFANTS AGE 6-12 MONTHS

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## ABSTRACT

**Background:** Infants, with all its uniqueness require stimulations in order to grow up and thrive properly. One of the growth stimulations is giving appropriate supplement from the age of 6 months. The supplements should be given gradually to stimulate infants's ability to masticate and swallow a wide variety of foods. On the other hand, there are many mothers who presume that giving supplements to the infants under 6 months old, may be able to fulfil nutritional requirements of the infants, besides that, it may overcome infants hunger. This sight is may be affected by the educational background, age, occupation, or the information which are obtained by mothers. This study aimed to investigate relationship between the characteristics of mothers with the behavior of giving food supplement to the infants aged 6-12 months.

**Method:** The design of this study was correlation descriptive, with the population was the mothers whose infant aged 6-12 months in the village of Jimbe, district of Jenangan, Ponorogo regency. Sampling was done by total sampling technique with a number of 40 mothers. The measuring instrument was questionnaire. Data analysis was done by the univariate analysis (age, education, occupation, information, behavior), the bivariate analysis (chi-square with alpha 0,05), and the multivariate analysis (logistic regression to know the dominant factor which is correlated to the mother's behavior in giving food supplements).

**Result:** By the chi-square test we obtained p-values of the relationship between age and behavior by 0,026; education and behavior by 0,020; occupation and behavior by 0,686; information and behavior by 0,021. From the chi-square test results we concluded that there was relationship between the age, education, and information, with the behavior of giving food supplement to the infants, whereas the occupation was not related to the behavior of giving food supplement to the infants. From the logistic regression results, we obtained that the age was the dominant factor in behavior of giving food supplement to the infants.

**Discussion:** According to these results, we concluded that the older age of mothers, the better their behavior in giving food supplement to the infants. It because of their maturity and better experience in taking care of infants, not only from eksternal knowledge but also from internal (experiences in taking care of previous infants).

**Keyword:** Characteristics, Behavior, Food Supplement

## INTRODUCTION

Infants or children would reach optimum growth and development if they receive proper stimulation. The stimulation includes a balanced nutrition, exclusive breastfeeding and a proper supplementary food. Supplementary foods should be given gradually to develop infant's chewing and swallowing ability until they can accept various forms of food. Infants should be trained to chew and swallow solid foods and also should be familiarized with new tastes. Infants might feel more difficulty in adapting with solid foods if it is not given at the emergence of chewing versatility (Wardani, 2012).

Currently, there is a phenomenon where mothers do not exclusively breastfeed their babies and prefer to give milk formula or supplementary food to infants aged less than six months. Some mothers consider that supplementary food can meet the nutritional needs of infants so their babies will not be hungry anymore. In addition, most mothers are still unaware of the benefits of exclusive breastfeeding. Supplementary food can be dangerous because infant's digestive system still cannot digest the food perfectly (Pardosi, 2009).

World Health Organization (2008) found that there were 64% infants that received supplementary food at the age of 2 months old, 46% infants aged 2-3 months, and 14% infants aged 4-6 months. A research in Sri Lanka showed that 23% infants received supplementary foods at age 4 months old, and almost all of the mothers have started to give solid foods such as rice, biscuits, and others without medical advice. There are 34% from a total of 410 infants were given supplementary foods before they reach 6 months old. A data from UNICEF in 2006 stated that there were only 14% of Indonesian mothers who provided exclusive breastfeeding for their infants, and it was only given until the infant reached four months old (Wargiana, *et al.*, 2013).

National socio-economic survey stated that, in Indonesia, there were 32% mothers who gave supplementary food to infants aged 2-3 months, and 69% mothers who gave it to infants aged 4-5 months (IDHS, 2002; Pardosi, 2009). A report from the Ministry of Health stated that 33.11% babies already been given supplementary foods before they reach 4 months old, and 78.23% babies received supplementary food on the age of 4 months or more (MOH, 2002). In 2010, 4.5% of Indonesian babies received breastfeed and liquid foods (predominant), and 81.54% received breastfeed and early supplementary foods (partial). A report of infants nutritional coverage status (aged 0-6 months) in 2010 showed that 4.2% babies were categorized in malnutrition category, 7.2% in lack-nutrition category, 82.3% in good nutrition category, and 6.2% in over-nutrition category. Generally, Indonesia can be categorized in good nutritional status, but there are still many babies who have nutritional problems such as malnutrition, lack of nutrition, and over nutrition (Wargiana, *et al.*, 2013).

In 2010, there were 20.54% of the total 662 districts in East Java (136 districts) that were prone to malnutrition. There were 2.07% from the total of 42,826 babies were categorized as below the threshold (BGM). In 2010, nutritional coverage status in East Java showed that 4.8% babies were categorized in malnutrition category, 12.3% in lack-nutrition category, 75.3% in good-nutrition category, and 7.6% in over-nutrition category. Besides that, there were 69.28% babies who received early supplementary food (Wargiana, *et al.*, 2013).

According to data from the Health Department of Ponorogo in 2013, there were 766 infants aged 6-12 months in Sukorejo subdistrict, 764 infants in Ngrayun subdistrict, 442 infants in Jenangan subdistrict, and during August 2014 there were 40 infants in

Jimbe subdistrict. Researchers found that there are mothers who give snacks (such as crackers, bananas, and crushed rice) to their babies before the age of 6 months. Those mothers said that their babies are still fussy even after being fed, and they think that it is because the babies are still hungry and not satisfied with the breastfeed (Maysaroh, 2014).

Some of the reasons why mothers give supplementary foods for their 6-12 months old babies are because of the notion that the baby will still be hungry even after being given breastfeed, and thus, the baby cannot sleep soundly because of the hunger, and the baby might be sick because of the hunger. Traditional parents also emphasized that babies will be healthier if they were given the food sooner (Wardani, 2012). This assumption is not true. Supplementary feeding at an early age, especially solid foods, can cause infection, overweight, and allergic (Murniningsih, 2008). Mothers should not ignore the negative impact of improper feeding. Supplementary food that is given too early can cause diarrhea, constipation, and obesity. However, it might lead to malnutrition if it is given too late.

This improper supplementary feeding behavior is caused by several factors, such as lack of knowledge and individual differences (age, education, employment). An education program on how to provide supplementary food to 6-12 months old infants is necessary for the mother, so public can understand the positive and negative consequences of supplementary food. WHO/UNICEF in the Global Strategy for Infant and Young Child Feeding recommended four important things that must be done to achieve optimum growth and development. First, the infant should be given breast milk immediately after birth, on the first 30 minutes. Second, the infant should only be given breast milk or exclusive breastfeeding during the first 6 months after birth. Third, the infant should be given supplementary food on the age of 6-24 months. Fourth, the breastfeed should be continued until the infant reaches 24 months old (Wargiana, *et al.*, 2013). Based on the description above, a research on the correlation between mother's characteristics and mother's supplementary feeding behavior is necessary to be done.

## METHOD

Descriptive correlation research design was used to examine the correlation between mother's characteristics (age, education, employment, access to information) and mother's supplementary feeding behavior. The population of this study was mothers of 6-12 months old infants Jimbe, Jenangan, Ponorogo, with a total 40 infants. Saturated sampling was used in this study, which includes 40 samples. Data were collected by using questionnaire. Data analysis consisted of univariate analysis (age, education, employment, behavior, access to information), bivariate analysis that was performed by using chi-square ( $\alpha=0.05$ ), and multivariate analysis that was performed by using logistic regression to determine the dominant factors related to the mother's supplementary feeding behavior.

## RESULTS

This research was conducted on 40 respondents who were mothers of 6-12 months infants. Results of the analysis are as follows:

**Table 1. Characteristic Distribution of Respondents in Jimbe, Jenangan, Ponorogo**

No	Variable	Frequency	Percentage (%)
<b>Age (Year)</b>			
1	21-30	26	65
2	31-40	14	35
<b>Education</b>			
1	Low (elementary/middle school)	24	60
2	High (high school/university)	16	40
<b>Employment</b>			
1	Working	32	80
2	Unemployment	8	20
<b>Information</b>			
1	No	21	52,5
2	Yes	19	47,5
	Total	40	100

Data on Table 1 showed that 26 respondents (65%) were in early adulthood category (21-30 years old), 24 respondents (60%) got low level of education (elementary/middle school), 32 respondents (80%) were working, and 21 respondents (52.5%) were never got any information related to supplementary feeding in infants.

**Table 2. Distribution of Respondents by Age and Supplementary Feeding Behavior in Jenangan, Jimbe, Ponorogo**

Age (Years)	Mother's Behavior				Total		<i>p</i> value	OR (95%CI)
	Negative		Positive					
	N	%	N	%	N	%	0,026	6,00
21-30	20	76,9	6	23,1	26	100		1,4-24,9
31-40	5	35,7	9	64,3	14	100		

Table 2 showed that mothers who were in middle adulthood category (31-40 years) resulted in positive compared to mothers in early adulthood category (21-30 years), that was 9 (64.3%) and 6 (23.1%). These results showed that there is correlation between mother's age and mother's supplementary feeding behavior ( $p=0.026$ ), where mothers who were in middle adulthood category had 6 chances of showing positive behavior compared to mothers in early adulthood category (OR value=6.00).

**Table 3. Distribution of Respondents According to Level of Education and Supplementary Feeding Behavior in Jenangan, Jimbe, Ponorogo**

Level of Education	Mother's Behavior				Total		<i>p value</i>	OR (95%CI)
	Negative		Positive					
	N	%	N	%	N	%		
Low (elementary/ middle school)	19	79,2	5	20,8	24	100	0,020	6,33 1,5-26,0
High (high school/ university)	6	37,5	10	62,5	16	100		

Table 3 showed that higher education (high school/university) resulted in a more positive supplementary feeding behavior compared to the low education (elementary/middle school), that was 10 (62.5%) and 5 (20.8%). These results showed that there is correlation between mother's age and mother's supplementary feeding behavior ( $p=0.020$ ), where mothers with higher education had 6 chances of showing positive behavior compared to mothers with low education (OR value=6.33).

**Table 4. Distribution of Respondents According to Employment and Supplementary Feeding Behavior in Jenangan, Jimbe, Ponorogo**

Employment	Mother's Behavior				Total		<i>p value</i>	OR (95%CI)
	Negative		Positive					
	N	%	N	%	N	%		
Unemployed	6	75	2	25	8	100	0,686	2,053 0,357-11,799
Working	19	59,4	13	40,6	32	100		

Table 4 showed that unemployed mothers resulted in a more negative supplementary feeding behavior compared to mothers who were working, that was 6 (75%) and 19 (52.4%). Statistical results showed that there is no connection between the employment status and the mother's supplementary feeding behavior ( $p=0.686$ ).

**Table 5. Distribution of Respondents According to the Access of Information and Supplementary Feeding Behavior in Jenangan, Jimbe, Ponorogo**

Access to Information	Mother's Behavior				Total		<i>p value</i>	OR (95%CI)
	Negative		Positive					
	N	%	N	%	N	%		
No	17	81	4	19	21	100	0,021	5,844 1,413-24,171
Yes	8	42,1	11	57,9	19	100		

Table 5 showed that mothers with knowledge about supplementary feeding resulted in a more positive supplementary feeding behavior than mothers with no knowledge, that was

11(57.9%) and 4(19%). Statistical results showed that there is a relationship between access to information and mother's supplementary feeding behavior ( $p=0.021$ ), where mothers with access to information had 5 chances of showing positive behavior compared to mothers with no access to information.

**Table 6. Results Of The Logistic Regression Between Mother's Characteristics And Mother's Supplementary Feeding Behavior**

No	Variable	Exp (B)	<i>P value</i>	95% CI
1.	Age	8,627	0,020	1,403-53,055
2.	Education	3,674	0,140	0,651-20,725
3.	Access to Information	5,239	0,078	0,828-33,145

Table 6 showed that age variable has the highest exp(B) value, which means that mother's age was the dominant factor that affected the mother's supplementary feeding behavior towards 6-12 months old infants ( $p < 0.05$ ), and followed by access to information and education variables.

## DISCUSSION

Nutrition is a process where organism uses the consumed food through the digestion, absorption, transportation, retention, and metabolism processes. Besides that, excretion process is also necessary for substances that are not used to sustain life, growth, organs normal function, and energy production. Pregnant mothers should be provided with sufficient nutrition, so the infants can be nourished since the conception (Wargiana, *etal.*, 2013). Supplementary food is foods that should be given to 6-23 months old infants, where they are ready to eat solid food at the age of 6-9 months. There are several indicators when the baby is ready to receive supplementary foods, that is 1) the baby can sit up and maintain its head unassisted, 2) the baby can make chewing movements, 3) current weight has doubled from the birth weight, 4) the baby shows interest in food, 5) the baby opens their mouth when there is a spoon near their mouth, 6) the baby can move foods from the front to the back of the mouth, 7) the baby can move the tongue, 8) the teeth starts to grow (El Twins, 2009)

Statistical results suggested that there is a correlation between mother's age and mother's supplementary feeding behavior ( $p=0.026$ ). The largest exp (B) value is age variable. The  $p$  value  $< 0.05$  in age variable means that mother's age is the dominant factor that affect the mother's supplementary feeding behavior towards 6-12 months infants. Women, who have reached adulthood period, are expected to accept responsibility as a mother and provide care for the household. This sense of responsibility demands the mother to behave positively towards the development of her 6-12 months old baby. Age is a pattern of new life and new hope. Results of this study support the correlation between mother's age and mother's supplementary feeding behavior. Age is the dominant factor that influences behavior. Mothers in middle adulthood category (31-40 years old) are more likely to show a positive supplementary feeding behavior compared to mothers early adulthood category (21-30 years old). Knowledge increases as the age increase (Notoatmodjo, 2003). The increased knowledge will affect daily behavior. Increasing age is usually in accordance



with increasing experience so the older group in this study showed a more positive behavior than the younger group.

Correlation was found between mother's education and mother's supplementary feeding behavior ( $p=0.020$ ). Education supports the mother's supplementary feeding behavior. According to Sunaryo (2004), formal education is focused on the teaching and learning process in order to make behavioral changes, from not knowing to knowing and from not understanding to understanding. Education is a medium to obtain information related to health so it can be used to improve quality of life. Education also plays a role in increasing a person's information and knowledge (Ella in Muthmainah, 2010). Pangemanan (2014) also found a correlation mother's education and mother's supplementary feeding behavior ( $p=0.010$ ), where the  $p$  value is  $<0.05$  and significance level  $\alpha$  at 5%, then  $H_0$  is rejected. It can be concluded that there is a significant correlation between the level of education and the early administration of supplementary foods. Mother's level of education forms the value in the individual, especially in accepting new information. Level of education is a determining factor that can show whether or not the mother is easy to absorb and understand the nutritional information (Suhardjo, 2000). Education affects mother's supplementary feeding behavior, where higher level of education will allow the mother to receive information and to apply them in everyday lives.

Statistical results showed there is no correlation between mother's employment status and mother's supplementary feeding behavior towards 6-12 months old infants. According Notoatmodjo (2003), work is the activity that has to be done in order to obtain a compensation to fulfill everyday needs. Research results showed that mothers who were working highly tend to produce negative behavior (59.4%). These results are supported by Wuryaningsih (2009), who found that there is no significant correlation between employment status and supplementary feeding behavior ( $p=0.965$ ). Yulaikha (2015) also suggested that there is no correlation between employment status and supplementary feeding behavior. Kristianto & Sulityarini (2013) reported that mother's employment status does not affect the mother's early supplementary feeding behavior ( $p=0.992$ ). It is probably caused by the limited time of the working mother so they don't have enough time to provide breast milk for their babies and thus prefer to provide supplementary foods. Lack of breast milk that is felt by the mother also affects the mother's early supplementary feeding behavior (Otsuka, 2008).

There is a correlation between mother's access to information and mother's supplementary feeding behavior towards 6-12 months old infants ( $p=0.021$ ). According Notoatmodjo (2003), information related to healthy living, health behavior, etc will cause people to behave according to the information. George H. Bodnar (2000) suggested that information is a processed data that will be used as a basis for decision-making. Currently, the rapid development of science and easy access of information affect mothers to be more active in imitating the obtained information. There are also many advertisements about infant formula and infant supplementary food in various media that can affect mother's opinion about supplementary food, because mothers might think that infant formula is better than breast milk and that breast milk is not enough to fulfill the baby's needs (Ratih and Artini, 2013). Ruth and Artini's (2013) research supported the finding in this research, which stated that information affects the supplementary feeding behavior (26 respondents or 100%).

According Notoatmodjo(2003), health behavior is a response to illness or disease, health care systems, food, and environment. Supplementary food should only be given after the baby reaches 6 months old, because it will provide great benefits to the baby if given on the right time (Nature, 2010). Mothers play an important role to prevent the provision of improper supplementary feeding and to prevent malnutrition in infants and children. The phenomenon of growth failure or growth faltering in children began to occur at the age of 4-6 months old, when the baby is given supplementary food but the growth continues to deteriorate until the age of 18-24 months old. Malnutrition contributes 2/3 of infant mortality. The deaths are related to improper feeding behavior toward infants and young children (Ibrahim, *et al.*, 2014).

## CONCLUSION

- There is a significant correlation between age, education and information with the supplementary feeding behavior towards 6-12 months old infants.
- The employment status is not correlated to the supplementary feeding behavior towards 6-12 months old infants.
- Age is the dominant factor that affects mother's supplementary feeding behavior towards 6-12 months old infants.

## SUGGESTION

- An education program to increase mother's knowledge is necessary to change their perception, so the mother will get sufficient information to conduct a good supplementary feeding behavior.
- Health care providers should perform a training program for the frontline staffs so they can provide sufficient information to the public.
- Intensive assistance in the provision of supplementary feeding behavior is necessary to be done so the health workers can directly supervise the mother's behavior.

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# THE EFFECTIVENESS OF DIM LIGHTS USE TOWARD THE SLEEP QUALITY OF STUDENTS IN STIKES MUHAMMADIYAH LAMONGAN

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## ABSTRACT

**Background:** Sleep is a basic need for every human being. Sleeping in the night is very good since night is a good time for body to have a rest. Based on the results of the initial survey from 15 students of STIKES Muhammadiyah Lamongan, it is found that there were 10 students (66.7%) saying that they frequently woke up in the night and could not sleep well.

**Aims:** The aim of this study is to determine the effectiveness of the use of dim lights toward the quality of students' sleep.

**Methods:** The design of this study was pre-experimental method using one group pre-post test design. The sampling method was simple random sampling of 56 respondents. The data was analysed using Wilcoxon test.

**Results:** The result of this study that 24 of 56 respondents not having been given the treatment of dim lights yet got enough sleep quality (42.9%) and 28 respondents having been given the treatment of dim lights got good sleep quality (50%). The result of this study analysed using Wilcoxon test was  $Z = -3622$   $p(0.000) < 0.05$ . The results showed that the use of the dim lights is very effective to improve the quality of students' sleep.

**Conclusion:** The conclusion of this study is that the use of dim lights is very effective to improve students' sleep quality. Therefore, it is needed for the students to get known about the use of dim lights to improve their sleep quality.

**Keywords:** the quality of sleep, the dim lights

## INTRODUCTION

Sleep is a very basic need for every human being. Sleeping in the night is very good since night is a good time for body to have a rest. Sleeping regularly is quite useful for body to give a good impact especially when you wake up in the morning, you will feel fresher and can do activities as usual. A good sleep depends on the quality of sleep (Kozier et al, 2010). A good sleep quality must meet the quantitative and qualitative aspects of sleep, such as the duration of sleep, the time duration taken to fall asleep, waking up frequency and the subjective aspects such as depth and profound sleep (Hidayat, 2006).

Each year, there are approximately 20-50% of adults experiencing sleep disorders and about 17% of them experiencing serious sleep disorders. The prevalence of sleep disorders every year tends to increase more and more. This is also in accordance with the increasing of age and any other various causes (Ajeng, 2013). In 2011, regular surveys conducted by the National Sleep Foundation since 1991 involved 1,508 respondents. The respondents were divided into four age groups: 13-18 years, 19-29 years, 30-45 years and 46-64 years. Most respondents said that they never or rarely sleep well in the school or work days, with the highest percentage around 51% for age 19-29 years.

Based on the results of the initial survey using interviews to 15 students of STIKes Muhammadiyah Lamongan, there were 10 students (66.7%) said that they frequently woke up at night and could not sleep soundly. Based on that initial survey, it can be concluded that there are still many students experiencing lack of sleep quality.

One of some efforts for having a good sleep quality is to use dim lights while sleeping. Dim lights can reduce stress hormones, activate endorphins naturally, increase the feeling of relaxation, and divert one's attention away from fear, anxiety and tension, improve the system of body chemistry that lowers blood pressure and decelerate respiration, heart rate, pulse and brain wave activity. The rate of deeper or slower breathing is very good that will lead to calmness, emotion controls, deeper thinking and better metabolism (Patlak, 2005).

The aim of this study was to determine the effectiveness of dim lights use toward the sleep quality of students.

## METHODS

The design of this study used pre-experimental design with one-group pre-post test design. The data were analysed using Wilcoxon test.

## RESULTS

Table 1 shows the distribution of the students sleep quality before using the dim lights.

**Table 1 The Students Sleep Quality Before Using The Dim Lights**

No	Sleep Quality	Total	Percentage
1.	Very Good	0	0 %
2.	Good	18	32,1 %
3.	Enough	24	42,9 %
4.	Poor	14	25 %
Total		56	100 %

Based on Table 1, it shows that 24 respondents (42.9%) have enough sleep quality, and 14 respondents (25%) have poor sleep quality.

The distribution of respondents by their sleep quality after using dim lights is showed in the table 2.

**Table 2 The Students Sleep Quality After Using The Dim Lights**

No	Sleep Quality	Total	Percentage
1.	Very Good	10	17,9 %
2.	Good	28	50 %
3.	Enough	16	28,5 %
4.	Poor	2	3,6 %
	Total	56	100 %

Table 2 shows that 28 students (50%) have good sleep quality, and 2 students (3.6%) have enough sleep quality. The table of the dim lights use is in the table 3.

**Table 3 The table of students' sleep quality before (pre) and after (post) the use of dim lights**

Sleep Quality ( <i>pre</i> )	Sleep Quality ( <i>post</i> )								Total	
	Very Good		Good		Enough		Poor			
	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%
Good	6	33,3	8	44,4	4	22,3	0	0	18	100
Enough	4	16,7	16	66,7	4	16,6	0	0	24	100
Poor	0	0	4	28,6	8	57,1	2	14,3	14	100
Total	10	17,9	28	50	16	28,5	2	3,6	56	100
Z= -3.622      P =0,000										

The result of this study analysed using Wilcoxon test was  $Z = -3622$  p (0.000) <0.05. The results showed that the use of the dim lights is very effective to improve the quality of students' sleep.

## DISCUSSION

Table 1 shows that 24 respondents (42.9%) of the total number of respondents before getting the intervention have enough sleep quality, and 14 of the total respondents (25%) have poor sleep quality.

According to Prasadja (2013), the rays of lights can cause one's sleep quality not really optimal since the lights itself has a role as a stimulant for the brain. Scientifically, the light in the bed room will break parts of one's eyes even when they are asleep, then light will go into the stimulator part that will be responded by the brain. In the other words, even though our eyes were closed, but if there is still a light shining then our brains will work to respond or interpret that light.

This result was similar with the experts' research from South Korea that say people who sleep with the lights on will experience sleep phase one which is not too deep, which means the sleep wave becomes slower and the frequency of waking up becomes higher. There is also a change to the oscillations of the brain, particularly to those associated with the depth and stability of one's sleep (Wulandari, 2013).

Sleeping with lights on will reduce the quality of one's sleep. It could be due to stress levels in each individual. This is in accordance with the opinion of Potter & Perry (2010) which states that stress would cause someone trying too hard to fall asleep and waking up frequently during the sleep. An acute stress can cause a poor sleep habits such as frequently waking up at night, which will give a bad effect to the quality of one's sleep.

Table 2 shows the data of sleep quality after the use of dim lights. The data indicates that 28 students (50%) have good sleep quality, and 2 students (3.6%) have enough sleep quality.

National Sleep Foundation (2011) states a good sleep quality can be obtained by conditioning the optimal sleep environment by turning off the lights or darken the room before falling asleep to get a perfect sleep cycle. A perfect sleep cycle described by Potter & Perry (2010) is a physiological process that cyclical alternating in longer periods of waking.

The use of dim lights according to Patlak (2005), it activates endorphins naturally, increases the feeling of relaxation, diverts one's attention away from fear, anxiety and tension, and improves one's body chemistry system that lowers blood pressure and decelerates respiration, heart rate, pulse rate, and brain waves activity. That rate of deeper or slower breathing is very good that lead to calmness, emotion controls, deeper thinking, and better metabolism.

Sleeping using dim lights is also beneficial to the immune system (Wulandari, 2013). A biologist, Joan Robert said that the body could produce the melatonin hormone when there is no light. This hormone is one of the immune hormones that are able to fight and prevent various kinds of diseases. Melatonin hormone will not come out if people sleep with the lights on at night. Bright light will make the production of melatonin hormone stopped. When you want to go to sleep, darken your bedroom by turning off the lights, but let a slight of lights still seeping in, or use a small bedroom lights. It aims to keep the eyes on to see around when waking up or wanting to go to the bathroom in the middle of the night. Turning off the lights for an hour can be a good exercise to start the habit in reducing light when sleeping in the night.

According to Potter & Perry (2010), hormonal system and sleep cycle are influenced by several hormones such as Adrenal Corticotrophin Hormone (ACTH), Growth Hormone (GH), Thyroid Stimulating Hormone (TSH), and Luteinizing Hormone (LH). These hormones are regularly secreted by the anterior pituitary gland through the hypothalamus. This system regularly affects the secretion of neurotransmitter, norepinephrine, dopamine, serotonin, which is responsible for managing the mechanism of sleeping and waking.

Table 3 shows that there are differences in the sleep quality before and after the use of dim lights. It means that dim lights are very effective to improve the quality of one's sleep.

Before the intervention is given, 14 respondents (25%) have poor sleep quality and after being given intervention two respondents (3.6%) have poor sleep quality. Whereas before the interventions given to the respondents, none of them has very good sleep quality and after being given the intervention 10 respondents (17.9%) have very good sleep quality.

Chorpa (2003) states that sleeping with the lights on is known to cause someone wake up in the midnight more often and even degrade the quality of one's sleep. It also affects the brain oscillations that are closely related to the depth of human sleep.

Sleeping with the lights on also can cause the increasing of one's anxiety that will disturb their sleep. Anxiety can increase the levels of norepinephrine in the blood through the

sympathetic nervous system. This chemical change can cause the decreasing of one's sleep duration in the stage IV of NREM and REM, and also cause any others changes in the sleep stages and more often get awakened (Kozier et al, 2010).

According to Ekasari (2013), sleeping with the lights on at night, even the slightest light can stop the production of melatonin hormone. Whereas, sleeping using dim lights can cause melatonin hormone work properly and produce melatonin hormone. This hormone is produced at night by the pineal gland where the essential amino acids, tryptophan is converted into serotonin enzyme before it becomes melatonin enzyme, a hormone that plays a role in regulating the body's biorhythms when one is asleep. That production will naturally decrease by the increasing of one's age especially over the age of 50, and for them whose age are over the age of 60, the amount of melatonin produced only half of the amount produced when they are 20-30 years old. Its role is as a regulator of human sleeping hours.

The results of this study that dim lights can effectively improve the quality of one's sleep is also supported by Smith & Segal (2010) which states that a person's sleep quality is influenced by lighting. Lighting can affect one's ability to sleep because of convenient factors. Physical environment where someone sleeps is very important to improve their ability to fall asleep and stay asleep. Good ventilation is also essential for a restful sleep. Other factors that can influence one's sleep quality are size, hardness and the position of the bed.

## CONCLUSION

The results showed that the use of dim lights can effectively improve the quality of students' sleep. Hence, it is very essential to give additional information for students and the society to use dim lights during their sleep to improve their sleep quality.

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# **THE RELATIONSHIP BETWEEN CIGARETTE CONSUMPTION AND INCIDENCE OF ACUTE MYOCARDIAL INFARCTION (AMI) IN INTENSIVE CORONARY CARE UNIT (ICCU) Dr. ISKAK HOSPITAL OF TULUNGAGUNG DISTRICT 2015**

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## **ABSTRACT**

Heart attack or Acute Myocardial Infarction can be defined as a situation where suddenly occur or absence of blood flow to the heart, due to the obstruction which causes the heart muscle to die from lack of oxygen. Based on the results of the initial survey conducted throughout the month of September to October 2014, of the 68 respondents as many as 32 respondents experienced IMA. The method used in this study was conducted cross-sectional correlation, for the population is all the patients in the Intensive Coronary Care Unit, the sample were 58 respondents, using quota sampling technique. The variables used in this study is the independent variable cigarette consumption while Acute Myocardial Infarction dependent variables. Cigarette consumption data retrieval technique using a questionnaire, while the Acute Myocardial Infarction data retrieval technique using medical records, while the data analysis performed by Spearman Rank (Rho) with a significance level of 0.05. The results of this study (46.6%) of respondents from 58 respondents are moderate smokers, and accompanied by the occurrence Acute Myocardial Infarction. The result Spearman Rank test (Rho) obtained the results of the  $p$  value =  $0.001 < \alpha = 0.05$ , then  $H_0$  is rejected and  $H_1$  accepted. Means that there is a relationship between the consumption of cigarettes with the incidence of Acute Myocardial Infarction in patients in the Intensive Coronary Care Unit Hospital Dr. Iskak Tulungagung 2015, with the direction of the positive correlation (0.411), which means that if tobacco consumption the more it will increase. The conclusion of this study is almost half (46.6%) of respondents from 58 respondents are moderate smokers, and along with the incidence of acute myocardial infarction with the level of the relationship is strong enough. Suggestions from this study should be of respondents knew the dangers of smoking, and reduce to consume even able to quit smoking cigarettes.

## **INTRODUCTION**

Acute myocardial infarction (AMI) was known as heart attack (heart attack) generally. AMI is a form of myocardial cell necrosis due to a continuous ischemia and significant result of decreasing of blood flow through a coronary artery. The main cause of acute myocardial infarction is coronary atherosclerosis (Ant-Man, 2012; Mendis et al., 2011).

According to a WHO (2009), AMI is the leading cause of death in the world. Accounted for 7,200,000 (12.2 %) of deaths caused by this disease worldwide. A study by Nakatani et al., (2013) in Japan showed that the incidence of re - MI per year was 2.65% in the first year and be 0.91 to 1.42 % within 5 years. A research by Sayehmiri et al., (2012) in Iran said that the mortality rate of myocardial infarction after one month was 25.8% , 29.7 % at 6 months, and one year by 32.8 % while the figure in- hospital mortality was 7.99%.

In East Java, five million people was suffering from AMI per year. In addition, East Java was the second highest after the Yogyakarta on Java island. It was estimated that this number will continue to increase, and the number of deaths will continue to rise if the disease-causing factors of AMI did not immediately avoided (Ifanti, 2012).

Based on the earlier survey in Intensive Coronary Care Unit (ICCU) Dr. IskakHospital of Tulungagung 2014 on November 5, 2014, the incidence of AMI was increasing every year. In the year 2012, there were 158 patients, 164 patients in 2013, and commencing from June to October 2014 there was an increasing every month, in June there were 8 patients, 14 patients in July, in August the 14 patients, 11 patients in September, and October 21. While the survey showed the number of heart patients in the Intensive Coronary Care Unit (ICCU) Dr. IskakHospital ofTulungagung throughout September and October 2014 was as many as 68 patients. This demonstrated the high incidence of AMI patients in the Intensive Coronary Care Unit (ICCU) Dr. IskakHospitalTulungagung.

## METHOD

Analytic correlative design was used in this study. Sample in this study were 58 patients with heart disease were selected by using quota-sampling technique. Instruments for collecting data were questionnaire and medical record. Spearman's test was used to analyze the data.

## RESULT

**Table 5.1 Characteristics of Respondents by Gender in ICCU Dr. Iskak Hospital of Tulungagung.**

No	Category	Frequency	Percent (%)
1.	Men	49	84,5
2.	Women	9	15,5
Total		58	100

**Table 5.2 Characteristics of Respondents Based on Latest Education Patients in the ICCU Dr. IskakHospital of Tulungagung**

No	Category	Frequenc y	Percent (%)
1.	High	4	6,9
2.	Medium	24	41,4
3.	Low	30	51,7
Total		58	100

**Table 5.3 Characteristics of Respondents by Occupation**

No	Occupation	Frequency	Percent (%)
1.	Police/Soldier	0	0,0
2.	Civil Servant	2	3,4
3.	Private sector	24	41,4
4.	Farmer	29	50,0
5.	Retire	2	3,4
6.	Businessman	1	1,7
	Total	40	100

**Table 5.4 Frequency Distribution of Cigarettes Consumption**

No	Cigarette Consumption	Frequency	Percent (%)
1.	not smoke	18	31,0
2.	light smokers	13	22,4
3.	moderate smokers	27	46,6
4.	heavy smokers	0	0,0
	total	58	100

**Tabel 5.5 Frequency Distribution of AMI**

No.	AMI	Frequency	Percent (%)
1.	Not AMI	25	43,1
2.	AMI	33	53,9
	Total	58	100

## DISCUSSION

### 1. Consumption of Cigarettes AtIMA Patients in the ICCUDr. IskakHospital of Tulungagung 2015

Detrimental habits and routines that have the power to ruin a person's health as cigarette consumption is an example of a habit to facilitate a person's cardiovascular disease. After analysis of data and test results of research using statistical test of Rank Spearman (Rho), the results need to be discussed on the consumption of cigarettes with the incidence of acute myocardial infarction (AMI). Because of the many cases of heart disease in patients enrolled in the ICCU Dr. Iskak Hospital of Tulungagung District in 2015, there were 58 cases of patients with heart disease or who served as respondents.

Based on the results of research on the cigarette consumption of 58 respondents found that nearly half (46.6 %) of respondents were moderate smokers. Cigarette consumption in patients with acute myocardial infarction (AMI) in the ICCUDr. IskakHospital of TulungagungDistrict almost half of the respondents are moderate smokers.

Smoking will cause heart disease, lung cancer, sterility, disease shortness of breath or difficulty breathing (emphysema) shorten the lifespan of an average of 80 for heavy smokers (two packs a day), while light smokers (one pack a day) reduced an average of 4

years, ulcers in the digestive tract, cirrhosis hepatica, cancer of glandular stomach, cancer of kidney, bladder disease, blindness, miscarriages, decreasing of mental efficiency from 20 % to 23 %, cancer of the lips, mouth and tongue (Health Prop East Java Province, 2000).

Where in Table 5.1 showed that nearly all respondents male sex as much as 49 respondents (84.5%). Gender was an important factor. Women better at handling stress than men. Thus, more number of men who smoke than women in stressful situations (Abu Ahmadi and M. Umar, 1992). In addition to gender, education level of respondents was also influenced by the rising of cigarette consumption to AMI patients, whereas in table 5.2 above illustrates that the majority of respondents was primary education (51.7%) of respondents. Their knowledge about AMI was low and related to the search action treatment, lack of education and knowledge resulted in the slow search of treatment and diagnosis of diseases, this has resulted in cigarette consumption in AMI patients was increasing and the disease getting worse (Susanto, 2006).

DASS (2006) said that a low knowledge about the AMI and cigarette consumption could cause stigma attached to the AMI. Bad stigma caused many deaths due to the AMI. Lack of knowledge about the disease AMI resulted in patients not knowing the harmful effects of cigarette consumption. Regarding education researcher influence on respondents' knowledge to seek treatment and early diagnosis of disease and cigarette consumption problems that would be caused by the AMI.

Another influential factor in cigarette consumption in patients with AMI that respondents occupation, which in Table 5.3 above showed that half of the respondents worked as farmers, namely (50.0%). Progression of the disease from the patient himself if not handled carefully could cause excessive cigarette consumption in patients with AMI and this situation becomes an obstacle for patients with AMI in the society to meet social and economic needs, nor could play a role in the development of the nation. Besides the increasing of death, the false idea of a society to AMI, the excessive fear would strengthen the economic problems of AMI patients (MOH, 2003). Smoking was a habit (habituation) and not the dependence (addiction). There was a very fundamental difference between habits (habituation) and dependence (addiction) (Aiman Husaini, 2007).

A study by Fonarow (2009) showed that one could experience a heart attack without other risk factors if someone was smoking, or if you were just a smoker, or having a risk factor such as hypertension or high cholesterol, you were at risk for having a heart attack two times greater than the normal population. In other words, if you smoke, you are at risk of having a heart attack two times greater than non-smokers have. If you had two of these risk factors, your risk increases four times, and when you had three risk factors (smoking, hypertension, cholesterol), then your risk for having a heart attack was also increased by 8 times.

## **2. Acute Myocardial Infarction (AMI) in patients at ICCU Dr. Iskak Hospital of Tulungagung District in 2015**

Based on the results of the study, the incidence of AMI in 58 respondents found that (56.9%) of respondents suffered from AMI. The incidence of AMI patients in the ICCU Dr. Iskak Hospital of Tulungagung most respondents experienced AMI. The causes of AMI in the respondents among others were age, gender, familiar, hypertension, cigarette consumption,

heightened blood cholesterol, diabetes mellitus, and obesity. It may be influenced by gender, age, education, past employment, and income of respondents .

AMI was commonly known as a heart attack, due to the death of heart muscle (McDonald & Chapman, 2003). AMI could occur due to blockage of the coronary arteries with thrombus or of the extension of ischemia due to coronary artery spasm occurs or no improvement in coronary artery obstruction (Jacobson, 2005). AMI was a myocardial necrosis due to interruption of blood flow to the heart muscle. When the blood flow in acute decreases of 80-90%, and if it did not back flow then continues into ischemic injury then necrosis (infarction) of myocardial tissue (Hagan & Ignatavicius, 2006) .

Based on some of the above understanding heart attack or AMI, AMI can be defined as a situation where suddenly occur or absence of blood flow to the heart , due to the obstruction that causes the heart muscle to die from lack of oxygen.

### **3. The relationship between smoking consumption with incidence of myocardial Infarction Acute (IMA) in Patients at ICCU Dr. Iskak Hospital of Tulungagung District in 2015**

According to Suharto (2000), smoking was a major factor in coronary heart disease (AMI). In the state of smoking, blood vessels in some parts of the body will be narrowed, in this situation; blood flow required a higher pressure, so that blood can flow to organs by a fixed amount. For the heart to pump blood more powerful, so the pressure on the blood vessels increases. Smoking also tended to lead to vasoconstriction of peripheral blood vessels and vessels in the kidney that raise blood pressure and accelerate the heart rate so that heart worked harder (Wardoyo, 1996).

Light cigarette consumption in the AMI was 6.9% with the number of 4 respondents while cigarette consumption was 37.9% with the number of 22 respondents. By looking at the percentage of smokers in the mild and moderate groups that occurred AMI, it could be concluded that in this study the consumption of cigarettes being the percentage of respondents who were at greater risk for developing acute myocardial infarction.

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# THE COMPARATION BETWEEN THE EFFECTIVENESS OF MANUAL CARDIOPULMONARY RESUSCITATION AND MECHANICAL CHEST COMPRESSION DEVICE APPLICATION IN CARDIAC ARREST: A LITERATURE REVIEW

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## ABSTRACT

**Background:** Cardiac arrest is one of the most common causes of dead in the world. This condition occurs frequently with an estimated incident of 50 up to 100 per 100.000 person/ years. The survival rate of patients suffering from cardiac arrest is related to five links of the chain of survival. One of these components is Cardiopulmonary Resuscitation (CPR) which plays as an important role in determining the rate of survival. Nowadays mechanical chest compression devices have been developed to facilitate continuous delivery of high quality CPR rather than manual CPR.

**Objective:** The purpose of this literature review was to identify the effectiveness of the use of Mechanical Chest Compression Device compare with Manual CPR in Cardiac Arrest.

**Methods:** This literature review conducted by searching and analyze all eligible studies from electronic databases including Science Direct, Nature and Proquest database. It emphasized on the articles investigating the effectiveness of the application of mechanical chest compression device compared with manual CPR by looking at some aspect such as Survival, the ability of patient to Return of Spontaneous Circulation (ROSC), Injury, End Tidal Carbondioxide (Etc) and Neurological Outcome. The following terms that used in the research are: mechanical chest compression, manual chest compression and cardiopulmonary resuscitation.

**Results:** Fifteen study with the span of time between 2005-2015 (10 years) were analyzed. These study examined and investigated the effectiveness of the implementation of mechanical chest compression device compared with manual cardiopulmonary resuscitation in some aspect that have been determined. The results revealed that there was no strong evidence proved that mechanical compression device could enhance the percentage of survival patient, neurological outcome and reduce an injury rate of the patients during CPR in comparison with the usage of manual chest compression. However, the evidence showed that the use of a mechanical compression device could enhance Return of Spontaneous Outcome (ROSC) which correlated to the increase of End Tidal Carbondioxide (EtCO<sub>2</sub>).

**Conclusion:** Existing studies do not conclude that the use of mechanical compression device is better than manual chest compression during resuscitation. From then on further studies are essential to be conducted to prove the effectiveness of the use of mechanical compression device especially related with survival rate, neurological outcome and injury.

**Keywords:** mechanical chest compression, manual chest compression, cardiopulmonary resuscitation.



## INTRODUCTION

The incident of cardiac arrests occurs frequently, with an estimated incidence for about 50 up to 100 per 100.000 person/ years [1,2]. The survival of this event remains low related with poor quality cardiopulmonary resuscitation (CPR) which influence the adverse outcome [3–6], because the ability to survive after cardiac arrest depends on prompt and effective cardiopulmonary resuscitation (CPR) [7]. To reestablish spontaneous circulation and to achieve survival with a good neurological outcome we need an adequate perfusion of the heart and the brain during CPR.

Manual chest compressions usually performed by health worker within this condition and the evidence showed that it can enhance cardiac output approximately 20–30% of normal but their effectiveness is limited by the rescuers endurance which getting weak because of exhausted [8–12] and it is difficult to maintain an effective chest compressions during transport the patient to the hospital [13]. If the quality of the manual chest compressions is inadequate because of incorrect compression rate or depth, or frequent interruptions, vital organ blood flow may reduced, so it can threat the victim because not optimal chest compressions correlate with a poor return of spontaneous circulation [14-15]. Therefore a Mechanical chest compression devices have developed to provide an advantage over manual chest compression, because it can compress the chest into specified rates and depths with standardized compression quality, which does not decline by an exhausted [16].

‘Thumper’ is the name of first mechanical CPR device which introduced to preclinical and clinical practice. This device was developed in Michigan USA in the late 1970s. This mechanical chest compressor use a piston driven by pressurised air [17]. It provides compression with standard frequency and depth for pro-longed periods without any decline in quality. It is also remove the need for health worker to provide chest compressions manually and enabling them to concentrate on another aspects of patient care they have to do [18]. Since then, various Mechanical Chest Compression device have been developed.

There are several different types of mechanical chest compression device have been proposed, such as Lund University Cardiac Arrest System (LUCAS) and AutoPulse. LUCAS is a mechanical compression device developed in Sweden. This device use a piston mounted on a frame that fits around the patient’s chest which driven up and down by a power source such as compressed air or an electric motor and compressing the chest in a similar way to manual chest compressions. In addition another mechanical compression device have developed. AutoPulse is an portable, automated and battery-powered cardiopulmonary resuscitation device which works in a different way. This device consist of a wide band that fits around the chest, whose circumference is alternately shortened and lengthened, providing rhythmic chest compressions. The AutoPulse is a fully automated CPR device with computer control, broad compression band which applied across the entire anterior chest [19-22] and reported to be easy to use by first-aiders or health worker who have only received brief training.

Existing study report that the use of mechanical compression device in CPR is more effective than manual chest compression. But another study tell us that there is no significant different between the use of mechanical and manual chest compression trough CPR outcome. Therefore the aim of this literature review is to know the effectiveness of the use of these mechanical compression device compared with manual chest compression in cardiac arrest.

## **METHODS**

This study is literature review of scientific literature covering comparison between the effectiveness of mechanical and manual chest compression application in cardiac arrest. The literature review conducted by searching and analyze all eligible studies from electronic data base such as Science Direct, Nature and Proquest. The writer examined the effectiveness of both maneuver by looking at some aspect such as Survival rate, the ability of patient to Return of Spontaneous Circulation (ROSC), Injury event, End Tidal Carbondioxide (EtCO<sub>2</sub>) and Neurological Outcome.

## **RESULT**

The search located 804 with 15 article meeting the inclusion criteria . Eight article were from pre-hospital setting and seven article were from intra-hospital setting and the result were:

### **1. Survival**

A retrospective study in 2005 with 406 cardiopulmonary arrest patients in Austin compared the survival rate between patient who treated with manual and mechanical chest compression. From all over 406 patients, 357 of them received manual CPR and 49 received mechanical CPR. The result showed that the rate of discharge patient alive who received manual chest compression were 9,2% and mechanical chest compression were 2% ( $p=0.102$ ). It means the result of the study did not showed a statistically significant benefit in the application of mechanical compared with manual chest compression [25]. These result supported by a pilot study which published in 2011. This study conducted within February 2005 to April 2007 in out of hospital patients who experienced cardiac arrest. Patients were randomised to determine who received treatment with either manual chest compressions or mechanical chest compressions with LUCAS device, and the result was: survival rate at hospital discharge were 8.1% in the LUCAS group and 9.7% in the manual group ( $p=0.78$ ). It showed that there was no significant difference in early survival between patients who threated with manual and those with mechanical chest compression [26]. The same result shown by a retrospective study conducted in 2013, which clarify the efficacy of AutoPulse as a mechanical device that applied to 49 patients, compared with manual chest compression to 42 patient. The result showed that there was no statistically difference of survival rate ( $p=0,042$ ) in both maneuver [27]. A meta-analysis in 2015 also did not suggest that mechanical chest compression (LUCAS 2 and AutoPulse) device was superior to manual CPR in increase the survival rate [28].

### **2. Return Of Spontaneous Circulation (ROSC)**

Return of Spontaneous Circulation (ROSC) is one of the indicator that define the effectiveness of chest compression. Based on the study which conducted in 2005, 35,8% from 357 patient who received manual chest compression and 40,8% from 49 patient who received Auto pulse attain ROSC ( $p=0,499$ ) [25]. These result showed that there was no significant difference between the two maneuver. Those result was difference with the study that published in 2007 which evaluated the effectiveness, practicability and safety of the new automated load-distributing band resuscitation device AutoPulse. In this study 46 patient were resuscitated with AutoPulse device and the result showed that 25 patient (54,3%) attained ROSC [29]. It means that mechanical chest compression had significant role to encrease the quality of CPR. Some study in 2011 also told that there was no statistically difference between

both maneuver related with the rate of ROSC. This study used a LUCAS device in 75 patient compared with manual chest compression in 73 patient, and the result showed that the counted of patient who attained ROSC with a palpable pulse was achieved in 30 and 23 patients ( $p = 0.30$ ), ROSC with blood pressure above 80/50 mmHg for at least 5 min was achieved in 23 versus 19 patients ( $p = 0.59$ ) [26]. But a stronger evidence shown from a meta-analysis study in 2013, this study consist of 12 studies, which involved 6538 subjects who suffered cardiac arrest in out of hospital setting. These study concluded that mechanical CPR had higher incidence of ROSC as compared to manual ( $p = 0.001$ ) [30].

### **3. End Tidal Carbondioxide (EtCO<sub>2</sub>)**

A study which applied AutoPulse to 46 people who experienced cardiac arrest in 2007 found that statistical comparison of EtCO<sub>2</sub> was performed between patients with ROSC and without ROSC. The ROSC patients got EtCO<sub>2</sub> score above 25 mmHg and those who did not only 15-20 mmHg ( $P < 0.05$ ) [29]. It means that there was correlation between count of EtCO<sub>2</sub> with ROSC rate. Some meta-analysis study in 2013 found that the use of mechanical compression could enhance the rate of ROSC and EtCO<sub>2</sub> in cardiac areest [30]. These result supported by study of CPR using LUCAS device in 2014, which stated that the higher EtCO<sub>2</sub> found in ROSC patients and circulation condition could be guided by EtCO<sub>2</sub> reading as the safe and effective indicator of cardiac output during CPR [31].

### **4. Injury**

An observational study in patients with cardiac arrest found that there was no severe chest compression injuries like fracture and liver rupture during CPR using mechanical device (AutoPulse), but a mild abrasions of the skin over the lateral chest was noticed in some patient [27, 29]. This founded was difference with the study which held in 2010. In this study CPR was attempted in thirty patients: AutoPulse-8, LUCAS II-11, and Manual-11. Based on the research Injuries were observed in 7/8 (87.5%) in AutoPulse CPR, 8/11 (72.7%) in LUCAS II, and 3/11 (27.3%) in Manual group ( $P = 0.02$ ). These injuries involved sternal fractures, muliple rib fractures, mediastinal haematomas, even pericardial effussions and Adventitial Aortic Haematomas. It showed that there was significant correlation between the use of mechanical chest compression device with the incident of injuries compared with manual chest compression [35]. These result supported by the newest study in 2015 which stated that the use of mechanical device (LUCAS II) were just as effective as but not superior to manual chest compression, because in this case the researcher found that the use of mechanical device could causes damage and injury to the myocardium in the patients if the focal point of compression incorrectly oriented [36].

### **5. Neurological Outcome**

A prospective observational study with the AutoPulse on out of hospital cardiac arrest patients in the EMS system of Bonn city in 2007 conclude that from 18 patients who received AutoPulse, 10 of them survived. Two of them showed completed neurological recovery, one suffered from mild up to moderate neurological disabillity and seven severe disabillity. These result showed that there were no significant evidence showed that the use of mechanical device could improve neurological recovery within cardiac arrest patient [29]. Difference result showed by another study in the same year which stated that hospital discharge and survival

with intact neurologic outcome appeared to be worse with AutoPulse-CPR [33]. A study in 2013 stated that, from 43 patient who received manual CPR and 49 who received AutoPulse, showed that, in the manual CPR group, only one patient had OPC1: no or mild neurological disability and was discharged, and in the AutoPulse group, there were two patient had OPC1 and one had OPC3: severe neurological disability ( $p=0.62$ ), it means there were no significant different between the use of mechanical and manual CPR in cardiac arrest [29]. These result supported by another study in 2015 which stated that there were no strong evidence showed that mechanical chest compression was better than manual chest compression related with neurological outcome [28, 34].

## DISCUSSION

The result of this literature review showed that the application of mechanical chest compression with AutoPulse and LUCAS device in cardiac arrest are not always more effective than manual chest compression. Most of the journal article that were analyze showed that there was no significant difference in survival rate, event of injury and neurological outcome between both maneuver.

The Survival defined as the ability of the victim to survive and discharge from the hospital alive within a good condition after cardiac arrest. Mechanical chest compression was designed to help us giving the right CPR with an optimal and consistent chest compression with recoil, but the result showed a different things. Mechanical chest compression not always has a higher survival rate than manual [28]. In a person who experienced cardiac arrest, time saving defined as life saving. Prolong time that used to wait the first aid can decrease survival rate of the victim, so fast respon and direct act are needed to optimize the aid.

Injury often reported because the application of this device, such as rib and sternal fractures, mediastinal haematomas, pericardial effusion and adventitial aortic haematomas. The journal article that have been analyze told us that an injury often happened because of incorrect placement of mechanical chest compression and disturbance in the device. Mechanical chest compression should be places in the middle of sternal so it can give an optimal pressure on the chest wall, but if the placement is not correct, it can makes an injury that can increase the patients severity. An ability or skill of health worker to use the mechanical chest compression also become an important factor that influence the event of injury [36].

A good neurological outcome was defined as score of 1 or 2 of Cerebral Performance Category (CPC) and using the Glasgow Pittsburgh Overall Performance Categories. Theoretically mechanical compression device could improve the survival rate and neurologic outcome including hypothermic patients rather than manual chest compression, however there were not enough data to make a clear recommendation about this issue [32]. An analysis showed that there was no significant difference in neurologic outcome between both maneuver. These result maybe influenced by some factors like time saving, which described as the time of lay person or health worker found the person who experienced cardiac arrest and give CPR as the first aid and another disease that accompany [34].

Even not give an significant influence on these three aspect, a mechanical chest compression proved that it can enhance the rate of End Tidal Carbondioxide (EtCO<sub>2</sub>) which can influence the rate of Return of Spontaneous Circulation (ROSC). The measurement of End Tidal Carbondioxide (EtCO<sub>2</sub>) was indirect measurement of Cardiac output during CPR. The higher

measurement of EtCO<sub>2</sub> have been reported in the patient who attained ROSC and discharge alive from the hospital than those who did not. But this condition only achieved if we can give fast response and direct first aid as soon as possible to the victim, to minimize the interruption and optimize the result of CPR.

## CONCLUSION

There was no significant evidence which concludes that mechanical chest compressions are more effective to treat cardiac arrest people than manual CPR. Therefore further studies are essential to be conducted to prove the effectiveness of the use of mechanical compression device especially related with survival rate, neurological outcome and injury.

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# THE EFFECT OF DARAPLADIB ADMINISTRATION ON OXIDIZED LDL LEVEL IN SPRAGUE-DAWLEY RATS FED WITH A HIGH FAT DIET

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## ABSTRACT

**Backgorund:** Atherosclerosis is a chronic inflammation disease marked by an accumulation of inflammation cell, smooth muscle cells, lipid, and connective tissue in tunica intima. Chronic dyslipidemia, especially hypercholesterolemia, can directly alter endothelial cell trough production of Reactive Oxygen Species (ROS) that become Oxidized LDL (Ox-LDL). Lp-pLA2 is enzyme that cleave Ox-LDL to become pro-atherosclerotic product. Darapladib, a Lp-pLA2 inhibitor may cause inhibition of atherosclerotic lesion progressivity.

**Aims:** The objective of the study was to identify the effects of Darapladib on oxidized LDL level in Dyslipidemia models of Sprague-Dawley rats. **Methods:** This was an experimental study using 30 male Sprague-Dawley rats divided into 3 groupsincluding the group treated by standard, HFD (High Fat Diet) and HFD+Darapladib (200mg/200gBW). **Main Parameters** that measured in this study was plasma Ox-LDL level, which had value 0,329 ng/mL for 8 weeks group and 0,686 ng/mL for 16 weeks group. Ox-LDL plasma level measured by using ELISA.

**Results:** According to Repeated ANOVA test, Darapladib had a significant effect for lowering the level of plasma Ox-LDL ( $p < 0,000$ ). **Conclusions:** Further study is needed to determinethe optimum dosage and the side effects of Darapladib administration.

**Keywords:** Darapladib, Lp-pLA2, *Oxidized LDL*, Dyslipidemia, *High Fat Diet*.



# **STUDY THE IMPACT OF DISTURBANCE FULFILLMENT SEXUALITY NEEDS AFTER HEART ATTACK ON ACUTE MYOCARDIAL INFARCTION IN MEN PATIENTS ON CARDIAC POLYCLINIC Dr. ISKAK HOSPITAL TULUNGAGUNG**

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## **ABSTRACT**

Basic human needs is the most basic physiological needs, including sexual needs in it. Sexual fulfillment in the husband-wife not everything can be done well because of several factors, one of them due to heart disease (acute myocardial infarction). AMI patients are usually the same as the other pair, really wants her sexual needs fulfilled, but they are afraid to do it because they fear an attack recurrence. Impacts that could result from unfulfilled sexual needs including couples will quickly get angry or suspicious, unhappy, cynical, psychological relation between husband and wife is getting worse, decreasing the frequency of coitus, having psychosomatic illness. The research objective was to determine the impact of sexual fulfillment disorders after cardiac arrest in patients with acute myocardial infarction (AMI) in men Poly Clinic Heart Dr. Iskak Hospital Tulungagung. The study design used is descriptive design. Population of outpatients each month reaches 5-8, the sample used 8 people, taken with accidental sampling technique. Variables used a single variable that is studying the impact of impaired sexual fulfillment after a heart attack in acute myocardial infarction patients. The data collection form was used questionnaires and interviews. After the questionnaires were collected and processed. Then the scoring was analyzed using percentages and presented qualitatively. Results of research obtained from all respondents stating no interference effects occur sexuality needs. This is due to the coping mechanism of the respondent and couple, and mutual understanding, and the support the family, so there is no impact of interference sexuality needs. Expected partner (wife) will understand situation the disturbed husband after Acute Myocardial Infarction attack occurred, and should be more active respondents also asked the doctor when the control, so the impact was not to happen. And for nurses, should provide health education about sexuality needs of post-heart attack.

**Keywords:** effects of disturbance, sexual needs, acute myocardial infarction,

## **BACKGROUND**

Basic human needs are the required man in maintain a balance physiological and psychological, which is meant to hold on life and health (hidayat, 2006 ). Basic needs man according to maslow in accordance the sequence , who first a physiological need, needs security and protection, needs love and a sense of belonging and owned, needs self-respect and feeling valued others, and needs actual self . Needs basic human most basic was a necessity

physiological, including demand sexual in it .Sexual needs is basic needs people of an expression of feeling two individual persons personally who appreciate each other,see , and cherish so there a relationship reciprocal between the two these individuals (Hidayat , 2006 ).

Sexual health is defined as the integration of somatic aspects, emotional, intellectual, and social of sexual life, in a positive manner enrich and increase personality , communication , and love (Perry &Potter, 2005) .Meeting the needs of sexual could be done by some way of them touch,kiss ,and coitus of ( sexualintercourse ), and through behavior finer , as cue motion of the body,etiquette,dress,and of a word (Denney &Quadagno , 1992; Zawid , 1994 ).Meeting the needs of sexual in conjugal not all can well done by because of some factors ,one of the reasons heart disease (acute myocardial infarction). In the aftermath of the attack patients ima had problems nursing one can emerge, some of them are a disorder of meeting the needs of sexuality .Ima patients usually same as other couples who , desperately wanted meeting the needs of sexual have been met , will but they are scared to do so because they were afraid that the attack suffered a recurrence .Research in the united states (aha, 2007) show , many men and women who fear (for fear of going on a recurrence of attack and fear died while being associated and less knowledge about how to have unprotected the true sexuality in the aftermath of attacks ima ) have sex in the aftermath of a heart attack .So that it is not surprising if the frequency of sexual activity tended to fall sharply , especially for a year after experiencing a heart attack or acute myocardial infarction.Actually have unprotected sexuality can be done after going through some stage of the exercise.

Several studies show, have sex could even reduce tension on the heart , and this is in contrast with public understanding during this .Information from the media both electronic and print media, as well as news people who are dramatic and sensational news allegedly strengthens misunderstanding of the community .In reality, only about 1 percent of all heart attacks happen when having sex, and less than 1 percent of the casualties of a heart attack died because sexual intercourse, according to research other (AHA,2007). But based on medical records central national heart our expectations , patients were 962 ima patients in 2006 and this figure rose to 1.096 patients IMA in 2007.Hospital Dr.IskakTulungagung the patients who control after the attack acute myocardial infarction is more or less 5-8 person a month , when study introduction obtained ima 3 patients who control, all respondent households basically said of fear to have sex after a few weeks attack dikarena do not want to have more attacks.

Essentially the same as the sexual eat and drink .If sexual needs unfulfilled we can get sick , as well not eating nor drinking with .The seksologi (Amirin, 2012 ) say no fulfilment sexual needs impact on physical and psychological.Emotionally , someone who does not sexual needs , will irritable , unhappy , cynical , behave as happy gossiping negative .While physical disease that often to them unmet sexual needs , including psikosomatis, hair loss , and symptoms stress. But in someone who undergoes heart disease, abstaining from sexual intercourse will reduce the recurrence repeated.

Lindau (2010), said the doctor need to deal with sexual as an essential part of physical function as a whole , even after a life threatening as a heart attack.Rehabilitation program called cardiac rehabilitation program was program most recommended by a heart after the patient had a heart attack.Rehabilitation for client post myocardial infarction aimed to produce a

change physiological and psychological useful functional the capacity to restore client to life or an original state .In principle physical exercise arranged individually based on medical status, profile risk factors, muskulokeletal stability , motivation to exercise , and results EKG (udjianti, 2010).Depending on the case individul, patients can return do sexual intercourse 5 until 8 weeks after myocardial based on sexual index readiness (ability to do hurried or up two the stairs without feel chest pain) (ester,2005).Can also by doing posisi- position passive , for example the position of sleep , where patients are under, sideways face to face or from behind, or also a sitting in which couples are on patients is some position advocated. The role of nurses to overcome this solution is to give promotion of sex education and inspection values and faith sexual by honest can help to reduce sexual need. Clients need precise information, honest about the effects disease in his sexuality and way that could support (welfare (Perry&Potter,2005). Couples (wife) also played an important role in the process leading healing.Emotional support, understanding of pain suffered husband, and not required to fulfilment of the need for sexual , that in psychic husband do not feel guilty and have a passion for continued to exercise to recover from his disease.

## **AIM**

To know the impactof sexuality need post a heart attack on men patient with acute myocardial infarction (IMA) in PoliKlinik Jantung of RSUD Dr. Iskak Tulungagung.

## **CONCLUSION**

According to the study of the number of respondents as much as 8 respondents, all respondents (100%) said it was get a little effect impaired in meeting the needs of sexual .The needs of sexuality is basic needs two men of expression of people personally mutual respect ,see,and cherish so there a relationships between the two these individuals (Hidayat, 2006).Or sexual health defined as somatic integration, emotional, intellectual,and social of sex life, in a positive manner enrich and improve personality, communication, and love (perry & potter, 2005).The man has not changed hormonal a dramatic or lose fertilization as happened with women menopause. However they changed in the sexual climacteric. At the age of 90 years, a man may be able to Spematogenesis. However, retarding the ability erectile tissue and ejakulatori experienced at the age of 50 or 60 annual can cause worry that significant about potential and masculinity. Needs sexuality was the basic human must also be fulfilled like eat and drink. But, we cannot impose meeting the needs of sexual can fulfilled by the heart patients, especially acute myocardial infarction (IMA ).Because a disease response to meeting the needs of sexual was also changed. Instrument genetel and soft body tissues other berespon to stimuli sexual need blood supply adekuat, because a disease instrument genetel and soft body tissues has experienced a fall in response. Hormone affect mood sexual and physiological function in expression sexual.Joints and muscle must be bending and stretched when the body give expression to feelings of sexual. A change in this systemClients may have to learn sexual behavior new.Changes in function and body structure as a result of an illness probably not

directly affect sexuality but can affect feeling and perception clients in the desire and stimulation. Some impact on which could be caused due to the fulfilment of sexuality needs, most couples are following will quickly angry, unhappy, relations with the deteriorating, frequency coitus declining, experienced disease psikosomatisas complain dizzy continuous, experienced diarrhea often, suffocation but do not have the acts of asthma, and has pruritus there is no cause.

Based on the research done, of the total 8 respondents outpatient poly clinic in the heart of hospital dr .Iskaktulungagung, on the impact of a meeting the needs of sexuality post a heart attack acute myocardial infarction obtained 100 % were not get a little effect disorder meeting the needs of seksualitasnya, but if seen from each item questions some get a little effect disorder meeting the needs of sexuality. But of all prosentase above does not could keep respondents experienced broad impact caused by a in meeting the needs of sexuality experienced husband after the acute myocardial infarction. Respondents and couple having koping that when had entered old age, dimensions sexuality they not only expressed by coitus just relations, but do they just understand each other and acceptance each used to treat with another.

Seen from the age of respondents most aged over 60 years is the about 5, they say no problem on the fall in coitus frequency, because they said disaat-saat age old dimensions meeting the needs of sexual not only be realized by coitus course, they need now understand each other and mutual tending with another. But there are 3 couples ( wife ) that sometimes even are often sad and irritable if not achieved sexual needs. There are also 1 couples (wife) sometimes that would not invited to have sex back the would be scared to come for amid when intercourse climax husband not be affected, congested or even happening back a heart attack before. The impact of other inflicted when couples felt unfulfilled needs fulfillment seksualitasnya at the age of this among other couples sometimes 1 ( wife ) feel abandoned by husbands, whereas husband menelantarkannya not intend, it just scared husband if they start back and often have sex, a disease that is still in the process of healing this will back against her age because considering above 60 years and the healing process that will last long. According to (Harkness, 2000) in research Diana Irawati, 2011 titled study phenomenology experience sexual dysfunction a patient with a kidney chronicle the final stage in the hospital jakartaislamic said that a decrease in energy and exhaustion that experienced patient and will confine and incapacitates a patient in have sex, this may lead to guilt to couples where this condition patients need support of a pair while the patient has a disability to able to meet a need sexual couples. Harkness also quoted the results of research conducted toorians et.al ( 1997 ) fatigue and change in physical affected sexual dysfunction. And if that feeling persists by the wife, wife will feel often complained headache and sometimes experienced diarrhea that no cause certainly.

To aged under 60 years only a small minority namely respondents as many as 3. Couples more will experiencing the impact of non-compliance sex needs, perhaps because they still aktif-aktifnya in have sex, because his wife have not yet undergone menopause. So there is 1 pair (wife) solicitation who refused to have sex, formerly wife will tartly when invited talking about sexual intercourse. According to basaglia, and calancain research juhat. Korpelainen,

1991 titled sexual functioning among stroke patients and their spouses, the study revealed by orang-orang negative affect their relationships with their wives , with anxiety and frustrated often reported .Patients feel lack of esteem or fear rejected by their spouse from stroke , in sexual interest or the feeling of being unattractive .There another 1 couples (wife) sometimes that feel that if ignored, irritable , and will feel sad if she felt unfulfilled sexual needs. According to black and hawk (2009) in research Diana Irawati, 2011 titled study phenomenology experience sexual dysfunction patients kidney disease chronicle the final stage in the islamic hospital jakarta said that psychological disorder this is because of the stress related to condition of the disease chronicle experienced.Some behavior generally be stressor it is powerless, the body image and sexual change. Entirely frequency have sex was down, before hospital can usually sunday times 3 1, after experiencing an acute myocardial infarction only 2 1 sunday times or 1 times , in fact some sometimes 2 weeks only 1 times intercourse sexuality.

From the research conducted by Diana Irawati, 2011 titled study phenomenology experience sexual dysfunction patients kidney disease chronicle the final stage in the islamic hospital jakarta said that the frequency sexual intercourse respondents dropped characterized by the absence of sexual activity and sexual activity rare. The research Soykan (2001) in turkey in research Diana Irawati (2011) said from 43 respondents who experienced chronic disease, 40 % not doing sexual activity. Impact on happen because the (wife) not understand the state of a husband, hence often error occurred in communication.Actually something above quelled if the couple understand the state of a husband, and when control they are increasingly being consulted medical workers who treats of way, technic , and frequency have sex more secure after a heart attack this happened , so respondents andpartner and (wife) to get a little effect of a meeting the needs of sexuality post a heart attack (acute myocardial infarction).

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# **THE DESCRIPTION OF THE ENDOTRACHEAL TUBE (ETT) CUFF PRESSURE ALTERATION AFTER SIX HOUR MEASUREMENT *ON PATIENTS WITH MECHANICAL VENTILATION***

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## **ABSTRACT**

The using of ETT is aimed to maintain the patency of airway. ETT can work properly, if the cuff pressure is maintained at normal range (20-30 cmH<sub>2</sub>O). If the ETT cuff pressure out of range, it can cause the amount of complications. The decline of ETT cuff pressure can lead the aspiration, whether the increasing of ETT cuff pressure from normal range can cause trachea stenosis, fistula, and necrosis. This study aims to determine the description of the alteration of ETT cuff pressure after 6 hours. The research use a type of descriptive research. Data is collected by observations the ett cuff pressure after 6 hours. The Sample of this research is 47 respondents using consecutive sampling technique. The results of this study showed that 100% ETT cuff pressure change after 6-hour. The ETT cuff pressure in normal range is 25 patients (53,2%), the ETT cuff pressure below normal range is 18 patients (38,3%), and the ETT cuff pressure above normal range is 4 patients (8,5%). Based on the result of this study, The ETT cuff pressure alteration from the normal range can be happened. The monitoring ETT cuff pressure must be done routinely to prevent the complications.

**Keywords:** Cuff Pressure, Endotracheal Tube

# **SIMULATION OF TELENURSING FOR INCREASING THE PERSPECTIVE OF NURSING STUDENTS IN PATIENT CARE**

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## **ABSTRACT**

**Background:** Information and communication technology in nursing is growing so fast. Telenursing is one such proposed means of improving health care globally. Nursing students enthusiastic with telenursing as a valuable method for the future. But there is a feeling of unease in the assessment of nursing students, decision-making, and treatment without a physical examination of the patient because the nurse could not use senses such as smell and touch in nursing assessment of patient. Because of these reasons, education is needed to increasing the perspective of nursing student to make students comfortable with new technology, monitoring, and remote nursing care.

**Aims:** The purpose of this paper is to know how simulation of telenursing in patient care can increasing the perspective of nursing student.

**Methods:** A literature review was undertaken using the keywords 'telenursing', 'simulation', and 'student perspective'. Papers published 10-year period were included. Those published in the English language that presents data on the implementation of the telenursing simulation by nursing students.

**Results:** Education is one of the way to increasing perspective of nursing student to understand telenursing well. Factor that is caused due to the skills of nursing student to run the telenursing system necessary skills and knowledge of nurses, skills and knowledge possessed by a nurse should be in line with this knowledge in the field of information technology. Telenursing simulations that performed in undergraduate nursing education is an effective ways in to these case. It is because telenursing simulations is one of the tool where the nursing student can experience how to communicate and assessment their patients before they become a professional nurse. Beside undergraduate nursing education have a responsibility to prepare students for this reality. But, today in Indonesia, there is still limited research about telenursing simulations education for increasing perspective.

**Conclusion:** Telenursing simulation is an effective way to increasing the perspective of nursing student so that when passed will be ready in the handling of hospital care and home care with telenursing. However, there is still limited research about telenursing simulations education for increasing perspective. In Indonesia as specially, because of the limited resource, the improving of this method is also slowly.

**Keyword:** Telenursing, Simulation, Student Perspective



## **BACKGROUND**

Over the past few decades, information and communication technology (ICT) in health care has been growing rapidly through out the world, as well as in Norway. This is because the growing elderly population, increasing health care needs, and a lack of resources skill ed health workers, prompting the ICT to identify ways to meet the needs of health care in the world. Telenursing is one means of ICT proposed to improve health care globally.

There is a large amount of research on the use of telenursing, especially in elderly care and care of patients with chronic diseases. However, research for training telenursing itself is still lacking, despite the importance of integrating telenursing into the nursing curriculum has been repeatedly emphasized. Several studies have examined the telenursing training for under graduate nursing education. There are two articles on this topic: Benhuri (2010) who designed the simulation telenursing to some home care scenarios, where students are monitored and engaged in text communications computerized simulated patients. Benhuri found that the simulation telenursing is important to make the nursing students comfortable with new technology, monitoring, and remote maintenance. Subsequent research by Tschetter, Lübeck, and Fahrenwald (2013) reported on a study telenursing on going in undergraduate nursing education focuses on the use of telehealth technology to simulate the nursing care in rural areas. Remote monitoring evaluated and documented in electronic health records. Evaluation of students from the first year of intervention illustrate telenursing simulation is very important and helpful in learning but this simulation should be done more frequently. According to Hyland & Hawkins (2009), a simulation in nursing education has been the approach for over a hundred years. It is seen as an opportunity to practice simulated real life scenarios in a safe environment.

## **AIM**

The purpose of this paper is to know how simulation of telenursing in patient care can increase the perspective of nursing student.

## **METHODS**

A literature review was undertaken using the keywords 'telenursing', 'simulation', and 'student perspective'. Papers published 10-year period were included. Those published in the English language that presents data on the implementation of the telenursing simulation by nursing students.

## **RESULT**

In a research journal entitled "Nursing Students' Perspectives on Telenursing in Patient Care Simulation After" reported that nursing students definitely involved and enthusiastic with their telenursing nursing as a valuable method for the future. They consider the simulation telenursing be a challenge because they had never been trained to do so. Telenursing require students to integrate therapeutic communication skills, knowledge of health materials, and operation of ICT. During the simulation, they explicitly state the importance of sound quality, video quality and good light quality to ensure smooth

communication and avoid misunderstandings. Another important finding in this simulation study is a feeling of unease in the assessment of nursing students, decision-making, and treatment without a physical examination of the patient because the nurse could not use senses such as smell, and touch the nursing assessment of the patient (Reierson, 2015).

According Schlachta-Fairchild, Varghese, and Deickman (2010) in the United States, assessment of physical examination of patients with telenursing along with documentation of images or textual information in the medical records of patients already meet for a vote in the decision making of nursing care. Over the past 10 years, the sound quality of analog and digital stethoscope has enhanced to send the sound of the heart, lungs, or intestines. Advanced practice nurses (APN) is already testing the difference between their standard stethoscopes and electronic stethoscopes. Medical documentation system in this application can capture, send, or save the results of vital signs, such as BP, temperature, pulse rate, pulse oximetry, ECG 12-lead, or spirometry. APN has the expertise, knowledge, and practice the authority to intervene in a patient in telehomecare program. Telenursing mainly used for cases that are not urgent. However, if the patient is in critical condition and in need of urgent assistance, doctor or nurse can use the video conferencing system to assess, evaluate, stabilize, or treat a patient while the patient is waiting for help to arrive or give time to the patient for transport to the nearest hospital. For example, the state of Alaska has one of the largest telemedicine program in the United States, with more than 273 clinics.

Telenursing research in nursing education, clinical in the United States in the article entitled "The Virtual Clinical Practicum: An Innovative Telehealth Model for Clinical Nursing Education" describes the implementation and evaluation of Virtual Clinical Practicum (VCP) is an alternative approach to nursing education clinically developed and tested as part of the project entitled Nursing Telehealth Applications Initiative (NTAI) funded by the federal government. NTAI has focused on conducting research to evaluate the innovative application of telehealth technologies to improve both patient access to care and student access to educational opportunities. The benefits of telehealth is used as one way to overcome the problem of lack of resources in nursing education (Grady, 2011).

## DISCUSSION

Telenursing implementation in other countries are still in the process of development, according to Glinkowski et al (2013) in his study explained that The Polish Telemedicine Society recognized the need for the implementation of telenursing. Most of the students surveyed have a positive attitude towards the use telenursing but they also explore their need for skills training in telenursing before actually practice to patients. Currently the graduate nursing education system in Poland changed by introducing telenursing education and training to students. This is in addition to practice nursing students in the application telenursing, but also to prevent any malpractices that may occur.

The issue of malpractice in telenursing be a unique problem because of malpractice can occur due to breakdown or failure of equipment. In addition, lack of education or knowledge of the technology by patients and caregivers could potentially lead to malpractice. It's important for Advanced Practice Nurses (APN) are really well trained and achieved competence with telehealth technology before using it. Competence in practice telenursing ultimately the responsibility of the individual professional nurses. Telenursing formal

education is gradually implemented in schools of nursing, but do not have a standard curriculum. Telenursing is a tool to provide effective care, but nursing standards and guidelines should not be ruled out in the provision of nursing care. Telehealth and telenursing not change the scope of nursing practice in and of itself, but is only an approximation. In carrying telenursing system, the nurse must have a high commitment and strong in order to maintain the privacy and confidentiality of patients in accordance with the code of ethics in nursing. To overcome this problem the core principles in the provision of care and competence for telehealth and telenursing has been developed by the American Nurses Association as well as international competence for telenursing developed and published by the International Council of Nurses. Competence was created to evaluate and guide practice telenursing (Schlachta-Fairchild, 2010).

While in Indonesia, telenursing research has not been done. Application telenursing in Indonesia, namely with medical consultation by telephone or fax, or by using the internet. Telenursing development in Indonesia is indispensable that Indonesia is a developing country. In Hariyati (2015) describes a survey of the proportion of deaths caused by cardiovascular disease increased from 9.1% in 1986 to 26.3% in 2001 and by 2020 is expected to be the leading cause of death at least 25 people per year. This is due to factors such as lack of detection devices electrocardiograph (ECG) and other monitoring devices, the lack of human resource capacity in treating patients and carrying out preventive function, and lack of coordination systems between health centers and hospitals. All these factors led to a delay in diagnosing a patient. This situation makes treatment more difficult and usually too late to be addressed.

By looking at the purpose of telehealth and telenursing, then it can be a solution to problems that occurred in Indonesia. Telenursing can be used for prevention, helping early warning systems, and also plays a role in the continuity of care between hospitals and health centers. In this case it will involve the function of the hospital leadership and governance. Due to the implementation of telenursing in Indonesia, it will require the preparation that must be done to develop these systems, the necessary preparations, including human resources, infrastructure, regulation, and also the socialization system. Telenursing can also provide employment opportunities to nurses who have experience but the nurse clinics had retired or no longer work in a health care institution or hospital. Telenursing through home care is an application form that developed in Indonesia at this time. In the treatment of patients at home, the nurse can monitor the patient's vital signs such as blood pressure, blood sugar, weight, peak respiratory flow of patients through the internet. For example, to do video conferencing, patients can consult in wound care that the end goal telenursing can promote the active participation of patients and families, especially in the personal management of chronic disease.

The socialization process telenursing the nurse will be more effective if done at the level of education. As described in the research Reiersen, to improve learning, students are introduced to the simulation telenursing advisable in the early stages of their undergraduate studies and to gradually incorporate the nurse-patient situation is more complex. Students who become the subject of research Reiersen still many who are afraid if something goes wrong in interpret the data received from the patient. This is because they were disseminated for the first time this telenursing simulation. And what happens when students who did not ever get the simulation telenursing in the education curriculum will be able to

contribute in telenursing think will be the domain of nurses in the future. It can be a trigger of nursing malpractice. Telenursing is the primary means of providing nursing care through the ability to communicate remotely with patients, so the simulation based on language / therapeutic communication is an important contribution. In this case the nurse skill factor involved due to run the system telenursing necessary skills and knowledge of nurses, skills and knowledge possessed by a nurse should be in line with his knowledge in the field of information technology. For the simulations suggested telenursing done in undergraduate nursing education. The rapid development of ICT has influenced the clinical nursing practice nurse. Undergraduate nursing education have a responsibility to prepare students for this reality.

## CONCLUSION

The technology in the field of health nursing has been growing rapidly, thus changing the traditional ways of providing nursing care with their telehealth and telenursing. Nursing students enthusiastic about simulation telenursing through real-time audio and video technology. Telenursing they see as the future orientation and found in clinical nursing education should prepare students to apply telenursing. Telenursing complex is seen as a way to provide care and should be taught from time to time throughout the nursing education. Nursing students must develop a virtual competence that will be prepared for the modern treatment. Telenursing training with simulation must be prepared by the time the students are still studying so that when passed will already be ready in the handling of hospital care and home care with telenursing. Further research is needed to gain a greater insight into an educational practice telenursing.

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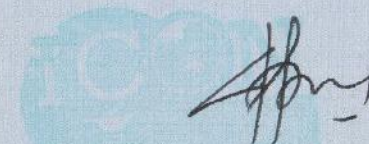
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Nama : **Dr. Ir. Widowati, MP**  
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Jabatan : Dekan Fakultas Pertanian

Memberikan tugas kepada:

Nama : **Irawan Setyabudi, ST., MT**  
NIDN : 0730058603  
Jabatan : Dosen Program Studi Arsitektur Lanskap

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4.	Maksud Perjalanan Dinas	Untuk mengikuti Seminar Internasional The 2nd ICON 2016 (International Conference in Nursing)
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6.	Lamanya Tugas : Hari / Tanggal berangkat Hari / Tanggal kembali	2 (satu) hari. Rabu, 25 Maret 2016 Kamis, 26 Maret 2016
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Pada tanggal : 13 Maret 2016

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