Globalization has become a challenge in achieving the Millennium Development Goals (MDGs). The MDGs have been established to achieve of people’s welfare and global community development in 2015. The MDGs is now being continued with Sustainable Development Goals (SDGs) from 2016 to 2030. One of the aspects of SDGs, health, is also being contributed by nursing and health alliance. As initial significant steps in achieving SDGs, Nursing Science Program Udayana University held the International conference on the theme: Global Health: Nursing and Health Sciences’ Perspective “Achieving Sustainable Community”

In 2015 Nursing Programme at Udayana University held the first International Nursing Conference with theme "Global Health: Nursing Perspective". The following step is programmed and this year, 2017, Udayana University assembles the second international nursing conference. As the conference of held two years ago, this conference also is inviting researchers, global nursing experts, and health alliances from various countries to share knowledge and research results in nursing services in the global era.

Global health has priority to improve health and achieve health equity for all people worldwide. One of problems potentially faced by nations is spreading of diseases across countries because of international travel. Therefore, the health problems of one nation related infectious disease will become the health concern worldwide. This issue is the example of global health focus.

Nurse as well as other health professionals have significant contribution in global health initiatives. Nursing contributes to focus on handling human responses and improving the welfare of individual families and communities physically, psychologically, socially, and spiritually. Nursing as a discipline of applied sciences will be required to develop various aspects of science and profession in order to be able to face challenges of the global era.

International conference enables sharing research results confronting the challenges of health services globally. Shared advanced knowledge enhance capability of nurses and other health professionals to shape advanced health innovation. The results of research from various countries will be an alternative and inspiration for nurses to develop potential and definitive solution in the global era. Experts who have a lot of research and application of nursing interventions in the global era are an important source of information for nurses.

Supporting world aims in achieving SDGs, nursing Department of Faculty of Medicine Udayana University holds the Second International Nursing Conference with the topic: "Global Health: Nursing and Health Sciences’ Perspective “Achieving Sustainable Community””. This conference provides an opportunity to researchers and global nursing experts from various countries to share knowledge and research results in nursing services in the global era.
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UDAYANA INTERNATIONAL NURSING CONFERENCE PROGRAM

“Global health: Nursing & Health Sciences’ Perspective Achieving Sustainable Community”
August 4th - 5th 2017

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<td><strong>Keynote 2:</strong> Dr.dr.Ni Nyoman Sri Budayanti.Sp..MK (K) (Universitas Udayana, Indonesia) “Global Strategic for Improving Long Term Health and Wellbeing”</td>
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| 08.30 – 09.00| **Keynote 6**: Michael Joseph S. Dino, PhD, MAN, RN (Our Lady of Fatima University, Philippines)  
“Toward Borderless Healthcare: Telehealth Technology for Building Healthier Communities” |
| 09.00 – 09.30| **Keynote 7**: Professor Kimiko Nagasawa, PhD (University of Kochi, Japan)  
“Global Health Emergency and Disaster Nursing” |
| 09.30 – 10.00| Discussion, Ns. Putu Oka Yuli, M.Kep                                   |
| 10.00-10.30  | Break + poster presentation                                            |
| 10.30- 12.00 | Paper presentation 2                                                   |
| 12.00-13.00  | BREAK                                                                 |
| 13.00 – 13.45| Door prise  
Best speakers announcement  
Closing ceremony |
As Chairwoman and on behalf of the committees, I am delighted to welcome participants from all over the world to the Second Udayana International Nursing Conference. This exciting forum is entirely dedicated to recent developments on global health.

It is gratifying to note that the agenda of the conference covers a wide range of very interesting concerns in relation to challenges in global health. Nursing profession together with other healthcare providers, has a prominent role in global health initiative. Therefore, they are required to keep alert with the current evidence and continuously update their knowledge and skills to meet the global health challenges.

The theme of the conference is “Global health: nursing and health sciences’ perspective” ‘Achieving sustainable community’. The main objectives of this conference are; 1) to bring together scholars from the related areas to share their valuable knowledge and experiences in global health, 2) to explore key strategies to strengthen the health care providers’ quality to overcome global health issues, 3) to identify recommendations for policy maker to formulate policies and regulation, 4) to develop network and partnership of health care providers from all over the world.

This Conference Proceedings volume contains the written versions of most of the contributions presented during the Second Udayana International Nursing Conference.

We would like to thank all participants for their contributions to the Conference program and for their contributions to these Proceedings. Many thanks go as well to all distinguish speakers, contributors, committee and sponsors for their support, which allow this conference happens as planned.

We hope that the Conference will be an interesting and enjoying event for all.

Thank you

Ns. Made Rini Damayanti S, S.Kep., MNS
KEYNOTE SPEAKER BIOGRAPHIES

**Keynote speaker 1  Desak Ketut Ernawati, S.Si.,PGPharm, M.Pharm,PhD**

Desak Ketut Ernawati is a lecturer at Faculty of Medicine Udayana University. She received her Bachelor’s degree from Airlangga University and Master’s degree in Pharmacy from Curtin University of Technology Australia, where she also obtained her PhD in Pharmacy. She is an affiliated member of Indonesian Pharmacist Association (IAI) and a member of Australian Alumni Reference Group in Health 2014-2016.

Her research interests include medication safety and interprofessional learning and practice. Desak has published research papers in several recognized journals; her paper titled ‘Amiodarone-Induced Pulmonary Toxicity’ was published at *British Journal of Clinical Pharmacology*. Desak also won several awards including the second place winner of Science and Innovative Productive Championship with her colleagues in 2000 and Australian Research Grant Scheme in Indonesia in 2015.

**Dr.dr.Ni Nyoman Sri Budayanti,Sp.,MK (K)  Keynote speaker 2**

Ni Nyoman Sri Budayanti is a lecturer at Faculty of Medicine Udayana University. She received her medical doctor degree from Udayana University and her specialist of Microbiology obtained from University of Indonesia. She is actively teaching about Infectious diseases, biochemical machinery, and microbiology for Udayana University and Mataram University.

She has published several scientific papers and her research interest include Molecular Characterization of Extended-spectrum Beta-lactamases-producing Klebsiella pneumonia isolated from clinical specimen, Immune Response and Cost analysis of intradermal rabies vaccination for post-exposure prophylaxis regimen in human, and Variability of Reverse Transcriptase gene and Hepatitis B Virus Genotyping among HBsAg-positive Blood Donor.
Prof. Marilynne is Professor and Head of Nursing at Charles Darwin University, Australia since 2004. She is a native New Yorker who started her career as a nurse in New York City at the Memorial Sloan-Kettering Hospital, a major cancer research centre. She continued nursing in the England, first as a neonatal intensive care nurse and then as a research sister/manager within a breast care unit, where she worked for many years.

Her area of clinical and research expertise is in cancer and palliative care, specifically in exploring how people who suffer with debilitating fatigue can summon up sources of vitality and energy.

Prof Marilynne received her Master’s degree and PhD from University of Manchester. She is a research supervisor for masters and doctoral students. She has supervised over 20 successful completions masters on various areas of nursing and nursing practice. She currently supervise doctoral dissertations which the topic of interests include coping mechanism of cancer patients following active therapy, patterns of fatigue in children undergoing radiotherapy, and exercise during adjuvant treatment for breast cancer in the over 60s.

Urai Hatthakit is Associate Professor and Associate Dean of Graduate School for Student Affairs and International Relations at Faculty of Nursing Prince of Songkla University. She is also director of training course: Certificate of Yoga Teacher for health. She received Bachelor degree of Nursing from Prince of Songkla University, Master degree of Physiology from Mahidol University, and PhD of Nursing from Curtin University of Technology Australia.

Keynote speaker 5  

Professor Michelle Palmer, M.S.N

Michelle Palmer is professor at the University of Rhode Island USA. She has been practicing as a nurse midwife in a variety of setting including international experience in New Zealand. She has enjoyed clinical practice, teaching and health policy work. Her goal is to share the benefits of a more global perspective in health care while providing care that meets the needs of women in all settings.

She received Bachelor of Science in Nursing from Creighton University, Certificate of Nurse-Midwifery from Frontier Scholl of Nursing, and Master of Science in Nursing from Case Western Reserve University. She has involved in professional activities at several organizations including New Zealand College of Midwives (2010-2013), American College of Nurse Midwives (1998-present), Rhode Island (RI) American College of Nurse Midwives as Vice Chair (1999-2001), RI Department of Health Advisory Council on Midwifery (2001-2010), and RI Prematury Tak Force (2006-2009).

Keynote speaker 6

Michael Joseph S. Dino, PhD, MAN, RN

Michael Joseph S. Dino is an International Advisory Board Member for Health and Medicine of the Apple Distinguished Educator group. He was awarded the Most Outstanding Alumni of Our Lady of Fatima University (OLFU) in 2009. He graduated Summa Cum Laude both in the Masters and Doctoral Degree from OLFU and the Royal and Pontifical University of Sto Tomas, respectively. He is also the first Asian to win the Nurse in the Limelight Innovator Award given by International Council of Nurses, Connecting-Nurses and Sanofi International. At present, he teaches various courses at the Our Lady of Fatima University, and functions as an academic consultant for Nursing Informatics and Research in various disciplines. His passion for research is evident on his active participation and presentation to various research conferences locally and abroad. He has also published numerous research papers in both local and international journals, and holds several positions in local and international organizations, including Sigma Theta Tau Honor Society, Phi Delta Kappa, Health Information Management Systems Society, Philippine Association of Medical Journal Editors, among others.
Keynote speaker 7

Professor Kimiko Nagasawa, PhD

Kimiko Nagasawa is professor of Faculty of Social Welfare at University of Kochi Japan. She received Master of Social Work from Sophia University Tokyo and PhD of International Social Policy from Niigata University. Her research interests include long-term care, community care, collaborative approach in health and social care, consumer-directed care, and quality assurance and evaluation of social services.

She has presented in several notable events including National Conference of Society for the Study of Social Policy at Tokyo, National Conference of Japan Society of Healthcare Administration, National Conference of Japan Society of Social Work, and luncheon meeting of Home and Community Care Evaluation and Research Center at The University of Toronto.
RESPONDING TO DISASTER AND EMERGENCY: A QUANTITATIVE METHOD APPROACH

Angelica Lagarde, Carmela May Casaul, Raquel Anne Dulay, Angela Galabay, Efren Ganaban, Kathleen Nicole A. Vela, Jenica Ana A. Rivero and Lorna Ruanto.

ABSTRACT

Background: The perception among health center employee is important in disaster management. The weather changes fast in each time. The perception regarding their knowledge, skills and attitude help us know how do they can respond when disaster occur in our country. On the other hand, position and length of working experience and the provincial Barangay Health Worker negative perception about disaster management may hinder the great potential in this study. This directed the researcher to study the relationship of position and length of working experience to their perception about the level of knowledge, skills and preparation on disaster management.

Methods: Non-experimental comparative method was used in this study because the researcher conducted the study in a natural setting without manipulation and randomization. Purposive sampling technique was utilized in selecting 100 respondents who worked as a Barangay Health Worker were the subjects of the study. The researcher determined the skills, knowledge and perception of 100 participants have been chosen through purposive sampling with the following criteria: [1] it should be 20years old-60 years old, [2] male or female, [3] must be working at the health center, [4] must be present in the vicinity, [5] must work at least 3months to 40years.

Results: As the result of the study, there were significant relationship between the position and in their perception regarding their level of knowledge, skills and preparation to disaster. Data were analyzed using Chi-square. Survey questionnaire tool with the score of 0.000 to 0.006 in their perception about the level of knowledge and 0.000 and 0.001 on their perception regarding the level of skills and 0.000 to 0.011 in their perception about the level of preparedness to disaster management. But some of the questions have a result of not significant. In regards to the length of working experience most of the results are not significant relationship. Survey questionnaire have a result of 0.055 to 0.719 to their perception regarding the level of knowledge, and 0.139 to 0.992 in regards to their perception in the level of skills and a 0.285 to 0.999 regarding to the perception on the level of preparedness in disaster management based on the (p<.05).

Conclusion: The study is meritorious in presenting that position is a factor that affects knowledge, skills and preparedness of community health workers with regards to emergency and disaster response. It shows in the result that there is no relationship regarding the length of working experience and the perception of health center employee regarding the level of preparedness. In the association of the length of working experience in the level of skills it says that there is no relationship in the two variables. The length of working experience those not affect to the perception of the skill among health center employee. The study highlights the importance of strengthening the knowledge, skills and level of preparedness of Barangay Health Workers who are not handling managerial position in the health centers.

Keywords: Perception, Knowledge, Skills, Preparation, Disaster and Emergency, Health Center Worker
INTRODUCTION

Millions of people are affected every year by disaster and some of them died because of lack of information. There are about 880 major natural disasters around the world in 2013 (Re, 2013). There are lots of factors affecting the environment that makes the disaster worse every year. Global warming is one of the reasons why every year, disaster becomes worse. We all know that disaster is a disruptive and destructive event and it happens worldwide. No one can ever stop this thing from happening, but we can do something to prevent its devastating effect and damage. The worldwide number of natural and man-made disasters has increased significantly in recent years. Approximately 75,000 people die every year because of unanticipated disasters, with an additional 210 million who are directly impacted in some way from such events (Deeny and McFettridge, 2005). The Asian Disaster Reduction Center (2003) defined disaster, as “a serious disruption of the functioning of society, causing widespread human, material, or environmental losses, which exceed the ability of the affected society to cope, using only its own resources”.

The Philippines ranked fifth in terms of countries most affected by extreme weather conditions (Global Climate Risk Index 2013). The geographical location can also be considered as vulnerable in many types of natural disaster. The warm waters surrounding the island nation help fuel strong tropical cyclones, and there are few natural barriers to slow the storms down or break them up (Plumber, 2013). Sea levels around the Philippines have also risen by half an inch in the past 20 years, faster than the worldwide average. This can intensify the risk of storm surges, which reportedly reached 15 to 20 feet in Haiyan's case. It is also more clearly a consequence of global warming — though groundwater extraction is a major factor here too (Plumber, 2013). Other factors why Philippines are considered as a risk during disaster are the deforestation, coastal homes, ring of fire, and underdevelopment of infrastructure (Vergano, 2013).

This study led to the researcher to determine the relationship regarding position and length of working experience among health center employees in their knowledge, skills and preparation in disaster and emergency response.

BACKGROUND

Disaster response organizations and response systems are dynamic systems. A dynamical system consists of two parts: a rule or 'dynamic,' which specifies how a system evolves, and an initial condition or 'state' from which the system starts." Some dynamical systems such as those being discussed here evolve in exceedingly complex ways, being irregular and initially appearing to defy any rule. The next state of the system cannot be predicted from the previous one. Henri Poincare discovered that the reason for this did not lie in the rules for how the system evolves but rather in specifying the initial conditions that the rules start from in their application. More exactly, chaotic dynamical systems are characterized by "sensitive dependence on initial conditions". Chaos theory is a way to analyze such systems.
It turns out that in mathematical theory the change from order and predictability into unpredictability or chaos for dynamic systems is governed by a single law, and that the 'route' between the two conditions is a universal one. According to Pietgen: "Route means that there are abrupt qualitative changes--called bifurcations--which mark the transition from order into chaos like a schedule, and 'universal' means that these bifurcations can be found in many natural systems both qualitatively and quantitatively." Put another way; chaos is a type of non-linear behavior emerging along a universal route. At a certain point along this route ("close to the edge of chaos") organizations become highly sensitive to initial conditions and may abruptly change.

Our earlier description of the effect of a disaster on organizations and response systems shows that the form they take appears to be influenced by the initial conditions they experience following the disaster. Having said this, we still do not know if such organizations or systems move from a relatively stable state into a chaotic one or if they are simple adjusting their behavior within a given and predictable set of possibilities consistent with each organization's work rules. The two conditions are very different and require different management strategies; in the earlier case the existing management strategy is useful; in the latter, a new one is necessary to deal with an emergent process and accompanying structure. The application of chaos theory to other social phenomenon has been helpful in clarifying this issue. If it cannot be empirically shown that at least some disaster response organizations and response systems come close to or enter into chaos, then disaster management has little to learn from chaos theory.

2.2 Literature Review
2.2.1 Perceived knowledge, skills and preparation to disaster response

To overcome this situation, disaster management guidelines are actually needed for PHNs so that they can improve their own knowledge and skills related to emergency and disaster preparedness (Fung, et al., 2008; INCMCE, 2003) in order to manage disasters well (Fritsch & Zang, 2009). Some disaster management guidelines and a model of disaster nursing management have been developed for comprehensive disaster management by several organizations and groups of experts. There include the Manitoba Health (2000); the WHO (2005); Rogers et al. (as cited in Rogers and Lawhorn, 2007); and Jennings-Sanders (2004). These resources are valuable for healthcare providers, and particularly for guiding nurses and improving their abilities relating to preparing for, responding to, and recovering from disastrous event (Kuntz, Frable, Qureshi, & Strong, 2008). 

2.2.2 Position and length of working experience to disaster response

The Pacific Rim is not only a community of the fastest growing and most dynamic nations in the world. It is also the area exposed to a wide range of natural disaster. The Philippines archipelago, located near the western edge of the Pacific Ocean, is in the direct path of seasonal typhoons and monsoon rains which bring floods, storms, storm surges,
and their attendant landslides and other forms of devastation. The Philippines also sits on the "ring of fire" where the continental plates collide and thus experience periodic earthquakes and volcanic eruptions. The Philippine exposure to natural disasters may be characterized as frequent, varied, and severe; a combination which has made the country particularly attentive to disaster reduction.

2.2.3 Research Simulacrum

Corresponding to the variables discussed in the previous section, this conduct the following simulacrum, or paradigm, in order to represent such discussion. This will also serve as a structure to guide the research in validating or rejecting the arguments in the study.

Research Arguments:

Position to perceived level of knowledge

Position among health center worker have the effect on how do they perceived knowledge. There is a high percentage regarding the relationship of the position and the perception about the knowledge among health center employee to disaster and emergency response.

H1 (+): Is the position has the relationship on the perception in the level of knowledge among community health workers in disaster response.

Position to perceived level of skills

To overcome this situation, disaster management guidelines are actually needed for PHNs so that they can improve their own knowledge and skills related to emergency and disaster preparedness (Fung, et al., 2008; INCMCE, 2003) in order to manage disasters well (Fritsch & Zang, 2009). It states that as a public health worker you must be skilful to respond in a disaster. In this study shows that there is a highly relationship regarding the position and the perception among the health center employee to disaster respond.

H2 (+): Is the position has a relationship in the perception of the level of skills among community health workers in disaster response.

Positions to perceived level of preparedness in disaster respond

The position has a significant relationship to preparedness in disaster, because in creating a guidelines regarding disaster. Most of them is in the higher position. They are the ones who creating and doing how do other health worker respond when disaster comes. They are also the one who implement the guidelines in the barangay regarding the health issues including disaster for the safety of the community.

H3 (+): Is the position has a relationship regarding the level of preparation among community health workers in disaster response.

In the association regarding the position how do they perceive the preparation they have relationship base on the result. There have the relationship regarding the position and the preparation because most the health worker in
barangay health center who have a higher position they are the one who are creating guidelines and protocol regarding disaster preparedness.

H4 (+): Is the length of working experience has a relationship regarding the level of knowledge in disaster response. Statistical result there is a relationship regarding the length of working experience and the knowledge because the employee who work in the health center for the long period of time they have a lot of seminars that they included unlike to those who are newly hired or beginner as the health worker employee.

H5 (+): Is the length of working experience has a relationship in the perception on level of skills during disaster respond. In the result there is no relationship regarding the length of working experience because they conducted seminars and training for all of the employees. That is why length of working experience did not varies to the level of skills among health center employee.

H6 (+): Is the length of working experience has a relationship to the perception on the level of preparation in disaster respond.

In the result there is no significant relationship regarding the length of working experience and the perception regarding to the preparedness in disaster response. Because they are not the one who create a guidelines in disaster preparedness that is why even if they work in the health center for the period of time they are just following to the guidelines that they given.

3.0 RESEARCH METHOD

3.1 Research Design

The study utilizes non-experimental comparative method of quantitative approach. Non experimental because the study is conducted in a natural setting and it is comparative because it compares the difference between the position and working experience in their knowledge, skills and preparation to disaster.

The study focused on collecting, analyzing and interpreting results from the survey that will conduct by the researcher. By the use of a survey questionnaire, this will help to compare the level of knowledge, skills and preparation in their position and working experience to disaster management.

3.2 Research Locale

The researchers conducted the study at Maragondon, Cavite City. This location was chosen in part due to its location that near the sea and the mountains that can be cause of different types of natural disaster.

3.3 Populations and Sampling

The researcher determined the skills, knowledge and perception of 100 participants have been chosen through purposive sampling with the following criteria: [1] it should be 20years old-60 years old, [2] male or female, [3] must be working at the health center, [4] must be present in the vicinity, [5] must work atleast 3months to 40years.

This study used purposive sampling, which referred to as “judgmental” or “selective” sampling is a study wherein researcher consciously selects certain participants, elements,
events, or incidence to include in the study (Morse, 2007).

3.4 Research Ethics

To avoid ethical dilemmas, the researchers provide a consent form, asking for the permission from the respondents in participating the research in accordance of the Nuremberg code with the following criteria: [1] Participant must be aware that they are participating in research, [2] Research must not harm the subject, [3] Researcher must stop the study if the problem occur, [4] Participant can withdraw from the study without penalty.

3.5 Research Instrument

The researcher adapted a questionnaire from the article Jordanian nurses perceptions of their preparedness for disaster management (Tichy, 2009). We get 10 representatives on our respondent and giving them a questionnaire for pilot study. It consist of 4 parts, first is the demographic profile, the second part is the perception regarding the level of knowledge with contains of 14 question, but we can only get the 10 questions from this we remove questions number 4,5,9 and 12 because not all of our participant can acquire to answer the question. The third part is the level of skills it contains 10 questions, but we can only get 7 questions about this and we remove question number 2 and 5 because it asks about bioterrorism and it is not focused on the study. Last is the level of preparation, it consist of 21 questions, but we can only use 10 questions from this. We remove the numbers 1,3,5,6,11,12,13,16,17,18 and 20.

3.6 Data Collection

The researchers went to the Maragondon Cavite to ask for approval to conduct the research in every Barangay health center to follow the protocol in gathering information for the research about the knowledge, skills and preparation of each Barangay health center employee towards disaster. After we secure the consent, a research questionnaire will be handed to the employees of the Barangay health center assessing their knowledge, skills and preparation. The results were been tallied and documented accordingly.

3.7 Data Analysis

Data were analyzed using Chi-square. To determine the relationship of position and length of working experience regarding to the perception of knowledge, skills and preparation to disaster management among health center employee. Chi-square is better use to determine the association of two categorical variables.

4.0 RESULTS

4.1 Demographic Profile

The table above show the demographic data of the respondent who are those community health workers in different Barangay in Maragondon, Cavite City. As indicated to the table above, Most of the Community health workers are ages 31-40, Female who are working as a Barangay health workers with an experience of less than 10 years. Majority of the respondent worke at the health center are 0 to 10 years because most of them are contractual and the local government hired every 6months depending on their performance. But there are equal distribution regarding in their experience to disaster management.
Table 1 Demographic profile (n=100)

<table>
<thead>
<tr>
<th>Age</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-30</td>
<td>12</td>
<td>12%</td>
</tr>
<tr>
<td>31-40</td>
<td>45</td>
<td>45%</td>
</tr>
<tr>
<td>41-50</td>
<td>26</td>
<td>26%</td>
</tr>
<tr>
<td>51-60</td>
<td>12</td>
<td>12%</td>
</tr>
<tr>
<td>61 and above</td>
<td>5</td>
<td>5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>94</td>
<td>94%</td>
</tr>
<tr>
<td>Male</td>
<td>6</td>
<td>6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Position</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician</td>
<td>2</td>
<td>200%</td>
</tr>
<tr>
<td>Nurse</td>
<td>4</td>
<td>400%</td>
</tr>
<tr>
<td>Midwife</td>
<td>2</td>
<td>200%</td>
</tr>
<tr>
<td>Dentist</td>
<td>2</td>
<td>200%</td>
</tr>
<tr>
<td>BHW</td>
<td>50</td>
<td>5000%</td>
</tr>
<tr>
<td>BPM</td>
<td>40</td>
<td>4000%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Length of working experience</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 10yrs</td>
<td>90</td>
<td>90%</td>
</tr>
</tbody>
</table>

| 11yrs to 20yrs | 6     | 6%       |
| 21yrs to 30yrs | 3     | 3%       |
| 31yrs to 40yrs | 1     | 1%       |

<table>
<thead>
<tr>
<th>With or without experience</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>50</td>
<td>50%</td>
</tr>
<tr>
<td>No</td>
<td>50</td>
<td>50%</td>
</tr>
</tbody>
</table>

4.2 Association of position in the perception of level of knowledge regarding to disaster.

Majority of the items under level of knowledge suggest that there is statistically significant relationship between the position and their perception on their knowledge towards disaster management as seen in their p-values which ranges from 0.000 to 0.006. Only the result in item 4 ($\chi^2=28.598$, p value=0.18) suggests that there is no relationship between variables.

Table 2 Association of position in the perception of level of knowledge regarding to disaster.

<table>
<thead>
<tr>
<th>Association of Position and knowledge</th>
<th>$\chi^2$</th>
<th>p-value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Finding relevant information about disaster preparedness related to my community needs is an obstacle to my level of preparedness.</td>
<td>47.715</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>2. I would be interested in educational classes on disaster preparedness that related specifically to my community situation.</td>
<td>17.109</td>
<td>0.004</td>
<td>Significant</td>
</tr>
<tr>
<td>3. I am aware of classes about disaster preparedness and management that are offered in community.</td>
<td>24.53</td>
<td>0.006</td>
<td>Significant</td>
</tr>
<tr>
<td>4. In case of a disaster situation, I think that there is sufficient support from local officials on the country, region or governance level.</td>
<td>28.598</td>
<td>0.180</td>
<td>Not Significant</td>
</tr>
<tr>
<td>5. I know who to contact in disaster situation in my community.</td>
<td>58.569</td>
<td>0.000</td>
<td>Significant</td>
</tr>
</tbody>
</table>
6. I participate in one of the following educational activities on a regular basis, seminars or conferences dealing with disaster preparedness.  
   \( \chi^2 = 32.034 \)  \( p \)-value = 0.000  Significant

7. I know where to find relevant research or information related to disaster preparedness and management to fill in gaps in my knowledge.  
   \( \chi^2 = 55.686 \)  \( p \)-value = 0.000  Significant

8. I participate in disaster drills or exercises in my community.  
   \( \chi^2 = 27.901 \)  \( p \)-value = 0.002  Significant

9. I have list of contact in the medical or health community in which I practiced, I know referral contact in case of a disaster situation.  
   \( \chi^2 = 50.983 \)  \( p \)-value = 0.000  Significant

10. I have participated in emergency plan drafting and emergency planning for disaster situation in my community.  
    \( \chi^2 = 72.352 \)  \( p \)-value = 0.000  Significant

*Significant 0.05 alpha

4.3 Association of position to the level of skills

Majority of the items under level of knowledge suggest that there is statistically significant relationship between the position and their perception on their knowledge towards disaster management as seen in their \( p \)-values which ranges from 0.000 to 0.001. Only the result in item 3 (\( \chi^2=3.223, \ p \)-value=0.667) & 4 (\( \chi^2=1.9441, \ p \)-value=0.857) suggest that there is no relationship between variables.

Table 3 Association of position in the level of skills

<table>
<thead>
<tr>
<th>Association of Position and skills</th>
<th>( \chi^2 )</th>
<th>( p )-value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am aware of what the potential risk in my community.</td>
<td>53.441</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>2. I am familiar with accepted triage principles used in disaster situations.</td>
<td>69.008</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>3. I have personal/family emergency plans in place for disaster situation.</td>
<td>3.223</td>
<td>0.666</td>
<td>Not Significant</td>
</tr>
<tr>
<td>4. I am familiar with the local emergency response System for disaster</td>
<td>1.9441</td>
<td>0.857</td>
<td>Not Significant</td>
</tr>
<tr>
<td>5. I have an agreement with love ones and family members on how to execute our personal or family emergency plan.</td>
<td>28.811</td>
<td>0.001</td>
<td>Significant</td>
</tr>
<tr>
<td>6. I consider myself prepared for the management of disaster</td>
<td>84.446</td>
<td>0.000</td>
<td>Significant</td>
</tr>
</tbody>
</table>
7. I participate or have participated in creating new guidelines, emergency plans or lobbying for improvements on the local or national level.  

*Significant 0.05 alpha

4.4 Association of position in the level of preparation

Majority of the items under level of knowledge suggest that there is statistically significant relationship between the position and their perception on their knowledge towards disaster management as seen in their p-values which ranges from 0.000 to 0.011. Only the result in item 5 ($\chi^2=16.459$, p value=0.352), item 8 ($\chi^2=11.155$, p value=0.418) & 10 ($\chi^2=10.256$, p value=0.418) suggest that there is no relationship between variables.

Table 4 Association of position in the level of preparation in disaster management.

<table>
<thead>
<tr>
<th>Association of Position and preparedness</th>
<th>$\chi^2$</th>
<th>p-value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I would feel confident providing patient education on stress and abnormal functioning related to trauma.</td>
<td>77.694</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>2. I am familiar with what the scope of my role as a barangay health center employee in a post disaster situation.</td>
<td>53.532</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>3. As a barangay health center employee, I would feel confident in my abilities as a first responder in disaster.</td>
<td>51.48</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>4. I feel reasonably confident; I can care my community independently without supervision of a physician in a disaster situation.</td>
<td>46.201</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>5. I can manage the common symptoms and reaction of disaster survivors that are of affective, behavioral, cognitive, and physical nature.</td>
<td>16.459</td>
<td>0.352</td>
<td>Not Significant</td>
</tr>
<tr>
<td>6. I would feel confident implementing emergency plans evacuation procedures and similar functions.</td>
<td>52.695</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>7. I am able to describe my role in the response phase of a disaster.</td>
<td>54.524</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>8. I participate in peer evaluation of skills on disaster preparedness and response.</td>
<td>11.155</td>
<td>0.742</td>
<td>Not Significant</td>
</tr>
<tr>
<td>9. I am familiar in how to perform focused health assessment.</td>
<td>30.344</td>
<td>0.011</td>
<td>Significant</td>
</tr>
</tbody>
</table>
10. I am familiar with the organizational logistics and roles among local and national agencies in disaster responses situation.  

<table>
<thead>
<tr>
<th>Working experience and Awareness on disaster management</th>
<th>$\chi^2$</th>
<th>p-value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Finding relevant information about disaster preparedness related to my community needs is an obstacle to my level of preparedness.</td>
<td>6.208</td>
<td>0.719</td>
<td>Not Significant</td>
</tr>
<tr>
<td>2. I would be interested in educational classes on disaster preparedness that related specifically to my community situation.</td>
<td>10.848</td>
<td>0.013</td>
<td>Significant</td>
</tr>
<tr>
<td>3. I am aware of classes about disaster preparedness and management that are offered in community.</td>
<td>8.417</td>
<td>0.209</td>
<td>Not Significant</td>
</tr>
<tr>
<td>4. In case of a disaster situation, I think that there is sufficient support from local officials on the country, region or governance level.</td>
<td>22.624</td>
<td>0.007</td>
<td>Significant</td>
</tr>
<tr>
<td>5. I know who to contact in disaster situation in my community.</td>
<td>31.495</td>
<td>0.002</td>
<td>Significant</td>
</tr>
<tr>
<td>6. I participate in one of the following educational activities on a regular basis seminars or conferences dealing with disaster preparedness.</td>
<td>12.319</td>
<td>0.055</td>
<td>Not Significant</td>
</tr>
<tr>
<td>7. I know where to find relevant research or information related to disaster preparedness and management to fill in gaps in my knowledge.</td>
<td>23.913</td>
<td>0.004</td>
<td>Significant</td>
</tr>
<tr>
<td>8. I participate in disaster drills or exercises in my community.</td>
<td>15.724</td>
<td>0.015</td>
<td>Significant</td>
</tr>
</tbody>
</table>

4.5 Association of Length of Working Experience in the Level of Knowledge  

Majority of the items under level of knowledge suggest that there is statistically significant relationship between the length of working experience and their perception on their knowledge towards disaster management as seen in their p-values ranges from 0.000 to 0.015. On the other hand, item 1 ($\chi^2=6.208$, p value=0.0.719), item 3 ($\chi^2=8.417$, p value=0.209) and item 6 ($\chi^2=12.319$, p value=0.0.055) suggests that there is no relationship between variables.
9. I have a list of contact in the medical or health community in which I practiced, I know referral contact in case of a disaster situation.
10. I have participated in emergency plan drafting and emergency planning for disaster situation in my community.

*Significant 0.05 alpha

4.6 Association of length of working experience in the level of skills.

All the items under the skill on disaster management suggest that there is no statistically significant relationship between the length of working experience and how they perceived their skills on disaster management as seen with the p-values which are all greater than 0.05.

Table 6 Association of length of working experience to the level of skills

<table>
<thead>
<tr>
<th>Working experience and Skill on disaster management</th>
<th>$\chi^2$</th>
<th>$p$-value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am aware of what the potential risk in my community.</td>
<td>1.515</td>
<td>0.958</td>
<td>Not Significant</td>
</tr>
<tr>
<td>2. I am familiar with accepted triage principles used in disaster situations.</td>
<td>1.961</td>
<td>0.992</td>
<td>Not Significant</td>
</tr>
<tr>
<td>3. I have personal/family emergency plans in place for disaster situation.</td>
<td>3.486</td>
<td>0.323</td>
<td>Not Significant</td>
</tr>
<tr>
<td>4. I am familiar with the local emergency response system for disaster.</td>
<td>0.692</td>
<td>0.875</td>
<td>Not Significant</td>
</tr>
<tr>
<td>5. I have an agreement with love ones and family members on how to execute our personal or family emergency plan.</td>
<td>9.667</td>
<td>0.139</td>
<td>Not Significant</td>
</tr>
<tr>
<td>6. I consider myself prepared for the management of disaster.</td>
<td>4.686</td>
<td>0.861</td>
<td>Not Significant</td>
</tr>
<tr>
<td>7. I participate or have participated in creating new guidelines, emergency plans or lobbying for improvements on the local or national level.</td>
<td>2.439</td>
<td>0.982</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>

*Significant 0.05 alpha

4.7 Association of length of working experience to the level of preparedness in disaster response.

All the items under the preparation on disaster management suggest that there is no statistically significant relationship between the length of working experience and how they perceived their skills on disaster management as seen with the p-values which are all greater than 0.05.
Table 7 Association of length of working experience to the level of preparedness

<table>
<thead>
<tr>
<th>Working experience and preparedness on disaster management</th>
<th>χ²</th>
<th>p-value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I would feel confident providing patient education on stress and abnormal functioning related to trauma.</td>
<td>1.235</td>
<td>0.999</td>
<td>Not Significant</td>
</tr>
<tr>
<td>2. I am familiar with what the scope of my role as a barangay health center employee in a post disaster situation.</td>
<td>1.427</td>
<td>0.964</td>
<td>Not Significant</td>
</tr>
<tr>
<td>3. As a barangay health center employee, I would feel confident in my abilities as a first responder in disaster.</td>
<td>4.074</td>
<td>0.667</td>
<td>Not Significant</td>
</tr>
<tr>
<td>4. I feel reasonably confident; I can care my community independently without supervision of a physician in a disaster situation.</td>
<td>3.872</td>
<td>0.920</td>
<td>Not Significant</td>
</tr>
<tr>
<td>5. I can manage the common symptoms and reaction of disaster survivors that are of affective, behavioral, cognitive, and physical nature.</td>
<td>10.868</td>
<td>0.285</td>
<td>Not Significant</td>
</tr>
<tr>
<td>6. I would feel confident implementing emergency plans evacuation procedures and similar functions.</td>
<td>1.531</td>
<td>0.957</td>
<td>Not Significant</td>
</tr>
<tr>
<td>7. I am able to describe my role in the response phase of a disaster.</td>
<td>1.164</td>
<td>0.999</td>
<td>Not Significant</td>
</tr>
<tr>
<td>8. I participate in peer evaluation of skills on disaster preparedness and response.</td>
<td>2.606</td>
<td>0.989</td>
<td>Not Significant</td>
</tr>
<tr>
<td>9. I am familiar in how to perform focused health assessment.</td>
<td>2</td>
<td>0.991</td>
<td>Not Significant</td>
</tr>
<tr>
<td>10. I am familiar with the organizational logistics and roles among local and national agencies in disaster responses situation.</td>
<td>1.373</td>
<td>0.967</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>

*Significant 0.05 alpha

5.0 DISCUSSION

In the demographic profile it states that there more barangay health center employee who worked in the age of 31 to 40. Because they prefer for this age to easily communicating and they help their community for work. There is also a high representation among barangay health center employee and barangay population management rather than those who are in the medical profession. Because they are the one who are responsible in monitoring the status in the community. According to O’Sullivan (2008), nurses with the perception that there is a low risk of a disaster occurring may allow this perception to influence their awareness and preparedness for disaster emergencies. This, however, does not imply that those who have no experience in disasters would have perceived lower risk perceptions. Another contributing
factor might be the low number of subjects who undertook self-directed learning. This states that in experience does not measure the perception among health workers.

In the table 2, it shows the relationship of position to the perception in the level of knowledge among health center employee. Because they are all expose to seminars and classes related to disaster management regardless to their position. It shows that the position is related to the knowledge that the health worker perceived. Thus, PHNs should gain more knowledge regarding disasters and emergencies (Hammad, Arbon, & Gebbie, 2010) in order to enhance their self-preparedness for future disaster occurrences (Burstein, 2006). This is because appropriate disaster preparedness will determine their successfulness in responding to and recovering from disastrous events (Rowney & Barton, 2005).

In the association on the position and the level of skill there and statistically significant to each other. Because they are all conducting training to improve their skills in responding to disaster and emergency. According to Gebbie and Qureshi (2002), the lack of skill in using a communication plan and associated equipment will contribute to failure in implementing the plan and collaborating on actions during a disaster.

In regards to the position and the preparation to the disaster the result shows that there is a significant relationship in the position and the preparation in disaster. Because most of the personnel who created the guidelines and preparing the plans in disaster are those employees like physician, nurses. They also give the guideline the other employee of the health center. Identifying the risk of hazards and disasters is therefore an important step in order to develop strategies to diminish the impact of disaster occurrences (Manitoba Health, 2000). Accordingly, communication is classified as one of the greatest barriers for healthcare providers during a catastrophe event (O'Boyle, Robertson, & Secor-Turner, 2006; Qureshi et al., 2005).

In regards to the length of working experience and the relationship of knowledge this shows in the result that there is a relationship between to variables. It has the relationship because they conducting seminars continuously that is why they have knowledge in the disaster and emergency response. Thus, PHNs should gain more knowledge regarding disasters and emergencies (Hammad, Arbon, & Gebbie, 2010) in order to enhance their self-preparedness for future disaster occurrences (Burstein, 2006). This is because appropriate disaster preparedness will determine their successfulness in responding to and recovering from disastrous events (Rowney & Barton, 2005). It indicates that organizations may not be prepared to respond properly in case of disasters. Large numbers of healthcare providers are not necessarily needed but the right levels of training are needed for existing providers (Veenema, 2007). In other words, training that result in high levels of ability to practice is the most important aspect.

In the association of the length of working experience in the level of skills, it says that there is no relationship in the two
variables. The length of working experience those not affect to the perception of the skill among health center employee. Because most of the worker who are exposing to disaster and emergency trainings are those who work in the health center a period of time. According to Phillips and Lavin (as cited in Veenema, 2006) also reported that in the aftermath of the World Trade Center disaster, nurses were eager to offer assistance but many of them lacked proper training in communicating with disaster management teams and the specific skills necessary for dealing with the victims and their families (Veenema).

On the last table it shows the association of the length of working experience to the preparation on the disaster response. It shows in the result that there is no relationship regarding the length of working experience and the perception of health center employee regarding the level of preparedness. Because those health center employees who are newly hired is not yet exposing disaster and emergency responding that’s why they cannot perceived in disaster preparation. Beyond their main responsibility to deliver physical, emotional, and psychological support during and after a disaster event (Secor-Turner & O'Boyle, 2006), PHNs are also responsible to conduct health education or promotions related to infectious diseases by partnering with their community (Rebmann et al.; Rogers & Lawhorn, 2007).

6.0 CONCLUSION

The objectives of this study is to determine the relationship of position and their perception to knowledge, skills and preparation in disaster management and compare to the relationship of the length of working experience to their knowledge, skills and preparation to disaster management. The study utilizes non experimental comparative method quantitative approach. The study focuses on collecting, analyzing and interpreting result from the survey that was conducted by the researcher. The respondent answers a questionnaire with 3 parts. In the first part was measure the perception of the respondent to their level of knowledge regarding the disaster management. On the second part measure the perception of the respondent in their level of skill to disaster. And last was about the perception in their level of preparedness in disaster. The study is meritorious in presenting that position is a factor that affects knowledge, skills and preparedness of community health workers with regards to emergency and disaster response. The study highlights the importance of strengthening the knowledge, skills and level of preparedness of Barangay Health Workers who are not handling managerial position in the health centers.

7.0 RECOMMENDATION

This research paper was recommended to other student as a reference for their future research paper. They may also benefit from and improve the study in various ways such as they need future investigation and may focus also on a quantitative component. This paper was applicable in the study to the province of Maragondon, Cavite City. The researchers also recommend that those who are newly hired in health center
should take seminars and trainings so that they can go in disaster and emergency respond like other workers. The weakness of the study is we only gather limited respondent and they are not equally distributed to different position. Future researchers may also recommend extending their study in different places and measuring the perception in their knowledge, skills and preparation to disaster. It may help us to determine the preparedness in our community in disaster situation.

REFERENCES
Al Khalaileh, M., Bond, E., & Alasad, J. (n.d.). Jordanian nurses’ perceptions of their preparedness for disaster management.
RELATIONSHIP BETWEEN SLEEP HYGIENE AND SLEEP QUALITY AMONG ADOLESCENTS WHO LIVED IN ISLAMIC BOARDING SCHOOL

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ABSTRACT

\textbf{Background:} Sleep Hygiene has been described as the general rules of behavioral practices and environmental factors such as diet, exercise, substance use, light, temperature, noise and related with behavioral practices such as regularity of sleep schedule, pre-sleep activities, efforts to try to sleep. That are consistent with good quality of sleep. Poor sleep quality can affect their concentration, attention, memory, reduced physical health and altered moods.

\textbf{Aim:} The aim of this study was to examine whether the relationship between sleep hygiene (independent variable) that affecting sleep quality (dependent variable) for Indonesian adolescents who live in Islamic boarding school.

\textbf{Methods:} This study used a cross-sectional and correlation design. The setting of this study was Darul Ulum Islamic Boarding School in Jombang City, East Java. This study used purposive sampling. The inclusion criteria were: Aged ranges 10-19 years and no history of psychiatric or neurological disorders. Total sample of this study was 370. Instrument to measure sleep hygiene was Sleep Hygiene Index (SHI) and Instrument to measure sleep quality was Pittsburgh Sleep Quality Index.

\textbf{Results:} This study showed that significant positive correlation existed among total score of PSQI (p value < 0.05). Higher score of SHI (maladaptive sleep hygiene), PSQI (sleep quality) was significantly worse (poor sleep quality).

\textbf{Conclusion:} Better understanding about this relationship can educate adolescents about good sleep quality. Also develop sleep hygiene intervention was needed to maintain good sleep quality among adolescents.

\textbf{Keywords:} Sleep hygiene, Sleep quality, Adolescents

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A. INTRODUCTION

1. Background of The Study

Physical and social developments in adolescents have effects to change the sleep habit easily (Kaneita et al., 2009) which can induce sleep disturbance (Dahl, R. E., & Lewin, D. S., 2002). 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). Adolescents in Europe, Asia, and the United States have more than one of behaviors that influence sleep quality, such as difficulties on going to bed, falling asleep, undisturbed sleep, and wakefulness in the morning (LeBourgeois, Giannotti, Cortesi, Wolfson, & Harsh, 2004).

In this age sleep quality related with behavioral sleep disturbance is initial to maladaptive behavior (Yang, Spielman, & Glovinsky, 2006). Maladaptive sleep behavior has related with sleep hygiene practices. Sleep Hygiene has been described as the general rules of behavioral practices and environmental factors that are consistent with good quality of sleep. Sleep Hygiene defined as general health practices (e.g., diet, exercise, substance use), environmental factors (e.g., light, temperature, noise), and related with behavioral practices (e.g., regularity of sleep schedule, pre sleep activities, efforts to try to sleep) (Yang, Lin, Hsu, & Cheng, 2010).

Based on previous study, 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). If adolescent has partial sleep less than 6 hours of sleep per night, it has effect like those (Brown, Buboltz, & Soper, 2002). Unfortunately they often unaware of how poor sleep quality influences their cognitive functioning. Furthermore, there is one study about sleep hygiene behavior among Balinese adolescent (Nursalam et al., 2013). The Balinese believe if someone is sleeping in the early evening, then that person will have a short life. Balinese adolescents have different culture with adolescents who live in Islamic boarding school.

2. Problem statement

The aim of this study was to examine whether the relationship between sleep hygiene (independent variable) that affecting sleep quality (dependent variable) for Indonesian adolescents who live in Islamic boarding school.

3. Research Purpose

This study examined whether the relationship between sleep hygiene (independent variable) that affecting sleep quality (dependent variable) for Indonesian adolescents who live in Islamic boarding school.

B. METHODS

This study used a cross-sectional and correlation design, using self-reported questionnaire. The setting of this study is Darul Ulum Islamic Boarding School in Jombang City, East Java. The researcher choose “Darul Ulum Islamic Boarding School” due to approximately 5,000 students who live in this Islamic Boarding School or live at dormitory and this is one
of the oldest Islamic Boarding School in Indonesia, since 1885 (Ministry of Religious Affairs of the Republic Indonesia, 2013). 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 criteria was students whose parents disagree if their children participate in this survey or the students do not return the informed consent sheet. Total sample of this study was 370 based on Slovin Formula

Two instruments were used to measure the variables being studied. First instrument was The Sleep Hygiene Index (SHI) is used to self-report assess the practice of sleep hygiene behaviors. It is a 13-item self reported. Higher score indicating maladaptive sleep hygiene status. It is used 5-point scale (always, frequently, sometimes, rarely, never). Cronbach’s Alpha for the Sleep Hygiene index was 0.66 (Mastin, D. F., Bryson, J., & Corwyn, R. , 2006). Second instrument was Pittsburgh Sleep Quality Index (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 (Buysse, D. J., et al., 1989).

All analyses use the SPSS version 18.0 for Windows (SPSS, Inc, Chicago, IL) computer software ($p$ value of $< 0.05$ wer considered to describe statistically significant differences). A Pearson correlation analysis will use to explore the relationship between the scores of SHI and PSQI.

Permission is granted by the ethics committee in IRB LPPM Universitas Airlangga Surabaya. Islamic Boarding School were contacted through formal written letters. The contents explained the aim and the purpose of this study and request for permission to conduct research in their Islamic Boarding School. Questionnaires were distributed in sealed envelopes and asked the participants to sit space apart. Estimate to collect the data need 30 minutes. The participants were allowed to withdrawal in this study after looking the questionnaires. At the end, the participants were asked to return the questionnaire in the envelope provided. Envelope helps to ensure confidentiality of answers.

C. RESULT

Table 1 showed that significant positive correlation existed among total score of PSQI. This table showed that higher score of SHI (maladaptive sleep hygiene), PSQI (sleep quality) was significantly worse (poor sleep quality).

<table>
<thead>
<tr>
<th>SHI</th>
<th>PSQI</th>
<th>$p$ value</th>
<th>$r$</th>
</tr>
</thead>
<tbody>
<tr>
<td>.02</td>
<td>.378</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

D. DISCUSSION

The result of this study was sleep hygiene had positive association with sleep quality ($p< 0.05$ $r=0.378$). Based on previous study, significant factor that affecting sleep quality is sleep hygiene (Brick et al., 2010; Franklin C Brown et al., 2002; LeBourgeois et al., 2005; Suen, Tam, & Hon, 2010). Another study
mentioned that significant factor that affecting sleep quality in Italians and Americans is sleep hygiene (LeBourgeois et al., 2005). Adolescents reported that had more frequent daytime napping, failed in maintaining sleep, due to sharing a bed or bedroom in American adolescence (LeBourgeois et al., 2005). Sleep hygiene is for adolescents defined as behavioral practice to get good sleep quality, adequate sleep duration, and full day time alertness (Noland et al., 2009).

The participants in this study live in pesantren. Adolescents who live in Pesantren is called santri. Santri learns about Islamic, national curriculum and also conduct the exam (Maslani, 2012). The tight learning schedule lead to partial sleep deprivation (less than 6 hours of sleep per night), this will affect their cognition function and related with stress level. Santri has to live in dormitory, and they have to share room with another santri, which cause noise disturbance, they use their bed for personal activities and furthermore have they have time schedule based on the schedule of prayers (Maslani, 2012). These factors related to behavioral factors, especially in sleep hygiene practice, that may bother sleep and has effect with sleep quality (Yang et al., 2006).

D. CONCLUSION

There was a positive correlation between sleep hygiene and sleep quality among Indonesian Adolescents who lived in Islamic Boarding School.

E. RECOMMENDATION

Better understanding about this relationship can educate adolescents about good sleep quality. Also develop sleep hygiene intervention was needed to maintain good sleep quality among adolescents.

REFERENCES


ABSTRACT

Background: Art is valuable for the positive effect, cognitive, cultural, personal, physical and social consequences that help learners to cope with the demands of life, enhancing their knowledge as well as their skills and abilities. Engaging in such activities as arts and crafts, stimulates the mind, reduces the effects of stress-related diseases and slows cognitive decline. The goal of the study is to determine if craft making has the capacity to enhance the remembering and multi-tasking skills of Filipino elderly.

Methods: The researchers utilized quantitative quasi experimental approach to determine the difference with the effects of craft making between 10 elder men and 10 women on their remembering and multi-tasking skills. Prior to craft making, Digit Span and EXIT 25 as pretest. Both groups covered the same content and duration of the test. The following week, all of the participants were exposed to craft making. After craft making, Digit Span and EXIT25 to assess the remembering and multi-tasking scores were given to both groups as posttest. Paired t-test and independent t-test were done to compare the gathered results of the study.

Results: The finding of the study shows that 70% of the elderly was involved in arc-making between 5-10 years, because earlier in their life, their interest was focused on other works. It correlates with the outcome that craft-making could enhance remembering skills with a mean of (11.6), this could imply that since elderly exhibits memory decline, arc-making could be a tool to enhance the remembering skills because it involved familiarity of tasks. Upon evaluation, the results accept that craft making can significantly enhance remembering skills (t-value = -3.087) and denies that craft-making can significantly enhance multi-tasking skills (t-value=3.182) after craft-making. Results shows that there is no significant difference of remembering and multi-tasking scores based on gender.

Conclusion: The study focused to identify if craft making could enhance the remembering and multi-tasking skills of Filipino elderly and if it has a different effect on both genders. The results posed that there is no significant difference on both genders with the effect of craft making. This study is successful in determining the effects of craft making in remembering and multi-tasking skills of Filipino elderly. It also opens opportunities to future researchers exploring on various diversional activities that will address the needs of the largest growing population in our society.

Keywords: craft, creativity, craft making, art, cognition, memory, working memory, elderly, occupational therapy, multi-tasking.
INTRODUCTION

Art is valuable for the positive effect, cognitive, cultural, personal, physical and social consequences that help learners to cope with the demands of life, enhancing their knowledge as well as their skills and abilities (Robinson, 1982). In 2007, Gutman and Victoria Schindler found that engaging in such activities as arts and crafts, stimulates the mind, reduces the effects of stress-related diseases and slows cognitive decline.

Cognition is a combination of processes including paying attention, learning and reacting to objects in the environment and using language and memory (Alexandra Kuelder, et.al, 2014). Cognitive performance particularly intelligence, learning and memory are three cognitive domains that normally change and declines during aging (Hoyman and Kiyak, 2007; Park and Reuter-Lorenz, 2009). If cognition becomes impaired, an individual may have difficulty performing everyday tasks. As we age knowledge was preserved while speed of processing, working memory and long term memory declines (Andres Engiv, 2010).

There are a lot of factors that may hinder an older person to perform productively and independently in a society. This factor includes forgetfulness, distractibility and loosing tract of conversation topic. Eliminating these factors would be impossible because it is part of an aging process. The best we can do is to modify this to help old person to be mentally functional in a society.

A lot of studies performed by occupational therapist or professional were conducted in regards to craft making and its effects in cognitive function worldwide. The researchers implemented this study because it is new in the Philippines particularly using arc making as the main focus and it was first time to be conducted in the country. The respondents were elderly because cognitive declines particularly memory and multi-tasking skills are common in this age group. Additionally, majority of them engaged in craft making such as part of their business, enhancing their skills and abilities, and making their lives more productive. This study would contribute not only for the elderly itself but also to the health care provider and people of the community about a craft that could enhance the remembering, and multi-tasking skills of Filipino elderly.

BACKGROUND

Elderly exhibit significant deficits in tasks that involve active manipulation, reorganization, or integration of the contents of working memory (Baddeley and Hitch, 1974), so researchers choose multiple-component working memory model of Baddeley. Working memory is a temporary storage system under attentional control that underpins our capacity for complex thought (Baddeley, 2007). Henry (2011) stated that working memory is limited in capacity, which means that we cannot store and manipulate endless amounts of information. Working memory is a processing resource of limited capacity, involved in the preservation of information while simultaneously processing the same or other information (Swanson, 2006).
The working memory model was developed to understand how we temporarily manipulate and store information during thinking and reasoning tasks in our everyday life. It consists of four components: the phonological loop, specialized for holding speech material for short periods of time, and it deals to the capacity of individuals to remember small amounts of heard information over short periods of time; the visuospatial sketchpad, responsible for holding visual, spatial and possibly, kinaesthetic information for short periods of time, and can be used during thinking, remembering and processing tasks (Logie, 1995); the central executive which is responsible for the overall control of the working memory system via focusing, dividing and switching attention in a flexible manner, and it is responsible for control and allocation of attention (Baddeley, 2007); the episodic buffer, responsible for binding or integrating information from the other components together into a coherent whole. This component was linked to long term memory, it is a way of integrating information from all of the other systems into a unified experience, and a small amount of extra storage capacity that does not depend on the perceptual nature of input (Baddeley, 2000).

Baddeley Working Memory Theory was comprehensive and has four-component structure, which discusses the different executive functions of working memory. This theory also cited the common skills that will be deficit as the person aged. It fortified the researchers to come up with these two measurable variables, the remembering and multi-tasking skills which is the main focus of the study along with its connection to the participants of the study. Researchers considered capacity of craft making to enhance those two common deficits as the person became old.

Based on the foregoing, the following are the specific queries the investigators wish to address:

**Research Question 1:** What is the demographic profile of the respondents?
- a. in terms of gender;
- b. in terms of age;
- c. in terms of citizenship;
- d. in terms of years of doing craft.

**Research Question 2:** What is the remembering pretest and posttest scores of Filipino elderly?

**Research Question 3:** What is the multi-tasking pretest and posttest scores of Filipino elderly?

**Research Question 4:** Does the Arch making activity affect the remembering and multi-tasking posttest scores of Filipino elderly?

**Research Question 5:** Is there a significant difference in the remembering and multi-tasking pretest and posttest scores of Filipino elderly when group according to gender?

Consequently, the investigators formulated the following hypotheses:

- $H_1 (\cdot)$: There is a significant difference with the remembering pretest and posttest scores of Filipino elderly.
- $H_2 (\cdot)$: There is a significant difference with the multi-tasking pretest and posttest scores of Filipino elderly.
- $H_3 (\cdot)$: Craft-making will enhance the remembering and multi-tasking posttest scores of Filipino elderly.
There is a significant difference in the remembering and multi-tasking pretest and posttest scores of between elder men and women.

Figure 1: Hypothesized Relationship between Arch Making, Gender and the Affected Factors

RESEARCH METHODOLOGY

Research Design

The researchers utilized quantitative approach to identify answers to question about measurable variables and predicting phenomena. The researchers used quasi experimental since this study aims to determine the difference with the effects of craft making between elder men and women on their remembering and multi-tasking skills.

Research Locale

This research was held in highly urbanized institution located in Bulacan wherein the senior citizens were involved in craft making of an “Arko”. The researchers would like to evaluate if making an “Arko” would enhance the remembering and multi-tasking skills of an elder men and women.

Description of the respondents

The researchers used purposive sampling or sometimes referred to as “judgemental” or selective sampling wherein researchers will consciously selects certain participants or elements to include in the study (Morse, 2007). The researchers set different criteria in selecting the respondents that suit to the study: Inclusion criteria are the following: (1) Elder Men and Women; (2) 60-70 years old; (3) Filipino Citizen; (4) Engaged in Craft Making for 5 years and above for the participant to be homogenous, and making sure all members already has the experienced on making craft and that craft will be done accurately and completely as the expected date; (5) Some medical conditions such as DM, HPN, Blurring of Vision, Difficulty in Hearing, Hyperhydrosis with the elderly will be allowed as the respondent. For the exclusion criteria are the following: (1) With known mental Illness; (2) With known past medical and family mental illness history; (3) Motor and sensory difficulties such as difficulty in hearing and Parkinson’s disease.

Research Ethics

Before the data collection commenced, the proposal was reviewed by the Institutional Ethics Review Committee (IERC) of Our Lady of Fatima University. Ethical considerations of the study namely: An informed consent was given to the participant and (1) Voluntary informed consents wherein the participants can freely decide to be or not a part of the study. (2) Principle of Non-Maleficence, wherein the researchers provided that physical and psychological harm should not be inflected to the participants, (3) Principle of Beneficence wherein the researchers provided that good must be done to the participants, (4) Principle of Justice states that human subjects was treated fairly in terms of the benefits and the risks of research, (5) Right to confidentiality is the freedom
people have determined the time, extend and general circumstances under what their private information will be shared with or with the held from other, (6) Right to withdraw consent, (7) Research must stop if resulting to harm. (8) No compensation will be given to the participants.

Research Instruments

Digit Span Test

It is a test that was given prior and after craft-making to assess remembering skills. A 20 item test which contains 2 set of test, the Digit Forward for 10 points and Digit Backward for another 10 points. The total score is 20. It is a dichotomous type of question wherein the researchers will choose yes or no and placing a check in each category. It was designed by Pearson by the year of 2001. A letter of permission to author was sent through email.

EXIT25 (Executive Interview)

The EXIT25 is used to evaluate the multi-tasking skills between elder men and women before and after craft making. The EXIT is a 25-item questions that takes 15–20 minutes. The total score is 50. It is a checklist type of question wherein same response format were utilized. It is designed by Dr. Donald M Royall. A letter of permission to the author was sent through email.

Data Collection

Prior to conduction of the experimental study, letters of permission to the Dean of the College of Nursing and chairman of the institution were submitted for approval. The informed consent was given for their protection, the Digit Span and EXIT25 that will be given prior to craft making, and the main focus is the craft making to be accomplished for 1 week and another Digit Span and EXIT25 for post-test.

Using the purposive sampling elder men and elder women were chosen through written assessment that were asked by the researchers to the individual participants containing the criteria made by the researchers. When it was done the researchers summed up the gathered data then the assessment was evaluated with the result of 5 elder men and 5 elder women that fits to the criteria of the study. Consents were subsequently obtained to safeguard the basic rights to self-determination of all participants.

After 1 day, the researchers returned to give test prior to craft making. First the Digit Span Test for remembering skills for 1 hour. The only responsible of the respondent was listening in every item and giving a response. EXIT25 was given for 2 hours.

The following 1-week was consumed in doing an arch. The researchers gave the basic materials for doing an arch. The elderly performed it on Wednesday, Saturday, Monday and Saturday for 1 week for about 3-4 hours per day. 2 posttests the Digit Span Test and EXIT 25 with the same content and duration was given.

SCORING

Digit Span Test

Pretest and posttest was checked accordingly. Raw scores were calculated by adding all the correct answers in each category.

EXIT25 (Executive Interview)

Pretest and posttest was checked accordingly. Raw scores were calculated
by adding all the corresponding answers of the participant in each category.

Data Analysis

A paired t-test compares scores on two different variables, but for the same group of cases, while the independent t-test compares scores on the same variable, but for two different groups of cases. Thus, paired t-test was used to evaluate the pre and post test scores for each group. SPSS version 21 was used.

RESULTS

Table 1

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Mean</th>
<th>SD</th>
<th>Mean diff</th>
<th>t</th>
<th>Significance</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remembering</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>10.4</td>
<td>1.6</td>
<td>-1.2</td>
<td>-3.087</td>
<td>0.013</td>
<td>SD</td>
</tr>
<tr>
<td>Posttest</td>
<td>11.6</td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-tasking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>26.9</td>
<td>4.5</td>
<td>6.2</td>
<td>3.182</td>
<td>0.011</td>
<td>SD</td>
</tr>
<tr>
<td>Posttest</td>
<td>20.7</td>
<td>3.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significant at 0.05

Remembering Pretest and Posttest Scores between Elder Women and Men

There is no significant difference with the remembering pretest and posttest scores between elder men and women with a mean differential of (-0.80). Elder men pretest and posttest scores were higher than elder women with a mean of 10.80 and 12.00.

Table 2

Remembering Pretest and Posttest Scores between Elder Women and Men
### Multi-Tasking Pretest and Posttest Scores between Elder Women and Men

There is no significant difference with the multi-tasking pretest and posttest scores between elder men and women.

**Table 3**

### Multi-Tasking Pretest and Posttest Scores between Elder Women and Men

<table>
<thead>
<tr>
<th>Gender</th>
<th>Mean</th>
<th>SD</th>
<th>Mean diff</th>
<th>t</th>
<th>Significance</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>28.40</td>
<td>3.21</td>
<td>3.00</td>
<td>1.053</td>
<td>0.323</td>
<td>NSD</td>
</tr>
<tr>
<td>Male</td>
<td>25.40</td>
<td>5.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posttest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>20.60</td>
<td>4.16</td>
<td>-0.20</td>
<td>-0.092</td>
<td>0.929</td>
<td>NSD</td>
</tr>
<tr>
<td>Male</td>
<td>20.80</td>
<td>2.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significant at 0.05
DISCUSSION

Majority of the respondents aged 60-65, in which cognitive declines common at this age group. It correlates with Cherry E. on 2011, who emphasized that working memory task significant declines were found between ages 60 to 69 years old. Generally, craft making activity was common to elder women worldwide however in the Philippines arc making was performed majority by elder men because of the complicated labor. Additionally, “arc making” every May for “Flores De Mayo” celebration is a culture and belief inherited of Filipinos from Spanish and it was practiced a long time ago until now. The finding of the study shows that 70% of the elderly was involved in arc-making between 5-10 years, because earlier in their life, their interest was focused on other works, thus as they became old their interest was focused on doing an arc, because of the culture and religious aspect. According to American Psychological Association memory training strategies such as craft-making help to optimize remaining cognitive abilities. Since majority of the elderly had working memory task declines and were involved in arc-making, the cultural and religious aspect of it would encourage the elderly to involve in this activity.

Researchers measured the effect of arc making in remembering and multi-tasking skills. A significant increase of 1.2 was found in the remembering posttest score after involvement to craft-making, because making an arc creates a connection in brain cells which enhance their capacity to remember. This was supported by Gutman and Victoria in 2007, people who engaged on activities such as arts and crafts stimulate the mind and slows cognitive decline. Additionally Deane Alcan emphasized that creating art such as craft enhances memory, boosts focus and concentration, that correlates with the findings of this study that craft-making could enhance remembering skills with a mean of (11.6). This could imply that since elderly exhibits memory decline, arc-making could be a tool to enhance the remembering skills because it involved familiarity of tasks (Sinikka Pollanen, 2013).

A significant decrease of 6.2 was found in the multi-tasking posttest score. Brains of older people become more deeply engaged in what interrupts them, making it harder for them to shift their focus back to original task at hand. It was supported by Gazzaley of 2011 the re-engagement of original memory network and disengagement from what has interrupted you, that switch-over seems to be worse in older adults (Gazzaley, 2011). The results of the study shows decrease score with a mean of 20.7, this could imply that since majority of elderly had a harder time focusing on multiple task at hand, arc making could not be used as a tool to enhance multi-tasking skills among Filipino elderly.

Researchers measured the effect of arc making according to gender. There is no significant difference with the remembering pretest and posttest scores between elder men and women because there are tasks of men overcome by women and vice versa. It was supported by Hoyman and Kiyak of 2007, memory is a cognitive domain that normally change during aging, but women excelled
in verbal episodic memory tasks, such as remembering words, objects, pictures or everyday events while men outperformed women in remembering symbolic, non-linguistic information, known as visuo-spatial process. Even though the table shows high pretest and posttest score of elder men, the results of the study shows no significant difference with a t value of (-0.784). This could imply that arc making does not play the same effects on genders because it depends on the stimulation used and with elderly capability, correlates with schema by (Maclun, 1999). It is a cognitive structure that helps as perceive, organize, process and utilize information. If information is not relevant then it is difficult to perceive.

There is no significant difference with the multi-tasking pretest and posttest scores between elder men and women. Women are better equipped on focusing with a multiple tasks while men tend to focus on a single task for a long period of time. It was supported by Adam Gazzaley of 2011 in which negative impact of multi-tasking on working memory is greater for older individuals, thus according to Evan Exel in 2016, he emphasized that elder women perform better on cognitive speed than elder men. Additionally men are able to separate information into separate compartments in their brains, while women tend to link everything together. However the results of this study posed no significant difference with a t value of (1.053). This could imply that part of the Filipino history, majority of women were destined to stay in home, so they are likely to exercise multi-tasking skills, unlike with men who are only focused on a single task. Until women cognitive functions declines as they become aged, their capacity of multi-tasking skills will be the same with elder men. Finally gender is a poor predictor of multi-tasking skills.

CONCLUSION

The study focused to know if craft making could enhance the remembering and multi-tasking skills of Filipino elderly and if it has a different effect on both genders. The results posed that there is no significant difference on both genders with the effect of craft making.

In doing so, the researchers used a quasi-experimental design, in which the participants were assigned according to criteria utilized by the written assessment made by the researchers. The data was gathered according to Digit Span and EXIT 25. Upon evaluation, the findings of this study agreed that craft-making enhance the remembering skills, and denied that craft making could enhance multi-tasking skills. This study is successful in determining the effects of craft making in remembering and multi-tasking skills of Filipino elderly. It also opens opportunities to future researchers exploring on various diversional activities that will address the needs of the largest growing population in our society.
THE EFFECTIVENESS OF SESAME OIL AGAINST PAIN INTENSITY OF PHLEBITIS IN CANCER PATIENTS UNDERGOING CHEMOTHERAPY

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ABSTRACT

Chemotherapy is one of the main methods in the treatment of cancer but has a vesicant and irritant nature that trigger phlebitis. The response to the tissue damage due to phlebitis is aching pain. This study is aimed to determine the effectiveness of applying sesame oil to the pain intensity of phlebitis in cancer patients undergoing chemotherapy. This study used a randomized controlled trial design. Forty samples were divided into groups: control and intervention groups. This study was analysed by using Paired T test. The results showed that there was a significant mean difference on pain intensity scores before and after intervention (p = 0.001) and also the results showed that there was a significant difference between two groups (p = 0.001). These results recommended that sesame oil can be used to reduce phlebitis pain in patients undergoing chemotherapy

Keywords: sesame oil, pain intensity, phlebitis, cancer and chemotherapy
BACKGROUND

Cancer is a disease that has become a public health issue in the world and in Indonesia. Every year, 12 million people worldwide suffer from cancer and 7.6 million people died from cancer. If there is no adequate control measure, then in 2030 an estimated 26 million people will suffer from cancer and 17 million will die from cancer (International Union against Cancer [IUAC], 2009).

Chemotherapy is one of the methods in systemic cancer treatment. It can be used alone or in combination with other therapies. It aims to cure, control or to be a palliative therapy in cancer and it is able to influence the activity of cells (Devita, Lawrence & Rosenberg, 2008; William & Hopper, 2007). The frequent access to chemotherapy is through an intravenous line (IV) (Karagozoglu & Ulusoy, 2005). Every chemotherapy that lasts more than 24 hours serves as an intravenous stimulant that can cause phlebitis (Hecker, 1992). Phlebitis in patients undergoing chemotherapy can be caused by irritant and vesicant nature owned by some types of chemotherapy (Leal et al., 2014).

Pain is one of the responses due to tissue damage in patients with phlebitis. The accuracy in determining the intervention can reduce pain intensity phlebitis and increase patient’s comfort. Various attempts were made by nurses by immediately move the insertion area and provide warm, moist compress that can speed healing and provide comfort to the patient (Alexander et al., 2010; Hankins et al. (2001).

In addition to that, the interventions carried out among others are by conducting relaxation, distraction, and the use of herbal therapy which is believed to reduce pain intensity (DeLaune & Ladner, 2011).

Sesame oil (sesame oil) is one of the herbs that have effectiveness as an antioxidant, anti-inflammatory and analgesic. The analgesic characteristic due to the content of lignan is found in sesame oil, which is able to inhibit the pain-causing chemical mediators such as prostaglandins (Saleem et al., 2011). Research Nekuzad et al. (2012) concluded that there is a significant difference on the occurrence and incidence of phlebitis between intervention group that were given sesame oil and a control group that was not given (p <0.05). So far there has been no specific research to examine the effectiveness of sesame oil on phlebitis pain intensity in cancer patients undergoing chemotherapy. Accordingly, this study was conducted to determine the effectiveness of sesame oil (sesame oil) to the intensity of pain phlebitis in cancer patients undergoing chemotherapy.

METHODS

This study is a randomized controlled clinical trials (RCT). The design used is a parallel design without matching. The location of this research is at Abdul Wahab Sjahranie Samarinda Hospital. This Research has been conducted from January until June 2014. The sample is selected by consecutive sampling, the number of samples involved in the study was 40 people, consisting of 20 people from the intervention group and 20 from control group, with the inclusion criteria: hospitalized patients diagnosed with cancer and undergoing...
chemotherapy, patients experiencing phlebitis with degrees of phlebitis ≥ 2, patients with compos mentis awareness and cooperative, patients showing a negative result for a test allergies, patients given intravenous chemotherapy, patients who do not get analgesic prior to chemotherapy, patients who are willing to become respondents. The allocation of samples into the intervention group and the control group is performed by the randomization techniques.

Data collection tool was a questionnaire containing questions related to the characteristics of the respondent, the observation sheet on phlebitis degree adopted from infusion nurse society: the standard of practice in 2006 and a scale measuring the intensity of pain using the Visual Analogue Scale (VAS) with a combination of Numeric Rating Scale (NRS).

In this study, the intervention group was given compress as much as 2 ml of sesame oil in an area of phlebitis, but before being given compress, the allergy test was done first. Furthermore, the compress was applied for 30 minutes for two times of treatments, the first treatment and the second treatment are in 3 hours gap time. After the completion of the second treatment of sesame oil, the pain intensity on phlebitis will be evaluated. Meanwhile, the control group was given standard care according to the hospital program in the form of alcohol compress and for the phlebitis pain intensity, it is measured equal to the intervention group. The researcher ensures that this research will not have a negative impact, and if experiencing discomfort, then the respondent has the right to stop and no legal sanction should be imposed to the respondent.

Analysis of the data in this study include univariate, bivariate and multivariate analyzes. Univariate analysis describes the characteristics of each of the variables studied. Presentation of each variable by using tables and interpretations based on the results obtained. Bivariate analysis were conducted to prove the hypothesis and multivariate investigate the influence of confounding variables. The statistical test used for bivariate analysis was T test (Paired T Test and Pooled T Test).

Paired T Test conducted to determine differences in pain intensity before and after the intervention in both groups and independent test T test to determine pain intensity difference between the control group and the intervention group after the intervention used a statistical test (Sabri & Hastono, 2006).

RESULTS

The mean age of the respondents in the intervention group was 47.55 years, with a standard deviation of 12.47 years. While the mean age of the respondents in the control group was 50.30 years with a standard deviation of 10.33 years. Most respondents in the intervention group is female by 65% and to experience the past in terms of overcoming the pain most of the respondents use the non-pharmacological action by 75%, while the proportion rate of 55% ethnic Non-Dayak and the assessment level of anxiety, the proportion of equally great anxiety that are in the light and medium category by 50%. In the control group most respondents
were female by 55%. For the past experiences 70% of respondents use non-pharmacological measures, while rates for most of the Dayak tribes by 55% and at the time of assessment of the level of anxiety anxious majority of respondents in the category was at 75%.

Table 1. Average Pain Intensity Score of Plebitis, Before and After Intervention (n1=n2=20)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Measure</th>
<th>Mean</th>
<th>SD</th>
<th>Min-Max</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain Intensity Score of Phlebitis</td>
<td>Intervention</td>
<td>Before</td>
<td>7,25</td>
<td>0,72</td>
<td>6-8</td>
<td>6,91;7,59</td>
</tr>
<tr>
<td></td>
<td></td>
<td>After</td>
<td>1,95</td>
<td>0,83</td>
<td>1-3</td>
<td>1,56;2,34</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>Before</td>
<td>6,65</td>
<td>0,75</td>
<td>5-8</td>
<td>6,30;7,00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>After</td>
<td>4,80</td>
<td>0,93</td>
<td>3-6</td>
<td>4,35;5,25</td>
</tr>
</tbody>
</table>

Table 1. Shows the mean change in pain intensity phlebitis sizeable in the intervention group between before and after when the intervention compress sesame oil was given. The mean pain intensity phlebitis before intervention was at 7.25 with a standard deviation of 0.72 and after intervention is at 1.95 with a standard deviation of 0.83. Meanwhile, in the control group the mean change in pain intensity is not too significant in which prior to the intervention the mean pain intensity is at 6.65 and after the intervention is at 4.80 with a standard deviation of 0.93. The further results of the analysis of the homogeneity of confounding variables test and pain intensity before the intervention have showed no difference (variation). In this case all measured variables are homogeneous (similar).

Table 2. Differences Pain Intensity Score of Phlebitis, Before and After Intervention (n1=n2=20)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Measure</th>
<th>Mean±SD</th>
<th>Mean Difference</th>
<th>95% CI</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain Intensity Score of Phlebitis</td>
<td>Intervention</td>
<td>Before</td>
<td>7,25±0,71</td>
<td>1,95±0,83</td>
<td>5,30</td>
<td>5,76</td>
</tr>
<tr>
<td></td>
<td></td>
<td>After</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Differences Pain Intensity Score of Phlebitis, Before and After Intervention (n1=n2=20)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Measure</th>
<th>Mean±SD</th>
<th>Mean Difference</th>
<th>95% CI</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain Intensity Score of Phlebitis</td>
<td>Control</td>
<td>Before</td>
<td>6,65±0,75</td>
<td>4,80±0,95</td>
<td>1,85</td>
<td>2,31</td>
</tr>
<tr>
<td></td>
<td></td>
<td>After</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Value Note α <0,05 by Paired t test
Table 2. Shows that there was an average difference in mean intensity of phlebitis between before and after intervention of 5.30 in the intervention group. While in the control group of 1.85. The result of estimation is believed that the difference of mean intensity of phlebitis pain in the intervention group is in the range of 4.84 - 5.76, whereas in the control group is in the range of 1.38 - 2.31. The result of further analysis shows the difference of average score of pain intensity of phlebitis which was significant between before and after intervention in both the intervention group and the control group (p = 0.001, α 0.05) 2.31. The results of further analysis showed differences between the mean pain intensity score phlebitis significantly between before and after the intervention either the intervention group or the control group (p = 0.001; α 0.05)
Table 3. Average Mean Difference Decrease Intensity Pain Score of Phlebitis between Control Group and Intervention Group, After Intervention (n1=n2=20)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measure</th>
<th>Group</th>
<th>Mean±SD</th>
<th>Mean Difference</th>
<th>95% CI</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain Intensity Score</td>
<td>After Intervention</td>
<td>Control</td>
<td>1.95±0,82</td>
<td>2,33;</td>
<td>2,90</td>
<td>3,46</td>
</tr>
<tr>
<td>Phlebitis</td>
<td></td>
<td></td>
<td>4.85±0,93</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Value Note α <0,05 By Independent t test
Table 3. Shows that the mean decrease in the intensity score of phlebitis pain in the intervention group is greater than in the control group after the intervention. The difference in mean score decreased the intensity of phlebitis pain between the two groups after the intervention was 2.90 where the estimation result was believed that the mean difference was in the range of 2.33-3.46. The result of statistical test showed that there was a significant difference of pain intensity score between the intervention group and the control group after intervention (p <0.05; α 0.05).

Based on the result of multivariate analysis, it can be concluded that age and anxiety level is the confounding variable to effectiveness of sesame oil to the intensity of phlebitis pain and anxiety level is the most contributing factor of confounding.

DISCUSSION

In the intervention group, there are differences in pain intensity before and after intervention. The results are consistent with the theory that explains that herbal therapy is effective in reducing pain intensity (DeLaune & Ladner, 2011). In this study the herbal therapy used is sesame oil (sesame oil). Sesame oil is extracted from sesame seeds are very rich in protein, vitamins, and minerals. Moreover, it has nutrients that contain the essential fatty acid, omega 6, omega 9, an antioxidant, which controls the balance of the immune system, inhibits the inflammatory process (Gauthaman & Saleem, 2009). Sesame oil also contains a number of lignans: sesamin, episesamin and sesamolin. Lignan found in sesame oil has a chemical and physiological properties as an analgesic, antioxidant and antihypertensive properties (Sankar et al., 2006). Research Salem et al. (2011) also stated that sesame oil (sesame oil) is effective in reducing pain intensity for the content of lignan found in sesame oil, capable of inhibiting the chemical mediators that cause pain such as prostaglandins. Other research results that explain the effectiveness of sesame oil found by Hirsch et al. (2008), in a study that compared the effectiveness ointment sesame oil (sesame oil) and flamazine in overcoming superficial burns. In the intervention group who use the ointment sesame oil (sesame oil) effective significantly reduce the intensity of pain, inflammatory processes and improve skin layer than the control group.

In the control group, it performed the appropriate standard of care hospital program and the results indicate a difference in pain intensity phlebitis before and after the intervention. In the control group decreased pain intensity phlebitis but did not show significant results. Standard care measures the displacement of insertion locations and giving alcohol compresses effective in reducing pain intensity phlebitis, according to the theory and the results of research suggested by Alexander et al. (2010) and Hankins et al. (2001) to quickly move the insertion area accelerate healing, reduce the intensity of pain and provide comfort to the patients who experienced phlebitis. In addition to the transfer of infusion insertion site, giving compress using the antiseptic such as alcohol can reduce the degree of phlebitis. This is supported by research Nurjannah
(2011) about the effectiveness of normal saline compresses, warm water and alcohol to the degree of phlebitis. The results showed that normal saline compresses, warm water and alcohol effectively reduce the degree of phlebitis p <0.05.

Based on the results of multivariate analysis, age and level of anxiety is a confounding variable of the effectiveness of sesame oil on phlebitis pain intensity and anxiety level is a confounding factor most contributing. Age may affect the client's perception of the pain (DeLaune & Ladner, 2011). Transmission and perception of pain is getting slower with age, but the intensity of pain can not be reduced (Black & Hawks, 2009). The level of anxiety is a confounding factor most contributing in accordance with the opinion expressed by Unruh and Henrikson (2002) that emotional status influences the perception of pain. The sensation of pain can be blocked by a strong concentration or it can be increased by anxiety or fear. Anxious relevant or related to pain can increase the patient's perception of the pain. The same thing was also raised by LeMone and Burke (2008) that the anxiety can improve the perception of pain, and pain can cause anxiety vice versa. If a person experiencing severe anxiety, the pain experienced more severe (Matassarin-Jacobs, 1997). The influence of anxiety on the intensity of pain can also be seen from the gate control theory. If the input passes the input nociception, then blocked and the transmission gate nociception stopped or hindered in the substantia gelatinous dorsal horn of the spinal cord. Furthermore, behavioral and emotional factors influence the gate through the mechanism of inhibiting the transmission of pain impulses.

Perceived limitations for this study include: the limited references relevant to the study variables. Clinical trials conducted still uses the design of parallel without matching so the potential for bias in the control factor confounding, other than it is for the determination of randomization is done subjectively by the researchers adjusted for random table that was created earlier, for the type of chemotherapy used by each respondent still varies.

This research is helpful for nurses to perform nursing care, especially in the treatment of pain phlebitis in cancer patients undergoing chemotherapy by using sesame oil as one of the innovations in nursing interventions to reduce pain intensity phlebitis and as an input in creating a standard operating procedure of hospitalization. This research is also expected to be evidence based practice in nursing to become the scientific basis and can be applied to nursing practice to achieve goals and improve the outcomes of nursing in developing the practice of nursing science base and further in addressing the treatment of cancer patients with pain phlebitis due to the administration of chemotherapy.

CONCLUSION
There is a significant difference in mean score of pain intensity of phlebitis before and after intervention in the control group and intervention group and there was a significant difference of mean decrease of pain intensity score of phlebitis between control group and
intervention group after intervention. Meanwhile, confounding factor contributing to effectiveness of sesame oil with the intensity of pain phlebitis is at the level of anxiety. Suggestions for further research: this study could be the initial foundation for further research to examine the effectiveness of sesame oil compared to the use of other essential oils used as a therapy in treating pain in phlebitis in cancer patients undergoing chemotherapy.

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WHEN CULTURE MEETS FLOOD PREPAREDNESS: GOOD OR SHOULD BE ELIMINATED?

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ABSTRACT

Background: Flood is one of frequent natural disasters in South Kalimantan. Disaster risk reduction has been always followed by the disaster management cycle. The stages of preparedness is one of them. At that stage, participation of communities are needed because they are a part that will receive the impact of the disaster. The communities usually have local wisdom and traditional knowledge, both determinant factors impact on effort of disaster risk reduction.

Aim: The aim of this study was to explore how culture impact on community preparedness to face of flood.

Method: A cross-sectional study design was conducted and used total sampling. Data were collected by using through Federal Emergency Management Agency (FEMA) Preparedness of Whole Community questionnaire.

Findings: Fifty-five participants completed the study from September to October 2015 (male: 35, female: 20). The setting of this study was Tunggul Irang village in South Kalimantan. This study indicated that 81.8% participants were always alert danger signal before the flood. Participants believed that they didn’t need to always do tradition rituals to avoid flood (94.5%) and they also didn’t need to do special rituals every year (94.5%). 90.9% participants were convinced that they didn’t have to perform some rituals to prevent flood disaster. They didn’t have the habit of providing offerings at home to remember the ancestors (96.4%). 34.5% Tunggul Irang community believed that flood was a punishment from God.

Conclusion: This study indicated that better understanding about culture can help the stage of preparedness. In Tunggul Irang, community preparedness was prepared well. However, the culture of each region will be different.

Keywords: Culture, Flood, Preparedness, and Community
INTRODUCTION

Flood is one of the most common type of natural disasters. Flood can cause various problems such as social, economic, and health problem. Health problem that caused by flood is very various, depending on the type and onset of the flood. Massive flood can cause loss of life due to the destruction of buildings and the power of water that can be washed away (Subbarao, et al, 2013).

In Indonesia, flood is also one of frequent natural disasters. There were 60.6% of natural disasters caused by floods, 63.6% landslides, and volcanoes as much as 65.57%. As well as in South Kalimantan, there are floods in some areas with varying heights and lengths every year (Khairuddin, 2011). One of the areas that experienced flood every year is Tunggul Irang village in South Kalimantan. This area is on the edge of the Martapura river so it is prone to experience the flood of river water during the rainy season arrives (seasonal floods). Based on observations, flood that occurred in this area has an experience of increase in intensity and also the duration of flooding each year.

A structured and systematic activity of disaster risk reduction is required to minimize risks that occurred during flood. Risk reduction can be done by strengthening the capacity of a region while reducing flood threats and vulnerabilities. Disaster management is formulated in an activity cycle that consisting of mitigation, preparedness, response and recovery stage.

Preparedness is one of the stage in disaster management. The phase of activities at this stage is directed to anticipate the disaster through appropriate and efficient steps. Community participation at this stage is necessary because they are potentially victims when disaster strikes. Community preparedness is greatly influenced by various factors such as knowledge, attitude, behavior and culture (RAN-PRB, 2006).

Community has the most important contribution in disaster management because the community is the subject, the object as well as the main target of disaster risk reduction efforts. In the case of disaster management, people usually have local wisdom and traditional knowledge. These two aspects are the determinant factor in disaster risk reduction efforts associated with many traditions of disaster management that already exist and develop in the community. As the subjects, the community are expected to actively access the formal and informal information, so that disaster risk reduction efforts can directly involve the community (RAN-PRB, 2006).

The aim of this research was to identify aspects of community preparedness in the flooded areas, namely Tunggul Irang village in South Kalimantan. Moreover, the specific aspect that studied was the community culture in facing flood.

METHODS

This research was an analytical descriptive research with Cross-Sectional method. Data collection techniques in this study used questionnaires that were distributed to the community to identify the culture factor that influenced community preparedness in the face of
flood disasters. Data were collected by using through Federal Emergency Management Agency (FEMA) Preparedness of Whole Community questionnaire and Organizational Culture and Leadership questionnaire.

This research was conducted in Tunggul Irang Village, Martapura Subdistrict, Banjar District, South Kalimantan. This region was chosen because it was an experienced flooding area. This research was conducted during September-October 2015.

The sample used in this research was the community in Tunggul Irang village, Martapura. The sampling technique was done through total sampling. The number of samples was as much as total population of head of family that was 55 respondents (male: 35, female: 20). The data have been analyzed using descriptive analysis.

RESULTS

a. Alert danger signal

Diagram 1. Alert danger signal

The respondent's distribution about community preparedness to alert danger signal as shown in Diagram 1 showed that 45 people (81.8%) agreed to always make sure of the alarm by listening to the announcement from the village officer or by observing the signs before the flood, but as many as 10 people (18.2%) disagreed with it.

b. Tradition rituals to avoid flood

Diagram 2. Tradition rituals to avoid flood

The distribution of respondents on the culture to do tradition rituals shown in Diagram 2 showed that as many as 29 people (52.7%) stated disagree culture to always do tradition rituals to avoid flood, 23 people (41.8%) stated strongly disagree with that, 2 people (3.6%) stated less agree and the remaining 1 person (1.8%) agreed to always do tradition rituals to avoid flood.

c. Do special rituals every year

Diagram 3. Do special rituals every year

The respondent's distribution of culture toward doing special rituals as shown in Diagram 3 indicated that as many as 28 people (50.9%) disagreed to do special rituals every year. Moreover, 24 people (43.6%) stated strongly disagree about it. While the remaining 3 people (5.5%) stated less agree on it.

d. The habit of providing offerings
Diagram 4. The habit of providing offerings

Distribution of respondents on culture about the habit of providing offerings at home to remember the ancestors shown in Diagram 4 showed that as many as 31 people (56.4%) said that they were strongly disagree, as many as 22 people (40%) stated disagree to that, while the remaining 2 people (3.6%) said less agree about that.

e. Belief about a punishment from God

Diagram 5. Belief about a punishment from God

The distribution of respondents about community belief on a punishment from God shown in Diagram 5 showed 19 people (34.5%) agreed that flood is a punishment from God. But, 17 people (30.9%) stated strongly disagree with that, 10 people (18.2%) said disagree and the remaining 9 people (16.4%) less agreed the belief.

f. Perform some rituals to prevent flood

Diagram 6. Perform some rituals to prevent flood

Respondent distribution about community faith that they have to perform some rituals to prevent flood was shown in Diagram 6. That indicated 26 people (47.3%) disagree that some rituals can prevent flood disaster. In addition, 24 people (43.6%) said strongly disagree and as many as 4 people (7.3%) stated less agree with it. But, there was 1 person (1.8%) agree.

DISCUSSION

In general, community in Tunggul Irang village for culture aspect was in good category (average 16). They community didn’t assume the obligation to do special rituals and also offerings to prevent flood. A constructive cultural aspect has important role in improving community preparedness. A constructive culture will be able to trigger the active role of community because they think that disaster can be overcome and must be actively addressed.

The presence of local wisdom in disaster response, strong social networks and community organizations, gotong royong culture and solidarity is also an element to build capacity. Community capacity can be said to be high if people are able to build houses and settlements that meet building security standards, and have adequate assets or resources to cope
with extreme situations. These community know what dangers are threatening them and how to mitigate the risks of these hazards, through rehearsals and disaster simulations, the development of community-based early warning systems and disaster preparedness groups (RENAS-PB, 2010).

The values or norms adopted by the local community will also affect a person's behavior in responding to disasters (Green 2000). The real example is the event of the death of a key guard of Merapi Mount in Jogjakarta who also became the victim due to the values and beliefs that he embraced. Health care giver should ensure that community receive effective, understandable, and respectful care that is provided in a manner compatible with their cultural health beliefs and practices and preferred language (SRA International, Inc., 2008).

The cultures of local racial and ethnic communities may or may not be similar to the respective cultures of their countries of origin, or even in keeping with what might be understood as the larger, national racial or ethnic character. Due to issues of acculturation, there may even be differences between adjoining communities. Increasing cultural competence in the field of disaster management is a process. To be achieved and effective, it will take time and sustained effort. Because both culture and the nature of disasters are dynamic, to be effective, the process of change must include ongoing efforts to ensure that the needs of those vulnerable to and affected by disasters are met (Scott, 2007).

CONCLUSION

The conclusion from this research was community culture in Tunggu Irang village in facing flood was in good category. However, about 34.5% of participants (n = 19) agreed that flood is a punishment from God. Another finding to be followed up was that better understanding about culture can help the stage of preparedness.

Based on the findings in the study, researchers suggest the need for different strategies for the culture of each region. Future specific culture researches may be needed.

REFERENCE


QUALITY OF LIFE OF ELDERLY PATIENTS WITH BREAST CANCER IN THE INPATIENT UNIT

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ABSTRACT

The older the person gets the more susceptible he or she will be to health problems. One of the diseases that may attack an older patient is breast cancer. The study has a purpose to identify quality of life of the elderly patients with breast cancer in the inpatient unit. This study is a quantitative descriptive study involving 109 elder people. The respondents was selected with a purposive sampling where inclusion criteria including elderly patients age 60 – 74 years old, not being in an emergency situations (should have oxygen saturation of more than 95%), ability to communicate and understand Indonesian language, and willingness to become a respondent. The quality of life was measured by the World Health Organization Quality of Life-BREF questionnaires (WHOQOL-BREF) which consisted of four domains (physical health, psychological aspect, social relationships and environment). The ethical approval for this study was acquired from the Mochtar Riady Research Institute and Nanotechnology. The data was analyzed using a descriptive analysis. The results of this study showed that out of 109 respondents, 75 respondents (72.5%) had a good physical health, 66 respondents (60.6%) had an unstable physiological condition, 61 respondents (56%) were inactive in social relationship, and 60 respondents (55%) had an adequate environment. Further research is warranted to identify the quality of life among the elderly patients with breast cancer using another measurement that is specifically designed for elderly patients with breast cancer to get a more accurate data.

Keywords: Quality of Life, Elderly, Older People, Breast Cancer, WHOQOL-BREF, Inpatient Unit
INTRODUCTION
The World Health Organization estimates that by 2025 the world's elderly will reach 1.2 billion and will continue to grow to 2 billion by 2050. WHO estimates that 75% of the world's elderly population by 2025 is in the developing world. Indonesia is one of the fastest growing population of elderly people. In 2012, Indonesia is among the third Asian countries with absolute numbers of population in age of 60 years above after China (200 million) and India (100 million). It is estimated that Indonesia will reach 100 million elderly by 2050 (Ministry of Health, 2013).

According to the Republic act no. 12 of 1998 on Elderly Welfare, the Elderly is a person who has had the age of 60 years. According to the Ministry of Health of the Republic of Indonesia (2003), the elderly is divided into 3 categories, namely pre elderly (45-59 years), elderly (over 60 years), high-risk elderly (over 70 years). Elderly is the age group in humans who have entered the final stage of the phase of life which at that time will undergo a process called aging. This is a natural process, this process will also decrease the physical condition, psychological, social condition and the elderly will tend to experience health problems.

One of the diseases that may attack older adults is breast cancer. According to the Hospital Information System (SIRS) in 2010 the number of breast cancer patients has the highest prevalence of cases which is 12,014 inhabitants. Based on the data from Balitbangkes Ministry of Health RI (2013), Banten Province has a population of breast cancer patients with a total of 2252 inhabitants (Info DATIN, 2015) while for the province of DKI Jakarta amounted to 3946 inhabitants (Ministry of Health, 2015).

The number of elderly in Banten Province, based on the datas from the Social Department in 2012 are 30,656 people (11,702 men and 13,250 women). The capital of Banten province is Tangerang City which has 2,043 elderly (549 men and 1,494 women). Based on Surkernas’s data in 2001, the number of elderly in DKI Jakarta province is 641,124 people. Based on these data, the Tangerang and Jakarta areas have a considerable number of elderly populations, which means that cases of declining health status in the elderly will also be frequent.

To anticipate this, one of hospitals in Jakarta and Tangerang provides a holistic service to all patients who use health services in the hospital, including elderly patients. This is in accordance with Republic act no. 13 year 1998 article 3 which regulates the social welfare of the elderly. The medical records at hospitals in Tangerang in 2015 mention that the number of elderly patients aged over 60 years who are hospitalized are 3119 inhabitants. Of these, 720 of them are cancer patients. Of the 720 people, 150 patients were diagnosed with breast cancer. One of the hospitals in Jakarta 2015 reported the number of patients with breast cancer was 877 people, 280 of whom were elderly. Judging from these figures, there are a lot of elderly people with breast cancer.

Both hospitals in Jakarta and Tangerang, have never done research on the quality of life of elderly patients,
especially elderly patients with breast cancer in the inpatient room. Considering the large number of elderly patients with breast cancer, it is important to conduct research on the elderly, especially related aspects of the quality of life of elderly patients with breast cancer in hospital wards.

The general aim of this study was to identify the quality of life of the elderly patients with breast cancer in the inpatient department. The specific purpose of this research was to know the quality of life of the elderly based on the perception of the quality of life in the inpatient room, and to be able to know the quality of life of the elderly can be seen from the physical domain, psychological domain, social relations, and environmental conditions in the inpatient room of a hospital.

METHODS

This research was used descriptive quantitative research design method. The place of research was conducted in the inpatient ward at one of the hospitals in Jakarta and Tangerang. The population of this study based on the data from 2015 are elderly patients with breast cancer residing in the inpatient ward at one of hospital in Jakarta, which were 150 patients, and one hospital in Tangerang, about 280 patients. The number of samples taken for this research was 109 samples using a purposive sampling. The inclusion criteria in this study were elderly patients aged 60-74 years with breast cancer who received treatment in the inpatient ward, willing to be the respondent and to fill the questionnaire, not in emergency condition, and can communicate in Bahasa Indonesia.

Quality of life was measured by the Indonesian version of WHOQOL – BREF consisting of four broad domains: physical health, psychological aspect, social relationships and environment. Consisting of 26 questions, the WHOQOL – BREF was a shorter version of the original instrument (WHOQOL-100) which was developed by WHO aimed at assessing quality of life across culture. The Indonesian version of WHOQOL – BREF has been proven valid and reliable with good internal consistency of the item domain. During the period of filling out the questionnaire, respondents were accompanied by family member.

Data was analyzed with descriptive analysis.
RESULT

Table 1. Percentage of Perception About Quality of Life of the Elderly Patients with Breast Cancer (N = 109)

<table>
<thead>
<tr>
<th>Age</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 - 65</td>
<td>Bad</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>66 - 74</td>
<td></td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>Hospital in Jakarta</td>
<td>60 - 65</td>
<td>46</td>
<td>42.2</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>60 - 65</td>
<td>Good</td>
<td>9</td>
<td>8.2</td>
</tr>
<tr>
<td>66 - 74</td>
<td></td>
<td>4</td>
<td>3.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>60</td>
<td>55</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 - 65</td>
<td>Bad</td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td>66 - 74</td>
<td></td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>Hospital in Tangerang</td>
<td>60 - 65</td>
<td>27</td>
<td>24.7</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>60 - 65</td>
<td>Good</td>
<td>16</td>
<td>14.6</td>
</tr>
<tr>
<td>66 - 74</td>
<td></td>
<td>2</td>
<td>1.9</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>49</td>
<td>45</td>
</tr>
</tbody>
</table>

Total respondents **109** **100**

Based on the table, from 109 respondents, 74 respondents (67.9%) are in the category of moderate quality of life, while 4 respondents (3.7%) have poor quality of life.

Table 2. Percentage of Elderly Patient’s Health Perception with Breast Cancer (N = 109)

<table>
<thead>
<tr>
<th>Age</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 – 65</td>
<td>Bad</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>66 – 74</td>
<td></td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>Hospital in Jakarta</td>
<td>60 – 65</td>
<td>46</td>
<td>42.2</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>60 – 65</td>
<td>Good</td>
<td>9</td>
<td>8.2</td>
</tr>
<tr>
<td>66 – 74</td>
<td></td>
<td>4</td>
<td>3.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>60</td>
<td>55</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 – 65</td>
<td>Bad</td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td>66 – 74</td>
<td></td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>Hospital in Tangerang</td>
<td>60 – 65</td>
<td>27</td>
<td>24.7</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>60 – 65</td>
<td>Good</td>
<td>16</td>
<td>14.6</td>
</tr>
<tr>
<td>66 – 74</td>
<td></td>
<td>2</td>
<td>1.9</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>49</td>
<td>45</td>
</tr>
</tbody>
</table>
At the table, the quality of the life of the elderly based on the health perception of 109 respondents, 88 respondents (80.7%) have moderate health perception, 9 respondents (8.3%) have good health perception, and 12 respondents (11%) have poor health perception.

Table 3. Distribution of Physical Domains Quality of Life of Elderly Patients with Breast Cancer (N = 109)

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital in Jakarta 60 - 65</td>
<td>Not good</td>
<td>14</td>
<td>12.8</td>
</tr>
<tr>
<td>66 - 74</td>
<td>1</td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td>60 - 65</td>
<td>Good</td>
<td>41</td>
<td>37.6</td>
</tr>
<tr>
<td>66 - 74</td>
<td>4</td>
<td>3.6</td>
<td></td>
</tr>
<tr>
<td>Total 60 - 65</td>
<td>Not good</td>
<td>13</td>
<td>11.9</td>
</tr>
<tr>
<td>66 - 74</td>
<td>2</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td>Hospital in Tangerang 60 - 65</td>
<td>Good</td>
<td>32</td>
<td>29.3</td>
</tr>
<tr>
<td>66 - 74</td>
<td>2</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>55</td>
<td></td>
</tr>
</tbody>
</table>

Based on the data, the quality of life in the physical domain of the elderly showing that from 109 respondents, 79 respondents (72.5%) said that they were good and 30 respondents (27.5%) said they were unfavorable.

Table 4. Distribution of Psychological Domains Quality of Life of Elderly Patients with Breast Cancer (N = 109)

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital in Jakarta 60 - 65</td>
<td>Not good</td>
<td>29</td>
<td>26.6</td>
</tr>
<tr>
<td>66 - 74</td>
<td>3</td>
<td>2.7</td>
<td></td>
</tr>
<tr>
<td>60 - 65</td>
<td>Good</td>
<td>26</td>
<td>23.8</td>
</tr>
<tr>
<td>66 - 74</td>
<td>2</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>55</td>
<td></td>
</tr>
</tbody>
</table>

| Hospital in Tangerang 60 - 65 | Not good | 32 | 29.3 |
| 66 - 74 | 2 | 1.8 |
| 60 - 65 | Good | 13 | 13.7 |
| 66 - 74 | 2 | 1.8 |
| Total | 49 | 45 |

| Total respondents | 109 | 100 |
Based on these data, the quality of life of the elderly based on the psychological domain, from 109 respondents, 66 respondents (60.6%) said they were less well, 43 (39.4%) said they were good.

Table 5. Distribution of Social Domains Quality of Life of Elderly Patients with Breast Cancer (N = 109)

<table>
<thead>
<tr>
<th>Age</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 - 65</td>
<td>Not good</td>
<td>29</td>
<td>26.6</td>
</tr>
<tr>
<td>66 - 74</td>
<td>Not good</td>
<td>3</td>
<td>2.7</td>
</tr>
<tr>
<td>60 - 65</td>
<td>Good</td>
<td>26</td>
<td>23.8</td>
</tr>
<tr>
<td>66 - 74</td>
<td>Good</td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>60</td>
<td>55</td>
</tr>
</tbody>
</table>

For hospital in Jakarta:
- 60 - 65: Not good - 26 (26.6%)
- 66 - 74: Not good - 3 (2.7%)
- 60 - 65: Good - 26 (23.8%)
- 66 - 74: Good - 2 (1.8%)

For hospital in Tangerang:
- 60 - 65: Not good - 26 (26.6%)
- 66 - 74: Not good - 3 (2.7%)
- 60 - 65: Good - 19 (18.3%)
- 66 - 74: Good - 1 (0.9%)

Total of all respondents: 109 (100%)

From the table on the social domain of the elderly shows that from 109 respondents, 61 respondents (56%) are in a bad social condition category and 48 respondents (44%) with good social condition.

Table 6. Distribution of Domain Environments Quality of Life of Elderly Patients with Breast Cancer (N = 109)

<table>
<thead>
<tr>
<th>Age</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 - 65</td>
<td>Not good</td>
<td>26</td>
<td>23.8</td>
</tr>
<tr>
<td>66 - 74</td>
<td>Not good</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>60 - 65</td>
<td>Good</td>
<td>29</td>
<td>26.6</td>
</tr>
<tr>
<td>66 - 74</td>
<td>Good</td>
<td>5</td>
<td>4.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>60</td>
<td>55</td>
</tr>
</tbody>
</table>

For hospital in Jakarta:
- 60 - 65: Not good - 26 (23.8%)
- 66 - 74: Not good - 0 (0%)
- 60 - 65: Good - 29 (26.6%)
- 66 - 74: Good - 5 (4.5%)

For Rumah Sakit Tangerang:
- 60 - 65: Not good - 21 (19.3%)
- 66 - 74: Not good - 2 (1.8%)
- 60 - 65: Good - 24 (22%)
- 66 - 74: Good - 2 (1.8%)

Total of all respondents: 109 (100%)

Based on the data about the domain of elderly environment, from 109 respondents, 60 respondents (55%) they were with a good environmental
conditions while 49 respondents (45%) they were with a poor environmental conditions.

**DISCUSSION**

Based on the measurement of perception of the quality of life based on the health status of 109 respondents, 74 respondents (67.9%) are in the medium category. Pradono (2007), states that the elderly are more able to accept their physical condition when it is due to illness, compared to when they were younger in terms of the readiness of facing illness. According to the researchers, the quality of life of respondents were in the medium category this is related to the characteristics of respondents which is age, where respondents in this study is aged 60-74 years old. According to Novitri (2009), adult individuals express higher wellbeing in middle adulthood. Elderly people find the contribution of the age factor to the subjective quality of life of individuals may be influenced by their life experiences, they tend to evaluate their lives positively compared to the time of his youth.

Based on the results of this research, the quality of life in the physical domain of 109 respondents, 79 respondents (72.5%) said that the quality of life on the physical condition are within a good criteria. In Felce and Perry’s (1996) theory that physical well-being is focused on health. In the elderly, a person will experience changes in physical, cognitive, and psychological life (Papalia, Olds, & Feldman, 2001; Ariyanti, 2009). Optimum aging can be defined as the functional condition of the elderly are at maximum or optimal conditions, allowing them to enjoy their old age with a full meaning, happy, and useful. Based on the research, the age range of respondents is 66 – 74 years of old, respondents who claim that they are in a good physical condition means that they are enjoying their old age with a full meaning and quality.

In the psychological domain, more than half of the respondents are in the less good category, 66 respondents (60.6%). This can be caused by most of the respondents said that they often feel anxious with the disease and their vitality was not like it used be, they experienced limitation in doing activities. This was in line with Taylor (1999), who said that women with breast cancer will show a certain psychological symptoms such as depression, stress, anxiety, and other psychological problems that will negatively affect their psychological state. Psychological aspects have a significant role in determining quality of life (Sarafino, 2011). The results of this study, psychological conditions are in a poor condition, so if this condition continues could worsen emotional pressure and and it may lead to depression and anxiety.

In the domain of personal and social relationships of 109 respondents, 61 respondents (56.0%) are in the less favorable category. The personal and social relationship of the respondents were in the bad category, it can be caused by insignificant quality of the respondents’ relationship with others. It also can be affected by the changes of family behaviour, such as the changes expressed by the respondent’s husband to their sexual life after they were diagnosed by breast cancer. Furthermore, it may be
caused by the poor family support about their health development.

In accordance with Friedman's theory (2010) family support is a form of interpersonal relationships that include attitudes, actions and acceptance of family members, so that family members feel there is a concern but when the support provided by the family is less then this will affect the health of the elderly particularly with chronic illness.

The result of the research based on the environment domain of 109 respondents, 60 respondents (55%) were in good environment. This result showed that more than half of the respondents were in good environmental condition; this was because the level of security in their daily life, residence, living environment, the opportunity to obtain new information on transportation and the availability of health services were satisfactorily adequate. In accordance with the opinion of Mutaqqin (2008), the quality of life of elderly in community is influenced by the level of education and economy, which plays an important role in meeting the needs of a decent and adequate environment. These include the availability of clean and healthy housing, information, transportation and affordability to health services.

CONCLUSION
This study was conducted on 109 respondents to identify the quality of life of elderly in the four domains (physical, psychological, environmental and social relations) in the inpatient department of a hospital in Jakarta and Tangerang using WHOQOL-BREF instrument. The results showed that the perception of elderly patients in the inpatient department of the hospitals were different in each domain. The quality of life of the elderly is good in physical health domain, psychologically unstable in the psychology domain, inactive in social relationships, and adequate in terms of the environment

ACKNOWLEDGMENT
The research was funded personally by the investigators of the study.

REFERENCES
ABSTRACT

Background: There are many reasons why a baby may have a low birth weight. The baby may be small simply because it runs in the family. Some have no enough pre-natal check ups and ate nutritious foods. This study aimed to determine the challenges and coping of mothers caring for a low birth weight baby. The study specifically dealt on the challenges experience by the mothers with low birth weight baby as well knowing their coping strategies to overcome these challenges.

Methods: The study employed a phenomenological research design to explore the challenges and coping of mothers caring for a low birth weight baby. Snowball sampling technique was utilized because the researchers will rely on referrals from initially sampled respondents. The informants in the study were six (6) purposively selected mothers who just gave birth to a low birth weight baby. In-depth interview was utilized for data collection using a twenty-five (25) item aide memoir as guide questionnaire. The key informants were mothers who gave birth with low birth weight baby for at least two years and delivered between 38-42 wks. Cool and warm analysis was utilized in analysing collected data.

Results: Through phenomenological reduction, voice recorded in-depth interview helped the researchers to capture 2 major themes namely: The Scale of Challenges and The Scale of coping and six intersting minor themes, namely: “Fear of Vulnerability to Sickness”, “Caring Difficulties”, and “Financial Insufficiency”. For “Coping” these were the themes: “Nutritional Enhancement”, “Financial Support of Family”, and “Additional Attention”

Conclusion: The participants at first were afraid of their child of becoming sick because of its low birth weight. They knew that taking care of the baby is would be difficult and would require special care. But they are determined to all the possibilities just to make sure their baby will grow healthy. Research shows that presence of external factors such as support of the family members, health learnings, and awareness of the situation is very important to have an effective coping mechanism. The respective mothers coping strategies together with their support system are very important for them to be able to handle the challenges that they faced. Finally, it can be concluded that the challenges can be balanced through exercising their own proper coping mechanism.

Keywords: underweight, premature, additional care, coping, challenges, mother, low birthweight baby, caring, experience, phenomenology
1.0 INTRODUCTION

There are many reasons why a baby may have a low birth weight. The baby may be small simply because it runs in the family. Parents who are shorter and weigh less than the European average, or who were themselves small at birth, may have smaller children. If this applies to you, mention the possibility to your midwife or doctor. If the baby weighs much less than 2.5 kilograms, midwives, doctors and nurses may describe her as having a very, or extremely, low birth weight. This can happen to babies who are born prematurely. If the baby was premature, her situation is different from babies who are small but are born between 37 weeks and 42 weeks (full-term).

Some mothers give birth to low birth babies although they knew that during pregnancy they had enough pre-natal check ups and ate nutritious foods. However, there are still causes why some mothers give birth to an under weight baby. Interventions to improve care during pregnancy, childbirth and the postnatal period as well as feeding are likely to improve the immediate and longer-term health and well-being of the individual infant and have a significant impact on neonatal and infant mortality at a population level.

Almost 70 per cent of all low birthweight births occur in Asia (United Nations Children’s Fund and World Health Organization, 2004). The number of low birthweight babies is concentrated in two regions of the developing world: Asia and Africa. Seventy-two per cent of low birthweight infants in developing countries are born in Asia. The Philippines is one of the countries in Asia and it is also one of the developing countries nowadays. In the data of WHO and UNICEF, it should be noted that in developing countries, more than 50 per cent of low birthweight infants are born in 13 of the countries that have birthweight estimates available and that have among the highest incidences (20 per cent or higher), whereas only 14 per cent are born in 53 countries with an incidence of less than 10 per cent.

Just because an infant is born small for gestational age does not mean additional care is needed at home. Infants will be kept in the hospital, if there are any complications, until they are deemed healthy enough for discharge. After such time, any extra care will be provided by the pediatrician or other specialist, but as for parent-based care – the parent may find their tiny baby is just as resilient and tough as larger infants. If the small for gestational age infant was born preterm, there may be additional care needed such as daily oxygen or special feeding practices. A special formula may also be suggested if the infant is not breastfeeding. The formula is high in calories and healthy fats to help baby gain weight. Breastfeeding is typically suggested for infants born small for gestational age, especially if they are premature. Breast milk contains antibodies that help protect your infant from infection and disease.

As the incidence of low birth weight babies is prevalent to developing countries like Philippines, it is important to understand and know not only the situation of the babies but also the situation of person who is mostly caring...
for them such as their mothers. Since babies like this are not that easy to care for because of their conditions, many challenges that the mother may faced such as maternal stress (Karin, et al., 2009; Singer, 2009), education, social support, and financial strain (Singer, 2009). Also, health risk of babies born with LBW (Mazedl, 2013) and the health of mothers (Bukowski et al., 2012) are also challenges for mother. Knowing their coping strategies over these challenges may help other mothers and future mothers who are and who will caring for babies with LBW.

The purpose of this qualitative study was to determine the challenges and coping of mothers caring for low birth weight baby. It is guided by the central question, "What typifies coping and challenges of mothers caring for low birthweight baby?"

2.0 REVIEW OF RELATED LITERATURE

2.1 Theoretical Framework

The study is guided on the theory of Ramona Mercer, which is the “Maternal Role Attainment Theory”. It was developed to serve as a framework to nurses to provide appropriate health care interventions for non-traditional mothers in order for them to develop a strong maternal identity. This mid range theory can be use throughout pregnancy and post natal care, but it is beneficial for adoptive or foster mothers, or others who find themselves in maternal role unexpectedly. The process used in this nursing model helps the mother develop an attachment to the infant, which in turn help the infant from a bond with the mother. This helps develop the mother-child relationship as the infant grows.

The primary concept of this theory is the developmental and interactional process, which occurs over a period of time. In the process the mother bonds with the infant acquires competence in general caretaking tasks and then comes to express joy and pleasure in her role as mother.

For the mothers caring for small for low birth babies, this theory will guide them on how to care for their infant and bond with them. It is hard to take care of low birth babies but because there is no doubt that one of the most crucial relationships in human dynamics is the relationship between a mother and her child, there is big chance that low birth babies will have a normal growth and development.

2.2 Literature Review

2.2.2 Challenges Experienced by Mothers with Low Birth Weight Baby

According to Mazedl (2013), while most babies born with a low birth weight do well, a small-for-gestational-age baby can have some health problems early on -- such as maintaining a normal body temperature, blood sugar levels that are too low, or difficulty fighting infections. Fortunately, more than 90 percent of SGA babies catch up to their counterparts in the first few years of life. Researchers at the Academic Medical Center in Amsterdam used the Netherlands Perinatal Registry (a population-based database that includes information on the pregnancies and deliveries of 96 percent of pregnancies in the Netherlands) to focus on women
whose first babies were born with a birth weight below the tenth percentile (defined as weighing less than 5 pounds, 8 ounces after 37 weeks of gestation). Twenty-three percent of those women gave birth to small-for-gestational-age babies the second time around as well, while those women who had an average size baby in their first pregnancies only had a three percent chance of having an SGA in their second pregnancy.

On the study of Bukowski et al. (2012), they mentioned that delivery of a small for gestational age (SGA) infant has been associated with increased maternal risk of ischemic heart disease (IHD). It is uncertain whether giving birth to SGA infant is a specific determinant of later IHD, independent of other risk factors, or a marker of general poor health. Delivery of a SGA infant is strongly and independently associated with later IHD in women, and potentially a risk factor that precedes the onset of IHD by decades. These results suggest that a pregnancy that produces a SGA infant induces long term cardiovascular changes that augment risk for clinical IHD. SGA is associated with the risk of IHD independently of traditional risk factors, but not necessarily independently of potential mediating factors and other pregnancy complications. However, birth weight is relatively easily and reliably obtainable for potential prediction of IHD in comparison to other complications of pregnancy.

On the other study, Eikenes et al. (2012) specified that being born small for gestational age (SGA) (birth weight <10th percentile) is connected to decreased white matter (WM) integrity in newborns and increased prevalence of psychiatric symptoms in adulthood. The results of their study demonstrated that being born SGA leads to reduced WM integrity in adulthood, and suggest that different factors modulate the development of WM in SGA and control groups. The authors explained that in the SGAs, no relationship was found between FA and intrauterine head growth in the third trimester, although total intelligence quotient was negatively correlated to FA. In controls, a positive correlation was found between FA and brain growth in the third trimester and maternal smoking. No relationship was found between FA and psychiatric measures in SGAs or controls.

Furthermore, there are other challenges that a mothers gave birth with LBW baby. In the study of Singer (2009), she explained that education, financial strain, social support and maternal stress as some of the challenges that a mother of LBW baby experienced. The research demonstrated that mothers who had term infants increased their educational attainment at a faster rate than mothers who had very low birth weight (VLBW) children such that, by the time the children had reached 14 years of age, mothers of term infants had achieved more years (14.28 vs. 13.65, p< .035) of education than had VLBW mothers.

On the same study, Singer (2009) explained that mothers of high risk VLBW children reported experiencing higher levels of financial strain than mothers in the other groups. These mothers reported both higher negative financial impact and a greater negative effect on the family in general than did mothers with low risk VLBW children. With
With regards to social support, Singer (2009) insists that social support was shown to buffer these effects. Mothers with high risk VLBW children who reported high levels of social support did not differ in terms of negative impact from mothers in the low risk or term groups. Mothers of high risk VLBW children who had low levels of social support reported more negative strain than other mothers.

Lastly, on the same study of Singer (2009), when asked about the stress of parenting a child, mothers of high risk VLBW children reported higher levels of stress, especially until age three. As children got older, these differences decreased until they were no different from mothers of term children.

Maternal stress also discuss as one of the challenges may face by a mother with LBW baby. According to Karin, et. al. (2003), the birth of a preterm infant has a long-term impact on both parents. Mothers report more stress and poor adjustment compared with fathers. Influencing factor, such as family situation and health status of the child, can support or weaken the coping ability of the parents.

2.2.3 Coping of Mothers with Low Birth Weight Baby

According to Singer (2009), greater feelings of positive mastery, the coping strategies used by mothers to deal with stress associated with parenting, were found to be associated with higher maternal IQ and social support. They were also found to change over time. From birth until the child reached three years of age, mothers did not show differences in the coping methods used. However, as children got older, mothers of high risk VLBW children showed less use of avoidant coping mechanisms, such as denial or mental disengagement, which provide distance from the reality of the situation. These changes in the use of coping strategies suggest that mothers were adapting to parenting stress. The author also suggest that parents of VLBW children, who have pressing medical and caregiving needs, were simply unable to avoid the reality of their children’s situation through such coping strategies as denial. Additionally, positive mastery was found to be higher among mothers of VLBW children at 14 years of age compared to mothers of children who were born at term. Of note, this difference seems to be related to higher feelings of stress among term mothers, and an associated decrease in feelings of positive mastery as children get older which was not observed in mothers of high or low risk VLBW children.

To cope with the challenges faced by mothers with LBW baby, healthcare providers are good help for them. Aagaard et al. (2008) stated that neonatal nurses today challenged not only to provide the best possible developmental care for a preterm infant but also to help the mother through an uncertain motherhood toward a feeling of being a real mother for her preterm baby. An increasing interest in mother’s experiences of having a preterm baby is seen.

2.2.4 Causes of Low Birth Weight

On the study of Ugwu and Eneh (2010), they mentioned that low birth weight (LBW), defined as a birth weight...
<2500g is basically due to prematurity or small for gestational age (SGA). These infants remain a significant public health problem in both developing and developed countries due to their significantly higher rates of morbidity and mortality. This study was undertaken to find out the proportion of LBW due to prematurity and SGA in Port Harcourt, South-South Nigeria. A retrospective chart analysis of babies admitted into the Special Care Baby Unit (SCBU) between January 2002 and December 2009. The differences in the mean age and height of mothers who delivered an SGA and preterm infant were not statistically significant (p = 0.3 and 0.5 respectively). When compared to mothers of normal weight babies, mothers of LBW babies were significantly younger (p = 0.01) and shorter (p = 0.0001). Identified predisposing factors in preterms were hypertensive disorders, multiple births, antepartum haemorrhages and preterm prelabour rupture of membranes while for SGA, factors identified were malaria in pregnancy, congenital abnormality, multiple gestation, and hypertensive disorders. Mortality was significantly higher in the low birth weight (p=0.000).

On the other study, Van de et al. (2013), stated that although there is convincing evidence for the association between small for gestational age (SGA) and socioeconomic status (SES), it is not known to what extent explanatory factors contribute to this association. Among a large array of potential factors, the elevated risk of SGA birth among low-educated women appeared largely attributable to maternal smoking and to a lesser extent to maternal height. To reduce educational inequalities more effort is required to include low-educated women especially in prenatal intervention programs such as smoking cessation programs instead of effort into reducing other SGA-risk factors, though these factors might still be relevant at the individual level.

On the study of Mitchell et al. (2002), it suggests that maternal smoking and environmental tobacco smoke (ETS) were on risk of small for gestational age infants (SGA). Maternal smoking in pregnancy was associated with an increased risk of SGA. An increased risk of SGA was find with exposure to ETS in the workplace or while socializing. Infants of mothers who ceased smoking during pregnancy were not at increased risk of SGA, but those who decreased but did not stop remained at risk of SGA. There was no evidence that the concentration of nicotine and tar in the cigarettes influenced the risk of SGA. Maternal smoking in pregnancy is a major risk factor for SGA.

According to Oluwafemi et al. (2013), babies are classified according to the relationship between birth weight and gestational age, the latter being the strongest determinant of birth weight. Small-for-gestational age (SGA) babies have birth weights less than the 10th percentile for age and sex or more than two standard deviations below the mean for age and sex. In the cross-sectional survey, the anthropometric parameters of term singleton infants were related to maternal age, parity, socio-economic class, anthropometry and medical disorders in pregnancy. Clearly, the identified predisposing factors to SGA
delivery constitute a valid prerequisite for evolving the relevant intervention strategies. It is therefore recommended that steps be taken to improve the nutritional status of mothers before and during pregnancy, as well as improve utilization of antenatal services in order to ameliorate the identified risk factors.

On the study of Sha (2009), it stated that paternal LBW was associated with lower birthweight of the offspring. Paternal characteristics including age, height, and birthweight are associated with LBW. Paternal occupational exposure and low levels of education may be associated with LBW. Medline, Embase, Cumulative Index of Nursing and Allied Health Literature, and bibliographies of identified articles were searched for English-language studies. Study qualities were assessed according to a predefined checklist. Thirty-six studies of low-to-moderate risk of bias were reviewed for various paternal factors: age, height, weight, birthweight, occupation, education, and alcohol use. Extreme paternal age was associated with higher risk for LBW. Among infants who were born to tall fathers, birthweight was approximately 125-150 g higher compared with infants who were born to short fathers.

2.2.5 Prevalence of Low Birth Weight

According to United Nations Children’s Fund and World Health Organization (2004), there is significant variation in low birthweight incidence across the main geographic regions, ranging from 6 per cent to 18 per cent. The highest incidence of low birthweight occurs in the subregion of South-Central Asia, where 27 per cent of infants are low birthweight. For other subregions within Asia, the incidence is much lower, although there is considerable variation. More than half of the 49 Asian countries and territories have low birthweight rates below 10 per cent, while seven countries have levels above 20 per cent. The low incidence in China (6 per cent) dominates the average for Eastern Asia, but due to its large population size, contributes significantly to the overall number of low birthweight births. Overall, almost 70 per cent of all low birthweight births occur in Asia.

On the same report of UNICEF and WHO (2004), globally, more than 20 million infants are born with low birthweight. The number of low birthweight babies is concentrated in two regions of the developing world: Asia and Africa. Seventy-two per cent of low birthweight infants in developing countries are born in Asia where most births also take place, and 22 per cent are born in Africa. India alone accounts for 40 per cent of low birthweight births in the developing world and more than half of those in Asia. There are more than 1 million infants born with low birthweight in China and nearly 8 million in India. Latin America and the Caribbean, and Oceania have the lowest number of low birthweight infants, with 1.2 million and 27,000, respectively. It should be noted that in developing countries, more than 50 per cent of low birthweight infants are born in 13 of the countries that have birthweight estimates available and that have among the highest incidences (20 per cent or higher), whereas only 14 per cent are born in 53 countries with an incidence of less than 10 per cent.
2.2.6 Caring for low birth weight baby

The study of Ramanathan et al. (2001), was conducted to study through a randomized control trial the effect of Kangaroo Mother Care (KMC) on breast feeding rates, weight gain and length of hospitalization of very low birth neonates and to assess the acceptability of Kangaroo Mother Care by nurses and mothers. Babies whose birth weight was less than 1500 Grams were included in the study once they were stable. The effect of Kangaroo Mother Care on breast feeding rates, weight gain and length of hospitalization of very low birth weight neonates was studied through a randomized control trial in 28 neonates. The Kangaroo group was subjected to Kangaroo Mother Care of at least 4 hours per day in not more than 3 sittings. The babies received Kangaroo Care after shifting out from NICU and at home. The control group received only standard care (incubator or open care system). Attitude of mothers and nurses towards KMC was assessed on Day 3 +/- 1 and on day 7 +/- 1 after starting Kangaroo Care in a questionnaire using Likert's scale. The results of the clinical trial reveal that the neonates in the KMC group demonstrated better weight gain after the first week of life (15.9 +/- 4.5 gm/day vs. 10.6 +/- 4.5 gm/day in the KMC group and control group respectively and earlier hospital discharge (27.2 +/- 7 vs. 34.6 +/- 7 days in KMC and control group respectively. The number of mothers exclusively breastfeeding their babies at 6 week follow-up was double in the KMC group than in the control group. KMC managed babies had better weight gain, earlier hospital discharge and, more impressively, higher exclusive breastfeeding rates. KMC is an excellent adjunct to the routine preterm care in a nursery.

22.7 Extending Additional Care

Extra and special attention needed by preterm and low birth weight babies is very important because babies born with birth weight less than 1,500 gm. Is a life-threatening problem in such tiny babies is that suckling, swallowing and breathing are not well coordinated, so they require special attention in order to feed them adequately and safely. They also have great difficulty in maintaining their body temperature, so they are at increased risk of hypothermia. These babies need advanced life support and should be referred immediately to a hospital with special care facilities for very tiny babies. An example of why preterm and low birth weight babies need special care is that they have a very poor resistance to fight infectious disease, because their immune system is not yet well developed. Therefore, on top of what is required for all babies, you and the mother need to be meticulous about hygiene and other infection prevention measures. Everyone who handles the baby should wash their hands very thoroughly first and handle the baby very carefully. You can easily damage the soft and thin immature skin of the preterm or low birth weight baby, creating an entry point for infection (Special Care for Preterm and Low Birth Weight Babies, 2015).

2.2.8 Emotional support

According to McCarton, (1998), low birth weight infants are at increased risk for behavioral and emotional problems. The Infant Health and
Development Program was designed to evaluate the efficacy of intense pediatric and family support on reducing developmental and behavioral problems in low birth weight, premature infants. Half a century ago, children born prematurely already were described as suffering from “restlessness, nervousness, fatigability which resulted in distractibility and disturbed concentration.

Research on this population has been rather unsystematic, limited, and atheoretic. This study demonstrates that LBW infants, as a group, are at increased risk for emotional and behavioral problems. A comprehensive educational and developmental intervention program such as the IHDP was successful not only in improving the behavioral competence of LBW infants at 3 years of age but also in influencing maternal characteristics and mother–child interactions.

3.0 RESEARCH METHODOLOGY
3.1 Research Design
The study employed a phenomenological research design to explore the challenges and coping of mothers caring for a low birth weight baby. This took place in natural settings employing a combination of observations and interviews. As stated by Nigel and Horrocks (2010), phenomenological research focused on how internal, psychological meanings guide human action. It also gives priority to the subjective aspects of human life. The goal is to describe how people understand their lived experiences as among the key informants of the study. Phenomenologist collects holistic, qualitative units of analysis under naturalistic conditions. The purpose of the phenomenological approach is to illuminate the specific, to identify phenomena through how they are perceived by the actors in a situation. In the human sphere this normally translates into gathering ‘deep’ information and perceptions through inductive, qualitative methods such as interviews, discussions and participant observation, and representing it from the perspective of the research participant(s).

3.2 Research Locale
The study was conducted in Valezuela City.

3.3 Description of the Key Informants
The key informants in the study were (6) mothers caring for low birth weight baby. Data saturation was utilized in deciding the number of informants to be included in the study. Snowball sampling method was used in the study to ensure trustworthiness of the research findings. As explained by Johnson (2005), snowball sampling is a well-known, nonprobability method of survey sample selection that is commonly used to locate hidden populations. The technique will be utilized because the researchers will rely on referrals from initially sampled respondents to other persons believed to have the characteristics or criteria set for selecting informants. The researchers set the following criteria as the bases for selecting six (6) key informants of the study: 1) 18-45 years old; 2) at least gravida 1 para 1term (G1P1); 3) delivered (between 38-42 wks); 4) gave birth not more than 2 years; 5) first time to take a low birth weight baby; 6) baby must be 2.5 kilogram or less.

Participant 1 is 34 years old and she is a mother of 3. It is her first time to
take care of a low birth weight baby. The baby was 2 kilograms when she gave birth and currently 2 years of age.

Participant 2 is 21 years old and she is a mother of 2. It is her first time to take care of a low birth weight baby that weighs 2.3 kilogram when she gave birth and presently the baby is now 2 years old.

Participant 3 is 25 years old and she is a mother of 2. It is her first time to take care of a low birth weight baby that weighs 2.5 kilogram when she gave birth and presently the baby is now 8 months old.

Participant 4 is 26 years old and she is a mother of 3. It is her first time to take care of a low birth weight baby that weighs 2.4 kilogram when she gave birth and presently the baby is now 2 years old.

Participant 5 is 18 years old. It is her first time to take care of a low birth weight baby that weighs 1.2 kilogram when she gave birth and presently the baby is now 1 year old.

Participant 6 is 39 years old and she is a mother of 5. It is her first time to take care of a low birth weight baby that weighs 2.4 kilogram when she gave birth and presently the baby is now 2 months old.

3.4 Ethical Considerations

The study entails ethical considerations to protect the researchers, the subjects and the institution under study. One of the potential ethical issues that the informant might deal is the principle of informed consent. The informant has a right to fully know the purpose of the study and the research procedure and they must give their consent willingly before gathering any data. Another ethical concern is the respect for persons, key informants shall voluntarily participate in the research and she should be aware of the consequences of her participation and lastly the informant’s identity and all information about them will be kept confidential.

Additional ethical consideration if the approval from IERC Institutional Ethics Review Committee (IERC).

3.5 Research Instrument

The researchers used an aide memoire as the data gathering tool which was constructed and subjected for content validation Jenica Ana Rivero, a person expert form the field to ensure the correctness and completeness of the questions created, the experiences of the key informants were explored. The aide memoir is the guide questionnaire used in the interview. This is in the form of open ended which means the answers are in the essay or narrative form. Twenty five (25) items were included in the guide questionnaire, which were all about the challenges and coping the informant caring for a low birth weight baby. The data generated were digitally recorded and then transcribed verbatim into field text. The main purpose of the interview process was to get a deeper understanding of the key informants’ challenges and coping of caring for a low birth weight baby. The interview was conducted in a room where the key informants were comfortable and they were able to answer the interview questions without disturbance.

3.6 Data Collection

Using snowball technique, the researchers went to respondents respective houses to ascertain if they have low birth
weight baby. After doing so, the informed consent was discussed by the interviewer and the participants willingly signed the consent before any data was gathered. An in-depth interview was conducted using a twenty-five (25) item aide memoir and was recorded. After the interview, the researchers transcribed verbatim into field text and data saturation was achieved. Data saturation was achieved at participant number six (6).

3.7 Data Analysis

The researchers employed cool and warm analysis for data analysis. The researchers culled the significant statements from the respondents and grouped and sorted the data that gave the names to the themes.

The Repertory Grid is an instrument designed to capture the dimensions and structure of personal meaning. Its aim is to describe the ways in which people give meaning to their experience in their own terms. It was devised by George Kelly in around 1955 and is based on his Personal Constructs theory of personality, warm analysis wherein empathy is integral to the analysis such as phenomenology or hermeneutics.

4.0 RESULTS AND DISCUSSION

The study focused on the mother’s voice of challenges and coping in caring for a low birth weight baby. Through phenomenological studies, in-depth interview and recorded voice helped the researchers to capture 2 major themes which are the The Scale of Challenges and The Scale of Coping. Under that are the six (6) minor themes that emerged from the study. For Scales of Challenges the themes were: “Fear of Vulnerability to Sickness”, “Caring Difficulties”, and “Financial Insufficiency” and for Scale of Coping these were the themes: “Nutritional Enhancement”, “Financial Support of Family”, and “Additional Attention”.

Figure 1. The Scale of Balance representing the Challenges and Coping experienced by Mothers Taking Care of Low Birthweight Infants

The mother’s voice which are challenges and coping on caring for a low birth weight baby can be visualized on the metaphor above. Right scale represents negative conditions which are the challenges of the mothers, while the left side scale represents the positive conditions which are the coping mechanisms of mothers caring for their low birth weight babies.

Challenges came up when the respondents knew that their baby is a low birth weight. These challenges includes “Fear of Vulnerability to Sickness”, “Caring Difficulties”, and “Financial Insufficiency. To deal with these challenges, the respondents provided their own coping mechanisms which are “Nutritional Enhancement”, “Financial Support of the Family”, and “Additional Attention”. Since 4 out of 6 of the respondents had positive outcome, we can
tell that these coping mechanisms helped them balanced out the situation. This is how the balance scale symbolizes the caring for a low birth weight baby.

4.1 The Scale of Challenges

Largely because of improvements in medical technologies, more low birth weight infants are surviving and living into adulthood. However, many of these children and youth have longterm functional disabilities that have raised concerns about how best to care for low birth weight children. In addition to understanding the effects of low birth weight on children themselves, researchers are increasingly investigating the effects of low birth weight on parenting and parental well-being. While it is known that the birth of a low infant presents challenges for families, less is understood about exactly how parents adapt to these challenges.

4.1.1 Fear of Vulnerability to Sickness

Fear to sickness is an unpleasant emotion caused by the belief that someone or something is dangerous, likely to cause pain, or a threat, while pity a cause for regret or disappointment. These are usually the challenges that a mother can experienced during the birth of a low birth baby. Mothers whose children are born LBW experience more psychological distress, particularly depression and anxiety, than mothers whose infants are born at full-term. Additionally, parenting may be affected by low birth weight because the strains of parenting are exacerbated for parents of low birth baby. This theme was extracted based on the following statements of the participants:

P1- Hmm.. hindi naman sa syempre, nakakatakot hawakan. Hehe. Na pwedeng magkakasakit sya sa hinaharap. Pero yun nga sana wala. Uh uh! (hmm… It’s not that I was frightened to hold my baby is just that he might get sick in the future but im hoping that he wont.)

P2- na baka hindi na sya tumababa. (that my baby will not gain weight)

P3- Syempre natakot kasi ano parang bakit ganun yung anak ko, ginawa mo naman yung lahat para maging maayos yung timbang. Yung tama. Na baka magkakasakit siya sa hinaharap. wag naman sana. (ofcourse, I got scared and wondered ehy my baby is like that. I did everything right for my baby to be normal. He might get sick in the future and I hope he won’t.)

P4- Pag nagkasugat po yung ano hindi po siya gumagaling kaagad. Hindi, maraming pasa dito sa may kuwan. Sa puwet po ganun (Whenever she gets wounded it take a long time to heal)

P5- Parang ano, kulang sa timbang tsaka parang payat. Nakakaawa po. Opo, natanggap ko din po agad. (It’s like she’s lack of weight that makes her look like thin. I felt pity. And yes I accepted it right away)

P6- Oo Nagulat din ako kasi mababa yung tibang nya , tapos sa lahat ng anak ko sya lang kasi yung pinaka mababa yung timbang. Ahm.. baka magkasakit . (Yes, I was shocked that her weight was low. Of all my children she is the only one with low birth weight. Ahm, she might get sick.)

The mothers of the low birth baby are afraid on the health condition of their babies. One participant even revealed that she was afraid in holding her baby, while another mother said that she is afraid her
baby might not become healthy and will become sickly.

According to Mazedl (2013), while most babies born with a low birth weight do well, a small-for-gestational-age baby can have some health problems early on--such as maintaining a normal body temperature, blood sugar levels that are too low, or difficulty fighting infections. Fortunately, more than 90 percent of SGA babies catch up to their counterparts in the first few years of life.

On the study of Ugwu and Eneh (2010), they mentioned that low birth weight (LBW), defined as a birth weight <2500g is basically due to prematurity or small for gestational age (SGA). These infants remain a significant public health problem in both developing and developed countries due to their significantly higher rates of morbidity and mortality.

4.1.2 Caring Difficulties

Difficulty of caring is when the mother is not used in caring a low birth baby. The mother experienced hard time in taking care of the baby because of its condition and fragility. Low birth baby are prone to breathing problems called respiratory distress syndrome (RDS), or unusual risk of infection. Sometimes there is also difficulty in keeping the baby warm. Because the baby is not normal in terms of weight, the mother is having a hard time in caring. As verbalized by the following participants:

P3- Mahirap, kasi minsan hindi mo maiiwasan magkakasakit yung bata eh kapag ka ano, kaya... gagawin mo talaga yung lahat ng ipapayo sayo nung doctor para maging malusog yung anak mo. (It’s hard, because sometimes you can’t prevent kids from getting sick. You would do anything that the doctor would advice just to get your child healthy.)

P4- Mahirap kasi mababa yung timbang nya.. Kasi kulang yung timbang niya, mahina siyang kumakain.. Tapos hindi umiinom ng vitamin.. (It’s hard because she has low birth weight and she has weak appetite and won’t drink vitamins.)

P5- Pinapakain ko po sya para umano yung timbang nya tsaka po... Yung ano po, pakainin po nung mga ano yung, mga gulay tsaka mga masustansyang pagkain. (I feed him to improve his weight and I feed him vegetables and nutritious food.)

P6- Anu.. Mahirap pero walang magagawa kasi , Mahirap din kasi malilit lang sya. (It’s hard but I can’t do anything because it’s not easy considering that she is so small)

The participants confirmed that they are having a hard time in caring for their low birth baby because the baby is too fragile to handle and its their first time to have a low birth baby. Although one participant said that they really focus their attention on their baby with low birth weight by means of feeding the baby correctly and giving vitamins. On the other hand, one participant revealed that she is having a hard time because of the
low birth weight and the mother is afraid that the baby might easily get sick.

The study of Ramanathan et al. (2001), was conducted to study through a randomized control trial the effect of Kangaroo Mother Care (KMC) on breast feeding rates, weight gain and length of hospitalization of very low birth neonates and to assess the acceptability of Kangaroo Mother Care by nurses and mothers. Babies whose birth weight was less than 1500 Grams were included in the study once they were stable. The effect of Kangaroo Mother Care on breast feeding rates, weight gain and length of hospitalization of very low birth weight neonates was studied through a randomized control trial in 28 neonates. The Kangaroo group was subjected to Kangaroo Mother Care of at least 4 hours per day in not more than 3 sittings.

4.1.3 Financial Insufficiency

Financial insufficiency happens when the family is experiencing the lack of income that may be accompanied by other disadvantages and stresses that influence family life. The family that is experiencing this kind of problem may be the reason why they can’t give proper care to their child for instance financial instability makes it hard for the mother to seek medical help whenever it is needed. As verbalized by the following participants:

P1: Financial ganun kasi minsan kulang din kami. Kung minsan payo din ng isang magulang. (We are lacking financially. But sometimes it’s advice from other parents.)

P2: Sa pagkain niya ay wala naman problema sa anak ko... kahit kapos din kami sa pera basta pag kakain siya kahit tuyo ulam niya kakain siya... wla pong problema sa anak ko (There’s not much problem when it come to eating. Even if we are lacking financially when he want to eat even if our food is just tuyo he will eat it. There is no problem with him.)

P3: Oh ano laging ubo di nawawalan halos ng ubo, sipon, lagnat. Ganun tapos dalawa na sila, medyo lumalaki na din ung gastos. (He is couging. He’s often sick with flu. And now there’s two of them our expenses are increasing.)

P5: Ano po, 1,800 mga ganon. Isang linggo nya. kaya nagkukulong talaga. (Around 1,800 a week and it’s really not enough.)

4.2 The Scale of Coping

4.2.1 Nutritional Enhancement

Food provides the energy and nutrients that babies need to be healthy. For a baby, breast milk is best. It has all the necessary vitamins and minerals. Infant formulas are available for babies whose mothers are not able or decide not to breastfeed. Most of the respondents breast fed and some combined formula with their breast milk and vitamins supplemeny to fully enchance the nutritional needs of their baby.

P1: Ah yun nga kelangan ibreast feeding. Hindi naman ako pwede kaya binigyan ko naman sya ng kahit papanong milk supplement na makakbuti sa kanya. Nakapagpadagdag naman sa timbang nya. Tapos okay naman sya kumain. Dati sinusolid foods ko sya. Malakas sya kumain. Malakas. (She needs to be breast fed. I wasn’t able toi, but I still provide her with formula milk that’s good for her. It helped her to gain weight. Then
her eating is okay. I fed her solid foods too. She eats good.)

P2- Mahirap, basta mahirap. pinakain naming siya ng masustansya at tsaka ung sa vitamins niya... inaagapan ko naman po ung sa timbang niya palagi. at breast milk lang walang iba. (It’s hard. It’s just hard. We feed her nutritious food and vitamins. I always try to manage her weight and give her breast milk.)

P3- Ay wala. Ano lang, breastfeeding at tsaka minimix ko siya sa bottle na yung gatas talaga. (Nothing, just breastfeeding and mixing breastmilk and formula.)

P4- oo naman, Ang vitamins lang na ipinaainom ko yung ipinanganak ko siya tiki-tiki. breast milk lang din ako. (Of course, when I gave birth I just gave her Tiki-tiki as her vitamins and also breastmilk.)

4.2.2 Financial Support of Family

Family is the most important factor when it comes to unexpected problems. Most of the respondents have financial instability but with the involvement of the members in the family, rest assured that the low birth weight baby will grow healthy and will have a normal weight. Since here in the Philippines we tend to have strong family ties and whenever a problem occurs it is expected that they will the first in line to give support. As stated by the participants:

P1- Tinutulungan naman ako ng asawa ko. Pag nandito sya. Pero kadalasan ako talaga ang nagaalaga. Minsan pag nandun sa lolo nya inaalagaan din sila. (My husband helps me when he’s here. But almost every time I’m the only one who is caring for our child. And sometimes when my baby comes over to my parents’ house they also take care of my baby.)

P2- byanan ko..sa pagkain ganun, inaalagaan naman siya ng lola niya inaalagaan naman siya ng maayos (my mother-in-law… in the food, she also takes care of my baby)

P3- Mga tita ng pamangkin.. mga kapatid ko, nanay at tatay ko. (aunts, my siblings, my mother and father)

-Pagka halimbawang may lakad syempre wala, hind naman pwede kasi malit pa hindi mo pa pwedeng dalhin kung san san. Iniiwan ko sa kanila tapos sila nag aasikaso. Pinapakain na nila ng maayos. (It is not possible to bring the baby with me for instance that I have to go somewhere else because my baby is so little to carry it with me. Therefore, I leave it to them and they take care of my baby like feeding formula milk very well.)

P4- Opo dyan sa may tindahan sa may factory si cheche Tumutulong sa pagamot, tapos sa pagpakain samin (Yes, Cheche from the store nearby the factory helped us in medication and food supplies.)

P5- Mama ko po, tito ko tapos po yung stepfather ko po. Ano po minsan sila nagbibigay ng pambili ng gamot sila rin po yung umano sakin nung nasa ospital ako tsaka po ano, inaalagaan nila yung anak ko kapag may ginagawa ako. (My mom, uncle, and stepfather. Sometimes, they contribute for medication and helped me when i was in the hospital. They also take care of my baby when i am busy.)

P6- Tatay nya , oo ! Nag sasalitan kami sa pag aalaga at ska yung pamangkin ko oo! (Yes! His father. We
take care of the baby as well as my niece alternately.)

4.2.3 Additional Attention

The lower the birth weight and gestational age of the newborn, the higher the risk of complications and death and the more special care he or she needs. Low birth weight babies need special care because they have a very poor resistance to fight infectious disease, because their immune system is not yet well developed. Therefore, on top of what is required for all babies, the mother needs to be meticulous in giving added attention.

P1- Edi inalagaan ko, pero yun nga breastfeeding hindi, Naggatas sa lata. Tapos, the usual na pagaalaga ng baby. May mga vitamins sya na tinetake pero walang reseta naman ng mga gamot na kelangan nya inumin. Basta dun sa ospital yung mga antibiotic nga na binibigay sa kanya tsaka ung breastfeeding normal naman. (I took care of him but I didn’t give him breast milk, formula milk instead. Then the usual caring for the baby. She is taking vitamins but no prescription. And in the hospital the antibiotics that they gave him and breast milk.)

P2- tinutukan ko sysa. ung una ko kasing anak hindi ko masyadong naalagaan eh. ung unang anak ko kasi kinuha na un ng kamaganak namit kc naano nung sa una ko nabunyutan lng ako (I focused on her, I wasn’t able to give much attention to my first kid. My relatives are the ones who took care of my first kid. It was an unplanned pregnancy.)

P3- Ay wala. Ano lang, breastfeeding at tsaka miniks ko siya sa bottle na yung gatas talaga. (Nothing, I just mix the breast and formula milk in the bottle together.)

P4- tinutukan ko ng husto, at saka hindi siya ng dede sa bote. sa akin lang (I gave enough attention, She was only breastfed.)

P5- Natural lang po. Natural na pag-aalaga lang. Natututukan din naman namin yun bata Hindi po pinapabayahan pag naglalakad. Ok din naman sya sa pagkain (Just the natural. Just the usual caring. We focused on him and we always keep an eye on him when his walking.)

P6- Yun nga alagaan at , un nga padedehin ng wasto at sa tamang oras. (Take care of him and feed him properly and on time.)

3.0 MODERATUM GENERALIZATION

The study aims to explore the challenges and coping of mothers taking care of low birthweight baby. Participants in the study were six (6) purposively selected mothers. Two (2) major themes emerged in the study The Scope of Challenges and The Scale of Coping. Under the major themes there are six (6) minor themes. For the Scale of Challenges the minor themes were: “Fear of Vulnerability to Sickness”, “Caring Difficulties”, and “Financial Insufficiency”. For the Scale of Coping these were the themes: “Nutritional Enhancement”, “Financial Support of Family”, and “Additional Attention”. The participants at first were afraid of their child of becoming sick because of its low birth weight. They knew that taking care of the baby is would be difficult and would require special care. But they are determined to all the possibilities just to
make sure their baby will grow healthy. Research shows that presence of external factors such as support of the family members, health learnings, and awareness of the situation is very important to have an effective coping mechanism. Finally, it can be concluded that the challenges can be balanced through exercising their own proper coping mechanism.

4.0 REFLECTION
This study shows coping skills are your ability to handle life's challenges in the most effective ways, maximizing your chances of success or survival, and minimizing the damages and other negative consequences. As seen on the results, we can say that the respective mothers coping strategies together with their support system are very important for them to be able to handle the challenges that they faced. Future studies may focus on ways on how to strengthen the ability of the mothers to cope when challenges arises, especially when they take care of their baby. This study also focuses on the enhancement of the support system to ensure the whatever challenges that mothers experience that is related to taking care of their baby, they will able to handle it.

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SELF EFFICACY AND EMOTIONAL INTELLIGENCE AS AFFECTING FACTORS COMMUNICATION FOR NURSES IN THE EMERGENCY CARE UNIT OF DR. HASAN SADIKIN GENERAL HOSPITAL.

I Nyoman Asdiwinata
STIKes Wira Medika Bali

ABSTRACT

Emergency experienced is unexpected situation that may occur at any time and place. The high rate of patient entry at emergency department, which is not following with adequate communication skill of emergency nurses, may lead to reducing quality of communication between nurses and patients and their families.

The role of self-efficacy and emotional intelligence of nurses is expected to be supporting the implementation of effective communication in the emergency unit. This study aimed to analyse the relationship between self-efficacy and emotional intelligence with effective communication of nurses in providing nursing care at the Emergency Unit of the Dr. Hasan Sadikin General Hospital Bandung.

This study used analytical correlation with cross sectional method. Fifty Five Nurses were recruited in this study using total sampling technique. The research instrument modified from self-efficacy questionnaire and emotional intelligence are taken from the inventory of self-efficacy and emotional intelligence test result validity and reliability of 0.80 and 0.73. Effective communication observation sheet was adapted from Kalamazoo Essential Communication with the validity of the test results 0.93. Data were analyzed by Pearson Product Moment to bivariate analysis and multiple linear regression for multivariate analysis.

Results showed that between self-efficacy and emotional intelligence, it was only self-efficacy which has a significant relationship with the effective communication of nurses (p <0.05). Self-efficacy is the dominant affecting factor for the effective communication, so that the self-efficacy of nurses need to be increased to maintain the quality of nursing care.

Keywords: Effective Communication Nurses, Emergency Room, Emotional Intelligence, Self-efficacy
BACKGROUND

Emergency Unit (ER) is one unit of service in a hospital that became the main entrance of clients in emergency and critical emergency conditions. The main services provided aims to save lives, avoid damage before action is given and follow-up care and restore the client's condition.

The state of emergency experienced by clients may occur at unexpected times and places. Based on the time of the incident, the emergency situation occurred in a very fast time and resulted in the number of victims. The World Health Organization (WHO) noted that in 2007, an estimated 20 to 50 million people entered emergency services from traffic accidents and were injured. Of these figures showed nearly 1.3 million people died.

According to the American Association of Critical Care Nurse (2005), critical patients have both life-threatening and life-threatening potential characteristics, so this condition will increase the client's needs. According to the Canadian Association of Critical Care Nurse (2009), the needs of clients with critical conditions include physical and non-physical needs. A physical need in question is an adequate need for air, nutrition and elimination. Non-physical needs include social, spiritual, self-esteem, information and communication needs.

Comparing the high number of incoming patients and poor nurses in emergency conditions and non-conducive environments resulted in communication performed by the nurses not in accordance with what is expected by the client and family, thereby reducing the quality of nurse communication. Nurses as subjects who perform these communications may provide poor communication to clients or other colleagues. The quality of communication performed by the nurses is highly dependent on one of the emotional intelligence levels of the nurse (Mcqueen, 2005). Not only emotional intelligence that needs to be considered for a nurse who works in the ER. Several other aspects related to self-efficacy become one of the factors that affect the performance of nurses in the work.

A strong self-efficacy in nurses will have a positive impact on nurses especially on a nursing unit (Chang, Li, Wu, and Wang, 2010). In addition, there is an increase in client service outcomes and health care systems. Lee and Ko (2010) found that high levels of self-efficacy of nurses are closely related to nursing performance.

To the knowledge of the researchers there has been no research that identifies the effective communication done by the ER nurses at dr. Hasan Sadikin Hospital Bandung. In relation to this the researcher is interested to examine the relationship of self-efficacy and emotional intelligence with effective communication nurses in the provision of nursing care in the ER.

RESEARCH METHODS

Research Design

This study uses correlational analytics with cross sectional approach. This study also using RASCH Model.

Population and Sample

Population in this research is all nurses who work in emergency

**Research Instrument**

The research instrument was modified from self-efficacy questionnaire and emotional intelligence taken from self-efficacy inventory and emotional intelligence with validity and reliability test result 0.80 and 0.73. The communication observation sheet was effectively adapted from Kalamazoo Essential Communication with validity test result 0.93.

**RESULT**

Most of the nurses who worked in ER at dr. Hasan Sadikin Hospital Bandung has a high self-efficacy with dominant characteristics, which are male, with age <30 years old, have married, have working experience of 6-10 year, and with diploma education qualification. Most of the nurses who worked in ER at dr. Hasan Sadikin Hospital Bandung has a high emotional intelligence with dominant characteristics of women aged 31-40 years, married, has a working period of more than 16 years with diploma education qualifications.

Communication performed by nurses who worked at the ER in dr. Hasan Sadikin Hospital Bandung mostly have effective communication. The results of study observation showed 52 nurses have effective communication value above 0.

The results of Pearson Product Moment test showed there is a significant association between self-efficacy with nurse communication, but there is also a significant connection between emotional intelligence with effective communication nurses at the ER in dr. Hasan Sadikin Hospital Bandung. Furthermore, the results of multiple linear regression test indicated that self-efficacy becomes the most dominant factor to effective communication nurses at the ER in dr. Hasan Sadikin Hospital Bandung.

**DISCUSSION**

Self-efficacy has a significant effect on effective communication conducted by the nurse. Nurses’ self-efficacy at emergency department in dr. Hasan Sadikin Hospital Bandung is generally at a high level. This is one of the factors to improve nursing care. High self-efficacy indicates good nurse's communication skills during nursing care. Not only that, high self-efficacy makes nurses are motivated take more challenging actions. Bandura (1997) in his theory states that the higher the value of self-efficacy possessed by nurses will challenge nurse on trying to complete higher tasks, and they will have a high purpose to their work. Conversely without self-efficacy the nurses will less motivated on trying to reach the goal and limit their self to take the actions.

Self-efficacy in nursing affects the development of the profession. Starting from the nurse education process, the self-efficacy relationship is evidenced by McLaughlin, Moutray, and Muldoon (2008) in his research conducted on first-year nursing students. The study used longitudinal design and linked self-efficacy with student initiative ability in learning. The results show that students who have high self-efficacy are able to achieve high scores in the educational process.
Emotional intelligence of emergency nurses dr. Hasan Sadikin Hospital Bandung is at a high level. It plays an important role in every interaction with others. Great pressure on the workplace will affect the emotional intelligence condition of a person. For nurses, having a good emotional intelligence will help build a good relationship in the interaction of the nurse with the patient. Goleman (2000) mentions that a good person's emotional intelligence will give awareness to the situation and people so that someone is able to behave appropriately.

The emotional intelligence of the nurse when associated with work experience will provide a unidirectional relationship. Shipley, Jackson and Segrest (2011), provide an explanation in his research that the longer a person's work experience will provide a significant relationship to the condition of emotional intelligence. In this study it was found that almost all nurses with less than 5 years work experience had low emotional intelligence. Unlike nurses who have worked more than 16 years.

Based on the results of self-efficacy relationship analysis and emotional intelligence with effective communication nurses at the ER in dr. Hasan Sadikin Hospital Bandung shows that self-efficacy becomes a variable that has a significant relationship to effective communication conducted by the nurse. Communication is one part that cannot be separated from a nursing service. Any nursing action that aims to save a person's life is not only judged by the skill of action. A good nursing action should also be based on effective communication delivered to the client. Achieving an effective quality of communication is influenced by self-efficacy.

Quality of self-efficacy nurses at the ER in dr. Hasan Sadikin Hospital Bandung has shown high results. The high self-efficacy possessed by the nurses is strongly influenced by various factors. One of the factors that can affect self-efficacy is the personal characteristics of the nurse. The development of self-efficacy owned by the nurse is in line with the personal characteristics and also the characteristic of the organization. Bandura (1997), stated that the characteristics of the organization give effect to the development and opportunity of autonomy for nurse to improve self-efficacy.

The quality of one's emotional intelligence is only influenced by the personal internal factors of each. Until now there has been no research that links between external factors with emotional intelligence.

CONCLUSION

Based on the results of analytical tests that have been done related to self-efficacy and emotional intelligence with effective communication nurse found that self-efficacy becomes the most dominant factor to the communication changes made by nurses.

It is expected that nurses will maintain and develop skills related to emergency psychiatric skills to improve the quality of nursing care provided, in addition, with high emotional intelligence is expected nurses are able to realize every situation yourself and clients to foster good interpersonal relationships, so that
the quality of communication will be more optimal.

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EMERGENCY CASE MANAGEMENT USING TELEHEALTH IN RURAL OR REMOTE AREAS

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ABSTRACT

Background
One of obstacles faced in achieving sustainable development is inequality of health services. The concern about health service inequality is not only focused on the disproportion numbers of health professionals, but also is specifically uneven number of health specialists of rural and urban areas. Specific emergency cases may need specific intervention to enhance successfulness of emergency management. Several studies indicate that telehealth could ease the problem of inequality health service. Thus, telehealth is one of advanced attempts in achieving sustainable development.

Aim
The aim of this study was to describe how telehealth is applied for manage emergency cases specifically in rural and remote regions

Method
A literature review of eighteen articles was carried out; articles were retrieved from MEDLINE, CINAHL, PsycINFO, EMBASE and Global Health databases. The articles were critically reviewed and analyzed to answer this study’s aim.

Result
The critically review of the articles were categorized in themes: 1) application of telehealth in rural emergency care, 2) implication of telehealth in rural emergency care, 3) potential challenges and facilitators for tele-emergency implementation, 4) nursing implication on tele-emergency. Telehealth is feasible to apply in rural emergency care; furthermore, assessment and clinical decision making using telehealth is indicated as reliable. Telehealth application in remote emergency care is also indicated as time and cost effective. Several implications of telehealth on rural emergency care have also been recognized, such as the implication on clinical decision-making process and patient safety during emergency case management. The potential challenges of tele-emergency are internet connectivity, lack of ability of users in operating telehealth technology, and trust issue. Telehealth facilitates rural nurses to consult in remote specialists during emergency case management.

Conclusions
Although several challenges might be potentially affected its application, telehealth is feasible and reliable system to be implemented in rural emergency health service. Furthermore, telehealth is also considered as simple, effective and efficient system, which is both cost and time effective.

Keywords: telehealth, emergency care, rural
1. INTRODUCTION

The use of telecommunication technology in health is a WHO recommendation as a part of a sustainable development strategy to increase the efficiency of health services, particularly in rural or remote areas, as well as to enhance the quality of care by connecting healthcare providers in all areas with specialists or experts, in order to obtain professional guidance (WHO, 2015b). Telehealth has been established in 106 countries globally (World Health Organization, 2016). Additionally, roughly 30% of WHO’s member states have a national agency for telehealth development (World Health Organization, 2010). The lack of specialist support is the main challenge for emergency services in rural and remote areas, thus the telehealth system may reduce the disparity between the effectiveness of rural and urban emergency service (Schwamm et al., 2009).

This paper is an attempt to critically evaluate the body of literature about the implementation of telehealth for the facilitation of emergency care in rural or remote areas. The paper will first discuss the telehealth concept and its implementation in emergency care; secondly, the feasibility of the application of tele-emergency will be discussed. Third, the implication of telehealth in an emergency vehicle is explored; and finally the potential barriers and facilitators of telehealth implementation for emergency care will be identified and analysed.

2. SEARCH STRATEGY

This study is a critical appraisal investigating evidence in literature stored in several source databases. The sources used during the search were MEDLINE, CINAHL, PsycINFO, EMBASE and Global Health. Several combinations of keywords including “telehealth or telemedicine or teleconsultation or tele-emergency or e-health or m-health or mobile consultation” and “emergency” and “rural or remote areas” and “nurs*” have been used in order to obtain the most relevant journal articles. Additionally, inclusion criteria were decided, as follows: papers to be in the English language and published since 2010. Duplications have been sorted out and remaining articles’ abstracts have been read as part of selection process. Eventually, 18 articles were selected; together with several supporting articles selected from the main articles’ lists of references. The search strategy is depicted on figure 1.

The selected articles are mainly about telehealth practice in stroke emergency and psychiatric emergency. This orientation may be because the telehealth system has been developed well in both practice areas. Furthermore, another probable explanation is that telehealth seems to be significantly applicable in stroke and psychiatric emergency care, as the systematic reviews concluded that telemedicine is feasible, safe and suitable for acute stroke management (Johansson and Wild, 2010) as well as for psychiatric management (Pesamaa et al., 2004; Ekeland et al., 2010; Bolton and Dorstyn, 2015)
3. BACKGROUND

3.1 Definition and types of telecommunication in health

The technology of communication used in health care has developed in recent decades. This communication technology is commonly grouped into two types, which are telehealth and e-health. The WHO has highlighted telemedicine as “an open and constantly evolving science, as it incorporates new advancements in technology and responds and adapts to changing health needs and contexts of societies” (World Health Organization, 2010, p.11). Telemedicine aims to provide clinical support, particularly for those who live where their geographical location challenges access to health services. Telemedicine involves a wide range of information and communication technologies (ICTs) which improve connections among healthcare users to improve health outcomes. In practice, some observers may differentiate telemedicine from telehealth, based on the main focus of the two models: telemedicine aims to connect physicians only, while telehealth aims to support healthcare professionals in general, including nurses, midwives, pharmacists, and others. However, the WHO considers telemedicine and telehealth as synonymous and these terms are used interchangeably in WHO reports and publications (World Health Organization, 2010).

Telehealth, as the provision of health care using telecommunication technologies, is the main base of e-health, which involves a range of ICTs (WHO, 2015b). E-health is the use of ICTs for health issues including health education and promotion, healthcare services, research, and health profile surveillance (WHO, 2015a).

The transformation from the pioneering model to the most recently form of telemedicine is not aimed to replace the earlier inventions but to complement the earlier technologies. The first form of telehealth was electrographic data that were delivered via telephone wires in the 19th century. This initiative was followed by mental health distant consultation, via television, between specialists and general practitioners. The technologies have been continuing to develop, and since internet technology has been introduced telehealth development has rapidly expanded. The ICTs used in telehealth include real time video conferencing, teleconsultation, emails,
digital imagery and others (World Health Organization, 2010).

Practically, there is a wide range of terms that has been used to describe telehealth, including telemedicine, telecare, teleconsultation, e-health, m-health, and mobile health (World Health Organization, 2010; Solli et al., 2012; Frade and Rodrigues, 2013; Free et al., 2013; WHO, 2015a). Specifically in emergency care, the terms have also been developed into various specific names, including telEmergency and Tele-emergency system (TES) (Galli et al., 2008; Herrington et al., 2013).

3.2 Telehealth implementation in health care services

Telehealth allows a connection between the hub hospitals and satellite hospitals or clinics; thus, this technology enables clinicians (nurses, general practitioners, physicians assistants, or other healthcare providers) in the satellite hospitals or clinics to consult with the specialists who are based in the hub hospitals (Maheu, 2001). The illustration depicted how is the connection within telehealth system as example from tele-stroke is shown in figure 2. The common problem of hospitals or clinics located in geographically rural or remote areas is lack of specialist support (Schwamm et al., 2009). Thus, telehealth enables patients and rural clinicians to be connected with specialists located in urban hospitals (Moffatt and Eley, 2010).

Figure 2. The illustration of telehealth system in stroke management including A) simple type of telehealth; B) multi-point acute tele-stroke consult; C) telehealth company based and D) hub-less private practice physicians (Silva et al., 2012)

Patients’ conditions which need specialist services could be managed locally by rural clinicians, with guidance from specialists in the hub, via telehealth technologies. Telehealth appears to be utilised in a wide range of specialities, including psychiatric/mental health, ophthalmology, cardiovascular, respiratory, paediatric, obstetrics and gynaecology, chronic diseases, stroke, geriatric, emergency care and other specialities (Ekeland et al., 2010; Kulshrestha et al., 2010; Moffatt and Eley, 2010; Ward et al., 2015).

An emergency situation is one specific health care area which progressively uses more telehealth technology. Telehealth is used by clinicians to support them in managing
particular emergency cases. The study conducted by Bergrath et al. (2013) indicated that 57% of emergency cases using telehealth were trauma, acute coronary syndrome and circulatory emergencies, such as acute stroke. In addition, the systematic review conducted by Ward et al. (2015) classified emergency patients’ characteristics that were managed by using telehealth into three groups: “general ER use, minor injuries and illnesses, special patient population (SPP)” (p.603). The various patients’ conditions categorised into SPP include “stroke symptoms (26%), trauma (21%), ophthalmology conditions (16%), cardiac problems (11%), and other conditions (e.g dermatology, psychiatric, respiratory)” (p.603).

4. RESULT

4.1 Application of Telehealth in Rural Emergency Care

4.1.1 Feasibility and reliability of telehealth applications in rural emergency care

a) Feasibility of telehealth applications in rural emergency care

Telehealth has progressively been implemented in emergency care and several studies have been conducted to assess the feasibility of telehealth application for emergency case management. Pilot studies have been carried out prior to the implementation of a tele-emergency incident; other studies have evaluated the established telehealth application in an emergency department. The majority of studies appear to support the premise that tele-emergency is feasible and reliable (Mougiakakou et al., 2011; Bergrath et al., 2013; Wu et al., 2014; Yperzeele et al., 2014).

A pilot study conducted by Liman et al. (2012) indicated that only 40% of total scenarios of teleconsultation, using video-conferencing for acute stroke, were successfully completed without connection problems. Interestingly, Wu et al. (2014) showed an 85% success rate from teleconsultation, more than double that of Liman et al. (2012). However, the main weakness of these two studies is that they did not involve real patients, as their subjects were healthy actors recruited as emergency patients, during simulation of ambulance-based teleconsultation. Therefore, their results may contain biases and be relatively weak to prove the feasibility of telehealth implementation in emergency situations.

Other studies however, have been conducted to evaluate the feasibility of the tele-emergency model with real patients as their subjects. For instance, the studies conducted by Yperzeele et al. (2014) and Meyer et al. (2008) indicate that telehealth is feasible to be employed in emergency departments. Their studies showed emergency case managements were 95% and 100% successful, when using telehealth without experiencing any technical problems such as signal loss.

Furthermore, a systematic review conducted by Schwamm et al. (2009) also suggested a recommendation that prehospital telehealth is feasible and can be considered as an effective approach to enable patients to get initial treatment for acute stroke.

Although telehealth has been evaluated as including feasible technologies which can be implemented in...
emergency departments, the feasibility of its implementation specifically in rural and remote areas may be needed to be explored further. Mougiakakou et al. (2011) assessed the telehealth platforms in 17 pilot locations in Greece, Cyprus and Italy, including rural areas. Their study indicated that the telehealth platform application was feasible and generally well-functioning, although connection failure happened for “ambulance/emergency” which rated 10% of the time.

Further evidence that supports the feasibility of the tele-emergency model is contained in a study by Rushworth et al. (2014), which assessed the implementation of remote triage, based on e-transmission of ECGs in Highland Scotland. This study indicates that a triage emergency is feasible to be implemented in a variety of geographical locations. This study also supports the idea that telehealth could reinforce health service coverage in areas which are geographically far from the hub hospitals (World Health Organization, 2010).

**b) Reliability of assessment and clinical decision making using telehealth in emergency care**

The reliability of tele-emergency implementation could be assessed by several approaches. One possible approach is carry out a reliability evaluation between direct bedside assessment and remote assessment using the telehealth model. Several studies have investigated this approach and the results indicate that there is an excellent inter-rater agreement between the assessments from specialists in the hub and clinicians in the local emergency departments, which means telehealth is reliable for use in emergency assessments (Van Hooff et al., 2013; Wu et al., 2014; Yperzeeele et al., 2014).

An example of research supporting the reliability of remote assessment via telehealth is the study carried out by Demaerschalk et al. (2012) in which videoconferencing using smartphones is reliable for telehealth National Institute of Health Stroke Scale (NIHSS) assessment. Another study conducted by Meyer et al. (2008) however, indicates that telehealth with NIHSS could achieve 67% agreement and 82% agreement with modified NIHSS (mNIHSS). This study implies that the assessment method may influence the level of reliability of telehealth intervention, and it may also suggest, particularly for acute stroke management, that mNIHSS may be chosen as the first alternative for stroke assessment via telehealth.

The reliability may also be evaluated from assessment results or clinical decisions made pre-hospital with telehealth, compare to in-hospital. For example, a study conducted by Yperzeele et al. (2014) indicated that pre-hospital diagnosis by telehealth decided by a clinician in an ambulance, together with a specialist in the hub, achieved 90.2% agreement, with a final diagnosis being decided by a specialist in hospital. Additionally, Demaerschalk et al. (2010) suggest that there was an excellent inter-rater agreement between a vascular neurologist nurse practitioner (VN-NP) and vascular neurologist assessments for NIHSS scores, diagnosis, head CT
interpretation, and overall thrombolysis eligibility.

Taken together, these studies’ results suggest that tele-emergency is feasible and reliable; however, several factors may be needed to be considered for in improving the quality of tele-emergency itself.

4.1.2 Time and cost effectiveness of tele-emergency

a) Time effectiveness

One factor which is a relative concern, regarding the efficacy of telehealth application in an emergency care situation, is time effectiveness. This worry may be because time is one of the most significant factors in emergency management and most of emergency and acute cases need short-time, rapid decision making. A qualitative study conducted by N. Moloczij et al. (2015) indicates that rural nurses and physicians consider teleconsultation in emergency department/situations as time consuming, thus they suggest that the tele-emergency system needs to be streamlined, to make it more effective and efficient. The telehealth system in an emergency department designed appropriately, and supported by suitable technologies, may function efficiently thereby enabling effective patient management (Switzer et al., 2009). Switzer et al. (2009) further explain that an effective telehealth system will be likely to reduce the time interval from onset of signs and symptom to initial treatment. For example, in an acute stroke management situation, time is really critical; usually indicated as “time is brain”. In such a case telehealth will be likely to significantly reduce the time needed for stroke management, as compared to the time needed to transfer patients from rural emergency clinics to hub hospitals.

Time effectiveness in tele-emergencies can be illustrated briefly by Wu et al. (2014) whose data suggest assessment guided by teleconsultation takes an average of 13.9 minutes during transfer by ambulance. It takes roughly 24.9 minutes based on a study conducted by Bergrath et al.(2013). The differences of average time from these studies may be caused by the variations of the emergency cases from both studies. Wu et al. (2014) focused only on acute stroke patients while Bergrath et al. (2013) studied emergency cases in general, including cardiac arrest, circulatory emergency, respiratory emergency, trauma and other emergencies; thus, the duration of the teleconsultations may differ, based on the complexity of each case.

Telehealth enables rural emergency clinicians to be guided by specialists from hub hospitals, in patient case management, without necessarily transferring the patient to the hub hospital. Less than 30 minutes teleconsultation, via telehealth technology, is definitely shorter than the average time needed to transfer patients to hub hospitals; particularly because the distances between rural hospitals and hub hospitals are often both great and challenging. Thus, telehealth appears to be time effective, since clinicians could be guided by specialists via the telehealth system, and patients could be treated directly; which means telehealth could significantly reduce the need for prolonged patients’ treatment (Bergrath et al., 2013; Mueller et al., 2014).
b) Cost effectiveness

One indicator to demonstrate that the tele-emergency concept is cost effective could be the cost saving resulting from the avoidance of unnecessary transfers of patients from outlying to hub hospitals. Wadhwani (2015) conducted a year-long pre-post study to evaluate the impact of a teleconsultation centre (TCC) in supporting 12 rural districts in Ghana. One of the results showed that TCC support could avoid 37% of unnecessary transfers, and for each avoided referral, Ghana could save roughly 31 USD. Although this study did not explain how the saving prediction per avoided transfer was calculated, it was a first attempt to illustrate the cost effectiveness aspect of a telehealth programme.

Another study conducted by Switzer et al. (2013) indicates that telestroke networks were cost effective for both hub and spoke hospitals. They studied the costs and effectiveness of a telestroke network over a 5-year time horizon, compared to the situation without the telestroke network. Their study suggested that an average saving as a result of the telestroke network each year is roughly $360,000, while a spoke hospital and a hub hospital may save approximately $110,000 and $410,000 every year, respectively. Although this study only investigated the topic of telestroke, it offers supportive evidence that the tele-emergency concept seems to be a cost effective one. As the study evaluated acute stroke management, thus it may have a lot of similarities with other acute case-management scenarios in emergency departments.

4.2 Implication of Tele-Emergency

4.2.1 Tele-emergency implication on clinical decision making and emergency case management

Tele-emergency appears to be an innovative solution to support clinicians in rural and remote areas in formulating clinical decision, particularly in emergency and/or complex cases. Telehealth enables rural emergency clinicians in spoke hospitals or clinics, to consult with specialists in the hub hospitals (Herrington et al., 2013; Moloczij, 2015; N. Moloczij et al., 2015). Telehealth supports clinicians in deciding a diagnosis (94%) and in administrating the delegation of treatments, which was 60% of the total consultations (Bergrath et al., 2013).

Tele-emergency enables consultations between rural clinicians and specialist to become more efficient; which may lead to making the clinical decision making process more effective. However, the tele-emergency system needs to be streamlined and effective (N. Moloczij et al., 2015). The tele-emergency system (TES) may simplify clinical advice and coordination pathways, which used to be complex; a complexity considered as a burden for rural health services, especially those with restricted staffing (Herrington et al., 2013). Telehealth enables the process of consultation with hub-based specialists to become simpler, more effective and efficient (Jeffrey A. Switzer et al., 2009; Bergrath et al., 2013) The consultation process only needs a telephone call to specialists at the hub for urgent cases; next the specialists could examine patients via video camera with further assistance from rural clinicians.
Following that, the TES specialists could suggest both diagnosis and treatment for the rural clinicians’ patients. Thus, this process could minimise patient transfer, which was used for consultation with specialists only (Herrington et al., 2013). In addition, in particular circumstances that nurses and paramedics are not allowed to administer specific medicines without a physician’s direction, the telehealth system can prevent delayed treatments, as nurses could receive the physician’s prescription advice via the telehealth system. This system enables rapid treatments to be carried out without violating the law (Bergrath et al., 2013).

Telehealth consultation has an impact on clinical decision making and it leads to the reduction of unnecessary patient transfers from rural hospitals to central hospitals, because emergency cases are now becoming locally manageable. A study conducted by Saurman et al. (2013) revealed that patient transfer fell by 28% during the three year implementation of a rural emergency telepsychiatry programme. Their study explains that the telepsychiatry programme enabled rural nurses to consult via telephone with psychiatrists in the hub hospital and, if it were considered necessary, patients would further be assessed by psychiatrists via a video-conference. Their study indicates around 71% of emergency mental health patients’ cases were decided as outpatient care, without the need to be transferred to a mental health inpatient unit (MHIPU). This is because after being assessed patients were able to be cared for locally, in the community, with support from the local hospital. Kulshrestha et al. (2010) and Mueller et al. (2014) also support that telehealth enhances the scope of emergency care in rural areas, and it may lead to the prevention of unnecessary transfers of patients.

Telehealth may support rural health care professionals in clinical decision making process by enhancing their confidence, especially when managing patients with complex conditions. Herrington et al. (2013) indicate TES may also be of benefit for nurses, as anecdotal evidence suggests that ETS improves nurses’ confidence to manage patients appropriately if they are backed by specialist support. However, Herrington et al. (2013) only offers weak anecdotal evidence. Another study, which supports the suggestion that telehealth could improve clinicians’ confidence levels, is qualitative explorative research by Trondsen et al. (2014). Their study suggests that telehealth, using a video-conferencing system, could enhance rural nurses’ and psychiatrists’ confidence in dealing with emergency challenging situations in several ways, including by reducing uncertainty, by sharing responsibility for clinical decisions, and by functioning as a safety net. First, video-conferencing enables a psychiatrist to assess a patient’s condition “directly”; thus they could make well-considered decisions, which previously would have only been based on the descriptions of the patient’s condition, provided by nurses via the telephone. Second, video-conferencing enables nurses and psychiatrists to share responsibility in patient management. The teleconsultation seems to be a great support for rural nurses in managing challenging situations,
because it may reduce the nurses’ feeling that they have to be fully responsible for the complex situation, without receiving any support. Third, the opportunity for nurses to consult with specialists via video-conferencing may become a safety net, especially during times when fewer healthcare staff are available. At such times they still can reach psychiatric support via the telehealth system.

Trondsen et al. (2014) may support the presence of clinicians’ confidence in patient management with stronger evidence than Herrington et al. (2013). However, a study using an ethnography approach could probably supply better evidence, since the confidence of nurses and physicians in the clinical decision making process and patient management, would not only be gathered from their statements in interviews, but could also be observed from their performances during patient management, by the use of the telehealth system.

Interestingly, clinicians’ attitudes towards telehealth may vary and those attitudes are probably influenced by their levels of confidence in clinical decision making. A qualitative thematic analysis conducted by Moloczij et al. (2015) indicates the neurological advice through telemedicine, was considered as a significant asset by junior physicians and less experienced rural/remote clinicians. On the other hand, senior physicians thought that neurological advice was unnecessary, especially when it was regarding thrombolytic treatment for stroke.

Another potential positive impact of tele-emergency implementation in rural sites is that patients with complex conditions, who therefore need specialist supervision, could remain to be cared for via patient-centred care management in their local rural hospitals. Mueller et al. (2014) suggest telehealth enables rural emergency hospitals to improve their patient management capacity due to continuous support from specialists from the hub hospital. Patients with challenging conditions could still be managed in rural hospitals, which are more likely to use a patient-centred care approach than are the hub hospitals. Also, staying in rural hospitals means patients could still stay near their families, another important factor supporting patient-centred care. However, the limitation of the study by Mueller et al. (2014) is that their finding was only supported by interviews with rural clinicians.

In terms of expert involvement, an experienced and well trained nurse may also become a consultant for rural clinicians using telehealth. Saurman et al. (2011) illustrate this point in their research, where they evaluated a mental health emergency-care, rural-access project (MHEC). Their study indicated 40% of video assessments were conducted by specialists and 60% of them were conducted by well-trained mental health nurses. However, Saurman et al. (2011) did not fully explain why mental health nurses delivered a greater proportion of video assessments, compared to psychiatrists. This outcome may be due to the nurses being more reachable in the MHEC hub; thus they could be more easily contacted by ED staff in the spoke hospitals.
4.2.2 Tele-emergency association on patient safety

Patient safety is one of key indicators that need to be considered in tele-emergency implementation. The tele-emergency concept may improve the quality of patient management, which also means increases in accurate decision making, including diagnosis and treatments, hopefully leading to the improvement of patient safety. Demaerschalk et al. (2010) demonstrated that the partnership between VN-NP and specialists, through tele-emergency, resulted in accurate diagnoses and effective treatments for patients. Similarly, Schwamm et al. (2009) indicate that acute stroke patients could be treated timely and accurately in rural hospitals. Clinicians in spoke hospitals, who may be less familiar with the initial patient characteristics of those who need rapid thrombolysis therapy, can be supported by specialists in the hub hospital who can assess patients via video-conferencing. In addition, Martínez-Fernández et al. (2015) also demonstrate that teleconsultation m-health could decrease incidents of maternal and child mortality. Therefore, it can be implied from the studies cited that tele-emergency services, which enable accurate, rapid and effective patient management, may lead to strengthening patient safety.

On the other hand, tele-emergency implementation, to some extent, may also contain a risk for patient safety. Wu et al. (2014) indicate that video-assessment during ambulance transportation may risk patient safety. They further explained that, while performing stroke assessment, guided by specialists through video-conferencing, clinicians needed to loosen the belt buckle on the stretcher securing the patient’s legs, in order to test leg strength and ataxia. However, based on emergency medical transport standards, this buckle needs to be fastened during transfer by vehicle, for the patient’s safety. This study demonstrates that intervention during a tele-emergency may create a patient’s safety-related risk. However, Bergrath et al. (2013) in their study, demonstrated that there were no negative medical effects reported during implementation of the pre-hospital telehealth system during an ambulance emergency situation.

4.3 Potential Challenges And Facilitators for Tele-Emergency Implementation

4.3.1 Potential barriers/challenges of tele-emergency implementation

There are several identified factors which may become potential barriers to telehealth implementation.

First, technical issues may potentially become the major challenges for telehealth implementation in emergency situations. Several studies have investigated the technical factors which may influence telehealth application. Limited internet connectivity and low bandwidth capacity are two factors that may become barriers to telehealth usage (Audebert, 2006; Medeiros de Bustos et al., 2009; Liman et al., 2012; Yperzeele et al., 2014). Furthermore, connection timing may also influence the quality of telehealth technologies’ performances. Yperzeele et al. (2014) demonstrate that video-conference failure, caused by signal loss, mostly occurred during office hours. This
connectivity problem may be the result of high competition with other internet users during office hours. This problem, however, could be minimised by using the latest generation of internet technology. Telehealth, by using 4G, could achieve a more than 80% success rate, if free from technical issues (Van Hooff et al., 2013; Wu et al., 2014); as compared to only 40% success for telehealth systems which use 3G technology (Liman et al., 2012).

Second, a lack of abilities and skills of the users who are trying to operate a telehealth system may also become a potential challenge. Yperzeele et al. (2014) indicate that human error is one of the most influential factors which may cause a failure in telehealth. The more complex the technologies that are used in telehealth, the more advanced are the skills needed to operate that technology. Random survey to 5000 family physicians (FPs) in US resulted only 15% of FPs used telehealth in a year and 54% of them reported lack of telehealth training (Moore et al., 2016). However, this challenge seems to be manageable; thus being trained to effectively and confidently use the technology may reduce and eliminate this burden. Conducted study on 130 nurses regarding training prior telehealth implementation, their research shows that 100% of nurses demonstrated improvement on their level of competences in using telehealth system after completed 2 months of telehealth training supported with user manual and regular practice (Brebner et al., 2003).

Third, another potential challenge for tele-emergency consultation is the presence or lack of “trust” between clinicians in the spoke hospitals and the hub hospitals’ specialists. Moloczij et al. (2015) demonstrated that rural clinicians may feel more confident to accept e-advice from recognisable specialists, as their competence and abilities will be familiar to the rural clinicians. Additionally, it is possible the specialists at the hub may not “trust” rural clinicians to assist them in performing video-assessments. Therefore, it seems to be important to make clinicians in spoke hospitals familiar with specialists from the hub hospitals by providing those clinicians with general details of the specialists’ professional backgrounds. Furthermore, Schwamm et al. (2009) illustrates that continuing education and training have contributed to the development of clinicians’ skills needed for assessing and delivering patient care.

4.3.2 Potential facilitator of tele-emergency implementation

users’ knowledge and skill in particular areas of speciality, and in operating telehealth technology, may enhance the effectiveness of telehealth programme implementation. Clinicians recognise the importance of knowledge and experience about telemedicine technology, so they could utilise telemedicine services effectively (N. Moloczij et al., 2015). Similarly, Wu et al. (2014) also illustrates that experienced specialists in the hub enabled highly efficient teleconsultations, although they were less experienced in assisting rural clinicians

4.4 Nursing Implications

Telehealth has implications for nursing practice in various ways. Telehealth may support rural nurse
practitioners with experts’ consultation, to help them to manage various emergency cases including acute stroke, psychiatric emergency, cardiac emergency, respiratory emergency and others (Demaerschalk et al., 2010; Saurman et al., 2011; Ward et al., 2015). In addition, the opportunity of nurses to consult with specialists over challenging cases, may improve their understanding and skills regarding clinical assessment, interventions and other skills which they might acquire during the consultation process (Moffatt and Eley, 2010).

Switzer et al. (2015) suggest that management by a nurse coordinator has positive implications for patient management, when using a telehealth system. Their study demonstrated that the spoke hospitals, with nurse coordinator support, showed higher thrombolysis therapy supported by the telehealth system, compared to those without nurse coordinators. They further explain that this may be due to a successful patient management algorithm and consultation system, implemented via a telehealth system working well under the supervision of nurse coordinators. The coordinators may try to ensure that all of the health care personnel in their team could understand and participate well in the telehealth system and its use.

5. CONCLUSION

The body of literature has been examined and critically reviewed, and it indicates that telehealth appears to be a feasible and reliable system, which could potentially be used for emergency care management in rural or remote areas. Telehealth is considered as a simple, effective and efficient system, which is both cost and time effective. The implementation of a telehealth system for use in emergency care seems to contribute positively to patient management and clinical decision making. A telehealth system may prevent unnecessary patient transfers, positively affect patient safety and enable patient-centred care implementation. Additionally, telehealth may have implication for healthcare professionals, as it may enhance clinicians’ confidence to make clinical decisions regarding patients with challenging conditions.

Several potential barriers and facilitators of telehealth’s application in rural emergency care situations have been identified, including technical issues, clinicians’ knowledge and skills, and levels of “trust” between clinicians and consultants. These factors could potentially be managed in order to improve the quality of tele-emergency systems and usage.

Telehealth implementation in emergency care may have implications for nursing practice in several ways, including enabling specialist consultation, by up-skilling nurses to be able to offer competent teleconsultations and by supporting the nurses’ roles as coordinators.

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CRAFTING AS A TOOL FOR ENHANCING LIFE SATISFACTION AND SELF-WORTH ON FILIPINO ELDERLY


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ABSTRACT

Background: Self-esteem is an important aspect of the adaptive processes especially in older adults. It is linked to the well-being, quality adaptation, life satisfaction and health including physical and cognitive decline. The purpose of the study was to determine crafting as a tool for enhancing life satisfaction and self-worth on Filipino elderly. This is important because elderly are often left alone doing nothing and with crafting there is a possibility of enhancing their life satisfaction and self-worth.

Methods: This experimental study utilized the one group pretest-posttest design which involves pre-test and post-test. The experimental group were expose to the independent variable (administering of crafting) being tested and the changes observed and recorded. The respondents in the study were thirty elderly in Bulacan wherein they were being taught to make crafts. The researchers employed a self-construct survey questionnaire in the form of closed ended Likert Scaling.

Results: Findings shows that the pretest and post test of the experimental group with regards to self worth revealed changes in their answer. Prior to craft making, they disagree with the statement given with regards to self worth. However, after the craft making the elderly respondents already agree with the statements given. This shows that there was an improvement in their perception with regards to self worth. On the other hand, the pretest and post test of the experimental group with regards to life satisfaction it also revealed a big difference. Data were analyzed using t-test.

Conclusion: Prior to craft making, they disagree with the statement given with regards to life satisfaction. However, after the craft making the elderly respondents strongly agree towards improvement in their perspective when it comes to crafting and their self-worth and life satisfaction. This shows that the respondents had improved their perception with regards to life satisfaction due to their experiencing in doing craft. Finally, it can be concluded that there is a significant difference on the comparison of Experimental group before craft making and after craft making in terms of self-worth.

Keywords: craft, creativity, craft making, art, self-esteem, self-worth, life satisfaction, senior citizen, elderly.
1.0 INTRODUCTION

Most Senior's has been enjoying crafting as their pastime. It's in their retirement years that they discovered the rewards of crafting. Some seniors with physical and mental limitations that accompany aging has difficulty enjoying certain crafts, regardless if they were just introduced into crafting or has been doing it already for years. There are different types of crafting that senior's didn't realize they would enjoy learning. There are many easy crafts for seniors that allow those with limited dexterity, low vision and other physical or mental limitations to enjoy the creativity and feeling of accomplishment that crafting provides (Hurley, 2016).

Self-esteem is an important aspect of the adaptive processes at all stages of life, especially in older adults. It is linked to the well-being, quality adaptation, life satisfaction and health. Self-esteem is not related to chronological age, but to the people's quality of social integration and adaptive capacities to cope with life events, including physical and cognitive decline. Thus the aging process does not necessarily result in self-esteem decrease, regardless of the decline in many areas of mental activity. Measures of the self-esteem and interpretation of the pertaining results vary according to various theoretical models. However, the socio cognitive strategies at play for maintaining a high level of self-esteem should be stressed. Social psychology has shown the importance of the Others in such a regulation through group belonging, or psychological processes such as social comparison or causal attribution. Such a perspective underlines the importance of social and institutional environment for the regulation of a positive self-value and hence the interest of taking into account the self-esteem construct while taking with older adults (Alaphillipe, 2008).

The research gap of the present study shows that although in the Philippines there are plenty elderly people or senior citizens, but there are no enough homes for the aged wherein elders are being taught many activities unlike in other countries particularly in the United States wherein older people are being sent to nursing homes or home for the aged and there different activities are being taught to them. This is why most elderly abroad are satisfied and has self worth because they are being taken cared.

The purpose of the study is to determine crafting as a tool for enhancing life satisfaction and self-worth on Filipino elderly. This is important because elderly are often left alone doing nothing and with crafting there is a possibility of enhancing their life satisfaction and self-worth.

2.0 LITERATURE REVIEW

2.1 Theoretical Framework

This study is anchored on the theory of Dorothea Orem's Self Care theory. It is “The act of assisting others in the provision and management of self-care to maintain or improve human functioning at home level of effectiveness.” It focuses on each individual’s ability to perform self-care, defined as “the practice of activities that individuals initiate and perform on their own behalf in maintaining life, health, and well-being.” There are instances wherein patients are encouraged to bring out the best in them
despite being ill for a period of time. This is very particular in rehabilitation settings, in which patients are entitled to be more independent after being cared for by physicians and nurses. Through these, the Self-Care Nursing Theory or the Orem Model of Nursing was developed by Dorothea Orem between 1959 and 2001. It is considered a grand nursing theory, which means the theory, covers a broad scope with general concepts that can be applied to all instances of nursing. (Wayne, 2014).

Older people need to be initiated and perform on their own behalf in maintaining life, health and well-being. If they can achieve all of these through crafting then they can have life satisfaction, longevity and most important self esteem because despite their age they can still bring the best in them. Self-care is the performance or practice of activities that individuals initiate and perform on their own behalf to maintain life, health and well-being.

2.2 Variable Discussion
2.2.1 Elderly

According to the National Statistics Coordinating Board (NSCB), the senior citizen sector in the country (60 or older) comprises 3.83 percent of our population, and is expected to increase to 10.25 percent by 2025 (Braid, 2015).

There are varying answers to the question “what is a good life?” or “what is a quality life?” in the context of the elderly. However what is common to literature is the answer goes beyond long life spans (thereby relating it to good health) and financial security, although these are also critical components. As observed by Alesii et al. (2006), current elderly quality of life measurements are more multi-dimensional, integrative of subjective measures, culturally sensitive and more nuanced to the elderly person’s or group’ s life circumstances such as level of relationships or physical abilities (in contrast to a generalized approach). According to Jacobson & Rosales (2010), it is beginning to become a trend for some Filipinos to just dump their parents in a nursing home. Traditionally, Filipino parents count on their children to care for them in their old age. But for Filipino elderly in the United States, where that’s less of the norm, what will become of them when they can no longer completely care for themselves has become a major concern. Filipino senior citizens worry about who will take care of them in their old age as younger generations become more westernized and less involved in their parents’ or grandparents’ lives, according to Dr. Rufino Crisostomo, a doctor who works for the Chicago Department of Health and is actively involved with the Filipino American Council of Chicago (FACC) at the Jose Rizal Heritage Center.

2.2.2 Crafting in Elderly

Aging continues to be an important topic of study. For many older adults, the elder years can be a challenging, if not difficult, time. Creativity interventions have been shown to positively affect mental and physiological health indicators. The process of creating and one’s attitude toward life may be more important than the actual product or tangible outcome. While many activities are those typically thought of as creative, such as painting, there are also a number of useful interventions that are not
traditionally identified as creative ones, but that are, in fact, creative activities (Flood and Phillips, 2007).

For seniors, there are different types of activities to help maintain and improve their cognitive skills. Most of them involve everyday activities, other mind-challenging activities include playing games, solving puzzles and making crafts. There are excellent ways for elderly individuals to keep their brains active and alert like learning a new hobby or taking up a craft. These activities stimulate the brain cells and often provide interaction with others. An elderly person will have a sense of positive self-esteem and enjoyment if they find something that interest them. Many of these activities also help the elderly to maintain eye and hand coordination and fine motor skills. These activities engage and stimulate the brain even more by sending it electrical impulses that signal pleasure from the activity (Hurley, 2016).

2.2.3 Benefits in Crafting

Crafting is beneficial on many levels to all different age groups, and it’s especially important to let seniors participate in craft projects. Crafts can be simple or more complex depending on the person’s skill level, and abilities. Grandparents can even make crafts with their grandchildren, which foster a unique and special bond during crafting time. Crafting also builds self-esteem, and reduces the stress levels of its participants. Keeping the mind sharp, and fingers nimble is an important part of an caring for an older individual. It’s estimated that over 62.5 million people in the US alone do some kind of craft projects (Jolley, 2015).

Creating things, like pottery, or painting, engage the elderly both cognitively and psychologically. Cognitively, they are utilizing a part of their brain that they probably wouldn’t ordinarily. Exercising the brain is as important to keeping the brain alert and strong as physical exercise is important to keeping the body strong and able. Psychologically, the benefits of creating things is fulfilling and gives people a sense of worth and contribution; creating gives people a more positive outlook on life, and as we age, having the a negative outlook can cause mental and physical deterioration. Writing and creating music, among other things, are great ways for the elderly to express themselves and contribute what they have to offer to their peers and the world. Like with creative physical creations, writing and music are very beneficial to the elderly’s cognitive health. It is especially beneficial if the elderly are learning as they write or are learning to play a new instrument; learning to do something new engages and exercises the brain, ultimately promoting its health (Paley, 2011).

One benefit of crafting among elderly is elevating depression of seniors which demonstrated in the study of Campbell (1992 cited by Flood and Philipps, 2007) that the group that received crafts instruction experienced a decrease in their level of depression, from an average score of 72 to one of 68, suggesting mild to severe depression. While Campbell’s study showed promise for the use of journals in the elderly, several things must be considered. The journaling, individual therapy, or a combination of these things might have
been responsible for the reduced depression. Since individual therapy also emphasized self-esteem enhancement, self-esteem interventions could have influenced participants’ depression. An interesting outcome was the reduction in depression scores for the crafts group. It is possible that enhanced creativity occurred and affected depression scores in this group.

Creating is beneficial for a number of reasons; one being that it allows you to become fully immersed in the moment to the extent that your worries fade away. A significant number of knitters and crocheters do so because it offers stress relief, and this isn't only due to prompting flow or triggering your relaxation response. Crafting also activates your brain's reward centers to release dopamine, a neurotransmitter that's sometimes described as a "natural antidepressant" (Mercola, 2014).

2.2.4 Art Therapy

According to Wells, et al. (2014), art therapy is a form of treatment that encourages people to express their feelings using art materials, such as paints, chalk or pencils. In art therapy, the person works with a therapist, who combines other techniques with drawing, painting or other types of art work, and often focuses on the emotional qualities of the different art materials. Craft groups, based around activities such as knitting, needlecraft or other handicrafts, can provide a supportive setting for social contact and enjoyment. Craft groups are less structured than art therapy and rely on social contact and the sense of achievement that comes through using well-learnt skills to make something attractive or useful. Art therapy and craft groups have not been properly evaluated in well-designed studies, and most reports are case studies. However, the limited evidence available indicates that arts and craft may be beneficial and appropriate interventions for older people with depression and potentially useful for those with dementia.

2.2.5 Self-Worth

According to Osborne (2014), one of the hidden benefits that many elders have is that, even when they are having trouble with short-term memory, their long-term memories are usually intact for a much longer time. Short term and long term memories are stored in different areas of the brain. Diseases that impair one may not affect the other. Alzheimer’s disease, for example, begins in the areas of the brain where short-term memories are created and held. The key is to connect the past to the present and the future: good experiences and bad, victories and regrets. Help them to determine what they learned from those incidents, those memories. How did that apply to them and their families in the present, and what impact do they think they have had on the future. In a society that celebrates eternal youth, a renewed appreciation of wisdom and experience can help older people cope with loss and depression.

Orth, et al. (2010) said that self-esteem rises steadily as people age but starts declining around the time of retirement, according to a longitudinal study of men and women ranging in age from 25 to 104. Self-esteem is related to better health, less criminal behavior, lower levels of depression and, overall, greater success in life. Therefore, it’s important to learn more about how the average
person’s self-esteem changes over time. Self-esteem was lowest among young adults but increased throughout adulthood, peaking at age 60, before it started to decline.

2.2.6 Self-esteem

Sargent et al. (2006 cited from Rosenberg, 1965) defined self-esteem as a global judgment about the worth or value of the self. Low self-esteem may predispose people to negative affect because it is associated with the cognitive triad of negative beliefs about the self, the world, and the future.

However, Botek (2016) stated that confidence that is supported by high self-esteem has long been touted as a vital component of living a happy life and having fulfilling interpersonal relationships. But a positive sense of self-worth may also stave off some of the negative effects of aging, according to two new studies. Improving self-esteem provides a real health benefit in seniors says Sarah Liu, a doctoral candidate from Concordia University. Liu and her colleagues found that lower self-esteem led to increased cortisol levels in older men and women, leading them to conclude that high self-esteem could possibly provide elders with a barrier against the negative health effects of high amounts of cortisol.

2.2.7 Elderly Satisfaction

Wells, et al. (2014) defines emotional wellbeing that includes satisfaction, optimism, self-esteem, mastery and feeling in control, having a purpose in life, and a sense of belonging and support.

It is important to determine the current state of well-being among elderly Filipino specifically their life satisfaction since the elderly population in the Philippines is steadily increasing in the past decade. As of the latest NSCB figures, the elderly dependent population (aged 60 and older) comprises 3.83 percent of the population; by 2025 it is expected that the elderly will be 10.25 percent of the population. The implications of this on Philippine development are significant, specifically on social welfare dimensions. An important point in this regard is the quality of life of the elderly i.e., beyond ensuring their basic survival needs of food and health, an enabling environment should be nurtured by way of support services and opportunities for senior citizens to continue their self-development and to contribute to community and national development (De Leon, 2014).

According to Britiller, et al. (2013), life satisfaction is an outlook toward one’s own life; it may be a reflection of feelings about the past, present and future. It is an overall assessment of feelings and attitudes about one’s life at particular point in time ranging from negative to positive. Life satisfaction of older adults greatly depends on the condition of their health, emotion and sexuality along with their previous occupation and although age related changes are inevitable, most problems affecting older adults are influenced by many internal and external risk factors. Adults in retirement age who are female, married, Roman Catholic and have an average monthly income from previous occupation are most likely to be moderately satisfied with their life. Adults in retirement age are satisfied with their life if they can control things which are
important to them, if they have a stimulating sexual life, contented in their romantic life and if they can continue to set new professional goals for themselves. Civil status and economic status are significant factors in one’s life satisfaction.

Blace (2012) explained that the older people who have better health status enjoy their lives more than those who have poor health conditions. After reaching the age of sixty, the older people are still capable of working and be active participants in the labor sector. The results have theoretical implications on the activity theory of aging since high levels of participation in the activities mean high levels of life satisfaction. Out of 780 older people through survey interview, Instrumental Activities of Daily Living Scale and Life Satisfaction Index for the Third Age Scale it revealed that the functional ability, participation in physical activities and activities with formal support networks are statistically significant predictors of life satisfaction among the older people. These variables, when combined explain a statistically significant portion (23.7%) of the variance in their life satisfaction.

2.2.8 Research Simulacrum

Figure 1 shows the hypothesized effect of crafting (arko-making) on the self-worth and life satisfaction of the Filipino elderly residing at Marilao, Bulacan.

2.2.9 Hypotheses

Ho1: There is no significant difference in the life satisfaction scores of the elderly before and after the craft making program
Ho2: There is no significant difference in the self-worth scores of the Filipino elderly before and after the craft making program

3.0 RESEARCH METHOD

The present study utilized the one group pretest-posttest design which involves pre-test and post-test. This involves selecting groups, upon which a variable is tested without any random pre-selection process. This design consisted of experimental group. The experimental group were expose to the independent variable (administering of crafting) being tested and the changes observed and recorded.

The study was conducted in an institution for elderly in Marilao, Bulacan wherein the elders are being taught to make crafts. This was the appropriate locale of the study since the respondents are all from the province of Bulacan and it will be convenient for the researchers.

The target respondents in the study were ten (10) elderly in the province of Bulacan. The group was ten (10) respondents which represent the experimental group. Purposive sampling technique was utilized in this kind of research. Purposive sampling technique is a type of non-probability sampling technique. Non-probability sampling focuses on sampling techniques where the units that are investigated are based on the judgments of the researchers. The researchers set the following criteria as the
bases for selecting ten (10) respondents of the study: Respondents must be a). 60 years old & above, b). Physically and psychologically stable (can understand and follow simple instructions, c). Presently making crafts under an institution in the province of Bulacan and c). willing to participate in the study.

Excluded from the study are elderly people with disabilities like poor hearing and poor eye sight.

The researchers did not fabricate or falsify data on other publications. Ethical research does not present the work of others as her own, or do not fail to give appropriate credit for the work of others through citations.

In addition, as mentioned by Koosgaard (2004), autonomy will also be observed because autonomy means freedom from external authority. In moral and political philosophy, autonomy is often used as the basis for determining moral responsibility for one's actions. This means that the respondents shall voluntarily participate in the research and he/she should be aware of the consequences of his/her participation. The respondent has a right to fully know the purpose of the study and the research procedure and they must give their consent willingly before gathering any data. They also have the right not to answer some questions they do not like and the researchers should respect whatever decision shall be made by them.

According to Haidth and Graham (2007), the research will be conducted in accordance with a specific ethic of respect because respect denotes both a positive feeling of esteem for a person and also specific actions and conduct representative of that esteem. Respect can be a specific feeling of regard for the actual qualities of the one respected. The researchers respect the judgment of the informants. This means that the researches should respect the rights of the respondents. If they do not like to answer some of the queries, the researchers should respect the decision of the respondents.

Research Instruments

The researchers employed a self-construct survey questionnaire as the data gathering tool which was constructed and subjected for content validation by a person expert from the field to ensure the correctness and completeness of the questions created, the perception of the respondents will be explored. The survey questionnaire was in the form of closed ended Likert Scaling. In addition, the survey questionnaire in the study was validated by the researchers’ adviser and two professors who were experts in the field of nursing.

Data Collection

In order for the researchers to gather important data needed for the completion of the research the following steps were done: First the researchers secured a letter of permission from the person of authority to conduct the study. When the permission was secured from the key personnel, selection of participants followed. After selecting the participants, schedules of distribution of research instrument was plotted and asked the participants ahead of time. The researchers were present during the distribution of questionnaire so that the researchers can answer the participants in case of inquiries occur.
For the actual study, the researchers introduced themselves to the elderly to develop a good rapport. At that time, the researchers also informed them about the study, and when they agreed to participate, they signed a written form of consent. On the second visit, the elderly were then asked for their demographic data which they filled up. The questionnaire was filled up prior to the administration of crafting. On the same day the experimental group was given materials to start the crafting which is a “Wooden Arc”. Crafting was done for four days that we agreed with the elderly for them to make craft and for us to visit within two weeks, elderly came to the institution to make the craft. For the record, it shows that the ten (10) elderly stays in the institution for about 3 to 4 hours to continue doing the craft.

After the “Wooden Arc” was finished, the same questionnaire was administered to the elderly. The purpose of this was to see and compare if crafting as a tool enhanced the life satisfaction and self-worth of the Filipino elderly.

Data Analysis

Data were analyzed using SPSS version 21. For demographic profile frequency-percentage was utilized. T-test was used in determining presence of statistical difference between pretest and post-test of the experimental group.

4.0 RESULTS

4.1 Demographic Profile

Table 1 shows the age of the respondents. Out of ten (10) respondents, 4 or 40% belong to 60-63 years old, 3 or 30% belong to 64-66 years old and also 3 or 30% belong to 67 and above years old.

All of the respondents are male and are married.

Table 1 Demographic Profile of the respondents (n=10)

<table>
<thead>
<tr>
<th>Age</th>
<th>Experimental Group</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>60-63</td>
<td></td>
<td>4</td>
<td>40%</td>
</tr>
<tr>
<td>64-66</td>
<td></td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>67 and above</td>
<td></td>
<td>3</td>
<td>30%</td>
</tr>
</tbody>
</table>

Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>10</td>
<td>100%</td>
</tr>
<tr>
<td>Female</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Civil Status

<table>
<thead>
<tr>
<th>Civil Status</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>10</td>
<td>100%</td>
</tr>
<tr>
<td>Single</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

4.2 Self-worth of the experimental group before and after crafting

Table 2 shows the pretest and posttest of the experimental group with regards to self-worth. For pretest eight statements were included in the category of self-worth. Ratings had changed after administering crafting to respondents. Self-esteem was build where the respondents had significant increase in the rating from weighted mean of 1.7 “Strongly Disagree” to 3.9 “Agree”. Also it is rated that by means of crafting respondents have a sound mind and body from a weighted mean of 1.7 “Strongly Disagree” to 3.5 “Agree”. The total weighted mean for pretest was 2.44 with a verbal interpretation of ‘Disagree’. And for posttest weighted mean was 3.58 with verbal interpretation of 3.58 “Agree”.

On the other hand, for posttest all of the eight (8) statements were rated ‘agree’ by the respondents. The total weighted mean was 3.58 with a verbal interpretation of ‘Agree’. This only shows...
that crafting has big impact on the self-worth of the elderly people.

Table 2 Experimental group pretest and posttest with regards to Self Worth

<table>
<thead>
<tr>
<th>Statement</th>
<th>Pretest WM</th>
<th>Pretest VI</th>
<th>Posttest WM</th>
<th>Posttest VI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Crafting builds my self-esteem (Ang crafting ay nagbibigay ng pagpapahalaga sa aking sarili)</td>
<td>1.7</td>
<td>Strongly Disagree</td>
<td>3.9</td>
<td>Agree</td>
</tr>
<tr>
<td>2. At times I think I am good at all (Sa lahat ng oras, pakirandam ko mabuti ako sa lahat)</td>
<td>3.0</td>
<td>Agree</td>
<td>3.7</td>
<td>Agree</td>
</tr>
<tr>
<td>3. I take a positive attitude toward myself (Positibo palagi ang nasa loobin ko)</td>
<td>3.0</td>
<td>Agree</td>
<td>3.6</td>
<td>Agree</td>
</tr>
<tr>
<td>4. Encourage me to connect to social circle (Hinihikayat sa akin upang magkaroon ng sa sosyal na samahan)</td>
<td>3.1</td>
<td>Agree</td>
<td>3.0</td>
<td>Agree</td>
</tr>
<tr>
<td>5. Involving in leisurely activities like crafting is less likely to develop dementia (Nagkakaroon ng nakakalibang na gawain tulad ng crafting na pwedeng hindi magka demensya)</td>
<td>2.0</td>
<td>Disagree</td>
<td>3.5</td>
<td>Agree</td>
</tr>
<tr>
<td>6. I feel proud of myself (Pakiramdam ko ay maipagmamalaki ko ang aking sarili)</td>
<td>2.9</td>
<td>Disagree</td>
<td>3.6</td>
<td>Agree</td>
</tr>
<tr>
<td>7. I am very productive at all times (Ako ay napaka-produktibong tao sa lahat ng oras)</td>
<td>2.8</td>
<td>Disagree</td>
<td>3.8</td>
<td>Agree</td>
</tr>
<tr>
<td>8. I have a sound body and mind because of crafting (Mayron akong malakas na katawan at malinaw na kaisisan dahil sa crafting)</td>
<td>1.7</td>
<td>Strongly Disagree</td>
<td>3.5</td>
<td>Agree</td>
</tr>
</tbody>
</table>

Total WM | 2.44 | Disagree | 3.58 | Agree |

Verbal Interpretation: (4) Strongly Agree 3.25-4.00; (3) Agree 2.50-3.24; (2) Disagree 1.75-2.49, (1) Strongly disagree 1.00-1.74

4.3 Life Satisfaction of the experimental group before and after crafting

Table below shows the pretest and posttest of the experimental group with regards to life satisfaction. Respondents had a higher change in rating regarding crafting that it can make them happier from a rating of pre-test with weighted mean of 1.7 “Strongly Disagree” to 3.9 “Strongly Agree”. Also statement regarding longevity had significant increase from weighted mean of 1.4 “Strongly Disagree” to 3.7 “Strongly Agree”. The total weighted mean for
pretest was 1.83 with verbal interpretation of ‘Disagree’. And total weighted mean for posttest was 3.69 “Strongly Agree”

On the other hand, for posttest all of the ten (10) statements were rated ‘Strongly Agree’ by the respondents. This only shows that the Life Satisfaction of the elderly respondents was changed for the better because of crafting.

Table 3 Experimental group pretest and posttest with regards to Life Satisfaction

<table>
<thead>
<tr>
<th>Statement</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WM</td>
<td>VI</td>
</tr>
<tr>
<td>1. Crafting as a whole is both a creative and productive outlet</td>
<td>1.9</td>
<td>Disagree</td>
</tr>
<tr>
<td>(Ang crafting ay parehas na creative at productive na pang palipas oras)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Crafting might be the key to everlasting life</td>
<td>1.9</td>
<td>Disagree</td>
</tr>
<tr>
<td>(Ang crafting ay pwedeng maging susi ng walang hanggang buhay)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Crafting enhances my dexterity and coordination</td>
<td>2.0</td>
<td>Disagree</td>
</tr>
<tr>
<td>(Crafting binabago aking kagalingan ng kamay at koordinasyon)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Crafting of all kinds undeniably as physical bonus</td>
<td>2.2</td>
<td>Disagree</td>
</tr>
<tr>
<td>(Ang crafting ay hindi nakapagtatakang bonus sa kalaksan ng katawan)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Crafting makes one happier</td>
<td>1.7</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>(Ang crafting ay nagbibigay ng saya)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. It is a relaxation, stress relief and creativity</td>
<td>2.1</td>
<td>Disagree</td>
</tr>
<tr>
<td>(Ito ay isang uri ng pag re relax, nakakawala ng stress at nagiging kreatibo)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Crafting helps us unwind</td>
<td>1.6</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>(Ang crafting ay nakakatulong sa pag re relax)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. The repetitive motion of crafting arko calms the state of our mind</td>
<td>2.0</td>
<td>Disagree</td>
</tr>
<tr>
<td>(Ang pauliut ulit na paglikha ng arko ay nagpapakalma ng kaispan)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. As you start doing crafts, your anxiety melts away as you focus your attention on the task of hand</td>
<td>2.0</td>
<td>Disagree</td>
</tr>
<tr>
<td>(Pagkaumpisa palang ng crafting nawawala na ang pagaalala dahil ang atensiyon ay nasa kamay na)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Crafting secret of longevity</td>
<td>1.4</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>(Ang crafting ay sekreto ng mahabang buhay)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.4 Significant difference between self-worth before and after the craft making program

Table 4 presents the comparison of Experimental group pretest and posttest in terms of self-worth. With p-value below 0.05, null hypothesis is rejected then there are significant differences on pretest and posttest in terms of self-worth. The mean values show that there has been a huge improvement in the mean self-worth when the treatment was applied. This improvement is significant at 0.05 α-level of significance.

Table 4 Significant difference between self-worth before and after the craft making program

<table>
<thead>
<tr>
<th>Interpretation</th>
<th>Mean</th>
<th>SD</th>
<th>F-value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group Pre-test</td>
<td>2.53</td>
<td>0.20</td>
<td>55.11</td>
<td>0.00</td>
</tr>
<tr>
<td>Experimental Group Post-test</td>
<td>3.58</td>
<td>0.36</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.5 Significant difference between life satisfaction before and after the craft making program

Table 5 presents the comparison of Experimental group pretest and posttest in terms of life satisfaction. The mean values show that there has been a huge improvement in the mean life satisfaction when the treatment was applied. This improvement is significant at 0.05 α-level of significance.

Table 5. Significant difference between life satisfaction before and after the craft making program

<table>
<thead>
<tr>
<th>Interpretation</th>
<th>Mean</th>
<th>SD</th>
<th>F-value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group Pre-test</td>
<td>1.87</td>
<td>0.17</td>
<td>133.67</td>
<td>0.00</td>
</tr>
<tr>
<td>Experimental Group Post-test</td>
<td>3.69</td>
<td>0.25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5.0 DISCUSSION

An Arch or “Arko” is an upward curved construction that has been used every year in a festival here in the Philippines that we adopted from the Spaniards during their colonization. The festival is called Santa Cruzan or Flores de Mayo which means “Flower of May” in Spanish. It has been used for a very long time all over the country. An “Arko” they used here are decorated with different kinds of designs and kinds flowers. In Bulacan, we found an institution where they specialize in making Bamboo Arch. We choose this location to conduct our research for that reason. The elderly respondents that we gathered are all married men with age ranges from sixty (60) and above. We wanted to know if there would be a difference in their self-worth and life satisfaction after we have them craft an “Arko” in elderly. They are all men for the reason that here in our country men usually do heavier and craftier job more than women. The “Arko” we had them make as part of our experiment it is more hands on crafting where it requires them to use a hammer and machete from the beginning of gathering material such as long bamboos also it require them to lift to designing and molding bamboos into “Arko”.

Orth, et al. (2010) said self-esteem is related to better health, less criminal behavior, lower levels of depression and, overall, greater success in life. After the administration of pretest posttest we gather regarding self-worth result finding showed an increase in terms of self-esteem from a pretest result of “Strongly Disagree” to an “Agree” that crafting builds their self-esteem. Also our respondents had a sound mind and body after the administration of crafting. Along with the other statements, this two are the statements that resulted in significant difference in result from a pretest to a posttest we administered.

Blace (2012) explained that the older people who have better health status enjoy their lives more than those who have poor health conditions. The two statements that our respondents in terms of life satisfaction that when crafting was done first was that it made them happier the result of their pre-test was “Strongly Disagree” and while doing crafting they had fun along with their the other respondents that resulted to a “Strongly Agree” result in the posttest. Secret of longevity also resulted from a pre-test of “Strongly Disagree” to a “Strongly Agree” the reason for these is that they feel healthier when they do activity such as crafting arko and they see it not just an activity but also an exercise that they would be needing for their age.

Botek (2016) stated that confidence that is supported by high self-esteem has long been touted as a vital component of living a happy life and having fulfilling interpersonal relationships. With regards to the comparison of Experimental group pretest and posttest in terms of self-worth, null hypothesis is rejected then there are significant differences on pretest and posttest in terms of self-worth. The mean values show that there has been a huge improvement in the mean self-worth when the treatment was applied.

Wells, et al. (2014) defines emotional wellbeing that includes satisfaction, optimism, self-esteem,
mastery and feeling in control, having a purpose in life, and a sense of belonging and support. With regards to the comparison of Experimental group pretest and posttest in terms of life satisfaction, null hypothesis is rejected then there are significant differences on pretest and posttest in terms of life satisfaction. Similar to the previous model, the mean values show that there has been a huge improvement in the mean life satisfaction when the treatment was applied.

6.0 CONCLUSION

I therefore conclude that the experiment done with our respondents with the age ranging from sixty and above had a significant improvement in their perspective when it comes to crafting and their self-worth and life satisfaction. It revealed that prior to craft making, they disagree with the statement given with regards to self-worth. However after the craft making, the elderly respondents already agree with the statements given. This shows that there was an improvement in their perception with regards to self-worth.

On the other hand, the pretest and posttest of the experimental group with regards to life satisfaction it revealed a big difference. Prior to craft making, they disagree with the statement given with regards to life satisfaction. However after the craft making, the elderly respondents strongly agree with the statements given. This shows that the respondents had improved their perception with regards to life satisfaction due to their experiencing in doing craft. Finally, it can be concluded that there is a significant difference on the comparison of Experimental group before craft making and after craft making in terms of self-worth. Likewise, there is also a significant difference on the comparison in terms of life satisfaction. Therefore, both the null hypothesis was rejected.

The study is meritorious in exploring the impact of arko-making in the life satisfaction and self-worth of the Filipino elderly. Arko making, which is considered a diversion activity, is an effective mean to increase the life satisfaction and self-worth of the participants. The role that craft making plays in the life of the elderly must be explored further in future studies.

7.0 RECOMMENDATIONS

Life satisfaction is being happy about your life. It is the happiness that exists when we talk about the past and present. Therefore, it is hereby recommended that elderly people must be happy at all times by means of doing something that will make their time worthy such as craft making of any kind not limited to arko but also other handicrafts and engage in social life to make friends. In this way, they will become busy and happy at the same time. Life satisfaction measures how people evaluate their life as a whole rather than their current feelings. Therefore, it just advisable that elderly people should join some organizations or activities in their community that will give them satisfaction in life such organizations exists in some parts of the Philippines like the one in Marilao, Bulacan.

The elderly people self-worth or self-esteem should not be taken for granted. Living to an old age can create very sensitive issues for people if their
value is understated. In order to assist elderly people to maintain their overall health and sense of wellbeing it is important to help them feel needed with efforts to enhance their self-esteem. By doing such crafts or any handicrafts they make profit. This profit that they make they can take it home to their family that will make them worthy not just to their family but also to the community.

Self-worth must be improved to provide real health among elderly people because it is a vital component of living a happy life and having fulfilling interpersonal relationships. It is easier to care for elderly people who have a good self-worth, cause by having self-worth it gives them reason to live longer and they would be more cooperative with the care we nurses provide them.

Future investigations of a more structured craft making activity are warranted. The study is also limited to ten (10) elderly Filipino men from a single locality in the province of Bulacan. A more generalizable result will be obtained if future studies will be more extensive with regard to number of samples and locality.

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REVELATION OF A NURSE: NURSES WORKING DESPITE ILLNESSES AND ITS’ EFFECT TO THE QUALITY OF NURSING CARE

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College of Nursing
Research Development and Innovation Center
Our Lady of Fatima University

ABSTRACT

The study aimed to gain understanding of nurses working despite illnesses and investigate why they go to work despite illness, knowing what are the common physical and emotional illnesses that they encounter, learning what is the after effect of working despite being ill to the quality of nursing care; and on an additional note this study aims to know how the participants prevent and manage the illnesses. Ten participants were selected from a primary hospital catering for pregnant women, new-borns, children, adolescents and mild medical services to adults. Unstructured phone recorder interviews were conducted on the institute. The data collected underwent stages of Interpretative Phenomenological Analysis (IPA) as it aims to give evidence of the participants making sense of the phenomena under investigation, understanding and interpreting the gathered data. A brief model of the nurses with illnesses and their working phase was develop. Behind the scenes of an ill working nurse consist of 3 phases, the flight phase, the fight phase and the freight phase – this consist of the overall processes that ill nurses are dealing with at work. The study reveals that the working process of an ill nurse is much different as to a well nurse. The process may have slight change especially in the quality nursing care that an ill or a well nurse can provide thus it create a more complex working phase for the nurses.

Keywords: Nurses, Working, Illnesses and the Quality of Nursing Care
1.0 INTRODUCTION

It is no question that nurses should provide hundred percent on their job to facilitate patient’s return to optimum level of functioning. Throughout history, it is seen that nurses play an important role on tending to sick patients. Despite projections that nursing is one of the top ten growth jobs for the next 15 years, our health care system is on the verge of an overwhelming nurse shortage and health care crisis (Reynel Dan, 2011). It is estimated that 50% of nurses will be at retirement age within 15 years, and that no nurses are not entering the field fast to stabilize the imminent mass departure (Reynel Dan, 2011). In the midst of this health care crisis, one question that may contribute to this health care crisis would be that of the nurses and their health. Furthermore, being a nurse cannot guarantee being safe and healthy all the time because they are potentially exposed to many pathogenic microorganisms that make them susceptible to many diseases.

On a simpler note, not only does working while sick make nurses less productive, but it can pose significant risk to patients and cause illness to spread among colleagues and other hospital staff (Melissa Wirkus Hagstrom, 2015). However, one may wonder why a nurse still tend to a patient’s needs while the nurse himself seems to have the necessity to be attended to. How does this nurse can be capable of taking care of others but not able to take care of their wellbeing and why do he still have to work despite an ill condition? or how sick is too sick when it comes to caring for patients in a hospital or other medical setting? (Melissa Wirkus Hagstrom, 2015)

The researchers would like to know the common illnesses that are usually acquired by the Filipino nurses and what are the common reasons behind nurses working despite feeling unwell. On a broader aspect, the researchers would like to know its impact in the quality of nursing care.

The researchers thought that this topic will be significant in practice, through providing an evidenced-based knowledge on the variables involved. The researchers would also like to understand the nurses working despite all the odds of feeling unwell. By giving information, the nurses will know the consequences of their action when working despite illness. Through providing information to the future nurses and registered nurses, they will understand the importance of providing right care, preventing illness and promoting health. The researchers know that learning and researching about this topic will gain impact in educating future registered nurses, imparting that their health is also as important as the patients’ are. Being sick will not only decrease the quality of patient care, but also decreases the chance to help improve their client’s condition.

2.0 REVIEW OF RELATED LITERATURE

2.1 Theoretical Framework

Seeing that the researcher’s topic is about nurses who still work despite of illnesses, the researchers founded a theory that they utilized. This theory is “Personal Knowing: Nursing as a Caring and Healing Process” by Barbara A. Carper. Personal knowing have three categories: 1) The relational dimension according to
Carper that personal knowing concerned with the knowing, encountering and actualizing of the concrete, individual self. Carper also stated that in a relational sense, personal knowing is about self and others. The relational dimension is about nurses having good relationship with their clients, within a nurse patient interaction a nurse comes to know himself or herself and comes to know the patient as well. 2) The tacit dimension described personal knowing as something that emanates inside of a person, it is when we can tell something, or demonstrate something we know tacitly, without necessarily knowing how to explain how or why we believe as we do. The researchers related the tacit dimension through the nurse knowing their limitations, by knowing their capacity of providing care the nurse can prevent harm to the patient and to themselves. 3) The reflexive dimension is a phenomenon of reflection. It is stated that what we know of or what we have come to know of is a result of knowing. That when we know something we can therefore reflect it. The researchers applied this theory to test if the nurses know themselves and for them to be a better instrument in taking of the sick. A nurse cannot function well if they cannot understand themselves, for one to be capable of taking care of others one must gain knowledge. Nurses serve as role model what they do reflect to others, if nurse know how to take care of their own being then it will reflect on how good that nurse in care.

Another theory that can be utilize in the study is Jean Watson’s theory “nursing: human science and human care”. According to this theory, nursing is concerned with promoting health, preventing illness, caring for the sick and restoring health. Holistic health care is the focus of nursing practice. In this study, nurses provided this holistic approach when they are not feeling well. The sickness that they are feeling is a hindrance in delivering appropriate nursing care to their patients, thus they cannot perform their task effectively.

2.2 Literature Review

2.2.1 The researchers searched for the appropriate related literature. The researchers founded the act of professionals working despite illnesses is called “Presenteeism”. Presenteeism is also described as when a professional is physically present but due to certain issues whether it be physical or emotional, this issues tend to distract them reducing their productivity in work (Reyes, Presenteeism)

2.2.2 A research entitled “Why do Registered Nurses Work When Ill?” said that nurses viewed their decision to come to work when ill as being an inevitable consequence of the tensions that existed between their own needs and the perceived needs of others. According to Crout et al (2005), nurses decides to come to wok despite being ill because of a sense of tension. The sense of tension have 3 subthemes being: between the nurse and the supervisor, between the nurse and the team and In the nurse themselves. The tension between the nurse and the supervisor is because the nurse needs to report sickness within an “acceptable” time frame meaning there is a need for an early notice so that the supervisors can obtain staffs to replace the sick nurses, also this entitles the sick nurse to seek
medical legitimization of the illness. The second tension, which is the tension between the nurses and the other nurses in the ward, starts when it is about the line, “a strong sense of responsibility to the team”. When the replacement’s lack of familiarity within the ward places additional burden in the permanent team members. Lastly is the tension in the nurse themselves which is influenced by their identity as a nurse, the nursing socialization process and their need for financial security, this happens when a sick nurse think of their role as a health care provider thus increasing the tension of working when ill and caring for themselves. In the identity as a nurse, some nurses revealed that the identity is linked to perception of themselves as a part of a group and how the people in the community view the nurses. Nursing socialization process affects the development of a nurse’s work ethics. Work ethics are developed on the job. Nurses still go to work because they mirror the behaviour of their co-workers meaning the exposure to colleague’s attitudes and behaviours greatly influence nurse’s work ethics. Another factor that influences the decision of a nurse is because they want to be financially secured. Unpaid absences can affect their financial security. Nurses sick leave is inadequate thus making them being in a higher risk for having illness. Poor staffing and heavy workload are the factors why nurses are experiencing workplace stress.

Research question #1: Why do Filipino nurses report to work despite having illness?

Assumptions:

Filipino nurses report to work despite being ill because of having the need to provide for everyday needs and because of caring so much for the patients

2.2.3 Nurses are unique in a way that you can treat them as superheroes, but even superheroes have weaknesses such as that of a nurse. Since nurses worked in the hospital they acquire illnesses as well. According to Lombardo and Eyre (2011) there are two classifications of common illnesses, these are 1. Physical Illness that nurses can acquire are headaches, digestive problems (e.g. diarrhea, constipation, upset stomach), muscle tension, sleep disturbances (e.g. inability to sleep, insomnia, too much sleep), fatigue and cardiac symptoms. It is very hard for a nurse to work if the nurse have physical problems this can decrease the nurses productivity in working. 2. Emotional Illness these are problems that nurses deal on their own, this emotional illness are mood swings, restlessness, irritability, oversensitivity, anxiety, excessive use of substance, depression, anger and resentment, loss of objectivity, memory issues and poor concentration, focus and judgement. All these illnesses are very hard to endure especially to nurses working in the hospital or clinic yet despite feeling this illnesses nurses still tend to care for the sick.

2.2.4 The researchers founded an article about the effects of presenteeism in the quality of care. According to the article "Nurses' presenteeism and its effects on self-reported quality of care and costs.” By Letvak, Ruhm and Gupta that a research has been conducted how the
health-related productivity of nurses is related to quality of care. Two major causes of worker presenteeism (reduced on-the-job productivity as a result of health problems) are musculoskeletal pain and mental health issues, particularly depression. The primary goal of the research is to investigate the extent to which musculoskeletal pain or depression (or both) in RNs affects their work productivity and self-reported quality of care. The results show that the prevalence of musculoskeletal pain was 71%; that of depression was 18%. The majority of respondents (62%) reported a presenteeism score of at least 1 on a 0-to-10 scale, indicating that health problems had affected work productivity at least "a little." Although the results said presenteeism affects the quality of care by a little, it still affects the quality of care therefore it somehow decreases the quality of care.

2.2.5 Quality is when we nurses applied the knowledge to the profession and create a care that could help the patient recover from the disease. According to Kozier and Erb’s (2008) nursing practice involves 4 areas, namely the promotion of health and wellness, prevention of illness, restoration of health and caring for the dying. Nurses promote health to both healthy and ill patients, motivate to enhance healthy lifestyles like restrict smoking, improving their nutrition, proper diet and exercise, which could help enhance health and wellness. Nurses also encourage patients to comply with illness prevention programs available include immunizations, prenatal and infant care and prevention of sexually transmitted infections, this could help protect patients and others from requiring and transmission certain diseases. Other activities of nurses include admission, medications (preparations of meds and administration), charting, bedside nursing care, assessment, health teaching, vital signs monitoring and input & output taking observation. Nurses were the major health care providers because they are the one who gives direct care to ill patients. Nurses are also the one who are helping patients cope up with new events in their lives like supporting them to cope with their death. Not only that, nurses are the one who are in the side of patients when they need help the most. All in all, if all this quality care will be given to our patients like they all say this could bring the patients to their optimum level of function not only for the sick but to all people.

**Research question # 2: How do physical and emotional illnesses affect presenteeism among nurses?**

**Assumptions:**

The effect of the physical and emotional illnesses in presenteeism is that nurses may decreased the quality of nursing care.

**Research question # 3: How does physical illnesses affect the quality of nursing care rendered by Filipino nurses?**

**Assumptions:**

Physical illnesses may affect the quality of nursing care rendered by Filipino nurses through decreasing the quality of care provided by nurses.

**Research question # 4: How does emotional illnesses affect the quality of nursing care rendered by Filipino nurses?**
Assumptions:
Emotional illnesses may affect the quality of nursing care rendered by Filipino nurses through decreasing the quality of care provided by nurses.

3.0 METHODOLOGY
3.1 Research Design
In this study, the researchers used qualitative research design. According to Copes, (2012) qualitative research design is utilized for the collection of information about the necessary opinions and beliefs of the respondents about the subject matter. It is a subjective approach used to describe life experience. The overall process of qualitative research design involves in-depth study focusing on individual views and experience, emphasis on context, open-ended data, emergent design, and inductive interpretation (Maxwell, 2013).

Specifically, the researchers employed phenomenological qualitative design. According to Donley, (2012) stated that phenomenology is the descriptive process of understanding the individual experience of the respondents based on the particular phenomenon. In this view, the study describes the exact reasons that has influenced the nurses to work even in ill condition. Furthermore, it has an advantage to produced descriptive and accurate opinions and views of the respondents rather than the presentation of a predictive results (Rudison, 2015).

3.2 Research Locale
The researchers have found an institution situated at the 2nd District of Quezon City near the vicinity of Commonwealth Market, Commonwealth Avenue. The institution is a primary hospital known Wellserved Drugstore Medical Maternity Lying-In & Diagnostic Center. It was established in 1994 as a medical clinic, drugstore, lying-in and diagnostic center that include x-ray and laboratory facilities. It caters to pregnant women, new-borns, children, adolescents and mild medical services to adults. The Wellserved Drugstore Medical Maternity Lying-In & Diagnostic Center have 10 nurses overall in which are rotating in three shifts. The total bed capacity is unknown but it is in between 10- 15 bed capacity. The researcher had conducted the study here finding that the nurses working from Wellserved Drugstore Medical Maternity Lying-In & Diagnostic Center had met the criteria, being that the nurses have established a nurse-client relationship.

3.3 Research Populations and Sampling
To promote substantial proof for the study, the chosen populations are nurses. Sampling criteria includes the Nurses in the ward. The subjects can be both males and females with no range of age, span of work in the institution and number of population per area. They are considered a respondent as long as they are employed in the research locale as a staff nurse.

The researcher used purposive sampling. Purposive sampling is known as judgmental, selective or subjective sampling. It is a type of non-probability sampling technique where the units that were investigated was based on the judgment of the researcher. Purposive Sampling is very useful for situations where you need to reach a targeted sample quickly and where sampling
The main goal of purposive sampling focused on a particular characteristic or criteria of a population that are of interest, which is why it is the best sampling technique that was used in the study. Anyone that did not meet the criteria that the researches set were excluded in the study.

3.4 Research Ethics

The researchers have applied and used the following nursing ethics:

Informed consent is a kind of process by which the health care provider discloses appropriate information to a patient and the patient will decide whether to accept or refuse treatment. The consent should be voluntary and the patient should be competent to make decision at hand (Bord, 2014). The researcher briefly discussed the study to the nurses and they decided whether to accept or refuse to be the respondents.

Autonomy is an agreement to respect another's right to self determine, a course of action and it is also the support of independent decision-making (American Nurses Association, 2011). In this research, the researchers applied autonomy by respecting the decisions of the respondents and not forcing them on anything that they do not want to do.

According to the American Nurses Association (2015), protection of privacy and confidentiality is important in the maintenance of trusting relationship between health care providers and patients and integral to professional practice. The facts about our patient are for their great benefit and interest. We as researchers protected their identities and provided them privacy when they did not want to answer some questions.

Beneficence is taking a positive action to help others and it is also the desire to do good that can benefit others (American Nurses Association, 2011). The Researchers proved that beneficence was applied in their study it primarily benefits nurses and the future nurses in ways to improve nursing practice and nursing education.

Non-maleficence is to avoid harming or hurting others (American Nurses Association, 2011). This research tackled nurses working despite illnesses and through learning more about the topic we may be able to prevent nurses from harm or any treat in the area or workplace.

Justice is referring to equal treatment and fair distribution of resources to all the participants (American Nurses Association, 2011). By using the ethics justice, it implied that all the respondents have the same importance about their opinion and contribution to the study.

3.5 Research Instrument

The researcher had used a semi-structured interview. According to Jamshed, 2014 semi structure interview is involved interaction between the researcher and respondent. It is composed of open-ended questions that allow the respondents to dictate his/her feelings and identify their experiences on their own concept; and the questions are based on the researchers topic, which is helpful to obtain information from respondents. The results had further helped us to understand the reasons why these nurses are still working if they themselves are not physically well (McLeod, 2014). To achieve a better use of time upon
interview, the researcher used interview guide for a useful purpose of having a more systematic and formative questions and maintained a focused questions regarding the respondent’s point of view. The researcher recorded the interview with a mobile phone recorder in order to focus on the interview and obtain the information accurately and efficiently and thus enables the researcher to produce a word for word answer of the respondents upon interview (Jamshed, 2014).

Furthermore, the researcher’s interview guide was printed to enhance legibility and was validated by the research adviser, specialist and a medical practitioner.

3.6 Data Collection
The researchers secured a consent from the management of the chosen institution by sending them a letter asking for permission to allow the students to conduct the research.

Utilizing the researcher-made semi-structured questionnaire validated by psychology professor and research adviser, helping us warrant the appropriateness of the contents. Once the questions have been validated, the researchers visited the institution to formally conduct the data gathering process. Informed consent from the participants was also obtained initially. The researchers used voice recording device that recorded each interview and it was strictly used for data collection. The recorded interview was transcribed for further analysis of the researchers.

3.7 Data Analysis
The researchers used the design of a qualitative data. A qualitative data interprets emerging themes, insights, patterns, concepts and understandings (Bazeley, 2013). In conducting a data analysis the researchers used an Interpretative Phenomenological Analysis (IPA) in understanding and interpreting the gathered data. Interpretative Phenomenological Analysis (IPA) aims at giving evidence of the participants’ making sense of phenomena under investigation and, at the same time, document the researcher’s sense making (Pietkiewicz* and Smith, 2014). In using the IPA researchers should look at the data through a psychological lens, interpreting it with the application of psychological concepts and theories, which helps in the understanding of the research problems. Not only that, but researchers also look at the data in the perspective of others, thus given a chance in developing higher level of theories and insights in which respondents may not have thought of (Pietkiewicz* and Smith, 2014). Each interview is transcribed into narrative form. The researchers carefully read and re listen the whole interview transcript and recordings a few times repeatedly which is important to have a reliable insight to the data (Pietkiewicz* and Smith, 2014). Then after having an insight to data it is important to look for connections between emerging themes, grouping them together according conceptual similarities and providing each clustered data with a descriptive label (Pietkiewicz* and Smith, 2014).

4.0 RESULTS
4.1 Theme1: Flight Phase
Theme 1 shows why nurses work despite illnesses, the participant body’s limitations, how the participants prevent
illnesses, and how they manage them. In finding why nurses work despite illnesses the participants gave several reasons, among those reasons the most common are the Sense of duty of nurses, for patient sake, for self-reasons and for family. As for the participant body’s limitations, seven out of ten stated that the limitations that their body have is only if the illness worsens. While in the prevention of illnesses, six out of ten of the participants stated that living a healthy life style helps and others mainly five of the ten participants stated that they take multivitamins. In managing the illness, five out of ten participants stated that taking meds relieves them of the illness

4.1.1 Reasons: Sense of duty

In this article it is stated that according to the International Council of Nurses, “Nursing encompasses autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings. Nursing includes promoting health, preventing illness, and caring ill, disabled and dying people. Advocacy, promoting a safe environment, research, participation in shaping health policy and in patient and health systems management, and education are also key nursing roles.”

Out of the ten participants, four have stated that it is a nurses’ role to go to work even with illness because it is there duty.

“Aaahhh…kasi anu…duty kasi walang magrerelieve ehhh…kasi kadalasan sa isang hospital sakto lang yung staff may sobra man dalawa tatlo lang…pagka di ka pumasok wala na papasok kawawa na yung pasyente”

(Aaahhh…because of…it is our duty and no one can be a reliever, and mostly because in an hospital the staff are just enough there may be an excess of 2 to 3 staff only…and if you can’t attend no one else will, the patient will suffer the consequence.) – Participant 10

One of the participants stated that if a nurse is to not work while ill even though he/she can and is able to work, his/her co staff including the patient will suffer.

4.1.2 Reasons: for patient’s sake

More often than not, patients happen to be enduring or have endured immense pain and suffering. Eccentric nurses have empathy for them and are able to be compassionate to provide comfort (Kapoor, 2016).

Out of ten participants only four stated that they attend work for the patient’s sake. One of the participant stated that as a nurse, one should attend work for the sake of caring the patients for them to return to the optimum level of health.

“Syempre ano, as a nurse, gagawin mo pa rin ang lahat para sa pasyente mo, parang magtratrabaho ka pa rin kasi mas kawawa sila eh siguro wala lang yung sakit para sayo pero yung sa kanila siyempre mas ano pa rin na makaka tulong ka sa kanila” (Of course as a nurse, you are doing everything for the sake of your patients, and you still go to work because they needed you. Maybe the pain for you is not that bad as to them but its more (great) if you can help them.) – Participant 4

4.1.3 Reasons: Self reasons

According to the business dictionary, Self-Motivation is the ability
to do what needs to be done, without the influence from other people or situations. People with self-motivation can find a reason and strength to complete any task, even when challenged, without giving up or needing another to encourage them.

Three out of the ten participants stated several self-reasons why they attend work with illness. But one of the participants stated that she attend work because of self-motivation.

“Motivation keeps me working despite being ill physically, emotionally and psychologically.” – Participant 9

4.1.4 Reasons: Family

According to Cambridge dictionary being the breadwinner of the family means the member of the family who earns money and meet the family’s needs. Being a nurse is hard but being a nurse who cares and looks after a family is much harder especially if you need to meet certain needs and certain bills.

According to three of the ten participants family is the one of the reasons why they attend work. One of the participants stated that as a breadwinner one should know his or her priorities.

“Pangalawa family di ba lalo na kung breadwinner ka kailangan mong magprovide sa mga needs nya yun ang kailagan mong ma focus mo lagi tsaka laging yung priorities mo in life ang kailangang isipin mo.” (Second is your family, especially if you are the breadwinner, you need to provide their needs those that is you should focus on and you should know and think your priorities in life.) – Participant 7

4.1.5 Manage working despite illness: Taking Meds

Self-medication is a frequent practice among the nurses and is associated with factors that should be taken into account when planning strategies aimed at improving workers’ health conditions. (Barros AR1, 2009)

There are many legitimate reasons that may be given for why drinking plenty of water is a good idea when you're sick, all of which relate to the prevention of dehydration and its adverse health effects. It is stated in this article that drinking fluids meet daily fluid needs, control fever, prevent and control N&V and help clear secretions. (John, 2013)

Five of the ten participants stated that nurses they take medications to relieve being ill. One stated that he takes medicine, take rest and drink plenty of water

“By taking medicines and taking a rest and plenty of water” – Participant 8

4.1.6 Prevention: Living a healthy lifestyle (Diet, exercise) and taking Multi Vitamins

Nurses play an important role in healthcare whether they are working at the patient bedside, caring for patients in a physician office, or providing care and education as part of public health. This is why it is very important for nurses to take care of themselves as well. Nurses can benefit from good, sound nutrition to help them lead healthy lives. (Denise Reed MS, September 2014)

Six out of ten participants stated that they avoid unhealthy lifestyle and avoid eating unhealthy foods.

“Increasing my oral fluid intake. I avoid unhealthy lifestyle and avoid eating unhealthy foods.” – Participant 9
“I also boost my immune system by taking multivitamins” – Participant 9

4.2 Theme 2: Fight Phase

Theme 2 shows that physical illnesses and emotional illnesses that are experienced by the staff nurses during the time of their duty hours. Among the participants, 4 out of 10 answered in physical illnesses answered that they experienced fever, cough and colds while 3 of them experienced episodes of back pain. On the other hand, 4 out of 10 dictate that they experienced emotional illnesses, which is stress during their duty hours.

4.2.1 Emotional Illness (Stress)

Nursing is a very stressful occupation, and high levels of occupational stress are believed to affect the nurses physically and mentally. Occupational stress among nurses is the result of exposure to a combination of both working environment and personal factors. (Hui Wu, 2010)

The participants have stated many emotional illnesses that they experienced during work. As to four out of ten of the participants stated that stress is the most common emotional illness that they encounter while working.

“Emotional illness? Kapaganolang nama npo ah... naiistress sa mga pasyente, like kung yung mga patient medyo toxic tapos medyo... ah medyo..medyo demanding.” (Emotional illness? Its only when... I am stressed out because of patients. Like when the patients are toxic and sometimes too demanding.) – Participant 2

One of the participants stated that the stress that he experience came from patients when they are too demanding and if there is so many workload for the participants to handle. It is stated in the article that there are a lot reasons why healthcare providers are getting stress to patients. There may be times that the diagnosis may be challenging, the situation could be demanding, or the patient is “difficult”. (LEARNING, 2016)

4.2.2 Physical Illness (Fever, Cough and Colds)

Nurses are prone to have a colds, cough and even fever related to their work since we are the first line in taking care of the patients. These conditions are common illnesses that nurses experienced. According to (Stokowski, 2015) despite having cough, fever or colds nurses still go to work.


Participant 4 stated that she experienced cough, colds and fever when she’s on duty which is commonly as stated before. Although it’s not that severe we should also take a look on its effect to the quality of care given to the patients.

4.2.3 Physical Illness (Back pain)

In the healthcare field, nurses are the one who really are on the bedside care. The moving of the patient from one place to another (transferring) or simply positioning the patient is routinely done resulting to physical exertion manifested by low back pain. (Rasmussen et al, 2016). Chronic low back pain (CLBP) among nurses is a truly concern. (Pinky Budhrani-Shani et al 2016)

“…Chronic back pain due to lifting heavy objects.” – Participant 9

Participant 9 reveals that she experienced episodes of back pain due
to lifting heavy objects. According to article, that low back pain is a growing concern among nurses due to poor techniques on how the proper handling or lifting the patients.

4.3 Theme 3: Freight Phase

Theme 3 shows the comparison between an increase and decrease in the quality of care in physical and emotional illnesses by the staff nurses after the time of their duty hours. According to the participants, both physical and emotional may decrease the quality of care, but other participants stated that they experienced an increase in quality of care when having emotional illnesses.

4.3.1 Emotional illnesses: Increases the quality of care

According to the business dictionary, self-motivation is the ability to do what needs to be done, without the influence from other people or situations. People with self-motivation can find a reason and strength to complete any task, even when challenged, without giving up or needing another to encourage them.

Out of the ten participants four have stated emotional illnesses increases the quality of care that they provide to patients by encouraging them and the relative to support their patient.

Uhmm.. For me, I take it as a positive so it increases my quality of nursing care and ah by encouraging more... encouraging more the patient and the relative support their patient in the hospital.” - Participant 8

4.3.2 Emotional illnesses and Physical illness: Decrease the quality of care

Presenteeism may have a greater adverse impact on the quality of patient care. A nurse who calls in sick can be replaced with a healthy reliever, but a nurse who remains on the job despite being ill may not fully meet the hospital and the patients’ demands. (Letvak, Ruhm, & Gupta, February 2012)

Out of ten participants, three have stated that they experience a decrease in the quality of care when having emotional illnesses. Eight out of ten participants stated that when experiencing physical illnesses there is a decrease in the quality of care.

“Ahhm parang may side din na nagbibigay ng mababang quality sa pagtatrabaho kase nakakapag, parang iniisip mo rin habang nagtatrabaho yung problema na yon pero sa kabila ng yon syempre may mas ano pa, kagaya ng sinabi ko kanina may mas nangangailangan so i-set aside muna yung problems na yon for the sake of others.” (There is an instance where the quality of care decreases. When I think of my problems while working but just like what I said there is someone who needs me so I set aside my problems for the sake of others.) – Participant 3

Participant 3 stated that emotional illnesses may decrease the quality of care but despite that as a nurse we should take care of our patient because it is a role and a duty.

“Physical illnesses decreases the quality of my nursing care to my patients. It is a distraction to my focus at work resulting to a longer time carrying out doctor’s order and/or nursing independent actions.” – Participant 9

Participant 9 stated that physical illnesses decrease the quality of care, it decreases in a way that independent nursing action cannot be done well.
5.0 Moderatum Generalization

Behind the scenes of an ill working nurse:

Theme 1: Flight phase
- Reasons: Sense of duty of nurses, for patient sake, for self-reasons and for family
- Prevention: Multi-vitamins, Living healthy life

Theme 2: Fight phase
- Management: Taking meds.

Theme 3: Freight phase
- Increase or Decrease in the Quality of Nursing care

The study shows that nurses working despite being ill can affect the quality of nursing care rendered to the patients. The researchers formulated three working phases of an ill working nurse: The Flight phase, the Fight phase, and the Freight phase.

The Flight phase composes why nurses keep on working despite being ill, according to the respondents the most common reasons are the following: the sense of duty of nurses to the patients, self-reasons, family reasons and financial reasons. On the other hand, the researcher include how the nurses prevent having illness it includes of taking medications such as multi vitamin and living a healthy lifestyle.

Next is the Fight phase, the researchers identify how the nurses manage being ill while working, it includes taking OTC drugs or medications like paracetamol, ambroxol, and cимвex. According to the respondents, it helps them to manage the illness that commonly experienced by the respondents.

Lastly, the Freight phase, which is the outcome of nurses working despite being ill; it only has two answers, whether it increases or decreases the quality of care. Upon gathering that data the researchers confirm that it really decreases the quality of care when the nurses itself is the one who is sick.

The researchers found some limitations on this study that the results gathered may not be enough to support other answers of the respondents. By this study, it also recommends to the future researcher that this research may increase the number of respondents and level it up from primary hospital to secondary or even tertiary hospital.

6.0 Reflection

The whole process of this study is to gain understanding of nurses working
despite illnesses and investigate why they go to work despite illness, what are the common physical and emotional illnesses that they encounter, also to understand what are the effect of working despite being ill to the quality of care, and to know how the nurses prevent and manage the illnesses. It is not just because doing the research can be applied to our daily lives as a student nurses. Doing the research the researchers have understood what roles nurses play in the lives of the patients, and have gained knowledge that nurses do what they do to benefit both the patients and their role to the respected relatives of the patient. Researching about this topic have given us a brief look at the situation, it had also prepared the researchers for what roles they are about to do in the near future. Those nurses are worth studying and are worth of the time to get to know their reasons behind working while sick.

Looking at the finished result of the researchers’ paper, both strong points and weak points of the research can be seen. The strong points of the research paper is the gaining of the understanding and knowledge on why nurses now a days work and what are the common reasons that was said, also knowing the common illnesses acquired by nurses in a primary hospital. Another strong point was that the researchers have found coping mechanisms and prevention done by these nurses. The biggest strong point was that the researchers was able to know the effect of illnesses for nurses, and the care that have been rendered wherein before the common effect which decreases the quality of nursing care. The present nurses stated that having emotional illnesses actually increases the quality of care given. The weak points of the study is that the study was conducted in a primary hospital, which may cause the researchers few or limited answers, unlike if the study was conducted in a tertiary hospital. Furthermore, the study was not able to elaborate how the quality of care decreases and increase which is a big factor in the research, and lastly the researchers have found the answer of nurses ranging from the age of 20-35 they were not able to see or found the answers of old nurses.

The researchers would recommend future researchers to do the research in a tertiary hospital wherein more information regarding the topic can be gained. It is also recommended that the future researchers do a comparison between nurses in the past and the present nurses on the difference on how illnesses affects them, and the care that was rendered. The researchers recommend the future nurses to try to do the research again but in a quantitative type of research, and for those future nurses that want to have a more accurate answer to the study the researchers recommend to do a triangulation type of research, which is a combination of both qualitative and quantitative type of research. By this recommendation, the researchers hope that the study may help not only the nurses but also the student nurses. The researchers impart new knowledge through this study that aimed to make nursing better.

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THE COMBINED EFFECT OF MICROWAVE DIATHERMY TREATMENT AND PERTURBATION TRAINING ON FUNCTIONAL ABILITY IN INDIVIDUAL WITH KNEE OSTEOARTHRITIS

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ABSTRACT

Background: Knee osteoarthritis is a chronic degenerative joint disease that causes damage of the articular cartilage and reduction of functional ability. Osteoarthritis usually occurs in older people which is estimated around 60%–70% cases at the age of 60 years. Osteoarthritis is a major cause of disability among elderly group.

Aim: The purpose of this research was to verify the differences of microwave diathermy treatment and isometric quadriceps muscle exercise compared with microwave diathermy treatment and perturbation training in improving functional ability of people with knee osteoarthritis.

Methods: This research was an experimental study with pre and post-test control group design. The sample consists of 24 people who were divided into two groups. Group 1 was received microwave diathermy treatment and isometric quadriceps muscle exercise, while Group 2 was received microwave diathermy treatment and perturbation training. WOMAC Index was used to measure the functional ability.

Results: The hypothesis was tested using paired sample t-test in Group 1 showed p=0.000 with a mean difference 18.167±1.528, while in Group 2 showed p=0.000 and mean difference 21.250±1.712. These results represent a significant improvement in functional ability in each group. Comparison was tested using independent sample t-test and the difference was obtained with p=0.000 (p<0.005).

Conclusion: Based on these analytic, the conclusion is the microwave diathermy treatment and perturbation training is significantly more effective compared with microwave diathermy treatment and isometric quadriceps muscle exercise to improve functional ability in individual with knee osteoarthritis.

Keywords: Knee osteoarthritis, microwave diathermy, isometric quadriceps muscle exercise, perturbation training, functional ability
1. INTRODUCTION

1.1 Background

Osteoarthritis (OA) is a chronic degenerative joint disorder that occurs due to the response of the physiological changes of aging and usually occurs in large joints. Osteoarthritis usually occurs in older people which is estimated around 60%-70% cases at the age of 60 years. Osteoarthritis is a major cause of disability among elderly group. The prevalence of osteoarthritis in the worldwide around 9.6% in men and 18% in women (Mody and Wolf, 2003). The prevalence of OA increases with age. Gender has an influence on the prevalence of OA of the knee where the prevalence is greater in the female group than male group. Some countries in Asia, such as Indonesia have a very fast grow rate. The percentage of people aged over 65 will increase over the next two decades; from 6.8% in 2008 will increase to 16.2% in 2040 (Fransen, et.al., 2011). This would be accompanied by an increase in the incidence of diseases suffered by the elderly, such as osteoarthritis disease.

Several research has studied the risk factors of knee osteoarthritis. Some of the most common risk factors which are includes: age, gender, obesity, history of knee surgery or a history of knee trauma, or some of working activity that requires the imposition such as a large-lift transport, kneeling, and squat (Jensen, 2008; Felson, 2004). The joint destruction occurs in the cartilage that lining the bone surface of the femur and tibia. It causes erosion of the cartilage surface which will lead to rub against the bone surfaces. Some of the signs and symptoms of osteoarthritis includes: pain of the knee, Range of Motion (ROM) limitation, crepitus, joint swelling, deformity of the joints, and stiffness (Goodman and Fuller, 2009). It may disturb the functional activities such as long standing, walking, sitting, squatting, and other activities. Research shows that more than 50% of the population who have knee osteoarthritis reported incidence of falls and 40% reported that the quality of life and functional ability were bad (Arnold and Gyurcsik, 2012). A cross-sectional study also indicates that there is a significant correlation between knee osteoarthritis incident and falls incident in elderly people (Vennu and Bindawas, 2014). It is caused by weaknesses of the muscles of the limbs, especially the muscles that stabilize the knee.

The functional abilities are defined as a person's abilities to perform specific tasks related to their activity daily living. The decreased in muscle strength of the people with knee osteoarthritis affects their muscle reaction times. The delay of reaction time will increase the risk of falling incidents in patients with knee osteoarthritis. The reduced forces in the contraction are accompanied by loss of functional muscle contractions that would produce a synergistic (non-physiological) movement. The non-physiological movement causes a yield stress of one contact surface of the joint, thereby increasing the progression of the degenerative process of the joints. Patients with knee osteoarthritis tend to limit the movements of the leg to avoid pain and discomfort felt (giving way) (Choudary and Kishor, 2013).

The treatments that can be given in osteoarthritis are pharmacological and
non-pharmacological. Pharmacologic therapy such as a non-steroidal anti-inflammatory drug (NSAID) and steroids like Glucocorticoid. However, the administrations of these drugs are only able to handle in terms of inflammation and reduce pain but do not improve the patient's functional capabilities in accordance with the International Classification of Functioning (ICF). It needs to be supported with non-pharmacological therapy modalities such as the electrotherapeutic therapy and exercise therapy. The standard physiotherapy modality in knee osteoarthritis is microwave diathermy treatment.

Exercises generally given to knee osteoarthritis patients are types of exercises aimed to improve the flexibility and strength of the muscles around the knee joint such as static stretching, isometric strengthening exercise and isotonic exercise (low, medium, and high intensity) (Benell and Hinmann, 2011). Research shows that it is important to involve a balance-recovery component reaction in the treatment of knee osteoarthritis. A balance-recovery component reaction is the ability or inability to respond the perturbation of balance (loss of balance due to changes in movement), which will determine whether the person will fall or not (Mansfield, Peters, and Liu, 2007). This reaction force should also occur at a low magnitude. It causes a person who experienced perturbation can react naturally and automatically (without orders or excessive leg effort) (Mansfield, Peters, Liu, and Maki, 2010).

6.1 Problem Statement

Based on the description of the background above, the problem statement of this research is how differences in the effectiveness of microwave diathermy treatment and isometric quadriceps muscle exercise compared with microwave diathermy treatment and perturbation training to improve the functional abilities in patients with knee osteoarthritis.

6.2 Research Purpose

This study aims to determine the differences of the combined effect of microwave diathermy treatment and isometric quadriceps muscle exercise compared with microwave diathermy treatment and perturbation training to improve the functional ability in patients with knee osteoarthritis.

7. METHODS

7.1 Research Design

This research is an experimental study with Pre-and Post-Test Control Group Design. The intervention is carried out by physiotherapists who have completed their professional education. The control group (group 1) was received intervention of microwave diathermy treatment and isometric quadriceps muscle exercise, while the treatment group (group 2) was received microwave diathermy treatment and perturbation training. Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) score was used to measure the functional abilities.

7.2 Place and time of research
THE 2nd UDAYANA INTERNATIONAL NURSING CONFERENCE

The study was conducted from July to September 2016 at Physiotherapy Clinic around Denpasar and Badung.

7.3 Population and sample

7.3.1 Population

The target populations in this study were all patients who are indicated to suffer from knee osteoarthritis. The affordable populations in this study were all patients who are indicated to suffer from knee osteoarthritis as many as 24 people who visited the Physiotherapy Clinic in Denpasar and Badung area from July to September 2016.

7.3.2 Sample

Sampling was done by doing a complete and systematically assessment to every patient with knee osteoarthritis pain syndrome. Physiotherapy assessment process is carried out systematically in patients with knee osteoarthritis. The sampling technique in this study is an accidental sampling technique and a consecutive sampling. Samples were taken from the population and adapted to the criteria during the specified time range.

a. The inclusion criteria as follows:
   1. Patient is willing to do as a research subject from beginning to the end of research study, by signing an informed consent letter.
   2. Patient has pain due to knee osteoarthritis which has been based on physiotherapy assessment procedures that have been established.
   3. Age around 45 until 69 years old.
   4. Body mass index patient must be in normal category (18.5 to 24.9 kg/m$^2$) or overweight (25.0 to 29.9 kg/m$^2$).

b. The exclusion criteria as follows:
   1. Subjects with a ligament injury.
   2. Subjects with meniscus lesions.
   3. Subject with knee arthroscopy.
   4. Subject with osteoporosis.
   5. Subjects with cancer and tumors in the knee.
   7. Body mass index of subject is around obese category (>25 kg/m$^2$)
   8. Subjects who received other modalities therapy within ten days earlier.

c. The drop out criteria as follows:
   1. Subjects did not attend during the research process.
   2. The patient's condition worsened after intervention.
   3. Subjects are resigning their self.

7.4 Data Measurement

At the time of the measurement of functional ability, the patients were given 24 questions that have been provided in the WOMAC index. Patients gave an answer to any parameter. The measurement of functional abilities was conducted before and after the intervention.

7.5 Data Analysis Method

7.5.1 Normality test

Normality test is done by using a saphirowilk normality test to determine the distribution of the data.
7.5.2 Test of Different Score of WOMAC before and after Treatment on Each Group

Analysis of the data to examine the differences in functional abilities based on an assessment by using a WOMAC, namely before and after treatment in both groups. If the data have a normal distribution we used a paired sample t-test, while if the data are not normally distributed then the comparison test is conducted by a Wilcoxon signed rank test.

7.5.3 Comparison Test of Difference WOMAC Score before and after Treatment between Two Groups

Analysis of the data to examine differences in improvement in functional ability between the two groups. If the data have a normal distribution we used an independent sample t-test, while if the data are not normally distributed then the comparison test is conducted by a mann whitney u test.

8. RESULTS

This research has been conducted in patients with knee osteoarthritis in Physiotherapy clinic around Denpasar and Badung area for 6 weeks. Each sample is given intervention as much as 12 times for group one and 12 times for group two. Twenty four subjects were divided into two groups, each group consisting of 12 people.

8.1 Sample Characteristics Data

These are descriptions of the characteristics of sample based on sex.

### Table 3.1 Sample Data Distribution Based on Sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>Frequencies (%)</th>
<th>Group 1</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>3 (25%)</td>
<td>3 (25%)</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>9 (75%)</td>
<td>9 (75%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12 (100%)</td>
<td>12 (100%)</td>
<td></td>
</tr>
</tbody>
</table>

Based on Table 3.1 shows that the subjects in group 1 consists of 3 males (25%) and 9 females (75%). The subjects in group 2 consists of 3 males (25%) and 9 females (75%).

### Table 3.2 Sample Data Distribution Based on Age

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean and Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group 1</td>
</tr>
<tr>
<td>Age</td>
<td>58.08±6.7</td>
</tr>
</tbody>
</table>

Based on Table 3.2 shows that the subjects in group 1 were in the age range (58.08 ± 6.72) years old and in Group 2 were in the age range (55.83 ± 4.86) years old.

8.2 Test of Normality and Homogeneity

As a precondition for determining the statistical test to be used then the test for normality and homogeneity test data before and after treatment had been done. The Shapiro Wilk was used to measure the normality of the data while the Levene’s test was used to measure the homogeneity of the data. The results of this analysis are listed in Table 3.3
Table 3.3 The results of Normality and Homogeneity Data in WOMAC scores before and after intervention

<table>
<thead>
<tr>
<th>Data Group</th>
<th>Normality test using the Shapiro Wilk Test</th>
<th>Homogeneity Test (Levene’s Test)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group 1</td>
<td>Group 2</td>
</tr>
<tr>
<td>The WOMAC score before the intervention</td>
<td>0.910</td>
<td>0.213</td>
</tr>
<tr>
<td>The WOMAC score after the intervention</td>
<td>0.970</td>
<td>0.916</td>
</tr>
</tbody>
</table>

Based on Table 3.3 shows the p value of the data before the intervention in Group 1, p=0.213 (p>0.05) and after the intervention p=0.916 (p>0.05), while in Group 2 the p value before the intervention p=0.916 (p>0.05) and after the intervention p=0.248 (p>0.05). These results showed that group 1 and group 2 had normal distributed data.

On Homogeneity test using Levene's Test, p=0.458 (p>0.05) for the WOMAC score before the intervention and after intervention for WOMAC score p=0.059 (p>0.05). It is indicating that the data before and after the intervention had homogeneous data.

Based on the results of normality and homogeneity test, then the test is used to test the hypothesis is parametric statistical tests.

8.3 Hypothesis testing
8.3.1 Test of Different Score of WOMAC before and after Treatment on Each Group

Paired Sample T-test was used to identify the differences between the mean of the improvement of functional ability before and after the intervention. The test results are listed in Table 3.4.

Table 3.4 Paired Sample t-test Results

<table>
<thead>
<tr>
<th></th>
<th>Before the intervention</th>
<th>After the intervention</th>
<th>Mean</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>52.08</td>
<td>33.92</td>
<td>18.167±</td>
<td>0.0058</td>
</tr>
<tr>
<td>Group 2</td>
<td>52.50</td>
<td>31.25</td>
<td>21.250±</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Based on Table 5.4 shows the data in Group 1 with p value, p=0.000 (p<0.05), which means that there was a significant difference from a decrease in WOMAC score before and after the intervention of microwave diathermy treatment and isometric quadriceps muscle exercise in individual with knee osteoarthritis.

The p value in Group 2, p=0.000 (p<0.05), which means that there was a significant difference from a decrease in WOMAC scores before and after intervention of microwave diathermy treatment and perturbation training in individual with knee osteoarthritis.

8.3.2 Comparison Test of Difference WOMAC Score before and after Treatment between Two Groups

Independent t-test was used to test the comparison data of mean decreasing in WOMAC scores before and after treatment in both groups. The test results are listed in Table 3.5.
Table 3.5 Independent t-test result

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean±SD</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOMAC score before the intervention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1</td>
<td>12</td>
<td>52.08±2.234</td>
<td>0.637</td>
</tr>
<tr>
<td>Group 2</td>
<td>12</td>
<td>52.50±2.023</td>
<td></td>
</tr>
<tr>
<td>WOMAC score after the intervention</td>
<td></td>
<td></td>
<td>0.011</td>
</tr>
<tr>
<td>Group 1</td>
<td>12</td>
<td>33.92±1.782</td>
<td></td>
</tr>
<tr>
<td>Group 2</td>
<td>12</td>
<td>31.25±2.800</td>
<td></td>
</tr>
<tr>
<td>The differences of WOMAC score</td>
<td></td>
<td></td>
<td>0.000</td>
</tr>
<tr>
<td>Group 1</td>
<td>12</td>
<td>18.17±1.528</td>
<td></td>
</tr>
<tr>
<td>Group 2</td>
<td>12</td>
<td>21.25±1.712</td>
<td></td>
</tr>
</tbody>
</table>

Based on Table 3.5 shows the different calculation results mean in WOMAC score obtained p value of p=0.000 (p<0.05) on the difference between before and after treatment. This means that there are significant differences in intervention of microwave diathermy treatment and isometric quadriceps muscle exercise compared with microwave diathermy treatment and perturbation training to the decreasing in WOMAC scores.

9. DISCUSSION
9.1 The effectiveness of microwave diathermy treatment and isometric quadriceps muscle exercise in improving functional ability in individual with knee osteoarthritis

The effect of MWD treatment is to maximize deep heating resulting in an increased heat in body tissue, increase blood flow, improve filtration and diffusion in different membranes, increasing the metabolic rate of the tissue, reducing the stiffness of the joints, causing a relaxing effect on the muscles, and helps recovery after the injury. The temperature increases of 1°C can reduce mild inflammation and increase metabolism. An increase of 2-3°C will decrease pain and muscle pain. Increasing tissue temperatures more than 3-4°C above baseline will increase tissue extensibility (Prentice, Quillen, and Underwood, 2002).

Isometric quadriceps muscle exercise as one of the modalities of physiotherapy can be used to improve muscle strength. Isometric exercises can improve the pumping action that helps in increasing intra-articular diffusion of nutrients and stimulate healing or repair of cartilage in the joint (Kisner and Colby, 2012). Isometric exercise will stimulate afferent fibers of type Ia and II, so that the activity of afferent fibers can reduce muscle spasms as well as improve the system of peripheral blood circulation and lymph by the pumping action and it will be decrease muscle spasm and it’s able to reduce the pain at the level of sensory which can disturb with the movement and function of the joint, thereby to improve the strength and function of tissues around the joints and reduces the risk of chronic injury. This exercise is very useful in improving muscle strength, range of motion, proprioception, and feedback mechanism. The effect of the contraction also stimulates the reparation of peripheral arterial circulation due to the release of chemical substances that cause vasodilation. Regular and monitored exercise will improve nerve function, blood circulation and muscle flexibility, and those lead to increase muscle strength.
and to improve the stability and mobility in patients with osteoarthritis of the knee joint, resulting in reduced disability.

This is supported by the study (Shakoor, et.al., 2010) which states that isometric quadriceps muscle exercise in patients with chronic knee osteoarthritis can reduce pain, increase range of motion, and improve functional ability. In addition, a randomized controlled study from (Anwer and Alghadir, 2014) found that isometric quadriceps muscle exercise in individual with knee osteoarthritis can improve the quadriceps muscle strength, reduced the pain and WOMAC score index.

4.2 The effectiveness of microwave diathermy treatment and perturbation training in improving functional ability in individual with knee osteoarthritis

Diathermy is the application of high frequency electromagnetic waves that are used for deep thermal effect on the body. Diathermy has a better penetration than infrared. MWD has 2456 and 915 MHz frequencies. MWD has a higher frequency than SWD (Short Wave Diathermy). MWD more use electrical generator field. If the thickness of subcutaneous fat is 0.5 cm or less, the MWD can penetrate as deep as 5 cm on the body region (Prentice, Quillen, and Underwood, 2002).

Indications for using MWD includes post-acute musculoskeletal injuries, joint contracture, myofascial trigger points. MWD is used to improve vascodilation, increase metabolism, reduce joint stiffness, improve muscle relaxation, and increase the extensibility of collagen. A double-blind randomized clinical trial from (Rabini, et.al., 2012) found that deep heating therapy via microwave diathermy can reduce the WOMAC diathermy and the benefit of deep hearing therapy were maintained over 12 months of follow up.

It is important to involve the balance-recovery component reaction in the concept of rehabilitation. The balance-recovery reaction is the ability or inability to respond effectively to the perturbation of balance (loss of balance due to movement) which will determine whether the person will fall or not (Mansfield, Peters, Liu, and Maki, 2007). Movement compensation (quick step and reaching for objects) is the only mechanism of defense or the protection of the body against the force of the reaction of the big magnitude of force. It should happen at a low magnitude and react naturally and automatically (without command or leg excessive effort) (Mansfield, Peters, Liu, and Maki, 2010).

Previous research conducted by (Kinandana, 2015) found that the combination between ultrasound therapy and perturbation training can improve the functional ability in individual with grade 2 knee osteoarthritis. The results of this study are strengthened by the results of research conducted by (Choudary and Kishor, 2013) and randomized clinical trials conducted by (Fitzgerald, et al., 2011). The results of both studies indicate a significant difference in functional enhancement as measured by using WOMAC score before and after giving perturbation training in grade 2 knee osteoarthritis. Perturbation training is a specific exercise designed to increase a balance-recovery component reaction. Perturbation means disorder, not a type of
exercise that is created with the aim to disrupt the balance of a patient, but from a disturbance in the form of this force to adapt to the patient is expected to give a specific response to force disturbance (perturbation) in order to retain the position remained static. In this exercise, the patients learn how to respond to any external forces from the outside environment (gravity, weight, etc.).

Perturbation training can improve knee function through knee-protective mechanism neuromuscular response. When doing perturbation training, the patient is trained to anticipate the potential to disrupt the force on the knee stability by increasing awareness and neuromuscular response. This can help facilitate selective muscle contraction reaction and adaptive to neutralize the force that occurs at the knee during functional movements.

10. CONCLUSION
Based on the results we can conclude several things, such as:
1. Microwave diathermy treatment and isometric quadriceps muscle exercise is effective in improving functional ability in individual with knee osteoarthritis.
2. Microwave diathermy treatment and perturbation training is effective in improving functional ability in individual with knee osteoarthritis.
3. Microwave diathermy treatment and perturbation training is more effective than microwave diathermy treatment and isometric quadriceps muscle exercise in improving functional ability in individual with knee osteoarthritis.

11. ACKNOWLEDGMENTS
The authors would like to express our gratitude and appreciation to all participants for their participation in this study and staff at Physiotherapy Department, Udayana University for their support.

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Vennu V, Bindawas SM. 2014. Relationship between falls, Knee Osteoarthritis, and Health-related Quality of Life: Data from the Osteoarthritis Initiative Study. *Clinical Intervention in Aging* 9: 793-800
DIFFERENCES OF STUDENT PERCEPTION BETWEEN THE INFLUENCE OF FLIPPED CLASSROOM LEARNING DESIGN TOWARDS THE CRITICAL THINKING AND LEARNING DEPENDENCE ABILITY OF THE MENTAL HEALTH IN NURSING COURSE AT THE NURSING STUDY PROGRAM

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ABSTRACT

The background of the research is a phenomenon development rapidly to information and communication technology so that it implies the thrust for lecturers to improve the quality of learning through the innovative learning method of the internet-based model in this period. The method mentioned is Flipped Classroom Learning. The purpose of this research is to analyze the differences of student perception between the influence of flipped classroom learning design towards the critical thinking and learning dependence ability of the mental health in nursing course in the nursing study program. The research method is quantitative descriptive with comparative design. Data collection through questionnaires in Likert scale design, taken from total sampling for the students who took the Mental Healing Nursing course at the Nursing Study Program in Banten Province. The results were analyzed by using Wilcoxon Signed Rank Test, found a significant difference in student perception between design flipped Classroom Learning to the critical thinking and student learning independence ability with p value 0.0001. It was concluded that there was a significantly different perception of students between design flipped Classroom Learning on the critical thinking and student learning independence ability on mental health in nursing course at nursing undergraduate program at institution X. It was recommended to the lecturer to develop the learning method of Flipped Classroom Learning in the nursing course at the nursing undergraduate program.

Keywords: Flipped Classroom, critical thinking ability, learning independence, Mental-health in nursing, different test, Wilcoxon Signed Rank Test.
INTRODUCTIONS

Science, information and communication technology is growing very fast. Thus, the experts interpret this phenomenon as a revolution. The implication of this situation is that there is a change in the direction of the quality perspective toward quality transparency as a benchmark of learning action. Therefore, lecturers need several efforts to improve the quality of the education process so that their commitment to assume responsibility for conducting quality education mandate that is holistic and comprehensive can be implemented.

The lecturers’ spirit is in line with the Law no. 12 of 2012 on Higher Education emphasizes the understanding that Lecturers are professional educators and scientists with the main task of transforming, developing and disseminating of science and technology through education, research, and community services. Associated with the professional competence of lecturers in the classroom can be seen from the ability of lecturers in managing the classroom, teaching and learning or in determining the method of learning appropriately.

In the Law no. 12 of 2012 also mentioned that learning is the process of student interaction with lecturers and learning resources in a learning environment. Teaching and learning is a system consisting of several elements, namely input, process and results, then in the learning process also needs to get attention for lecturers. So, in relation to this learning process lecturers can initiate a learning method that is considered relevant to the demand of competency-based curriculum, that is innovative learning based on constructivist paradigm to assist students in internalizing, reshaping, or transforming new information through learning process (Istarani, 2011).

The view is also in line with the opinion of Miftahul (2013) which explains that innovative learning is a more student-centered learning. That is, more learning provides opportunities for students to construct knowledge independently (self directed) and mediated by peers (peer mediated instruction).

Referring to the above regulation, the best quality of learning should be designed in the form of innovative learning material development, analyzed and constructed in precise praxis learning, and implemented through instructional innovation with the utilization of information technology and communication. This means that the lecturer needs to consider several aspects while designing a study courseplan. Those significant aspects needed to be considered are teaching materials, the completeness of the learning facilities and infrastructure, the characteristics and readiness of the lecturer, the curriculum and learning materials, the circumstances in which the learning takes place, and the evaluation of the learning outcomes used as tools to measure the success of students in learning. However, it is also very important to define a learning method or strategy in accordance with the course and learning objectives.

Priority of quality process and learning outcomes improvement in a good course is not only measured from the quantity of lecturers and student meetings, but also it must be measured from the
quality of the learning process. The quality of the teaching process conducted by the lecturer includes the level of conformity between the material presented in the classroom by the method of learning, the effectiveness of the learning process can also be seen from the level of competence or learning that must be achieved by the students (Buchari, 2009).

It is undeniable that the rate of development following the popularity of educational issues is also touching on the world of nursing education in Indonesia. Not least the education in Nursing Science Program X in Banten Province. The lecturers at the institution are encouraged to initiate, initiate the improvement of the quality of learning through the approach of developing innovative learning model and active learning internet based in the form of Meode Flipped Classroom Learning as a form of accountability in carrying out its role and function as a facilitator in the Mental Health Nursing Course.

**RESEARCH METHOD**

The purpose of this study is to distinguish the perception of students between the influence of Flipped Classroom Learning on the learning independence and critical thinking ability in Mental Health Nursing course on nursing study program at institution X in Banten Province. The research method is quantitative descriptive comparative with data analysis using Wilcoxon Signed Rank Test Sources of data are given in total sampling from all students who take Mental health in nursing course on Nursing Study Program at Institution X of Banten Province.


Collecting data from primary data sources or original data where researchers collected researchers directly in the field. Data collected by giving questionnaires in the form of check list with Guttman scale through the answer "Yes" and "No" in the measuring tool then grouped in a strongitatif. Measurement of data using ordinal scale is by category of results arranged according to the level from the lowest range to the highest level or vice versa, ie from the range of "strong, moderate, weak".

The hypothesis of research is the significant difference in the study of the student's perception of the influence of learning Independent and critical thinking ability in the Mental Health in Nursing Course at Nursing Study Program at Institution X in Banten Province.

The data were analyzed using Wilcoxon Signed Rank approach. This test is also known as Wilcoxon Match Pair Test is an alternative test of pairing t test or t paired test, ie nonparametric test to measure the significance of difference between 2 groups of ordinal or ordinal pairs of data but not abnormal distribution (Hidayat, 2014). Researchers use the Wilcoxon Signed Rank Test because the
RESULT OF RESEARCH

The result analysed through computer system to description difference in the study of the student's perception of the influence of learning Independent and critical thinking ability in the Mental Health in Nursing Course on Nursing Study Program at Institution X in Banten Province, obtained the following results:

Table 1: Result of Difference in The Study of The Student's Perception of the Influence of Learning Independent (IL) and Critical Thinking ability (CT) in the Mental Health in Nursing Course on Nursing Study Program at Institution X in Banten Province

<table>
<thead>
<tr>
<th>Variable Method</th>
<th>Flipped Classroom Learning Model</th>
<th>LI</th>
<th>CT</th>
<th>Increment Mean</th>
<th>Z value</th>
<th>Significance of value (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Siculo 1</td>
<td>59.22</td>
<td>69.56</td>
<td>10.333</td>
<td>-3.633</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Siculo 2</td>
<td>66.94</td>
<td>76.83</td>
<td>9.889</td>
<td>-3.686</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Siculo 3</td>
<td>59.22</td>
<td>69.56</td>
<td>10.333</td>
<td>-3.633</td>
<td>0.0001</td>
<td></td>
</tr>
</tbody>
</table>

In the table 1, the average student perception about the effect of Flipped Classroom Learning on learning independence in Mental Health Course in cycles 1 and 3 shows the same data, that is equal to 59.22. While the critical thinking ability showed a result of 69.56. This means that there is a rise in the mean of 10.333.

The value of Z arithmetic is obtained at -3.633 and smaller than -1.96 (-3.633 < -1.96). Because Z arithmetic is in area H0 rejected hence decision H0 can be rejected and H1 accepted or there is significant difference in influence Flipped Classroom Learning terhadap independence learn and critical thinking ability at cycle 1 and 3.

The value of significance (p) is 0.0001, meaning the significance value (p) 0.0001 is less than 0.05 then H0 is rejected and H1 is accepted. Thus, there is a significant difference in the description between the influences of Flipped Classroom Learning on the independence of learning in Mental Health in Nursing Course.

The data analysis on student perception about the influence of Flipped Classroom on learning independence in cycle two shows the result of 66.94. While the perception of students about the influence of classroom learning flipped against ability of critical thinking of 76.83. There is a rise in the mean of 9.889. The value of Z arithmetic is obtained at -3.686 and smaller than -1.96 (-3.686 < -1.96). Because Z arithmetic is in area H0 rejected hence, decision H0 can be rejected and H1 accepted or there is significant difference in perception of student about influence of Flipped Classroom Learning.

Furthermore, the significance value (p) was obtained at 0.001. Since the
significant value (p) 0.0001 is less than 0.05 then H0 is rejected and H1 is accepted. Thus, there is a significant difference in the description of student perceptions between the influence of Flipped Classroom Learning on the independence of learning and critical thinking skills in Mental Health Nursing on nursing science courses at institution X in Banten Province.

**DISCUSSION**

Although students perceive differences between the effects of flipped classroom learning on learning independence and critical thinking ability, there are both show a positive influence. This shows that there is a suitability between learning model of flipped classroom learning as the application of innovative modern learning model based on technology, and considered relevant to the demand of competency-based curriculum implementation and technological development demands in the implementation of learning. This is in line with the exposure of Darling-Hammond (2010), Flumerfelt & Green (2013) which strongly supports the occurrence of educational policy reforms by changing the learning turning point towards creating a new world that allows learners to learn how they should.

The Flipped Classroom learning model creates a learning culture with a student-centered approach, and the design is created in such a way as to encourage learners, set learning styles, develop a personalized learning experience, and construct relevant knowledge independently. Such designs of course will have implications for the independence of learning. Therefore, it is expressed in the second pillar The Flipped Learning Network (2014): “Learning culture where a learner-centered approach that features student construction of personally-relevant knowledge is used”. Estes, Ingram, Liu (2014) Explains also that Flipped Classroom Learning to acquire foundational knowledge in the asynchronous environment, students must recognize and demonstrate self-directed learning skills to be success. This means that this learning process requires the independence of student learning in order to succeed.

While the relation of flipped classroom learning with critical thinking ability is that the learning model of Flipped Class Learning students is formed to critically review what has been and is being studied outside the classroom to be further exploited and practiced in a collaborative classroom environment. This opinion is corroborated by Estes, Ingram, Liu (2014) who launched that: “The role of students in the flipped classroom is to use self-directed learning methods to review and critically consider materials outside of class, and then actively apply what was learned in a collaborative class environment”.

**CONCLUSIONS**

Based on the results of data analysis on the results presented in Table 1 shows the differences in student perception between the influence of Flipped Classroom Learning on learning independence and critical thinking ability on mental health course with the increase of mean in Cycles 1, and 3 and by 10.333.
In the second cclar of 9,889 with p value (p) 0.0001

RECOMMENDATION
Learning independence and critical thinking skills are the main objectives of innovative learning learning. Both important things must be a feature in the learning process Flipped Classroom learning. So that the lecturer should build a high commitment to continuously choose the learning method of learning that is more varied. This is to ensure that the Flipped Classroom Learning method is an innovative and relevant modern learning alternative to the Mental health course in nursing course.

ACKNOWLEDGMENT
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Undang – Undang R.I nomor 12 tahun 2012 tentang Pendidikan Tinggi
ASSESSMENT ON THE NEED OF SCHOOL NURSES AMONG PUBLIC ELEMENTARY SCHOOLS

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ABSTRACT

With the increasing number of enrollees in public schools, comes the possibility of increasing number of misfortunes to elementary students. In this article, we address findings of a quantitative study that sought to describe the need of additional school nurses among public elementary schools. Quantitative research design employing survey questionnaires were conducted with ninety teachers at several public schools at Quezon City. As the study instigates, the said necessity emerged as the general mean for the level of knowledge reveals 3.85 and the level of skill indicates 2.46. The perceived needs for nurses among public elementary schools as to Accident Prevention, Accident Management, and Health Promotion specifies a mean of 4.8. In showing its correlation, Spearman’s rank shows a relationship of 0.22. Computed T-test was 2.116 and the critical value was 1.987. Although much is known about the adequacy of school nurses, findings from the study exposes insufficient number of school nurses that has a great effect in preventing, managing health-related conditions and promoting health in public elementary schools. Recognizing the situation, it depicts the position that even the country has generous human resource in health provision; inadequacy in an appropriate placement of these healthcare providers poses an imminent threat among the progenies.

Keywords: Nurses, Teachers, Care, School, Accidents, Prevention, Promotion, and Health
1. INTRODUCTION

Children spend most of the time in school under the direct supervision of the teachers. They are also exposed to various types of minor injuries in school, which influence their present and future state of health. The school nurse or any other health worker would not always be there when the treatment is needed. A school health care provider is a professional certified by the Department of Education employed in an academic institution who reinforce and promote the educational process by enhancing and assuring a better health status of the students. The primary aim of a school nurse is the determent of illness and disability, and the beforehand detection and rectification of health problems; due to lack of training of the teachers regarding basic life support they cannot perform or respond the proper treatment during emergency situation that may happen in school.

The increasing statistic of injuries in children is considered as a growing public health concern. Each year thousands of children died from injuries or violence, and millions sustain the impact of non - fatal injuries. One of the major causes of childhood fatality and incomparably contributes to source of childhood morbidity and long term-disability, and increases health cost in most developed countries. Emergent and proper treatment of such emergencies can help decrease morbidity and mortality through proper health process.

Senator Richard J. Gordon deplore the recurring deficiency of nurses and nursing aides in the more than 43,000 public schools in the country. Currently, there are only 3,254 nurses accommodate to more than 17 million students in the 43,000 public schools in the country. This means that one nurse caters for 5,000 pupils. The Department of Education has a section on school health that is mandated to provide basic health services for school age children ages 6-12; the reality is there aren’t enough personnel that can provide the services.

This study aims to determine the need of school nurse among public elementary schools. It will emphasize the importance of having school nurse and it will provide awareness to the Department of Health and Department of Education in the benefits of assigning school nurse in every school to improve the quality of life of the student by providing a safe environment.

2. REVIEW OF RELATED LITERATURE AND STUDIES

2.1 Theoretical Framework

The most influential theory associated with this study is the Health Promotion Model by Nola J. Pender. It delineate health as an optimistic impulsive state rather than simply to devoid disease. Health promotion aims to empower an individual’s level of awareness on his own health. The health promotion model represents the multi-dimensional trait of an individual that interact within their environment to maintain health. Alice Petiprin (2016) stated that optimal well-being, personal fulfillment, and productive living are the positive health outcome that are directed from the Health promoting behavior of an individual.

According to Petiprin (2015) Pender’s model emphases on three areas: 1) Individual characteristics and
experiences, 2) behavior specific conditions and affect, and 3) behavioral outcomes. It notions that an individual has a distinctive traits and involvoment that may alter successive actions. There are an important motivational significance for the set of variables of behavior specific knowledge and affect. Through nursing actions this variables can be improved. The endpoint in the health promotion model and desired behavioral outcome is the health promoting behavior in which these behavior is expected to ameliorate health, enrich dynamic capability and surpassing the essence of life at all stages of ontogeny. Both behavioral demand and immediate competing demand are influenced by individual preference which may affect the intended actions for promoting health.

2.2 Literature Review

2.2.1 Factors That Warrant the Need of School Nurse

2.2.1.1 Knowledge and Skill of Teachers

Considering school as a second home and more often some students felt that teachers are their second parents. According to the Philippine Daily Inquirer (2014) teachers are the channel of knowledge, mentors that helps students develop their acumen by observing and evaluating individual progress, attainment, behavior and special skills that needs to be rectify. By doing so the teacher can design and create appropriate teaching strategies to promote optimum learning.

Alberta’s teacher association (2012) through formal education, preparation and experience teacher are being certified being proof of their adept knowledge and skills that are essential component in the dissemination of instruction to students, regardless of the mode of instruction.

According to Alberta’s teacher association (2012) the certificated educator is an important part in the provision of delivery of edification to learners, regardless of the method of instruction. An educator has gone through rigorous formal education, developed the necessary skills and gained enough experience. Educators impart a particular guidance and essential care by identifying their desideratum, then conceptualizing the method of instruction in addition to discerning and complying to the legal and legislated frameworks and policies; recognizing and acknowledging the learners privation; cultivating and preserving a secure, venerating surrounding which is conducive to a learners erudition.

An individual who is near the victim is the one who has the advantage of performing first aid measures and save the life of the one in danger. Ali et Al (2011) cited that public school educators embodies conceivably capable of being the first aid responder in events of calamities and isolated emergencies in the school parameters, but most of them were meager in basic life support knowledge and trainings, these results can be explained by, paucity of training programs for teachers regarding standard emergency care. This programs are needed in order to prepare teachers to come up against these situations. This also goes in line with A-Jundi et Al (2005) who discern a prodigious deficiency of knowledge among school teachers. Bildik et Al (2011) stated that knowledge of the educators regarding first-aid was contemplated to be deficient.
whereas first aid should be an established component of educational program to all training school for educators and should be revised at a consistent intervals during their careers, as part of an educator’s continuous professional development.

Children’s physical and intellectual capacity, amount of necessity, actions and risk behaviors’ all transform immediately as they grow and mature. As a children progress their inquisitiveness and desire to investigate are not always match by their capacity to comprehend and react to danger. School-age children tend to be daring and adventurous. They are inclined to challenge rules. More injuries occurred during the daytime, when children are most active and at play in school (Arcadio, 2011).

A Ministry of Education Safe Schools Action Team said that there is a direct link between success in school and the school environment in which student learning takes place. Students are more able and more motivated to do well and achieve their full potential in schools if the school has a positive school climate and in which they feel safe and supported.

GMA Network broadcasted a report in 2011, indicating that numerous cases of food poisoning were conveyed during the months of June and July of the same year affecting 65 elementary students in Larion Bajo in Tuguegarao City, incurring two young fatalities. The latest in the rash of food poisoning incidents happened July 24, 2015 in Calamba City, Laguna. Around 400 students of Real Elementary School were rushed to different hospitals in the city after suffering from stomachache, vomiting, and dizziness. Reports said the students ate ice candies and cupcakes. On July 16, 57 pupils of Ala Central Elementary School in Sultan Kudarat fell ill after eating deep-fried squash fritters bought from a store outside their school. Reports said there were indications of food poisoning as the students suffered from severe stomach pains and bowel disorders. On July 9, 15 students of Dauling Central Elementary School in Aleosan, North Cotabato were hospitalized after consuming siopao bought from their school canteen. Eco Waste Coalition President Roy Alvarez reiterated that prevention can be performed through formulation of new regulations and ratifications and strengthening of policies governing food safety would be in effect.

Educating public on proper food consumption and encouraging people to make it a habit to read food labels and check expiry dates can significantly reduce incidence of food poisoning. School administrations, meanwhile, must implement austere measures in supervising handling of food in school canteens and checking food being brought in by different sponsors during programs and different school activities according to SecurityMatters (2015).

According to Mosby’s Medical Dictionary (2009), anything that drops precipitously from a higher position is called fall. It is usually accompanied by physical injury and other morbidities including lifelong disability. In the Philippines, it accounts to the leading causes of death among ages 15 to 19, placing fifth in the rank, wherein 78
percent comprises of male individuals. (Safe Kids Philippines, 2013)

To cite an incident, a 14-year old student accidentally fell from the building’s third floor. The event happened inside the school while the said pupil was taking her “Selfie”. (The Philippine Star 2014). Another unfortunate incident took place to a 5-year old girl in Taguig. Accordingly, the preschool girl was inside their classroom and was about to sit to a chair when her classmate pulled out her chair leading the 5-year girl to fall sustaining injuries. On a larger scale, out of youngster’s ages 0 to 18, 138 everyday, equivalent to 50000 per year dies to accidental falls worldwide according to Safe Kids Philippines.

Causative factors to falls and its accompanying injuries were identified and specified by the Safe Kids Philippines Director Jesus dela Fuente. In her statement, she reiterated points directing to individuals and materials. This includes insufficient resources to acquire gates, railings and impact-absorbing floorings and surfaces. Some are also deprived of opportunities or have inadequate accessibility to recreational and play arenas. Another bothering factor is absence of adult supervision. For whatever reason/s, these contribute to the growing number of accidents due to fall.

As Merriam Webster defines, choking is the sudden inability to respire or take in air as a result of a blockage or obstruction along the airway. According to Philstar news (2016), the Food and Drug Administration (FDA) has notified the citizens against possible risks brought about by crayons, pencils and other school materials to school children. Ma. Lourdes Santiago, acting FDA director general, said some school materials with removable parts such as pencils with erasers may cause choking. For instance, a case was reported by Pegher (2015), when the 8-year-old swallowed a piece of pineapple during the school lunch and started choking.

**Research Question 1:** What are the factors that certifies the necessity of school nurses as to:

1.1 Knowledge of teachers; and
1.2 Skills of teachers?

**H1:** The deficient knowledge and skills of school teachers and increase in number pertaining to an accident certifies the necessity for school nurses.

According to the National Association of School Nurses (2011), a School Nurse is a professional dedicated to attain lifelong and ultimate learning. He/She attain a bachelor’s degree and engages to continuing professional education. Being a school nurse also entitles an individual to practice his profession independently. This includes performing students’ assessment, formulation of collaborative planning, and implementing interventions towards maintenance of health including first aid measures. According from the Department of Education, school nurses provides and performs extensive activities to promote health. They also perform actions related to nutritional aspect promoting optimal nutritional and reduction of malnutrition including school plant inspection.

In addition to these, the Department of Education and National Association of School Nurses (2011) specified that school nurses also take part...
in functions related to public health ranging from giving immunizations, disease surveillance, counseling, up to procedures related to promotion of health. The health promotion activities include assisting young population in determining healthy lifestyle choices and activities directed to avoidance to substance abuse. This places the health care provider as a vital member for advancement in health in keeping learners fit and healthy.

This was supported by a non-profit organization called Truth about Nursing. According to Truth about Nursing (2008), School Nurses provide a wide array of medical assistance for the health care provider saves lives, not only during critical incidents inside the school but also, by providing services towards prevention of diseases and its outbreaks. This is consistent with the statement from the National Association of School Nurses (2011) indicating that a school that employs full-time nurses reduces dropouts and other form of early discharges of students secondary to illnesses or injuries. They can improve not only the attendance, but more importantly, the capability of students to learn.

These nurses perform this by extensive and comprehensive monitoring, collaborating with public health authorities and thereby identifying possible threats to eliminate those foreseeable crisis. In example, in the aid of screening and observation, nurses distinguishes vulnerable group of students through the critical safety net.

Referrals and collaboration are also being facilitated if the students were found out to have sensory deficits such as problems associated with vision and hearing. As health advocate, collaboration between the school and the student’s family, community and health care provider are being carried out, acting as liaison. School nurses also affords assistance to children with chronic or debilitating condition/s, helping them and making them able to attend schooling. Truth about Nursing (2008)

In terms of emotional distress that commonly accompanies illness and greatly influences school life, De Grandpre (2015) stated that through nurses, recognition of possible stressors or sources of problems and patterns of dissension could be identified by these health care providers. Programs that encouraged optimum social and well-being of learners were more often conducted by nurses such as the anti-bullying campaign. Moreover, provision of health programs and guidelines were also being conducted by school nurses through effective leadership (Truth about Nursing, 2008)

In the human resources setting, a presence of a school nurse improves overall health of the staff. Positive remarks were reported from the management, teaching and non-teaching staff specifying that with the aid of school nurses, time and efforts were conserved, thus, increasing and improving productivity. This condition is evident as teachers and other staff focuses on their tasks. Less effort will be consumed on informing parents, attending to the ill child and collaborating the latters’ condition. National Association of School Nurses (2011)

2.2.2.1 Different School Accident

The World Health Organization defined accidents as “an event which is
independent of human will power, caused by an external force, acts rapidly and result in bodily or mental damage”. Accidents such as injuries are not foreseeable especially in young age groups, inflicting not only a small population, making it a growing concern among public health and important development issue. According to the World Health Organization (2008), child injuries accounts to an overwhelming 830,000 deaths per year. In addition to that, many youngsters suffer from repercussions of different physical injuries including long-term hospitalization and recovery. This was supported by Veneman (2008), stating that after the age of nine years, accidents proves to be the prominent cause of mortality. Even so, debilitating conditions can arise from other injuries, whether deliberate or not. Common inflictions ranges from sprains and strains, bruises and wounds, minor or major fracture strains, and falls. 

On the other hand, as Merriam-Webster defines, injury is a harm or damage. It is an action or an incident that makes a person suddenly unable to be in a state of optimum health. R. Arcadio (2011) stated that the use of the term injury allows separation of the event (accident) from its consequence (injuries) and advocates the application of a scientific approach to the injury and application of primary prevention is essential. Primary prevention constitutes programs and strategies to be implemented before any accident ever happens. Secondary preventions are the strategies in order to minimize the severity of the resulting injuries.

Nevertheless, timely interventions through first aid are necessary to reduce further implications such as morbidities and mortalities. These measures are directed to prevention of complications, ensuring fast recovery, thereby preserving human life. Additionally, these services can be thoroughly provided by school nurses. Although some injuries are minor and can be treated without medical attention, having an insight and familiarity with first aid, when accurately administered, can bridge the gap between limited or permanent injury, prompt recovery, or lifelong disability.

**Research Question 2:** What are the perceived needs for nurses among public elementary schools as of:

2.1 Accident prevention;
2.2 Accident management; and
2.3 Health promotion?

**H2:** Accident Prevention, Accident Management and Health Promotion are the perceived needs for nurses among public elementary schools.

**Research Question 3:** Is there a relationship between the perceived needs for school nurses and the factors that warrant the need of nurses?

**H0:** There is no relationship between the perceived need for school nurses and the factors that warrant the need of nurses.

2.3 Research Simulacrum
Considering the relationship involved among the variables presented, the following simulacrum was devised:
3.0 RESEARCH METHODOLOGY

3.1 Research Design

The research design used in this study is descriptive survey design under quantitative study. In quantitative research, we aimed to determine the relationship between the independent variable and the outcome of the study. This made the gathering of information more precise, systemic and efficient in the determining the need of school nurses among public elementary schools.

3.2 Research Locale

The study was conducted at Rosa L. Susano Novaliches Elementary School, located at Brgy. Gulod, Novaliches, Quezon City Second District of National Capital Region. The school has 86 instructional rooms and 7 non-instructional rooms with 9,676 students, class size is around 113 students and this makes the school a big school. Bagong Silangan Elementary School is located in Quezon City, Second District with 8,668 students and has total of 69 rooms - 64 of which are for instructional purposes and the remaining 5 for non-instructional uses, it has an average class size of 135.

Commonwealth Elementary School located in Quezon City Second District of National Capital Region with 8,784 students; class size is around 101 students. The school has 87 instructional rooms and 4 non-instructional rooms. We choose those schools because of the volume of the student and the teachers. Accident is more prone in public school than private schools because private school has the reputation of being a safer, more nurturing environment than public school according to Mcmillan (2011).

3.3 Population Sampling

This study considered a population of teachers with 30 participants from Rosa L. Susano Novaliches Elementary School, 30 from North Fairview Elementary School, and 30 from Bagong Silangan Elementary School with a total number of 90 participants, who is cooperative and willing to answers the questions that was asked by the researchers. The question that was asked by the researcher was related to the needs of school nurse in Quezon City.

The researchers gathered data through the use of purposive sampling method with the criteria of primary school teachers of government school around Quezon City, regardless of age and gender. Tongco (2007) defines purposive sampling technique as a type of non-probability sampling that is most effective when one needs to study a certain field with erudite. Subjects are also capable of providing data that answer the research question.

3.4 Research Ethics

Researchers dealt with ethical issues when their intended research involves primary teachers of government school. In doing a research, researchers
strictly follow different ethical principle that is intended to avoid causing harm to the respondents.

As the researcher observed the principle of autonomy wherein participants are given the autonomy to give their informed consent and partake in the study. Participants are provided with necessary information regarding the study which includes the purpose of the study, the information that being required to the partaker, and the implication of the research to them as contributor in the study. Participants are given the liberty to withdraw from the study anytime they feel necessary to do so. Beauchamp and Childress (2001).

3.5 Research Instrument

The questionnaire was grouped according to their need of school nurse and was verified by the research adviser. The questionnaire was validated and approved by the statistician. The type of the questionnaire that was used is in a form of scale, it is divided into 2 parts with a total of 24 questions. The instrument was tested by conducting a pilot study on Rosa L. Susano Elementary School Bagong Silangan Elementary School, and Commonwealth Elementary School located in Quezon City that met the criteria for the research respondent.

3.6 Data Collection

It was approved by the adviser and the statistician, the questionnaires was given using purposive sampling to the government elementary teachers around Quezon City that met the criteria of the study’s respondents. The respondents was given ample time to answer the questions while being supervised by the researchers. The questionnaire was retrieved by the researchers. The questionnaire was interpreted by the researchers with the help of the statistician. Permission Dean of the Collage of Nursing, Principal or Administration of the Elementary Public Schools, Consent of the Participant, Distribution of questionnaire and was informed about the over view of the study and they were given time to answer the questionnaire.

3.7 Data Analysis

The statistical tool utilized by the researchers in this study are based on the Spearman’s rank. Correlation coefficient is a nonparametric measure of rank correlation, which is a statistical dependence between the ranking of two variables. T-test was used to test the significance for the coefficient of correlation to find out computed Pearson’s r could have occurred in a population in which two variable related or not.

4.0 RESULTS

In this chapter the statistical data of the study were ascertained, determined and construe. Questionnaire was utilized in collecting data which investigated using statistical procedure.

4.1 The knowledge and skills of school teachers among public elementary schools in Quezon City regarding first aid

Table 1.1 The level of knowledge of school teachers that warrant the need of school nurse

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Mean (X)</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choking</td>
<td>4.36</td>
<td>Efficient</td>
</tr>
<tr>
<td>Open wound</td>
<td>4.09</td>
<td>Efficient</td>
</tr>
</tbody>
</table>
As demonstrated by table 4.1 the following are interpreted according to the knowledge of primary school teachers. Regarding first-aid as the indicator, choking has a result of 4.36 which is efficient, the second is open wound that has a result of 4.09 which indicates efficient, and fracture was 3.69 resulted efficient and poison ingestion has result of 3.27 that indicates not so good. The general mean score was 3.85 which shows that the knowledge of school teachers regarding first-aid is efficient.

Table 1.2 The level of skill of school teachers that warrant the need of school nurse

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Mean(Y)</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choking</td>
<td>2.89</td>
<td>Ok</td>
</tr>
<tr>
<td>Open wound</td>
<td>2.34</td>
<td>Not so good</td>
</tr>
<tr>
<td>Fracture</td>
<td>2.41</td>
<td>Not so good</td>
</tr>
<tr>
<td>Poison ingestion</td>
<td>2.19</td>
<td>Not so good</td>
</tr>
<tr>
<td>General mean (Y)</td>
<td>2.46</td>
<td>Not so good</td>
</tr>
</tbody>
</table>

Legend: Very Efficient 4.5 – 5; Efficient 3.5 – 4.49; Ok 2.5 – 3.49; Good 1.5 – 2.49; Not so Good 1.00 - 1.49

As demonstrated by table 1.2 the following are interpreted according to the skills of primary school teachers regarding first aid. As the indicator, choking has a result of 2.89 which is ok, the second is open wound that has a result of 2.34 which indicates not so good, fracture was 2.41 resulted not so good and poison ingestion has a result of 2.19 that indicates not so good. The general mean score was 2.46 which shows that the skills of school teachers regarding first aid is not so good.

4.2 Need for School Nurse

Table 2 shows the need of school nurses among public school as perceived by 90 respondents in relation to accident prevention, accident management and health promotion. The general mean score was 4.89 which shows that the respondent strongly agreed that those factors are the roles of school nurse in a public elementary school.

Table 2.1 The Perceived Needs for Nurses among Public Elementary Schools

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Mean(Y)</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCIDENT PREVENTION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conduct regular seminars on accident prevention</td>
<td>4.83</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Identify accident prone areas</td>
<td>4.83</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Provide critical safety (signage)</td>
<td>4.94</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Screening of students</td>
<td>4.90</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Counseling</td>
<td>4.90</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>ACCIDENT MANAGEMENT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide first aid for wounds</td>
<td>4.92</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Able to respond to critical incidents</td>
<td>4.89</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Can mobilize a critical patient</td>
<td>4.87</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Provide safe transfer and referrals</td>
<td>4.86</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Able to assess and impending complications</td>
<td>4.87</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>HEALTH PROMOTION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Able to conduct immunization compliance</td>
<td>4.91</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Able to identify threats to health</td>
<td>4.90</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Able to monitor the health of overall population</td>
<td>4.93</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Able to provide screening and referral for health condition</td>
<td>4.90</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Can assess the health and nutritional status of the students</td>
<td>4.87</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Able to provide health counseling</td>
<td>4.86</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>General mean (Y)</td>
<td>4.10</td>
<td>Strongly agree</td>
</tr>
</tbody>
</table>

Legend: Strongly Agree 4.5 – 5; Agree 3.5 – 4.49; Neutral 2.5 – 3.49; Disagree 1.5 – 2.49; Strongly Disagree 1.00 – 1.49
4.3 Hypothesis Testing

Table 3.1 shows the Spearman result that summarizes the correlation coefficient and strength of relationship between the factors that warrant the need of school nurse and perceived need of school nurse as 0.22 which mean there is a slight correlation or definite but small relationship; on the other hand the computed t-test was 2.116 and the critical value was 1.987 therefore it reject the null hypothesis and interpreted as there is a significant relationship between the factors that warrant the need of school nurse and the perceived need of school nurse.

Table 3.1

<table>
<thead>
<tr>
<th>Spearman</th>
<th>T-test</th>
<th>CVR</th>
<th>Decision</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.22</td>
<td>2.116</td>
<td>1.987</td>
<td>Reject H0</td>
<td>There is relationship between the factors that warrant the need of school nurse as perceived by the respondents as to knowledge and skills of school teachers and the role of school nurse in accident prevention, and health promotion, accident management.</td>
</tr>
</tbody>
</table>

5.0 DISCUSSION

5.1 Factors that Warrant the Need of School Nurse

In table 1.1 shows that majority of the teachers have the knowledge regarding First aid. According to Alberta’s teaching association (2012) since they gained through formal preparation. While in the result of table 1.2 majority of the respondents shows that they don’t have enough skills to perform first aid and it was explained by (Ali et al 2011) in which he stated the most of the teachings were deficient in training basic life support modalities, these results can be explained of by lack of effective, formal emergency care.

5.2 Perceived Need of School nurses

Indispensable associate of the academic team that impel transformation to advance health in collaboration with the faculty and staff members to maintain students’ health and safety within the school premises. According to truthaboutnursing.org who stated that school nurses can entrenched lives, raise student presence and lessen early dismissals. School nurse are the front line fortification against disease outbreaks and epidemics, overseeing the health of the whole population and connecting with public health officials. They are the first to take action on perilous incidents on school premises; administer prompt health services for students; distinguish hazard to health in the school community and work to eliminate those dilemma as a reason of ill health. They impart guidance for the for the delivery of health services, health policies and programs; provide a critical safety net for the most vulnerable students. They also provide screening and referral for health conditions, provide leadership for the provision of health services, health policies and programs. Additionally, they provide a critical safety net for the most fragile students, provide screening and referral for health conditions such as vision, hearing; promote a healthy school environment; enable children with chronic health conditions to attend school; promote student health and learning; serve as a liaison between school personnel,
family, community, and health care providers.

5.3 Hypothesis Testing

Table 3.1 shows the Spearman result that summarizes the correlation coefficient and strength of relationship between the factors, that warrant the need of school nurse and perceived need of school nurse as 0.22. They result means that there is a slight correlation or definite but small relationship. On the other hand, the computed t-test was 2.116 and the critical value was 1.987; therefore, it reject the null hypothesis and interpreted as there is a significant relationship between the factors that warrant the need of school nurse and the perceived need of school nurse. Since according to the National association of school nurses (2011) school nurse benefits the school by improving attendance through health promotion, disease prevention and disease management. Students with a full-time school nurse have about half the student illness- or injury-related early releases from school where no school nurse is present. In academics improving attendance means the healthy student is in the classroom and ready to learn. School Nurses enable better performance, which also contributes to reducing drop-out rates.

6.0 CONCLUSION

The knowledge and skills of academe educators regarding first aid has a great factor in a student health during emergency cases. The study shows they have knowledge that they do not have skills in performing it. The respondent also agreed that the role of nurse in school is preventing accident, managing accident and health promotion. Accidents can happen any time in public school premises, since they don’t have a school nurse which stays all the time in school during school hours, this factor has a great effect in delayed management, illness prevention, accident prevention. The researchers utilized quantitative research, it sought to test the factors that warrant the need of school nurse and the perceive school nurse. Several factors were perceived by the researchers upon the initial analysis of the study. This factor used to determine the rational explanation behind the existent phenomenon based on the result of the knowledge and skills of educators regarding first aid. Purposive type of sampling technique was used and a survey questionnaire was primary tool.

Thus, we can say that the underlying shortage of school nurse has a great effect in preventing, managing accident and promoting health in public elementary schools. Therefore, this study concluded that despite of increasing technology, and modernization, and increasing student number of unemployed nurses. Majority of public still do not have enough nursing personnel that can provide health service.

7.0 RECOMMENDATIONS

To the Public Elementary Schools that does not have nurses, the researchers recommend to understand the importance of having school nurse to reinforces and promote the educational process by refining and assuring a better health status, to reduce the accident incidence and to provide quality care and the advance awareness and improvement of health problems to the students. To the
Department of Health and Department of Education should increase their awareness in the benefits of assigning school nurses in every school to improve the quality of life of the student by providing a safe environment and increase in providing basic health services for school age children.

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THE EFFECT OF EXCLUSIVE BREASTFEEDING EDUCATION ON THE COMMUNITY HEALTH VOLUNTEER'S KNOWLEDGE REGARDING EXCLUSIVE BREASTFEEDING

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ABSTRACT

Background: The exclusive breastfeeding (EBF) rate in Banyumas Regency is very low. Only 29% of mothers breastfeed exclusively in Banyumas Regency. The community health volunteers play an important role to promote exclusive breastfeeding and maintain the exclusive breastfeeding sustainability in a rural area. Health education was needed to improve the exclusive breastfeeding knowledge among community health volunteer.

Aim: This study aimed to examine the effect of exclusive breastfeeding education on the community health volunteer's knowledge regarding exclusive breastfeeding.

Method: This study was a pre-experiment one group only design. This study was conducted in Baturraden District, Banyumas Regency, Central Java Province on April 2017. The population was the community health volunteer. This study recruited 38 respondents using a convenience sampling method. The data were collected using a questionnaire and analyzed using a Wilcoxon test since the data were not normally distributed.

Results: The majority of the respondent's characteristics was 20-35 years old (47,4%), multiparous (68.4%), and graduated Senior High School (36,8%). The data normality was examined using a Shapiro-Wilk test. The pre-test scores were not normally distributing (p < 0.05), while the post-test score was normally distributing (p > 0.05). The mean differences between the pre and post-test scores were examined using a Wilcoxon test and the result showed that there was a significant difference between pre-test and post-test scores (Z = -4.779, p < 0.001).

Conclusion: A health education may improve the community health volunteer's knowledge regarding exclusive breastfeeding in Banyumas Regency.

Keywords: Health Education, Community Health Volunteer, Knowledge, Exclusive Breastfeeding
INTRODUCTION

Breastmilk is the best nutrition for an infant. World Health Organization ([WHO], 2015) suggested every mother breastfeed her infant particularly among mothers in the developing countries. The infant should only get breastmilk up to six months after birth which called exclusive breastfeeding (WHO, 2015). Exclusive breastfeeding provides several benefits for both mother and infant. There are benefits for the mother such as reduce the risk of breast cancer (Chang-Claude et al., 2000), ovarian cancer (Danforth et al., 2007), and diabetes type 2 (Lawrence & Lawrence, 2011). In addition, there are also benefits for infant such as preventing morbidity and mortality from diarrhea (Lamberti, Walker, Noiman, Victor, & Black, 2011) and candidiasis (Kadir, Uygun, & Akyus, 2005), reducing the risk of infection in upper respiratory tract and gastrointestinal tract infection (Oddy et al., 2006). Despite there are several evidence regarding the EBF benefits, the EBF rate among Indonesian mothers is low. Only 42% of Indonesian mothers breastfeed exclusively (UNICEF Indonesia, 2016). In addition, the EBF rate in Banyumas Regency was lower than the Provincial EBF rate (Central Java Province Ministry of Health, 2016).

Low EBF rate was influenced by several factors. Evidence showed that lack of exclusive breastfeeding knowledge was a significant contributing factor of low exclusive breastfeeding in the Banyumas Regency (Anggraeni, 2015). Previous studies found that there was a significant correlation between exclusive breastfeeding knowledge and exclusive breastfeeding practice in the Banyumas Regency. Furthermore, exclusive breastfeeding knowledge predicted exclusive breastfeeding duration. Although the majority of mothers gave birth in a primary health care or a hospital, the postpartum visit among mothers was low (Ministry of Health, 2015). So, the postpartum mothers lack breastfeeding support from health care provider. This is a gap occurring in the Banyumas Regency currently. Needed a health promotion strategy to fill the gap.

Community health volunteer (CHV) has an important role in promoting health among mothers and infants. CHV also ensure the EBF promotion sustainability since they live in the same area with the target population. Previous studies revealed that health education by CHV might improve the mother's knowledge regarding breastfeeding and the exclusive breastfeeding duration (Haider, Ashworth, Kabir, & Huttly, 2000; Nankunda et al., 2006). Another study in Thailand also found that CHV empowerment may improve the perceived social support, breastfeeding intention, and breastfeeding duration (Supason, Vichitsukon, & Wichiencharoen, 2010).

The importance of CHV involvement in the Millennium Development Goals (MDGs) 4 and 5 was explained by Rosato, et al (2008). The MDGs produced no substantial change in maternal mortality in target countries because most intervention studies did not involve the community actively. The community was only a passive target. Increasing the community empowerment leads mobilization of the community start from gaining information, skills, and
confidence, then make consultation, collaboration, and take responsibility for decisions about their lives. Several evidence showed that the community participation was essential to change unhealthy behaviors and promote healthy behaviors.

The CHV empowerment may useful to improve the EBF rate among mothers in Banyumas Regency. The nurse may provide a health education to improve the CHV’s knowledge regarding exclusive breastfeeding. According to Supason, Vichitsukon, & Wichiencharoen (2010), the scores of breastfeeding knowledge among CHV increased after provided a health education. Furthermore, the CHV may educate the mother's in the community to breastfeed exclusively and provide a continuously breastfeeding support for the mothers. An exclusive breastfeeding promotion by PHV was a useful strategy for promoting the EBF duration and for developing support systems for lactating mothers in the community (Qureshi, Oche, Sadiq, & Kabiru). This strategy may useful to ensure the sustainability of health promotion for the community in Indonesia. This study aimed to examine the effect of exclusive breastfeeding education on the community health volunteer's knowledge regarding exclusive breastfeeding.

METHODS

The design of this study was a pre experiment pre and post-test one group only study. This study was conducted in Baturraden District, Banyumas Regency, Central Java Province on April 2017. The population of the study was the CHV in the Baturraden District. This study recruited 38 respondents using a convenience sampling method. The inclusion criteria of this study were a community health volunteer, able to read and write, willingness to join the program and willingness to promote exclusive breastfeeding for the community. The researchers conducted a health education regarding exclusive breastfeeding for 40 minutes. The exclusive breastfeeding data were collected using a questionnaire. The questionnaire also collected demographic data including age, education, and occupation. The questionnaire consisted of 10 multiple choice questions. Each correct response was given a score of 1 and each incorrect response was given a score of 0. Correct responses were based on information provided during health education. The pre-test data was collected before the health education and the post-test data was collected after health education. Then, the data normality was analyzed using a Saphiro Wilk test and the result showed that the data did not distribute normally. Then, the mean differences between the pre and post-test data were analyzed using a Wilcoxon test.

RESULTS

The majority of the respondent's age was 20-35 years old (47.4%), parity was multiparous (68.4%), and education level was Senior High School (36.8%).
Tabel 1 The respondent's characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency</th>
<th>Percentage (%)</th>
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<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 20</td>
<td>1</td>
<td>2.6</td>
</tr>
<tr>
<td>20-35</td>
<td>18</td>
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<tr>
<td>36-50</td>
<td>14</td>
<td>36.8</td>
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<tr>
<td>51-66</td>
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<td>67-82</td>
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<td>2.6</td>
</tr>
<tr>
<td>Parity</td>
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<td></td>
</tr>
<tr>
<td>Primiparous</td>
<td>12</td>
<td>31.6</td>
</tr>
<tr>
<td>Multiparous</td>
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<td>68.4</td>
</tr>
<tr>
<td>Education level</td>
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</tr>
<tr>
<td>Elementary</td>
<td>11</td>
<td>28.9</td>
</tr>
<tr>
<td>School</td>
<td>13</td>
<td>34.2</td>
</tr>
<tr>
<td>Junior High</td>
<td>14</td>
<td>36.8</td>
</tr>
<tr>
<td>Senior High</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The data normality was examined using a Shapiro-Wilk test. The pre-test scores were not normally distributing ($p < 0.05$), while the post-test score was normally distributing ($p > 0.05$). The mean differences between the pre-test and post-test scores were examined using a Wilcoxon test and the result showed that there was a significant difference between pre-test and post-test scores ($Z = -4.779, p < 0.001$).

<table>
<thead>
<tr>
<th>Score</th>
<th>Median (Min-Max)</th>
<th>Z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>7 (3-10)</td>
<td>-4.779</td>
<td>0.000</td>
</tr>
<tr>
<td>Post-test</td>
<td>8 (5-10)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DISCUSSION

The majority of the respondent's age was 20-35 years old (47.4%), parity was multiparous (68.4%), and education level was Senior High School (36.8%). The demographic characteristics of study participants are fairly typical of women in Banyumas Regency and previous study results. According to the Banyumas Regency Central Statistical Bureau (2015), the mean of years schooling among people living in Banyumas Regency was 7.18, so this study's respondents have studied at school longer than the average people in Banyumas Regency. The higher education increases awareness to practice a healthy lifestyle (Park & Kang, 2008). Since there is no salary from the Indonesian government to the CHV, so a highly motivated woman to be a CHV is needed. Having previous breastfeeding experience makes a CHV have higher knowledge, skill, attitude and confidence to promote breastfeeding (Brodribb, Fallon, Jackson, & Hegney, 2008).

The result of this study showed that the median of the post-test score was higher than the median of pre-test score. The Wilcoxon test result showed that there was a significant difference between the pre and post-test scores. It means that the exclusive breastfeeding education improves the exclusive breastfeeding knowledge among the CHV who recruited to be the study participant. According to Supason, Vichitsukon, & Wichiencharoen (2010), a training program improved the CHV's exclusive breastfeeding knowledge. Then, a trained CHV provided social support for the first time mothers. The study results revealed that there were a significant improvement in perceived social support, informational support, and intention to breastfeed exclusively (Supason, Vichitsukon, & Wichiencharoen, 2010).

An exclusive breastfeeding
promotion by CHV in Nigeria resulted in a significant improvement of exclusive breastfeeding duration among mothers (Qureshi, Oche, Sadiq, & Kabiru, 2010). This study also revealed that breastfeeding support group in the community especially for teen mothers and mothers who perceived their breastmilk production were insufficient. The results of those study are appropriate for Banyumas Regency situation which the number of teen mothers was quite high (Latifah & Anggraeni, 2011) and perceived insufficient breastmilk was a significant predictor of low exclusive breastfeeding rate (Anggraeni, 2015). Furthermore, both of Nigeria and Indonesia were developing countries which the majority of people live in the rural area, lack of health facilities access, low income, and low education (Anggraeni, 2015; Qureshi, Oche, Sadiq, & Kabiru, 2010).

The CHV involved the key persons or community leaders in the community. A community leader is a person who may change the mother’s perception regarding the breastfeeding myth which occurs in the community. According to Qureshi, Oche, Sadiq, & Kabiru (2010) the community leaders influenced the cultural beliefs regarding breastfeeding and empower the community. A study by Supason, Vichitsukon, & Wichiencharoen (2010) suggested that nurses may train the community health volunteers to establish a breastfeeding network between health care providers and the community and also empower mothers to exclusively breastfeed their infants for six months.

The community participation is essential for healthy population. Roseto, et al. (2008) stated that by given the opportunity, communities can develop effective strategies to address their needs and reduce mortality and morbidity. These strategies are often highly innovative, practical, and culturally acceptable. What is scaled-up is not the solutions but a process to support communities to develop their own solutions. As a result, programs must be flexible enough to respond to variations between, and within, communities and must allow adequate time for this process of capacity building. Programs would successful if people communicate with the same belief system. This success can be achieved by seeking to understand and take into account the social norms and local cultural context around health, community participation, gender roles, use of health services, and household decision making.

CONCLUSION
The health education may enhance the health community volunteer's knowledge regarding exclusive breastfeeding. Nurses may empower the health community volunteers to maintain the exclusive breastfeeding promotion sustainability.

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FAMILY SURVIVORSHIP AND QUALITY OF LIFE FOLLOWING A CANCER DIAGNOSIS

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ABSTRACT

Background: The purpose of this study is to assess the survivorship and quality of life of families of a patient who was diagnosed of having cancer. It is important to assess them because they are the ones who took care of the cancer patient and they are the ones who are the primary care providers of the cancer patient. It is important to assess the family members and not only the patients because they are also important to make our patient survived despite the disease they are suffering. This study hopes to show that as a member of medical field, health care providers need to consider the family members that our patient has and not only our patient. It is important to give acknowledgements to them as a primary person who took care of the cancer patients.

Methods: The study utilized Qualitative using Phenomenological approach. Cool and warm analysis was used for data analysis. The participants were twelve family members (from different family) were selected using purposive sampling technique. The inclusion criteria were: 18-60 years old, residing in CAMANAVA and have experienced cancer in the family for a minimal period of one year, living in with the cancer patient, a nuclear family member and willing to participate in this study.

Results: This study achieved its purpose of determining the survivorship and quality of life of family members after cancer diagnosis in the family. The study shows that all family members find a hard time to accept the fact that one of their members has cancer but most of them utilize these following attitudes in order to survive: Acceptance, Cooperation, Faith, Wisdom and Optimism and for the family member’s Quality of Life: Happy, Healthy, Positive Outlook, and Simple Living.

This study highlights the actuality that member of medical fields need to consider the family members that the patient has end not confine its care solely to the patient.

Conclusion: This study highlights the actuality that member of medical fields need to consider the family members that the patient has end not confine its care solely to the patient. The researchers realize that life is really important for each and every one of us. People need to take care of themselves for them to be able to live well in this world. People need to think that life is one of the most important gifts of our Lord God. Love each person surrounds you especially your family who will love, care and support you until the end.

Keywords: Cancer, Family Member, Survivorship, Patients, Quality of life, Cancer Diagnosis
1.0 INTRODUCTION

Cancer is a major cause of morbidity and mortality worldwide. The effects of cancer diagnosis in the family survivorship and their quality of life have received considerable attention. A large body of data concerning family survivorship and their quality of life has been reported. In recent years, there have been many papers describing the survival of patients after they have been diagnosed with cancer. Recently, there has been a wide interest in the study how patients survived after they have known that they have cancer and how they survived in their everyday living after the diagnosis. In recent years, researchers have become increasingly interested in patient themselves but not the effects of cancer diagnosis to the family members, how they survived and the quality of life they had because of the fact that their loved one has cancer. Cancer characteristics were not related to appraisal for survivors, but stage at diagnosis was associated with a more stressful appraisal for family members.

It is generally accepted that all of us get easily hurt especially when one of the member of our family has a disease. One gets easily worried after one has known that they suffer from a disease. There is now much evidence to support the hypothesis that physical component parameters were significantly higher in the family members while their mental component was lower than cancer patients. Some methods are often criticised for the effect of interviewing family members because some of them were too sensitive especially if they have been asked about what they have felt about the condition of their loved one. It is commonly suggested that you have to assess first if the family member you have been interviewing has the courage to answer all the questions you have been asked to them.

Kornblith (1998) stated that most survivors do well after an initial adjustment period that occurs in the first one to two years following diagnosis and treatment. McCorkle et al., 1993; Northhouse et al., 2000; Stuber et al., 1996; argued that as survivors improve over time, their family members actually get worse. It has been suggested that the appraisal of the cancer experience changes over time and its meaning not explicit until years following diagnosis and treatment (Pelusi., 1997; Dow et al, 1999; Zebrack., 2000). Major stressful events, such as cancer, are influenced by the meaning that individuals and family members give to them. Although the meaning of the illness has been addressed with cancer survivors, (Carter, 1993; Nelson, 1996; O’Connor, Wicker, & Germino, 1990), few studies have examined the meaning of the illness to family members as well as their quality of life and survivorship.

However, these studies have failed to recognize what was the effect of cancer diagnosis to the quality of life of the members of the family who is the primary person that the cancer patient have interact with in their everyday living. How they lived their everyday living with the fear that anytime their loved one can be taken from them.

Despite the importance of the quality of life and survivorship that the family has after a cancer diagnosis, few researchers have studied about the way the
family lived even they have a member that has a cancer. It covers a limited range of studies which the field of knowledge need to consider.

In spite of these early observations, the family survivorship and their quality of life following a cancer diagnosis have remained unclear. The questions remain was how family survived in spite of the news that their loved one has cancer? How did they focus on their work if they have worries in their mind? How the family treat the cancer patient differ from other members?

The purpose of this paper is to acknowledge the experiences of family members whose loved one has cancer. They are the primary person that the patients encounter in their daily lives, it is also imperative to consider their feelings. Assessment of family member’s survivorship in facing this kind of predicament, which transpired in their lives, is crucial among healthcare professionals.

This paper highlights the actuality that member of medical fields need to consider the family members that the patient has and not confine its care solely to the patient. It is with great hope that this paper helps all the family members whose lives have been altered by a predicament that have transpired not directly in their lives but in the life of their loved ones.

2.0 REVIEW OF RELATED LITERATURE

2.1 Theoretical Framework

The Olson’s Circumflex Model focuses on the three central dimensions of marital and family systems: cohesion, flexibility and communication. The major hypothesis of the Circumflex Model is that balanced couple and family systems tend to be more functional compared to unbalanced systems. In over 250 studies using the Family Adaptability and Cohesion Scales (FACES), a linear self-report measure, strong support has been found for this hypothesis. In several studies using the Clinical Rating Scale (CRS), a curvilinear observational measure, the hypothesis was also supported. These two assessment tools, the FACES and the CRS, are designed for research, clinical assessment and treatment planning with couples and families.

The researchers explain this as a theory which assesses the adaptability of the family members when they experienced changes in their life, the changes which may cause a positive and negative effect in their life.

This research study focuses on the family survivorship and quality of life after a cancer diagnosis. This research study assesses How the family survived after they have known that one of their members has cancer and nobody knows if they survived or not. The researchers related the study in Olson’s Circumflex Model because this theory assesses the different dimensions of family members when they experienced changes in their life.

2.2 Literature Review

Another challenge for the field is how best to operationalized and measure family functioning. Despite theoretical focus on the process of adaptation over time, the most quantitative studies that assume that family function is a stable characteristic. Indeed, patterns of
improvement or decline are obscured by test of mean differences in family functioning over time. There are also problems with the widespread use of the FACES measure of family function. This measure is based on a Circumplex model that hypothesizes a curvilinear relationship between family functioning and outcome variables; however, the FACES instrument functions as a linear scale (Thomas and Olson 1994).

Recently, Cheung et al have documented patient’s expectations regarding some aspects of cancer follow-up specifically for survivorship care. This letter study complements our results by also providing a comparison of patient’s expectation to the one’s of family physician’s and oncologists. But their study was cross sectional and limited to cancer survivorship care, compared with ours, which addressed the evolution of patient’s expectations from diagnosis to the advanced/terminal phase of cancer.

Pinquart and Sorensen found that better well-being was correlated with caregivers who were married. However in a study conducted by Sherman, et al., FCs who were married to the patient had increased strain, and emotional problems. The rate of FCs having strain and hopelessness was similar to that found in our study but there were no statistically significant differences.

In other studies performed by Bart, et al., Lillius and Julkunen and Baer, et al., the FCs were detected to undergo changes in the family processes, they had to make changes in the individual programs and they had some difficulties for those reasons. The acknowledgement and recognition of these problems by oncology nurses might contribute to finding solutions in order to assist the difficult task of these individuals.

A recent study comparing survivors and family member’s belief’s about ideal ways of coping found family members more likely to endorse cognitive avoidance coping (Browman et al., 2005).

Bowman and colleagues (2003) introduced the concept of survivor’s beliefs about the effect of cancer on the family and its relationship to a stressful appraisal of the cancer experience. Their work on stress appraisal in long term survivorship showed that older survivors perceptions of greater family distress and more family involvement in treatment choices were associated with more stressful appraisals of the cancer experience.

3.0 RESEARCH METHOD

3.1 Research Design

The researcher utilized descriptive study because the study talks about the everyday life of the family members who was taking care of the cancer patient during the time they was suffering the disease. Qualitative analysis was the appropriate method to be used because it uses description to analyze the study for the readers to understand it. It is difficult to used quantitative analysis because you cannot describe and analyze the quality of life and survivorship of the family members by using numerical data. Since quantitative analysis uses phenomenological as research technique you can describe the family’s situation thoroughly.

3.2 Research Locale
The research locale was on CAMANAVA area because one of the co-researcher had relative and neighbor who has been diagnosed and survived cancer. The researchers choose CAMANAVA because it is one of the largest populations in NCR and it is near from the houses of the researcher.

3.3 Key Informant Selection

The participant was 12 Family members (from different family) of a cancer patient who has been diagnosed of having a cancer for a minimal period of one year. They are nuclear family. They are living with the patient and were residing in CAMANAVA. The sampling technique that was being used was Purposive sampling. The criteria’s are the following: 18-60 years old, Residing in CAMANAVA and have experienced cancer in the family for a minimal period of one year, living with the cancer patients, a nuclear family member and willing to participate in the study.

3.4 Research Ethics

The researchers explained to the participants the purpose of the study. The researchers made sure that the condition within the consent was fully understood by the participants and the dissonance in the consent process was reduced. The consent was presented in a simplest way by using simple language for them to understand easily. Question and answer session performed after the study was also explained to the participants for further clarifications. The researchers give an open-ended question to the participants so that they can explore they answer and express their feelings. They were given enough time to facilitate the question before giving the answer. Better practices regarding standard of care were practiced.

The researchers made sure that all personal information about the respondents was kept and disclosed. All the information during the interview leaved and kept within the group. Principles of confidentiality, anonymity and autonomy together with all their rights were practiced.

3.5 Research Instrument

The research instrument that was used by the researcher was self-made. It was validated and guided by the researcher’s adviser. The researcher used a questionnaire to be answered by the respondent to assess how they overcome and survived the crisis they have been experiencing and how they adjust in their daily life when one of their family members has cancer. It also assesses what they do to accept the situation. The guide question that was used by the researcher can answer all the data that required in this research study. It can prove that all the data gathered in that guide questionnaire was experienced by the respondent it also assessed how they survive after the diagnosis and how they manage and the kind of treatment they had undergone throughout the situation.

3.6 Data Collection

Letters which were signed by the adviser have been given to the family members of the cancer patient. The researchers survey the place where they held the interviewing. The researchers informed the respondent that they will gather data from them. After the respondent signed the consent the researchers started interviewing with them. Purposive sampling was used to
assess the lived experience of the family member as they are caring for the cancer patient.

3.7 Data Analysis

The present study was conducted to explore the survival and quality of life of Filipino family with Cancer patients by knowing their lived experiences and to help them improve the health care delivery system rendered to the said patients, through the suggestions and recommendations formulated by the researchers based on the findings from the study. Cool and warm analyses were done. Cool analysis is the culling of significant statements. Warm analysis is the grouping, sorting and giving names to the themes.

After gathering the desired data from the informants who were composed of twelve (12) Family members (from different family) with cancer patients from different areas in CAMANAVA, the researchers were able to take a look to a part of these patient’s lives. And based from the shared thoughts, view and feelings of the participants, the researchers were also able to categorize the responses to the central question.

The qualitative study was able to justify the responses and the results in relation to the study’s central question. The clustered themes surfaced the survival and quality of life behind the Filipino family members with cancer patient’s lived experiences. Validation was done through peer checking. This refers to the intersubjective agreement reached among members of the research team.

4.0 RESULT

This study wants to acknowledge their feelings towards the sacrifices that they have done for their family members. The researchers want to give importance to their emotions regarding for what is happening in their family during the time they know the diagnosis of cancer, how they manage to adjust in that kind of situation and what are the things they do in order to survived.

This paper wants to know the family members survivorship and quality of life after cancer diagnosis. This research study needs to know how the family members’ survivorship and quality of life being affected after the diagnosis. As a result, the study shows that all family members find a hard time to accept the fact that one of their members has cancer but most of them utilize these following attitudes in order to survive. Acceptance, Cooperation, Faith, Wisdom and Optimism; On the other hand, the following attitudes were assessed on the family member’s quality of life: Happy, Healthy, Positive Outlook, and Simple Living. This paper highlights the actuality that member of medical fields need to consider the family members that the patient has end not confine its care solely to the patient.

Twelve (12) family members from different families where chosen purposively to assess the different things that typifies family survivorship and quality of life following a cancer diagnosis. Based from the gathered data which was reviewed from the written themes and through cool and warm analyses, the researchers arrived to the themes that clarify to the studies central question.
The responses of the family members can be summarized generally into two major themes. For their survival the following attitudes were utilized: Acceptance, Cooperation, Faith, Wisdom, and Optimism and for the Quality of Life: Happy, Healthy, Positive Outlook, and Simple Living.

4.1 Metaphor

The thematic embodiment utilized was frame in the form of a partial lunar eclipse wherein the moon passes behind the Earth in its umbra (shadow). This symbol was used to further elucidate the themes presented. The researchers generated the dark and the lighted part to emphasize the cancer and how the family survived and what is their family quality of life after the cancer diagnosis. Those are the attitudes that they have used to maintain their quality of life before and after the cancer diagnosis.

The lighted part symbolizes the different factors that characterize how the family survived and their family quality of life after the cancer diagnosis. It shows the different attitudes that the family member used to survived in their everyday living which they need to have strength to face their daily living. The dark part symbolizes the cancer effect in their family. It shows that after the diagnosis their world was change because cancer is what their world is. Most of them change the life they had after the diagnosis.

4.2.1 Theme Acceptance

It is what the family did after they know that one of their family members has a cancer. Though it is difficult at first they learn how to accept it. Family member’s shows acceptance when they know that one of their family has cancer. This was exhibited in the following statements:

“Tinangap ko yun ng maluwag sa loob ko, ng buong tapang at iniisip palagi na hindi ako dapat mawalan ng pag-as.”
(I accepted it with all my heart, with all the courage and the thinking that I don’t need to lose hope)

Key informants believe that they must not lose hope as learn to accept to their condition.

“Yun na yung nagpalakas ng loob ko na tulungan yung mother ko na maka survive sya”(That was the thing that makes me stronger for me to help my mother to survived)

Key informants believed that she is the one who helps herself and her mother to survive.

Cooperation

It is how each member of the family cooperates in taking care of their family member who has cancer. Family members were able to cooperate with each other after they have known that their family member has cancer. They help each other in taking care of the patient and also they are the one who does everything for
the patient to live comfortably. This was exhibited in the following statements:

“Kunwarisa gamot niya nag tutulungan kami ganyan. Mga kapatid ko, tatay ko, sa mga.....medicine niya ganyan pang-araaw araw. Para makasurvive siya.” (For example, in her medicine, we help each other, my siblings, my father in all her medicine every day for her to survive)

Key informants believed that they need each family member for the to survive in what situation they are suffering

“Basta hinarap lang naming yun. Nagtulong-tulong lang kami yun nakaraos naman. Hanggang ngayon she’s still alive” (We just face it. We help each other so we survive and now she’s still alive.

Key informants believed that by means of helping each other they were able to survive because they are there for each other.

**Faith**

It is one of the attitudes that most of the family member utilized the faith in our Lord God. Most of the family member believes that God is always there for all of them in that difficult struggle that come in their life. They believe that God is the only one who makes their family member gets well again. This was exhibited in the following statements:

“Sa pamamagitan ng pagdaraasal araw-araw at paghingi ng payo sa mga religious group leader.” (By means of praying and getting advices from different religious group leaders)

Key informants believed that because of praying to God they were able to survive.

“Sa pamamagitan ng pagdaraasal araw-araw at paghingi ng payo sa mga religious group leaders” (By means of praying everyday and getting advices from different religious group leaders)

Key informants believed that it is important that you are not forgetting the Lord God even when you have problem in life. It also better to get advices from other people who will also help you.

**Wisdom**

Wisdom makes the family member become aware of what their family member has suffering. Most of the family members show wisdom of what cancer is all about. They are all knowledgeable that cancer is fatal diseases so they know how to adjust and prepare in every changes that happens in their life. This was exhibited in the following statements:

“Ang buhay ng bawat tao ay mahalaga kaya kung kasama mo pa yung mga mahahalagang tao sa buhay mo sabihin mo na yung mga gusto mong sabihin sa kanya.” (Life is really important I every person so until you have the chance to say everything to the person you love, say it all now)

Key informants believed that life is essential in each and every one of us so it is better to take care of it instead of wasting it.

“Mahalaga ang buhay kasi minsan lang ibigay satin ng Diyos db? Kailangan natin ito pangalagaan” (Life is really important because God gave it to us)

Key informants believed that life is important so you must take care of yourself because not everyone has the opportunity to live longer in this world.

**Optimism**

It is the ability of the family members to see things that happen to them
positively. Most of the respondents show optimism while they are answering all the questions asking from them. Most of them see what happen in their family as strength to them and not a burden. This was exhibited in the following statements:

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positively. Most of the respondents show optimism while they are answering all the questions asking from them. Most of them see what happen in their family as strength to them and not a burden. This was exhibited in the following statements:

“Isa itong pagsubok sa aming pamilya siguro tinetest lang kami, alam namin na makakasurvive kami. Think positive lang.” (It’s just only a trial in our family, maybe we are being tested but we all know that we can survived, so just think positively)

Key informants believed that what was happening in their family was just a trial in their family.

“Tapos sa kabila ng paghihirap hinarap ko ng buong tapang kasi mahal ko ang bawat miyembro ng pamilya ko” (After that I face the diagnosis because I love each member of my family)

Key informants believed that having a positive outlook in life makes you stronger infacing challenges in you life.

4.2.2 Theme Happy

The respondents were able to be happy eventhough they have trials in their family. According to them it is not easy to show happiness when you encounter such big problem as cancer but for them being happy makes their family member who has cancer happy too, it ease the pain that they are experiencing. This was exhibited in the following statements:

“Nag-usap usap kami mag kakapatid, tsaka ano masaya na din kami kasi tapos na”(We talked to each other and we are happy because it ends).

Key informants believed that it is important in the family that you have opencommunication for you to understand and help each other.

“Masaya naman ako dahil my pinagkukunan kami ng pera nag tutulungan kami para sa kanyang pang araw-araw ng pag papagamot sa kanya”(I am happy because we have a source of our income in order for us to survived everyday and has a money to buy for her medicine).

Key informants believed that it is important that you have a source of income to buy the medicine that your family member who has a cancer need.

Healthy

Healthy living is really important for each person to have a positive outlook in life, it is important to be healthy because it makes you decide judgmentally in the critical situations everytime the family members experience struggles while taking care of the cancer patient. The respondents were able to maintain their healthy living eventhough sometimes they lack in their financial status because of the cost of medicine that the cancer patient need. This was exhibited in the following statements:

“Magluluto muna ako tapos papakainin ko yung mga bata pagkatapos ko pakainin yung mga bata papaliguan ko sila, maliligo na din ako tapos maglalaba muna ako” (I cook them first then I fed my children then have them taken their bath then I washed the clothes).

Key informants believed that it is important to maintain your responsibility in your family eventhough you have a cancer patient.

“Pag kagising ko mag maayos nako para mag trabaho tapos pag uwi papakainin ko na siya papakainomin ng
gamot” (When I wake up I fix myself for work then when I go home I fed her and have her taken her medicine).

Key informants believed that it is important that you maintain your responsibility in your work even though you have to take care of the cancer patient.

**Positive Outlook**

Having a positive outlook in life is important for each family member for them to take good care of the cancer patient because they are the one that the cancer patient treats as their strength. Having a positive outlook in life is really important for each of them to survive everyday. This was exhibited in the following statements:

“Siguro sinusubukan lang kami ni God kung hangang saan kami kakapit sa kanya” (I think God wants to test us on how much we trust on him).

Key informants believed that it is important that you trust God because he was only the one who helps us in all the trials that they are experiencing.

“Hindi ako susuko, hindi ako mag-isip na mawawalan ako ng pag-asa para sa buhay niya” (I won’t give up. I don’t think of all the things that make me weak).

Key informants believed that it is important that you don’t easily give up when you encounter problems in life. You have to think positively in order for you to survive.

**Simple Living**

Simple living can frequently describe as you are eating three times a day, you have a complete family with you and you have the basic thing that you need in life. Most of the family members describe their life as simple. They maintain their everyday living even though one of their family member has a cancer. This was exhibited in the following statements:

“Simpleng pamumuhay lang kumakain ng tatlong beses sa isang araw” (We are living in a simple life. We are eating three times a day).

Key informants believed that even one of them is suffering from a disease they need to maintain their living and don’t get affected in what is happening in their family.

“Gagawin ko muna yung mga lahat ng gagawin ko, tsaka ako pupunta sa hospital” (I did first everything that I need to do before I went to the hospital).

Key informants believed that taking care of the cancer patient is not an easy task you have to manage your time and you have to prioritize the things that you need to do.

**5.0 DISCUSSION**

As the researcher’s conducted this study, there are so many things they have learned and understand about family matters. They understand the importance of family ties, the sacrifices they do for us whether in sickness and in health. They realized that when a family help and support each other, everything will be possible. They learned that we should love our family more than anyone else.

One important thing that they learned while they are conducting this research is having have faith to God. Having faith to God was observed as the researchers ask the family member’s opinions, they realize that God was never fail on being always there for us, they
believe that family that prays together stays together.

Pinquart and Sorensen found that better well-being was correlated with caregivers who were married. However, in a study conducted by Sherman, et al., FCs who were married to the patient had increased strain, and emotional problems. The rate of FCs having strain and hopelessness was similar to that found in our study but there were no statistically significant differences.

Bowman and colleagues (2003) introduced the concept of survivor’s beliefs about the effect of cancer on the family and its relationship to a stressful appraisal of the cancer experience. Their work on stress appraisal in long term survivorship showed that older survivors’ perceptions of greater family distress and more family involvement in treatment choices were associated with more stressful appraisals of the cancer experience.

6.0 MODERATUM GENERALIZATION

This research study assesses the Family Survivorship and Quality of life Following a Cancer Diagnosis. The methodology being used is Purposive Sampling where the researchers focus on the lived experience of each family member after the cancer diagnosis of one of their family member. The criteria for choosing the respondents are the following: 12 family members from different family, residing in Camanava, should be 18-60 years old, living with the cancer patients, a nuclear family member and are willing to participate in the study. This paper wants to know the family members survivorship and quality of life after cancer diagnosis. This research study wants to explore how the family member’s survivorship and quality of life being affected after the diagnosis. As a result, the study shows that all family members find a hard time to accept the fact that one of their members has cancer but most of them utilize these following attitudes in order to survive: Acceptance, Cooperation, Faith, Wisdom and Optimism. On the other hand the following attitudes were assessed on the family member’s quality of life: Happy, Healthy, Positive Outlook, and Simple Living. This paper highlights the actuality that member of medical fields needs to consider the family members that the patient has end not confine its care solely to the patient.

7.0 REFLECTION

The researchers realize many things when they are studying this research study. One of the most important things that they realize is that life is really important for each and every one of us. People need to take care of themselves for them to be able to live well in this world. People need to think that life is one of the most important gifts of our Lord God to us. People don’t need to waste their time before it’s too late. Love each person surround you especially your family who will love you and Support you until the end.

For the future researchers who conduct the study that will assess family survivorship, the researchers hope that they will used their paper as a guide while their doing their study in the future.
8.0 REFERENCES

FROM THE SHADOWS OF DEATH INTO THE LIGHT
OF ACCEPTANCE: A LIVED EXPERIENCE OF
PATIENTS WITH HIV-AIDS

Dolores F. Matienzo-Lappay, Ma. Isabellita C. Rogado and Norbert Lewin F. Soliven
1: Arellano University, Manila and 2: Our Lady of Fatima University and Arellano
University, Manila, email: norbertlewin_soliven@yahoo.com

ABSTRACT

HIV/AIDS is one of the feared diseases worldwide. It is a disease thoroughly studied yet still incurable in this modern era. Having acquired it is like being faced with the possibility of spending life in limbo-marked by the disease, excluded from the norms of society and an outcast to many.

The study has aimed to capture how patients with HIV/AIDS struggled with living with the disease, the obstacle they had to overcome and how they were able to deal with the problems that they encountered after being diagnosed with such disease.

A descriptive phenomenology utilizing a semi-structured face-to-face interview was used. Four co-researchers from Metro Manila shared their lived experiences unreservedly. Through colaiuzzi’s data analysis two major themes and five subthemes reflected the lived experiences of dying persons living with HIV/AIDS: (1) Scourging of the Pessimistic Spirits (a) fear is a dark room where negatives are developed, (b) a spirit crying for succor (2) Rise of the Optimistic Spirit (a) burning bush in the darkness, (b) transformation in the midst of the battle for life (c) acceptance as transcending condition.

In learning their HIV/AIDS diagnosis, the co-researchers had to go through a series of steps in their lives in order to accommodate this major trial into their identity. They had to experience the psychological distress and the physical limitations caused by the disease before discovering that they do not have to live in fear and isolation. They were able to emerge from the darkness of negativity into the light of acceptance and hope and have used their experiences as a way to teach and support others who are in the same predicament as they were before. They have also learned to accept their eminent death as part of their life.

Keyword: Lived Experience, HIV-AIDS, Dying, Descriptive Phenomenology, Colaizzi.
INTRODUCTION
Living the unconditional meaningfulness of life even in the tragic triad of pain, guilt and death can become positive and creative. It is through the attitudinal values that even negative, tragic aspects of human existence will experience achievement and accomplishment at the human level (Frankl, 2000). Human life, granted by God as most of us believe, is like being given an empty page to fill out- a music sheet ready for composition. We, individuals, are the writers of our story and the composers of our music. We accumulate a lifetime of our own unique experiences that give value to our short existence in this world. To some, life is a dissonance of failures, a curse-filled tragedy wrought in sorrows and regrets. To others, it is a balance of the undercurrent of dark music of trials, the explosive march of success and triumph and the symphony of blessing and contentment. But to those who are witnesses to the gradual waning of their life due to terminal illness, an ordinary, everyday existence to some is a priceless gift to cherish at every waking hour for them.

Having a terminal illness accompanied by severe medical conditions, is an event that drastically alters not only a person's lifestyle. It is also an event that slowly seeps into a person affecting his emotional and mental well-being. Communicable disease is a red flag to some which only plainly states to stay away from the afflicted person, resulting in stigma and rejection. These people find that they are not only marred physically, but also they are openly scorned and unjustly treated. They are often left behind and abandoned to their own devices. Despite today's advanced technology in medical treatment, HIV/AIDS still remains as one of the many incurable diseases in the world. It is a shadow that looms among many. It is an unseen foe, for one cannot always tell if the person next to you is infected.

Living with HIV/AIDS spells an agony of a slow painful death. It is a disease that forces a person to witness the gradual decline of their health until only a husk of their former selves remain. These people hide away for fear of being shunned by society and die while they yet live. To some, HIV/AIDS is a battle for belongingness. To others, it is an unacceptable condition and dying in anger while some succumb to death in peace, believing that their life is fated to be ended thus. It is in dying that time is given for reflection and a journey to one's purpose in life. Death at some time in life is unavoidable and should not be ignored. It is an event in human life that one cannot defy. Moreover, when a person receives devastating news that he has terminal illness he enters into five emotional stages that entail a process on death and dying issues. He experiences denial and isolation, anger, bargaining, depression, and acceptance (Kubler-Ross 1969). Hence, the researchers would like to explore the lived experiences of people in the terminal stage of HIV/AIDS as they battle for belongingness and the inevitable event of death.

BACKGROUND OF THE STUDY
It is generally thought that death and dying is the end of life. It is the
frightening and inevitable occurrence that will one day claim our existence. Most hope that such an event will be quick and painless. Terminally ill persons, on the other hand, do not have the fortune of having their wish of such a painless death answered.

AIDS/HIV is one of the most feared diseases worldwide. It is a disease thoroughly studied yet still incurable in this modern era and having acquired it is like being faced with the prospect of spending life in limbo; marked by the disease, excluded from the norms of society, an outcast to many. The Department Of Health (2012) calculated that about 51 percent of the reported cases of HIV transmission were from the National Capital Region (NCR). The reported modes of transmission were sexual contact and needle sharing among injecting drug users and mother-to-child transmission. The 87 percent were males which is the predominant type of sexual transmission. The 96 percent of the cases still were asymptomatic at the time of reporting. Information and studies about HIV/AIDS are ubiquitous, but what about the experiences of those who have the disease? Knowing that one will be dying because of HIV/AIDS is a stressful, life-changing event. Isolation and rejection resulting from HIV stigma can be painful and depressing, permanently changing social networks and negatively affecting mental and physical health (Emlet, 2006; Heckman, Kochman and Sikkema, 2002 as cited by Pointdexter and Shippy, 2010). Given the severity of the disease and the prospect of dying, these persons have to dig deep within themselves in order to find the strength to live and still find self-worth in the process.

PROBLEM STATEMENT
There is a lack of understanding on the lived experiences of persons living with HIV/AIDS. Most studies highlight the rising cases of the illness and stigma that accompany it, but limited studies present the lived experiences of persons with HIV/AIDS. The researchers wanted to know the experiences and the perceptions of people as they journey through life with HIV/AIDS.

METHODS
Phenomenology, as a design has been employed in this study. It is concerned with the lived experiences of humans and is an approach to thinking about what life experiences of people are like and what they mean (Polit & Beck, 2008). Through this method, the researchers strove to avoid external manipulation by going directly as possible to those who are living the experiences being studied (McNee and McCabe, 2008). It is the type of design that helps to allow the researchers to understand the ongoing phenomenon of dying in Persons with HIV/AIDS and it allows narration purely from the co-researcher's point of view which gave the researcher an opportunity to know how these people perceive the world. The design highlights the lived experiences of the co-researcher, which is the aim of the study and it is also helpful when the topic of interest by the researcher has been poorly defined or when there is no clear description (Polit & Beck, 2008).
Descriptive phenomenology has also been utilized in this study in order to accommodate the narration of experiences from the co-researchers. Since it focuses on the description of “things” as people experience them (Polit & Beck, 2008), the researcher has not deemed it necessary to employ the use of statistical analysis.

The study was conducted in greater Metro Manila, Philippines based on the statistical report of the National Epidemiology Center (NEC) of the Department of Health (2012). Moreover, the actual interview were conducted on the respective houses of the co-researcher for their privacy and for at ease of feelings in sharing their experiences and thoughts about HIV/AIDS.

The researchers have utilized Colaizzi's methodological interpretations because of its focus on the depth and exploration of lived experiences. It is also the only approach that involved the co-researchers in the verification of the researcher’s interpretation of their experiences (Polit & Beck, 2008).

**RESULTS**

In the discovery of the phenomenon, there were four co-researchers from Metro Manila who qualified and participated in the study. Among the four qualified co-researchers, one of them was a female and married and three are male (two bisexual and one straight male) and single. Pseudonyms were used for all the co-researchers to protect their identity and maintain confidentiality.

<table>
<thead>
<tr>
<th>Alias / Code Name</th>
<th>Age</th>
<th>Marital Status</th>
<th>Age and Year of HIV diagnosis</th>
<th>Occupation at time of HIV infection</th>
<th>Year of AIDS diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batman</td>
<td>37</td>
<td>Single</td>
<td>27 y/o July 2003</td>
<td>Call Center Agent</td>
<td>March 2011</td>
</tr>
<tr>
<td>Spiderman</td>
<td>42</td>
<td>Single</td>
<td>31 y/o May 2002</td>
<td>Draftsman</td>
<td>November 2012</td>
</tr>
<tr>
<td>Captain Marvel</td>
<td>42</td>
<td>Single</td>
<td>32 y/o July 2003</td>
<td>Engineer</td>
<td>January 2013</td>
</tr>
<tr>
<td>Wonder Woman</td>
<td>45</td>
<td>Married</td>
<td>34 y/o January 2001</td>
<td>Housewife</td>
<td>July 2012</td>
</tr>
</tbody>
</table>
Table 2. Presentation of the major themes and sub-theme

<table>
<thead>
<tr>
<th>Sub-Themes</th>
<th>Major Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Fear is a dark room where negatives are developed</td>
<td>• Scourging of the Pessimistic Spirit</td>
</tr>
<tr>
<td>• A spirit crying for succor</td>
<td>• Rise of the Optimistic Spirit</td>
</tr>
<tr>
<td>• Acceptance as transcending condition</td>
<td></td>
</tr>
<tr>
<td>• Burning bush in the darkness</td>
<td></td>
</tr>
<tr>
<td>• Transformation in the midst of battle for life</td>
<td></td>
</tr>
</tbody>
</table>

The sub-themes and major themes have been described and discussed by the use of actual statements from the co-researchers as well as literature studies discussing AIDS and dying.

1. **Scourging of the Pessimistic Spirit and its Sub-Themes.**

HIV/AIDS is a disease dreaded by many. Being infected with this disease spells social banishment. It is a disease that not only affects a person physically but also eats away one’s soul. It brings with it a crippling fear that feeds a person’s belief that nothing can be done, that the remaining years of his existence will be consigned to a life of suffering, pain and rejection from those whom he is closest to. He fears the disease and fear discovery. He believes that his situation cannot be made better. With no help or support, HIV/AIDS victims sink into despair and melancholy, burdened by both real and imagined fears.

A. **Fear is a Dark Room Where the Negatives are Developed.**

One thing that HIV/AIDS brings into a person is the sudden barrage of fear. Plagued by this, the victims tend to withdraw into themselves and allow their thoughts to wallow in worry and self-pity. They fear rejection and death. They fear the disease, they fear the unknown. They would prefer to keep the knowledge of having the disease to themselves to protect themselves from rejection, harsh judgement or difficult practical ramifications from family, church or employment (Pointdexter and Shippy, 2010). “Fear what other people will say about me”- Wonder Woman verbalizes. It is difficult to seek help for them since it entails disclosure of the disease. Revealing their HIV status was a barrier to relationships, and the fear of being rejected was ever-present. As consequence of disclosure, some co-researchers found out who stayed loyal to them and who did not, as Captain Marvel states: “I’ve never felt so unwanted in my life’, describing the treatment at the hands of his family upon learning that he was infected with HIV.

This loss of dignity and close social ties led to feelings of fear and shame (Lekgankanye and Plessis, 2011). Co-researchers also feared the disease as they noticed the appearance of signs and symptoms and feared death altogether. “I’m afraid that I’m going to die… I didn’t really want to die at such an early age”- Wonder woman states. On the other hand, Captain Marvel expressed, “I was really angry when I found out that I have a full-blown AIDS and cancer”. The disease serves as a fuse to an explosion of
stressful thoughts and feelings for the co-researchers.

B. A Spirit Crying for Succor.

The overwhelming intensity of emotions and uncertainty leaves an HIV/AIDS victim emotionally drained and hopeless. Wonder woman described the ordeal of knowing her own diagnosis: “Devastated...I want to give up”. They are in fear of their own health and yearn for help and understanding. Knowing that there is no cure for the illness adds to the depression as Batman states, “I felt that my world collapsed... I felt that I was a dead man... that sometimes I am thinking of ending my life because it is too difficult for me”. The results are loss of lifestyle, security, personal control and dignity, and eventually loss of life (Kiemle, 1994 as cited by Nulty, 2003). It leaves a person feeling frantic in order to survive, but at the same time, the fear of being cast away by society curbs his desire to seek help. He feels embarrassed and ashamed, prompting him to be secretive about their health (Lekganyane & Plessis, 2011).


It is in the nature of humans to seek solace when faced with suffering, and this is especially true with the persons who have participated in this study. Having hit rock bottom, one has no choice but to carry on and continue with life’s journey, albeit with the illness. But one cannot direct the wind. He can only adjust his sails, as an old adage says. Victims of HIV/AIDS eventually find that they cannot let the disease govern their lives and strive to adapt to the changes. They soon realize that all is not lost as they first believed and turn the disease to their advantage, using it to help others who are similarly affected and share their experiences to help another generation. To some, having the disease is an opportunity to examine their character and the life they have led and are leading so far while others perceive it as a chance to change for the better, discover their purpose in life, undertake a journey to find out what it is and reconcile with death in the process.

A. Burning Bush in the Darkness.

Faith, emotional security and belongingness are factors that serve as a fuel to nurture hope within the co-researcher. They begin to feel comfortable knowing that they are HIV/AIDS positive and that there are another people whom they can share their thoughts with, without fearing rejection, as Captain Marvel verbalizes, “I prefer talking more to those people at the hospital, I feel relaxed whenever I talk to them...I can comfortable tell my story to them, recognizing that I am not alone in this of problem” Religious faith has also become essential for the co-researchers, believing that it is God’s will that they undergo a life with HIV/AIDS as Batman expresses, “It is a relief to trust someone who has powers greater than my own”. Romans 8:28-29 of the bible explains that—we know that God causes everything to work together for the good of those who love God and are called according to his purpose for them (Warren, 2003). Wonder woman demonstrates faith by verbalizing that, “I leave my fate to God. It is very important for me to always pray to Him; it seems that through prayer I keep myself from falling apart, this is what God had given me so I might as well make the most out of it”. Persons living with HIV/AIDS
looked at life as going on with normal activities, having wishes and desires and having hope for the future. This striving for normalcy in an abnormal world requires courage (Blake, Robley & Taylor, 2012). The researcher has found that the support of a family plays a major role in helping the co-researchers overcome their fears. They also believe that the disease has benefited them, as a co-researcher, Batman states, “I think I became a better person because of this”.


It is true for the co-researchers that you can only help others once you have helped yourself. In coming to terms with their illness, they have become more open to others, as for the greater good or for education of the youth – possibly acts of altruism (Pointdexter & Shippy, 2010). They reach out to others who are also in need of help as Spiderman states, “I will just help our support group. There are a lot of things to do there that do not involve giving money. It is very important for me to help people to be aware of this disease”. It is a point in life where one focuses on the welfare of others who are undergoing similar problems and often themselves as a friend to those who feel that they are alone.

C. Acceptance as Transcending Condition.

After the conflicts and struggles that they have undergone, the co-researchers eventually learned to accept their condition and eventually accept death. They then proceeded to tell their family, which has caused anxiety and fear, but which they held a promise for growth and catharsis (Emlet, 2008). Batman states that, “I saw how my family is helping me”, revealing how his family has accepted his disease and have wholeheartedly supported him. Some of the co-researchers like Spiderman, have found a greater foster family in a support group saying that, “It is only there that I feel that I am still worthy in this world” after his biological family refused to accept him. The family has been described by UNAIDS (2000) as the first source of support to be mobilized when a person falls ill or encounters serious problems (Lekgayane & Plessis, 2011).

Acceptance of condition and acceptance of death was also shown as Wonder woman states, “I already accepted that my days are at numbered...I'm actually happy and content right now, even though I am aware that I have AIDS”. It is in this realization that grants them peace of mind as they begin to accept their having HIV/AIDS as part of their identity. Batman supports this in his statement,”this disease had been part of my life...I've already learned to live with it”. Most of the co-researchers also do not fear death as Wonder woman candidly states,’ I’ve made peace with death.' To the researcher, this is a powerful pronouncement of contentment. Happy people are not afraid to die. Death is a part of life, but to embrace death, we must know we have lived (Izzo, 2008). The co-researchers show that life does not cease to become meaningful, even when burdened by disease and death. Life, as Frankl (2000) states, not only holds a meaning, a unique meaning, for each and every man, but also never ceases to hold such a meaning—retaining it literally up to the last moment, to one’s last breath.
The title of the paradigm reflects what the co-researchers of the study have to undergo, once they find out about their diagnosis. It is similar to being plunged headlong into a deep, dark abyss. It is all confusion, pain and despair until they start to hope and fight to carry in living. They step into the light of acceptance and belonging and find themselves reconciled with the disease and dying. The paradigm shows a series of steps leading to occurrence. It shows an individual carrying a backpack marked HIV/AIDS. This is a representation of the disease as something to carry along as the individual steps up to the stairs. The posts with round heads symbolize each major theme while the other posts represent the sub-themes.

The first stair – “The Scourging of the Pessimistic Spirit” - represents the suffering of those persons living with HIV/AIDS when they first find out about the diagnosis. The first of the sub-themes, “Fear is a Dark Room where the Negatives are Developed”, represents the barrage of fears the disease brings, causing psychological distress. There is the fear of death, rejection and fear of the unknown and of the condition. Persons Living with HIV/AIDS soon begin to sink into depression and think that there will never be a way out, an experience which echoes the next step, the sub-theme, “A Spirit Crying for Succour”. This is where they need help the most, but thinks that their situation is hopeless, when the burden they carry almost crushes them with its weight.

The individual soon finds it within himself to get to his feet. He begins to examine his resources slowly and cautiously as he reaches out for help. This is the second step to the second major theme, “The Rise of the Optimistic Spirit”.

The first sub-theme, “Burning Bush in the Darkness”, denotes faith, emotional security, belongingness and hopefulness. This is where the individuals seek help from others and find ways to alleviate physical, psychological and emotional pain through treatment and also through support groups. They feel the need to belong and not be ostracized as someone different. They take hold of what they believe in and seek spiritual comfort to help the get through the pain and the psychological distress brought by HIV/AIDS.
The second sub-theme, ‘Transformation in the Midst of the Battle for Life’, denotes the realization that Person Living with HIV/AIDS need not to be useless. The individuals soon realize that the hardship and pain that they have undergone were not for naught. They realize that there are others who are experiencing the same pain, fear and loneliness. It is here that they reach out to help – that they offer themselves and learn selflessness in their own way for the greater good.

The door represents the last sub-theme, ‘Acceptance as a Transcending Condition’. This portrays the individual’s acceptance of death, acceptance of condition and acceptance from family. It is the resolution of the psychological distress associated with death the disease. The individual accepts HIV/AIDS as a part of his identity and learns to live with it. Eventual death is also acknowledged and prepared for, which brings the individual a feeling of inner peace.

Supporting Literature

Finding out one's HIV/AIDS positive status creates shock, initial disbelief and a sense of being overwhelmed (Blake, Robley & Taylor, 2012). The individual’s definition of himself changes, regardless of culture, race, age, geography, social or economic status, or relationship status (Remien & Mellins, 2007). Victims have to face relentless challenges physically, psychologically and physiologically. They need to integrate new information in their existing identity that translates into questioning assumptions about many aspects of one's life, rethinking priorities and goals, and acquiring new skills that may be necessary to accomplish reformulated goals. These people undergo psychological distress in response to real or feared societal response such as the loss of home, employment, rejection by partners, family, community, and violence (Remien & Mellins, 2007). They suffer loss of self-dignity, low self-esteem, neglect of self-care, hopelessness, denial and social isolation (Lekganyane & Plessis, 2011; Blake, Robley & Taylor, 2012). Faced with these, they use unproductive coping strategies including secrecy, social isolation and spontaneous disclosure or nondisclosure which may block access to support services. They believe that their HIV status is a barrier to relationships and the fear of being rejected was ever-present (Blake, Robley & Taylor, 2012). However, this concern is balanced with a need to share this information with others which involve a certain group of individuals (Emlet, 2008); a small group of intimates and helpers to whom one tells all or to friends and family who were afraid that one may have HIV/AID (Pointdexter & Shippy, 2010), a decision which is made with careful deliberation, frequently based on anticipated results and reactions (Pointdexter, 2002 as cited by Pointdexter & Shippy, 2010). To some, disclosing their HIV/AIDS status demonstrates an openness which allows freedom from worry. It is about being honest and open for others which is used for the public good, to educate and help prevent the spread of the disease. This may be associated with generativity (Erikson, 1997) - using disclosure for the greater good. The concept of generativity emanates from the literature on adult
development, where one of the final stages of development is to care for and mentor the younger generations (Emlet, 2008).

In seeking help, disclosing their status lead to support from family and friends (Lekganyane & Plessis, 2011). Assistance also came in the form of having relationships with care providers, enlisting support services, groups and family (Blake, Robley & Taylor, 2012). Pausch (2008) demonstrates his own coping mechanism in facing death with his family by strengthening his bonds with his children. He quotes, “Given my limited time, I’ve had to think about how to reinforce my bonds with them. So I’m building separate lists of my memories of each of the kids. I’m making videos so they can see me talking about what they’ve meant to me. I’m writing letters for them. I also see the video of my last lecture—and this book too—as pieces of myself that I can leave for them.”

Individual and family psychotherapy with a mental health professional is also helpful in responding not just to HIV/AIDS, but to the context of the infected person’s life. People living with HIV/AIDS may exhibit a variety of responses requiring different types of medical attention and psychological support (Remien & Mellins, 2007). The researcher has found that one of the coping strategies that the co-researchers in the study have utilized was their belief in their faith. Most of them have surrendered the outcome of their lives to God, which allowed them the peace of mind that they needed. They accepted the metaphor that “life is a game of cards: you have to play the hand that you are dealt.” They endured the disease which they perceive as a trial for them. The bible says: —God keeps His promise, and He will not allow you to be tested beyond your power to remain firm; at the time you are put to the test, He will give you the strength to endure it, and so provide you a way out (Warren, 2003).

Seeking acceptance is a seemingly gargantuan task for the co-researchers. Yet, when they are finally accepted by their loved ones and those closest to them and have adjusted to the changes in their life, they are now faced with the prospect of death.

We do not like the words —death and dying. Many human activities are designed to shield us from the truth about life; that it is limited, that at least here in this place, we do not have forever. Still, it is a fact that we die and that our time is limited. When we are young, we may feel that death is a distant and far-off reality, but the truth is always close at hand, reminding us to get on with life (Izzo, 2008). It is a terrifying thought and at first, the co-researchers have opted to deny the very idea of dying. Death has always been distasteful to man (Kubler-Ross, 1969). Even some of history's popular scientists and writers are of the opinion that death is a dreadful gloomy, concept.

Aristotle called death the thing to be feared the most because “it appears to be the end of everything”. Jean-Paul Sarte asserted that death “removes all meaning from life”. Robert Green Ingersoll, one of America's most outspoken agonistics, could offer no words of hope at his brother's funeral. He said, “life is a narrow vale between the cold and barren peaks of two eternities. We strive in vain to look beyond the heights”. The pessimism of
French philosopher Francois Rabelais was equally arctic. He made this sentence his final one: “I am going to the great perhaps”. Shakespeare described the afterlife with the gloomiest of terms in Hamlet's line: “The dread of something after death, the undiscovered country from where bourn no traveller returns” (Lucado, 2009).

It is inconceivable for our own unconscious to imagine an actual ending of our own life here on earth but we have put this consideration away in order to pursue life. Denial is a healthy way of dealing with the uncomfortable and painful situation with which some persons have to live for a time. It functions as a buffer, allowing a person to collect him/herself and with time, mobilize other less radical defences (Kubler-Ross, 1969).

But it is actually unhealthy to live in denial of death and not consider what inevitable (Warren, 2003) is. The researcher has surmised that denial varies with individuals, and the co-researchers eventually had to accept the disease and accept that they were dying. It is a long way in coming to terms with death, but when the co-researchers had done so, the researcher noticed an air of quiet resignation to the fact. There was 'a common sense of peace' (Izzo, 2008) that was present and, it is interesting to observe, that these people have expressed their happiness and contentment despite the disease and the physical suffering. It showed that there is still that unconditional meaningfulness of life, because either life has meaning—and then it retains this meaning even if the life is short lived—or life has no meaning—and then adding even more years just perpetuates this meaninglessness. But even if a life that has been meaningless all along, that is, a life that has been wasted, may—even in the last moment—still be bestowed with meaning by the very way in which we tackle the situation (Frankl, 2000).

To die well is not to complain. To continue to have good spirit, and to let those who are still living know that it is okay, it is a part of life. This is the last gift we give. The last direct influence you can have is how you die. We cannot live until we assimilate the truth of our mortality, unless we come to peace with death, not as some foreign invader, but as a part of what it means to be unafraid. “To die without fight or fright...perhaps with a smile” (Lucado, 2009).

The researcher agrees with the literature stated. There may be some people who may still resist death, they may taunt, jeer and even flirt with death, but it cannot be denied that every beginning has an ending and it is exactly what life is – from the womb to the tomb, as a well-known adage states. But the co-researchers and the researcher as well, take comfort in the thought that life is a temporary assignment, that earth is only a temporary residence (Warren, 2003). It is, as one co-researcher stated, another beginning of a journey. It is a “new adventure in existence” (Lucado, 2009). At death, it is not about leaving home - - it is going home (Warren, 2003).

CONCLUSIONS

Statement of Identification.

In forming the statement of identification, the researcher has reviewed the exhaustive description of the
phenomenon and reduced it into a brief statement that describes the substance of the experiences of Persons Living with HIV/AIDS in this research. These have been verified by the co-researchers as an appropriate description for what they have had to undergo in their life.

In learning of their HIV/AIDS diagnosis, the co-researchers had to go through a series of steps in their lives in order to accommodate this major trial into their identity. They have had to experience the psychological distress and the physical limitations caused by the disease before discovering that they do not have to live in fear and isolation.

They were able to emerge from the darkness of negativity into the light of acceptance and hope and have used their experiences as a way to teach and support others who are in the same predicament as they were before. They have also learned to accept their imminent death as a part of their life.

Researcher's Reflection.
An individual afflicted by AIDS has needs that are not limited to the physical aspect only. The care that needs understanding, open-mindedness and the absence of prejudice is what he also longs for.

In listening to the personal accounts of these persons, one can see that they are often shunned by society and even by their own families. They are sensitive to what others have to say and are very careful in having to disclose their experiences. They yearn for acceptance and to unbiased listeners; they would willingly talk about themselves.

In caring for them, it is essential for these people to be with others whom they can most relate to in order for them to feel a sense of belongingness. They need to feel that they are not alone and they need to know that there are others who will truly care for them without prejudice and without hearing a word of blame to the situation that they are now experiencing.

It is also important, on the caregiver's part, to be aware of his/her own feelings and actions. Difficult is an understatement when you not only cater to the physical needs of the patient, but are also faced with the harrowing human suffering brought on by pain and the prospect of death. A nurse should have a cheerful disposition and a strong unwavering character to be able to handle the special care needed by these patients.

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THE CAUSES OF COMPASSION FATIGUE IN ONCOLOGY NURSING
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ABSTRACT

Introduction
The improving of quality health services is highly expected, especially the services provided by hospitals (Consultative Group on Indonesia, 2014). Nurse as the first line of healthcare services needs to be compassion in their job in the healthcare setting. According to Stamm (2010), the quality of professional life is the quality of a person's feelings and relationships with his work as a helper, both positive and negative aspects. Nurses who are unable to control mental health in providing health services will put them at risk of compassion fatigue (American Technology College of Healthcare, 2015). One of the nursing areas that has a risk for compassion fatigue experience is the oncology field. Potter et al. (2010) revealed that there were approximately 37% of inpatient oncology nurses experienced compassion fatigue and 35% for outpatient oncology nurses.

Aim
The aim of this research was to explore the factors that causes compassion fatigue in oncology nursing.

Method
This study applied a systematic literature review using a thematic data analysis method. The literature search strategy used some keywords including compassion fatigue, burnout, secondary traumatic stress, oncology, compassion, intervention, critical care nurse, workload, and quality of life. Moreover, this study used two databases: EBSCO and Proquest.

Result
This study found two main themes related to factors that causes compassion fatigue in oncology nursing were external and internal factors. The external factors consisted of ward condition, lack of social support, and the period of work. The internal factors included grief experience, education level, and age.

Conclusion
It is noted that the internal factors were more supported by previous studies than the external factors. Further studies were recommended related to external factors that causes compassion fatigue in nursing especially oncology nursing.

Keywords: burn out, compassion fatigue, oncology, and secondary traumatic stress
INTRODUCTION

Nurses are part of healthcare professions who cannot be separated in providing healthcare services. The profession of nurses occupies the highest number of health professionals as well as the leading provider of healthcare services (Asmadi, 2008).

Being a nurse is often faced with stress and fatigue, mostly due to the heavy workload. According to Stamm (2010), fatigue in work can also be caused by a very high workload and a non-supportive work environment. Work stress is stressful experienced by a person who involves both the problems experienced in the workplace and outside the workplace (Desima, 2007). Nurses who cannot manage their mental health issues while providing health care will put them at risk of compassion fatigue (AmeriTech College of Healthcare, 2015). Compassion fatigue in nursing is a condition where nurses feel tired in performing their duties and responsibilities. Moreover, these conditions lead to frustration due to the assumption of the useless work effort (Hidayat, 2016).

One of the nursing areas that has a risk for compassion fatigue experience is the oncology field. Potter et al. (2010) revealed that there were approximately 37% of inpatient oncology nurses experienced compassion fatigue and 35% for outpatient oncology nurses. Nurse Oncology has the vital role of patient's physical care and spiritual care while facing their terminal illness. Potter, (2010) also explains that oncology nursing tends to experience compassion fatigue especially nurses who work in the ward. Several factors that cause the high number of compassion fatigue in the nursing oncology including workload, mental burden, low self-esteem, and duration of work (Potter et al., 2010). Therefore, it is important to explore factors that cause compassion fatigue in the nursing oncology. In addition, it is an interesting topic since the study of compassion fatigue on nursing oncology is rare, especially in Indonesia.

METHOD

This study applied a systematic literature review method. According to Aveyard (2010), the systematic literature review aims to summarize the knowledge of a topic that can facilitate the reader to see the overall picture of the study. This research was conducted from June to July 2016. Some keywords were used including burnout, compassion, compassion fatigue, critical care nurse, intervention, oncology, quality of life, secondary traumatic stress, and workload.

Two databases were used such as EBSCO and ProQuest. The inclusion criteria were articles reviewed from 2009-2016, available in full text, and related to nursing oncology. The chosen articles were analyzed using a Critical Appraisal by Johanna Briggs Institute (2014).

This study further applied a thematic analysis method. The thematic analysis was divided into six steps including familiarization of data, data encoding, theme development, theme review, theme definition and producing the report (Braun & Clarke, 2006).
RESULT

Based on two databases: EBSCO and ProQuest using nine keywords, the following is the description of the search strategy (Figure 1).

Figure 1. The description of the search strategy

The three chosen articles were criticized and summarized as can be seen in the following table 1.

<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Method</th>
<th>Sample</th>
<th>Group/Target</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acucel, D., &amp; Brooks, B.</td>
<td>Management of Compassion Fatigue in Oncology Nursing</td>
<td>Survey</td>
<td>p=0.01</td>
<td>Nurses working in the hospital, including oncology nurses</td>
<td>There were many nurses who believe they have the opportunity to control the problems they faced in the hospital and do not get special attention and education to overcome compassion fatigue</td>
</tr>
<tr>
<td>Potter, S., &amp; Sudhakar,</td>
<td>Caring for patients, providing support, and communication</td>
<td>Descriptive</td>
<td>p=0.001</td>
<td>Staff working in oncology units, including RN, patient care technicians, medical assistants, and radiation therapy staff</td>
<td>Results showed that care in oncology units was as average as 44% of inpatients staff experienced the risk of compassion fatigue, and 31% for the outpatient staff</td>
</tr>
<tr>
<td>&amp; Boyle, J.</td>
<td>Evaluation of Compassion Fatigue Resilience Program for Oncology Nurses</td>
<td>Experimental</td>
<td>p=0.047</td>
<td>All the nurses in the hospital</td>
<td>The result showed that there was a relationship between healthcare workers and the risk of compassion fatigue, and 51.4% nurses who experienced stress and 71.45% nurses who experienced a decrease in caring</td>
</tr>
</tbody>
</table>

Table 1. The summary of the research articles

The three articles discussed the factors cause compassion fatigue that divided into two main factors, external and internal factors. All of the three articles explained about the internal factors, but only two articles discussed the external factors. The internal factors described in the articles including grief experience, education level, and age. Whereas the external factors included ward condition, lack of social support, and working period. The themes of this study can be seen in the following table 2.

Table 2. Theme of the study

<table>
<thead>
<tr>
<th>Theme</th>
<th>Sub-theme</th>
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<tbody>
<tr>
<td>External Factors</td>
<td>1. Ward conditions</td>
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<td></td>
<td>2. Lack of social support</td>
</tr>
<tr>
<td></td>
<td>3. Working period</td>
</tr>
<tr>
<td>Internal Factors</td>
<td>1. Grief experience</td>
</tr>
<tr>
<td></td>
<td>2. Education level</td>
</tr>
<tr>
<td></td>
<td>3. Age</td>
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</tbody>
</table>

DISCUSSION

Regarding the external factors, ward conditions in oncology nursing, in this case, nurses who work in the inpatient ward have experienced more compassion fatigue than nurses who work in the outpatient (Potter et al., 2010). These conditions were caused by the high workload, lots of patients and illness complications suffered by the patients. On the other hand, Aycock & Boyle (2009) discussed that nurses who experienced compassion fatigue due to by the lack of social support. It was reported that nurses...
need of counseling session, developing of coping stress skills and spiritual support. Potter et al. (2010) further revealed that 11-20 years working experiences as nurses in the oncology ward have at risk of burnout (45%) and compassion fatigue (45%).

Grief experience as the internal factor further can cause compassion fatigue. A long-term nursing care for patients in the oncology wards leads to a long-term relationship between nurses and patients. This condition could influence nurses “bad” grief experience if the patient passed away (Potter et al., 2013; Aycock & Boyle, 2009). Interestingly, bachelor-degree nurses were nurses who had high risks of compassion fatigue (Potter et al., 2010). The reason was the bachelor-degree nurses have high-level expectations on their work. Thus, if their work often failed and repeating failed could lead to compassion fatigue experiences.

Not only education level, age is also one of the internal factors that might cause of compassion fatigue in the oncology nursing. A study by Potter et al. (2010) revealed that each range of age had a different percentage of risk for experiencing compassion fatigue such as nurses aged 21-35 years old (34%), 36-50 years old (43%), and 51-72 years old (30%). It seems that nurses who aged between 36-50 years old had experienced compassion fatigue more than others aged-range nurses. This condition could be also related to the working experiences as discussed previously that nurses who had worked for 11-20 years could have the risk of burnout and compassion fatigue experiences. However, it is further noted that nurses above 51 years old have less risk for compassion fatigue. This condition might be related to the more competence of nurses regarding stress management.

CONCLUSION

There are two main factors causes compassion fatigue in the oncology nursing even though the lack of supporting previous studies. The two main factors included external and internal factors. The external factors consisted of ward conditions, lack of social support, and period of work, whereas the internal factors comprised grief experience, education level, and age. Moreover, it is noted that the internal factors were more supported by previous studies than the external factors. Therefore, more studies were recommended to further explore the external factors that cause compassion fatigue in nursing especially oncology nursing.

ACKNOWLEDGEMENT

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QUALITY OF LIFE OF OLDER PEOPLE: COMPARISON BETWEEN PATIENTS AT OUTPATIENT DEPARTMENT AND COMMUNITY SETTING

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ABSTRACT

Higher life expectancy contributes to increased number of older people. Various body functions decline as one ages, affecting quality of life of older people. Quality of life is the perception of the individuals in the context of the culture and value systems in which they live. The purpose of this study was to compare quality of life of older people between patients in outpatient department and community. This was a quantitative descriptive study involving 199 elder people. Sampling was collected using purposive sampling with inclusion criteria: 60 years old or over, able to communicate and understand Indonesian language, willingness to become respondents, and not having hearing or visual loss that hinders participation. Quality of life was measured by the World Health Organisation Quality of Life-BREF questionnaire (WHOQOL-BREF) which consisted of four domains (physical health, psychological aspect, social relationships and environment). Ethical approval for this study was received from the Mochtar Riady Research Institute and Nanotechnology. Data was analyzed with descriptive analysis. The number of respondents in both settings were comparable (99 vs 100 respondents). In each domain in both settings, there were more respondents were in good/satisfactory/active/adequate category than in bad/unstable/inactive/inadaquate category. Nearly half of the respondents in the community (48.4\%) and in the outpatient department (50\%) were unstable psychologically. Further research is warranted on association of quality of life of older people between both settings.

Keywords: Quality of life, Elderly, Older People, WHOQOL-BREF, Outpatient Department, Community
INTRODUCTION

Economy and human development in Indonesia has enhanced tremendously over the last three decades, leading to better health and longer life expectancy (HelpAge International, 2014). By 2100, the world population life expectancy is expected to be 82 years and the Indonesian life expectancy will be 85 years (United Nations Population Division, 2012). Higher life expectancy leads to higher number of older people. It is predicted that by 2050 the total number of older people in Indonesia would reach 74,703,000 which is 25.5% of the entire population, with life expectancy predicted at 68 years old for males and 72 years old for females (HelpAge International, 2014).

Indonesia is among the top five countries with highest proportion of elderly people in the world, reaching 5,300,000 (7.4%) of the total population in 2000, while in 2010 the number of elderly was 24,000,000 (9.77%) of the total population, and by 2020 it is estimated to reach 28,800,000 (11.34%) of the total population. This trend is predicted to continue to rise until doubled in 2025 (Ministry of Health of Republic of Indonesia, 2013). In Banten province, since 2010 the number of elderly people has increased from 488,202 to 599,090 in 2014 (Central Bureau of Statistic Banten Province, 2016).

Quality of life is defined as the perception of the individual both males or females in the context of the culture and value systems in which they live, and relate to their living standards, hopes, pleasures, and attention (The World Health Organization, 1994). Quality of life may consist of physical, psychological, social relationships and environment domains (WHOQOL Group, 1998). Quality of life may shift as one physical health declines because of age. The immune system of older people diminishes, putting them at increased risk of acute and chronic diseases. The situation may get worse when elderly people live in poor financial conditions. About 11% of the Indonesian population live in poverty and 13.55% live in rural areas (Indonesia Statistic Bureau, 2010).

Most of the Indonesian population work in the non-formal sectors, making them unlikely to receive old age pension. Only 75% of the population work in non-formal sectors (HelpAge International, 2014), leaving only 25% likely to receive an old age pension. The large percentage of older people in Indonesia, especially those living in villages, may rely on their children for living. Short schooling years of many older people in Indonesia might be a contributing factor to this situation, affecting quality of life of the elderly in general. The government has actively implemented various programs in reducing poverty; however, 32.5 million Indonesians, including older people, are still in needs (HelpAge International, 2014). Thus, it is important to identify the quality of life of older people in both settings.

Banten province has a total of 636,590 elderly population aged 60-74 in 2016 (Central Bureau of Statistics Banten Province, 2016). Some of the elderly living in this area are still actively working. Some of them are working in non-formal sectors such as construction works, small scale trading, household assistants to support their lives; others rely
on their children for a living. Neither situations is a guarantee for a secure living arrangement in old age. Several contributing factors such as declining energy level of the elderly, inadequate personal health care, distance from health care facilities and insufficient financial resources, the quality of life of the elderly may be threatened.

METHODOLOGY

The purpose of this study was to compare quality of life of older people between patients in outpatient department and the community. This was a descriptive quantitative study took place in the outpatient department of a private hospital in Banten and in Cijengir, Tangerang. Data from both settings was collected July to September 2016. This was a quantitative descriptive study with purposive sampling, involving 199 elderly patients (100 respondents living in the community and 99 elderly patients in the outpatient department). Inclusion criteria consisted of 60 years old or over, ability to communicate and understand Indonesian language, willingness to become respondents, and not having hearing or visual loss that hinders participation such as shortness of breathing or physical infirmity.

Quality of life was measured by the Indonesian version of WHOQOL-BREF consisting of four broad domains: physical health, psychological aspect, social relationships and environment. Consisting of 26 questions, the WHOQOL-BREF was a shorter version of the original instrument (WHOQOL-100) which was developed by WHO aimed at assessing quality of life across culture. The Indonesian version of WHOQOL-BREF has proven valid (r = 0.89 to 0.95) and reliable (R = 0.66 to 0.87) with good internal consistency of the item domain were Cronbach alpha of 0.74, 0.66, 0.41, 0.77 for physical health, psychology, social relationship and environment respectively (Salim et al, 2007). WHOQOL-BREF was adapted to various languages including Indonesian language by Salim et al in 2007. WHOQOL-BREF uses a Likert scale with scores of 1-5 from which the raw scores for every answer were transformed into a 0-100 scale with reference to the transformation table provided on the questionnaire instructions. At the time of filling out the questionnaire, respondents were accompanied by a family member. Ethical approval for this study was received from the Mochtar Riady Research Institute and Nanotechnology. Data was analyzed with descriptive analysis.
RESULTS

Table 1 Distribution of frequency characteristics of the elderly

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
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<tbody>
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<tr>
<td>Male</td>
<td>50</td>
<td>50.0</td>
<td>Male</td>
<td>56</td>
<td>56.6</td>
</tr>
<tr>
<td>Female</td>
<td>50</td>
<td>50.0</td>
<td>Female</td>
<td>43</td>
<td>43.4</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60-70</td>
<td>64</td>
<td>64.0</td>
<td>60-64</td>
<td>45</td>
<td>45.5%</td>
</tr>
<tr>
<td>71-90</td>
<td>33</td>
<td>33.0</td>
<td>65-69</td>
<td>37</td>
<td>37.4%</td>
</tr>
<tr>
<td>&gt;90</td>
<td>3</td>
<td>3.0</td>
<td>70-74</td>
<td>17</td>
<td>17.2%</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>Total</td>
<td>99</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2 Distribution of quality of life (QoL) of elderly

<table>
<thead>
<tr>
<th>Domain</th>
<th>Age</th>
<th>Total</th>
<th>Age</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>43</td>
<td>43.0</td>
<td>58</td>
<td>31.3</td>
</tr>
<tr>
<td>Bad</td>
<td>21</td>
<td>21.0</td>
<td>58</td>
<td>31.3</td>
</tr>
<tr>
<td>Psychological</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stable</td>
<td>37</td>
<td>37.0</td>
<td>50</td>
<td>24.2</td>
</tr>
<tr>
<td>Unstable</td>
<td>27</td>
<td>27.0</td>
<td>50</td>
<td>24.2</td>
</tr>
<tr>
<td>Social Relationship</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active</td>
<td>35</td>
<td>35.0</td>
<td>50</td>
<td>28.2</td>
</tr>
<tr>
<td>Inactive</td>
<td>29</td>
<td>29.0</td>
<td>50</td>
<td>28.2</td>
</tr>
<tr>
<td>Environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adequate</td>
<td>50</td>
<td>50.0</td>
<td>63</td>
<td>22.2</td>
</tr>
<tr>
<td>Inadequate</td>
<td>14</td>
<td>14.0</td>
<td>37</td>
<td>22.2</td>
</tr>
</tbody>
</table>
The number of respondents in both settings were comparable (99 and 100 respondents). In each domain of both settings, there were more respondents in good / satisfactory / active / adequate category than in bad / unstable / inactive / inadequate category. However, Elderly in the community setting with stable psychological was slightly fewer than those in unstable state.

In the outpatient department, WHOQOL-BREF scores were higher on physical health (63.6%) and environment (63%), whereas in the community, WHOQOL-BREF scores were higher on physical health (63.6%) and social relationship domain (61.6%). Nearly half of the respondents in the community (48.4%) and in the outpatient department (50%) were unstable psychologically.

DISCUSSION

This study showed that the overall WHOQOL-BREF scores in each domains of quality of life (physical health, psychological, social relationships, and environment) in the outpatient department generally were good. These findings were contrary to previous study findings which reported lower quality of life particularly in physical health on patients with certain health conditions, namely glaucoma and macular degeneration (Kocak et al., 2013) and cardiovascular, musculoskeletal, endocrine and neurological diseases (Cancovic, 2016). Previous study involving 200 elderly aged 60 and over using the same measurement instruments (the WHOQOL-BREF) in Serbia reported lower quality of life in elderly with cardiovascular, musculoskeletal, endocrine, and neurological diseases in a retirement home in Serbia, particularly on physical, psychological and environment domain (Cancovic et al., 2016). However, it should be noted that the respondents in the present study were attendees of an outpatient department who might come only for regular medical visits.

Therefore, overall good scores on physical health in this study should be interpreted carefully as there might be other factors which could affecting responses to the questions being asked, which potentially affected bias the study results. Some factors hindering accurate comprehension when completing questionnaires may consists of lower education level, short administration time, other distractions such as noisy or disorganized environment, and cultural beliefs.

It is common that elderly in the Indonesian community abide to certain cultural beliefs. The questions were asked for physical health consisted of “How much do you need any medical treatment to function in your daily life? How much do you enjoy life? To what extent do you feel your life to be meaningful?” while living a simple life and suffering from certain age related health conditions, the elderly respondents in this area where this study took took place have a strong rooted belief to always surrender their lives to God, enabling them to accept whatever life situations they may face.

Further, elderly in the community seemed to associate good quality of life with physical health and social relationship, whereas elderly in the outpatient department referred to physical health and environment. Since the respondents were in the outpatient department.
department in a hospital, their perception of the environment might have been influenced by their observation over the hospital-organized surroundings. Environment has a considerable influence on the health status of individuals and it supports the ease, comfort and security in which a person resides (Dewi, 2014). If these needs are unfulfilled, there may become problems in the life of the elderly that will lower their quality of life (Ratna, 2008).

On the other hand, elderly people who live in the community seemed to associate their general sense of wellness to social relationship. Older people in the village embrace value of mutual cooperation where good and bad times are shared together through activities such as praying together or local community groups.

The low scores on psychological domains in both settings were in line with a previous study by Marya et al. (2008) which pointed out how aging process affected the psychology of the elderly causing short-term memory, frustration, loneliness, feeling loss of freedom, fear of facing death, changes in desire, depression and anxiety (Marya et al, 2008). In her study, Kocak et al (2013) also found lower quality of life on elderly with glaucoma and age-related macular degeneration (AMD), particularly the latter caused depression and anxiety on the elderly.

The age category of the respondents in the two settings were not the same, making comparison more difficult. Other limitation of this study was the absence of a relevant sociodemographic data, such as marital status of the respondents and types of diseases, which may affect the elderly quality of life. Thus, future study need to incorporate health status of the respondents to be able to identify the elderly quality of life at different health levels.

**CONCLUSION**

This study has reported the quality of life of the elderly in four domains (physical, psychological, environmental and social relations) in the outpatient department as compared to the community on the WHOQOL-BREF scale. The results showed that the overall quality of life of elderly patients both in the outpatient department and in the community was good.

**ACKNOWLEDGMENT**

Acknowledgement is delivered to Edi Purnomo and Mega Tri Anggraini for their contributions in the study.

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The Effects of Glaucoma and Age-Related Macular Degeneration on Quality of Life DOI: 10.4274/tjo.1347183 Nilüfer Koçak, Behice Elif Onur*, Mahmut Kaya, Hüseyin Aslankara, Hasan Can Cimilli*, Süleyman Kaynak
PROFESSIONAL QUALITY OF LIFE IN NURSING EDUCATION

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ABSTRACT

Introduction
Professional quality of life (PQL) is defined as individuals’ working quality as a helper that describe positive and negative aspects of a job as well as reflect individuals’ stress level related to their work (Stamm, 2010; Shen, Yu, Zhang & Jiang, 2015). PQL is linked to life aspects of nurses or future nurses such as level of working difficulties, balance between effort and reward (Sanchez-Reilly et al., 2013; da Silva et al., 2014), psychosocial resilience, empathy response and clinical practice scope (Maytum et al., 2004; McGarry et al., 2013).

Aim
The aim of this study was to explore the professional quality of life of students.

Method
This study received an ethical approval from Mochtar Riady Institute for Nanotechnology/MRIN Ethics Committee (No.023/MRIN-EC/III/2016). This study applied a convergent parallel mixed method design which will collect and analyse both quantitative and qualitative data in the similar phase to combine interpretation of the findings (Creswell & Clark, 2011). The population of this study is all students (463 students) in a private faculty of nursing and applied a purposive sampling using criteria for choosing the sample (Polit & Beck, 2012).

Result
This study revealed that students and at FoN UPH have experienced positive and negative aspects of professional quality of life. The positive aspect was compassion satisfaction that has been experienced between averages to high levels. The positive aspects included enjoying work and feeling of being supported for self-development and career. The negative aspect was compassion fatigue that comprised of average levels of burnout and low levels of Secondary Trauma Stress/STS. The negative aspects included working overload and feeling of being treated unprofessionally.

Conclusion
Due to students’ negative experiences in nursing education, it is important to address the negative experiences.

Keywords: professional quality of life, compassion fatigue, compassion satisfaction
INTRODUCTION

Nurse as a profession has been identified as a caring profession that assist clients to promote their health status. However, this profession also known as a stressful profession due to a stressful working environment. Many nurses have experienced stress and withdrew from their profession (Hooper, Craig, Janvrin, Wetsel & Reimels, 2010).

Nursing students as future nurses might also felt stress since the students practice their skills in the clinical settings as part of their education process. A previous study revealed that a number of students dropped out from nursing education due to many reasons including workload and stressful clinical practice experiences (Mason & Juan, 2012).

Stamm (2010) argues that a helper profession could experience both satisfaction and fatigue experiences. The experiences can be seen as a professional quality of life (PQL). ProQoL (Professional Quality of Life) questionnaire developed by Stamm is a valid and reliable instrument to evaluate PQL (Cronbach Alpha 0.72-0.87). This instrument has been applied in 20 countries (Stamm, 2016), however, it has never been used and translated into Indonesian version. Therefore, there is a need for adapting the questionnaire into the Indonesian setting which can be used broadly in Indonesian nursing area, especially nursing education (Eka, Tahulending, Kinasih & Yuningsih, 2016).

This study aimed to identify the professional quality of life of nursing students. Therefore, this study provided discussions regarding the descriptions of the level of students’ compassion satisfaction, burnout and secondary traumatic stress (STS). Moreover, this study provided themes regarding the students’ experiences in their journey as nursing students.

METHOD

The ethical approval of this study was received from MRIN Ethical Committee (Mochtar Riyadi Institute of Nanotechnology) with a protocol number: 04.1602036. This study applied a mixed-method design with a convergent parallel design method (Creswell & Clark, 2011). The study collected and analysed both qualitative and quantitative data in the same phase that produced a combine interpretation result. The steps of the implementation of the convergent design are as follows:

<table>
<thead>
<tr>
<th>Step</th>
<th>Quantitative descriptive design</th>
<th>Qualitative descriptive design</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>• Explain the research question and specify type quantitative approach.</td>
<td>• Explain the research question and specify type qualitative approach.</td>
</tr>
<tr>
<td></td>
<td><strong>Collect Quantitative data</strong></td>
<td><strong>Collect Qualitative data</strong></td>
</tr>
<tr>
<td></td>
<td>• Get permission</td>
<td>• Get permission</td>
</tr>
<tr>
<td></td>
<td>• Identify quantitative sample</td>
<td>• Identify qualitative sample</td>
</tr>
<tr>
<td></td>
<td>• Collect data with instrument</td>
<td>• Collect data with opened question and diary</td>
</tr>
</tbody>
</table>
Step 2

**Analyze quantitative data**
- Using descriptive statistic

**Analyze qualitative data**
- Using thematic analysis

Step 3

Using strategy to combine research result
- Identify research result with compare and synthesize the result

Step 4

**Interpretation of merged result**
- Brief and interpretation of different results
- Discuss the results two types of data to be related to each other and produce more complete understanding

Figure 1. The phases of the study

This research was conducted from December 2015- November 2016 using the adapted and translated ProQoL questionnaire (Eka et al., 2016; Stamm, 2016) at a private university. There were 463 nursing students as respondents selected through a purposive sample with criterion sampling. The respondents consisted of three types of students as can be seen in the following table 1:

Table 1 Type of the respondents

<table>
<thead>
<tr>
<th>Type of the respondents</th>
<th>N</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third year students</td>
<td>258</td>
<td>(55.72)</td>
</tr>
<tr>
<td>Final year students</td>
<td>175</td>
<td>(37.79)</td>
</tr>
<tr>
<td>Fresh graduate</td>
<td>30</td>
<td>(6.49)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>463</td>
<td>(100)</td>
</tr>
</tbody>
</table>

RESULT

The respondents of this study came from various places in Indonesia and most of them were female with Batakinese and Javanese as their most ethnic backgrounds (Table 2).

Based on the ProQoL questionnaire, the professional quality of life of the students were divided into three criteria: compassion satisfaction, burnout and secondary traumatic stress/STS (Table 3).

Table 3 revealed that more than half of the students experienced an average level of compassion satisfaction. However, most of the students also had a burnout score of average and a low level of STS.
<table>
<thead>
<tr>
<th>Student</th>
<th>Professional Quality of Life</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Level</th>
<th>Low (N/N%)</th>
<th>Average (N/N%)</th>
<th>High (N/N%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third year</td>
<td>Compassity</td>
<td>25</td>
<td>39.4</td>
<td>5.0</td>
<td>0</td>
<td>172 (66.7)</td>
<td>86 (33.3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfaction</td>
<td>8</td>
<td>4</td>
<td>1</td>
<td></td>
<td>(66.7)</td>
<td>(33.3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Burnout</td>
<td>25</td>
<td>23.1</td>
<td>4.6</td>
<td>116 (45)</td>
<td>142 (55)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>8</td>
<td>0</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Secondary</td>
<td>25</td>
<td>21.2</td>
<td>6.2</td>
<td>159</td>
<td>98 (38)</td>
<td>1 (0.4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trauma Stress</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td></td>
<td>(81.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Year</td>
<td>Compassity</td>
<td>17</td>
<td>40.1</td>
<td>5.1</td>
<td>0</td>
<td>101 (57.7)</td>
<td>74 (42.3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfaction</td>
<td>5</td>
<td>8</td>
<td>4</td>
<td></td>
<td>(57.7)</td>
<td>(42.3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Burnout</td>
<td>17</td>
<td>22.6</td>
<td>4.9</td>
<td>87 (49.7)</td>
<td>88 (50.3)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>0</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Secondary</td>
<td>17</td>
<td>21.3</td>
<td>5.6</td>
<td>99 (56.6)</td>
<td>76 (43.4)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trauma Stress</td>
<td>5</td>
<td>9</td>
<td>6</td>
<td></td>
<td>(43.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh graduate</td>
<td>Compassity</td>
<td>30</td>
<td>40.4</td>
<td>4.6</td>
<td>0</td>
<td>20 (66.67)</td>
<td>10 (33.33)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfaction</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td></td>
<td>(33.33)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Burnout</td>
<td>30</td>
<td>4.44</td>
<td>4.4</td>
<td>12 (40%)</td>
<td>18 (60)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Secondary</td>
<td>30</td>
<td>5.01</td>
<td>5.0</td>
<td>10 (33.33)</td>
<td>20 (66.67)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trauma Stress</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
<td>(33.33)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Professional Quality of Life of the respondents

<table>
<thead>
<tr>
<th>Student</th>
<th>Age</th>
<th>N (%)</th>
<th>Sex</th>
<th>N (%)</th>
<th>Ethnic background or province origin</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third year</td>
<td>18-19</td>
<td>41 (15.4)</td>
<td>Female</td>
<td>201 (77.9)</td>
<td>Batakne</td>
<td>55 (21.3)</td>
</tr>
<tr>
<td></td>
<td>20-21</td>
<td>198 (69.2)</td>
<td>Male</td>
<td>57 (22.1)</td>
<td>Dayak</td>
<td>40 (15.3)</td>
</tr>
<tr>
<td></td>
<td>22-23</td>
<td>19 (7.4)</td>
<td></td>
<td></td>
<td>Javanese</td>
<td>49 (19)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Others (13)</td>
<td>114 (44.1)</td>
</tr>
<tr>
<td>Final year</td>
<td>20-21</td>
<td>142 (81.1)</td>
<td>Female</td>
<td>145 (82.9)</td>
<td>Batakne</td>
<td>41 (23.4)</td>
</tr>
<tr>
<td></td>
<td>22-23</td>
<td>31 (17.7)</td>
<td>Male</td>
<td>30 (17.1)</td>
<td>Javanese</td>
<td>41 (23.4)</td>
</tr>
<tr>
<td></td>
<td>24-26</td>
<td>2 (1.2)</td>
<td></td>
<td></td>
<td></td>
<td>10 (5.7)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ambon Others (18)</td>
<td>83 (47.5)</td>
</tr>
<tr>
<td>Fresh graduate</td>
<td>22-23</td>
<td>24 (80)</td>
<td>Female</td>
<td>25 (83.33)</td>
<td>Sumatera</td>
<td>7 (23.33)</td>
</tr>
<tr>
<td></td>
<td>24-25</td>
<td>6 (20)</td>
<td>Male</td>
<td>5 (16.67)</td>
<td>Sulawesi Javan</td>
<td>7 (23.33)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Others (6)</td>
<td>4 (13.33)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12 (40)</td>
</tr>
</tbody>
</table>
In regard with the qualitative study, the respondents consisted of 212 third year students (75.98% response rate), 175 final year students (100% response rate) and 20 fresh graduated students (66.67% response rate). The qualitative data of this study provided several themes. The results of the open-ended questions of this study can be seen in the following table 4:

Table 4. Theme of the open-ended questions

<table>
<thead>
<tr>
<th>Student</th>
<th>Theme</th>
<th>Sub theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third year</td>
<td>Positive aspect</td>
<td>Feeling of happiness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feeling of motivated</td>
</tr>
<tr>
<td></td>
<td>Negative aspect</td>
<td>Feeling of burdened</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feeling of unhappiness</td>
</tr>
<tr>
<td>Final year</td>
<td>Cause</td>
<td>External factor</td>
</tr>
<tr>
<td></td>
<td>Compassion</td>
<td>Internal factor</td>
</tr>
<tr>
<td></td>
<td>Fatigue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experience related to Compassion</td>
<td>Satisfy experienced</td>
</tr>
<tr>
<td></td>
<td>Satisfaction</td>
<td>Getting benefit</td>
</tr>
<tr>
<td></td>
<td>Coping strategy to resolve Compassion</td>
<td>Focus on problem</td>
</tr>
<tr>
<td></td>
<td>Fatigue</td>
<td>Focus on emotion</td>
</tr>
<tr>
<td>Fresh graduate</td>
<td>Negative experience</td>
<td>Feeling of depressed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No motivation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 showed that the third year and fresh graduate students had both positive and negative experiences in their study. In addition, the final year student felt satisfy of their study and provided the causes and coping strategies to address compassion fatigue. A student mentioned that she was overwhelmed with her assignments:

“Saya merasa selama saya menjadi mahasiswa terkadang cukup kewalahan dengan tugas-tugas kuliah dan kadang berpikir untuk tidak mengerjakan karena penat”/ I feel that as long as I am a student sometimes it is quite overwhelmed with the tasks and sometimes that I think for not doing them because of the feeling of exhausted (Third year student, female, Lampung).

Other student in the final year also felt that the noisy in the classroom can influence his concentration for learning:

“Pengalaman tidak menyenangkan saya berkaitan dengan belajar yaitu situasi di kelas yang ribut dan gaduh dalam pembelajaran sehingga saya tidak bisa berkonsentrasi”/ The unpleasant
In the clinical setting, a student further stated that some nurses were uncaring and indifferent:

“Hal yang tidak menyenangkan adalah saat saya berpraktik di beberapa rumah sakit dan saya melihat ada beberapa perawat yang tidak begitu peduli dengan kondisi pasien dan bersikap acuh tak acuh”/ The unpleasant experience was when I was practicing in some hospitals and I noticed that there were some nurses who were not so concerned with the condition of the patients and being indifferent (Fresh graduate, female, Ambon).

In contrast, a student also satisfied with her study due to no obstacle in her study:

“Yang membuat saya puas ketika belajar dipendidikan keperawatan adalah saya dapat mengikuti setiap pembelajaran tanpa hambatan dan lancar sampai semester 6 ini, serta saya mendapatkan pengalaman dan kompetensi”/ What makes me satisfied when I learn in the nursing education is that I can involve in every learning process without barriers and smoothly until this 6th semester, and I gain experiences and competencies (Third year student, Female, Jember).

A student in the final year also supported that she was satisfied with her education in nursing:

“Hal yang membuat saya merasa puas selama belajar di pendidikan keperawatan yaitu jika mendapat nilai bagus dan bisa menolong pasien saat di klinik serta pasien mengucapkan terima kasih pada saya dan manfaat yang didapat dari kegiatan belajar di pendidikan keperawatan yaitu saya mendapat banyak ilmu bagaimana menolong orang lain dengan belas kasih”/ The thing that makes me feel satisfied while studying in nursing education is that if getting good grades and can help patients while in the clinical setting as well as when patients thank me and the benefits gained from the learning activities in nursing education is that I get a lot of knowledge how to help others with mercy (Final year student, female, Javanese).

A fresh graduate student further stated that her study was a valuable experience:

“Pengalaman yang sangat berharga dan menyenangkan ketika saya mampu menyelesaikan tugas dan tanggung jawab secara mandiri”/ A valuable and enjoyable experiences when I am able to complete my tasks and responsibilities independently (Fresh graduate, female, Dayak).

Moreover, ten final year students and five fresh graduate students were participated in this study by writing their experiences in the diary for 5-7 days. Both third year students and fresh graduate experienced advantage and disadvantage experiences. The results of the diary can be seen in table 5.

Table 5. Theme of the diary

The students expressed their feeling in their diary and stated that they felt both happy and unhappy in their study.
journey. A student in the third year wrote that “Perasaan saya hari ini bahagia karena saya masih bisa mengikuti pelajaran dengan baik ...”/ My feeling today is happy because I can still involve in the learning well (Third year student, female, Bataknese). However, other third year student also mentioned his unhappy situation by stating:

“Hal ini semualah yang membuat mahasiswa stress dan akibat mengalami tekanan yang berat dalam jangka waktu lama...”/ This is all that makes students stress and the consequences of heavy pressure experiences will be in the long term (Third year student, Male, Manado).

A fresh graduate student further stated that “Saya merasa beban akan pekerjaan lebih tinggi, namun saya merasa puas mampu melakukan dengan baik”/ I feel the burden of work more, but I feel satisfied to do well. In contrast, other fresh graduate felt of tired by stating:

“Banyak tindakan keperawatan kepada pasien yang saya rawat, bahkan sudah selesai jam dinas saya belum bisa menyelesaikan semua tugas dan ini membuat saya sangat lelah”/ A lot of nursing interventions to the patients that I conducted, even until the end of my clinical practice hour, I have not been able to complete all the tasks and this makes me very tired.

In summary, both quantitative and qualitative data of this current study revealed that the students both experienced positive and negative situations in their study. The positive experiences could be their valuable motivation that influence their journey

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<tr>
<th>Student</th>
<th>Theme</th>
<th>Sub-theme</th>
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<tr>
<td>Third year</td>
<td>Feeling of</td>
<td>Lots of burden</td>
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<td></td>
<td>exhausted</td>
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<td>Feeling of</td>
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<td>satisfaction</td>
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<td>Fresh graduate</td>
<td>Pleasant</td>
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become professional nurses. In contrast, their negative experiences could be the obstacles for their journey. Thus, it is imperative to acknowledge and address the negative experiences of the students which could support student nurses to provide a positive quality of life as well as to pursue their professional degree.

**DISCUSSION**

The results of this study indicated that nursing students experienced both positive and negative aspects of their professional quality of life. In regard with positive aspect, most students were on the average to high level of compassion satisfaction. The positive aspects were related to enjoying the work or learning,
feeling of joy and feeling of being supported for self-development and career. On the other hand, the negative aspect of the professional quality of life was that most students experienced a moderate level of burnout. These negative aspects included lots of workload and encounter unprofessional behaviour in the clinical practice.

A previous study in South Africa by Mason & Nel (2012) supported this current study. The study revealed that most of the nursing students experienced high level of compassion satisfaction (61.25%). In contrast, a study in UK revealed that only 44.6% of the midwifery students were satisfied with their study. In regard with burnout, a study in Turkey by Neriman, Citak and Aysel (2012) further supported the result of this study. The study showed that students who both working and studying may experience burnout due to working environment situation.

Furthermore, a study in Saudi Arabia revealed a number of correlation regarding professional quality of life of the nursing students (Essmat, Essmat & Albarrak, 2016). Compassion satisfaction was significant positive related to burn out ($r=0.52$, $p=0.0001$) meaning that the more the compassion satisfaction the higher the risk for burn out. The authors (Essmat et al., 2016) also reported that there was a significant moderate positive correlation between burn out and compassion fatigue ($r=0.26$, $p=0.002$). This also indicated that the more the risk of the burn out, the more the compassion fatigue. However, there was a weak correlation between compassion satisfaction and compassion fatigue ($r=0.15$, $p=0.073$) which also being claimed by the authors that it was needed of larger sample to reveal a significant relationship.

It is noted that this current study was in line with the previous studies that concluded the students experienced both negative and positive aspects of PQL. However, lack of studies have examined the professional quality of life of nursing students. Therefore, further studies are needed to enlarge respondents in nursing education especially in Indonesia to achieve generalization (Essmat et al., 2016; Eka et al., 2016) as well as to hinder students for experiencing disadvantage situations in their study journey towards professional nursing life.

CONCLUSION

This study has reported the professional quality of life of the nursing students in three domains (compassion satisfaction, burnout and STS) in the nursing education scope including classroom and clinical setting using the ProQoL questionnaire. The results showed that most of the students were on a moderate-high level of compassion satisfaction, a moderate level of burnout and a low level of STS.

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REFERENCE


NURSING INTERVENTIONS USED IN PROMOTING SPIRITUAL HEALTH FOR PATIENTS WITH LIFE THREATENING ILLNESS IN HOSPITAL SETTINGS
A LITERATURE REVIEW

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ABSTRACT

Background
Spiritual health is one of the essential components of health, where patients search for meaning and purpose in life. Patients with life threatening illness experience distress, physically and spiritually. There are studies which found that nurses did not regularly integrate spiritual care into their daily routine, due to lack of time and knowledge. It is important to discover existing evidences of spiritual interventions which help the nurses promote spiritual health as regards to patients’ need in hospital settings.

Aim
The aim of this study was to describe nursing interventions applied in promoting spiritual health for patients with life threatening illness in hospital settings.

Method
A literature review of sixteen articles was carried out, articles were retrieved from CINAHL and MEDLINE databases to answer the study’s objective. A process of re-reading and finding the similar categories was being used to develop themes in analyzing the data.

Result
Results were categorized into three themes: person-centred communication, adapting a team approach, and modifying the physical environment. It was found that the nurses conducted a deeper level of communication which covered topics about patients’ wishes and hopes, and being there for patients as major interventions. The nurses also assessed patients’ spiritual needs prior to interventions, and were promoting patients and family belief and value in a respectful way. Family and referrals were also included in the intervention given by the palliative care team; moreover the nurses were providing privacy with regards to supporting a healing environment.

Conclusions
Acknowledgement of dying is essential in providing appropriate care. It is important for the nurses to be prepared adequately through education, to conduct spiritual care interventions within a person-centred care approach. Recommendation from this study may improve the quality of delivering spiritual care for patients with various cultures.

Keywords: nursing intervention, spiritual health, life threatening illness, hospital
BACKGROUND

Palliative Care

The European Association of Palliative Care (EAPC), 2010 defines palliative care as an active, total care from an interdisciplinary approach intended for patients whose disease are not responsive to curative treatment, control of pain, of other symptoms, and of social, psychological and spiritual; the palliative approach integrates patient, family and community, for providing the needs of the patient whether at home or hospital setting, affirms life and regards dying as a normal process, to preserve the best possible quality of life until death. Gamondi, Larkinand, and Payne (2013) in EAPC white paper report describe ten core competencies in palliative care, one of them is meeting patients’ spiritual needs.

The main goal of palliative care are to promote and to improve the quality of life both for the patients and their families throughout the disease trajectory. Care is mainly based on the physical, psychological, social, and spiritual dimension of the individual (Radbruch, et al., 2009). The objectives of palliative care services include optimization in quality of life and dignity in dying, recognizing patients’ choice and autonomy, and recognizing both patients’ and families’ needs in any care setting (Ahmedzai et al., 2004).

Palliative Care Settings

Palliative care can be applied in a number of settings. The services itself are coordinated through different settings of home, hospital, inpatient hospice, nursing home and other institutions (EAPC, 2010). Patients, who have problematic symptoms such as recurrent pain and other symptoms from the diseases and medication side effects, also fear about condition and future which cannot be controlled (Ahmedzai et al., 2004).

Palliative care in hospital settings are frequently provided together with life-prolonging care, regardless of the patient’s diagnosis or prognosis, and is an integral component of comprehensive care for critically ill patients (Aslakson, Curtis, & Nelson, 2014). Hospitals are part of healthcare institution facilities whose main goal is to deliver effective and efficient patient care. The hospital characteristics are in-patient beds, medical staff, nursing services, and other various specialties (Ferenc, 2013). Palliative care is expected to be routine delivered by the nurses or other health care providers in hospital settings (Weissman & Meier, 2008).

Approximately one in five deaths in the United States occurs during or shortly after admittance to Intensive Care Unit (ICU). There are more deaths that occur in the ICU than any other settings in the hospital (Aslakson et al., 2014). In addition, palliative care is an important component of comprehensive care for patients with life threatening illness, even from the period of ICU admission, it is neither an exclusive alternative, nor consequences to unsuccessful efforts at life prolonging care (Aslakson et al., 2014).

Life threatening illness

The need for palliative care is increasing not only for patients with cancer, but also for other patients with non-communicable diseases as well as life-threatening illness (Worldwide Palliative Care Alliance [WPCA], 2014).
The term life threatening illness (LTI) refers to illness with significant threat to life (Sheilds et al., 2014). LTI means that there is no cure, and it might be highly distressing for patients and family, and have consequences not only to physical and financial states, but also social and spiritual conditions (Johnston, Miligan, Foster, & Kearney, 2012). According to Sheilds et al. (2014) the term critical illness also refers to a life threatening illness, a concept that also refers to illness with significant threat to life, with extensive variety of diseases, which require palliative care approaches.

Some examples of patients with LTI that require palliative care services for adults are; Alzheimer’s disease and other Dementias, Cancer, Cardiovascular diseases (excluding sudden deaths), Cirrhosis of the liver, Chronic Obstructive Pulmonary Diseases, Diabetes, HIV/AIDS, Kidney failure, Multiple Sclerosis, Parkinson’s disease, Rheumatoid Arthritis, Drug-resistant Tuberculosis (WPCA, 2014). According to WPCA (2014), in 2011 the expected number of adults need palliative care was more than 19 million, with majority died from cardiovascular diseases (38.5 percent) and cancer (34 percent).

Since LTI can provoke questions about deeper existential issues, such as the meaning of life, spiritual care should be integrated to palliative care provision. It is important for nurses to be able to raise spiritual issues in a supportive and caring environment (Gamondi et al., 2013).

**Spirituality**

Based on EAPC (2010), spirituality is a part of dynamic dimension of life that relates to the way patients both as individuals and community members, express themselves and/or seek meaning, purpose of life and transcendence. Meeting patients’ spiritual needs is one of the core competences in palliative care (Gamondi et al., 2013). According to EAPC (2010), it is the way to connect at a particular moment, to self, others, nature, the significant and/or the sacred. Spirituality is also a transcendent dimension of belief in a higher being and with more material and humanistic pursuits along a horizontal dimension (Ormsby & Harrington, 2003).

Some patients are longing for religious or spiritual care providers to help answer the question about why they experience the disease (Mueller, 2001). Moreover, describes by Mueller (2001), they might also seek answers to existential question when they consult with a physician to determine the cause and treatment of an illness. Puchalski (2002) notes that spiritual care needs for patients with LTI includes: having a warm relationship with their caregiver, being listened to, having someone to be trusted to share their fears and hopes, having someone with them when they are dying, being able to pray, and having others pray for them if required. Spiritual needs in general include the need to give and receive love; to have meaning, purpose, hope, values, and faith; and to experience transcendence, beauty, and so forth. When spiritual needs are not satisfied, spiritual suffering or distress occurs (Mueller, 2001).

Some studies found that nurses do not regularly incorporate spiritual care into their daily routine, and lack time to explore the patient’s spiritual needs (Ellis
& Narayanasamy, 2009). The nurses might feel they lack the essential skills to individually provide spiritual support to patients (Ellis & Narayanasamy, 2009). Spirituality in nursing is a part of holistic nursing care, yet many nurses are unprepared for spiritual care, which is a neglected area of practice (Pesut, 2008). There is a lack of education on spirituality within nurse training programs. Moreover, even though spirituality is discussed within nursing education, it is neglected in practice (Narayanasamy, 2006b).

**Spiritual health**

Spiritual health is part of human health, as well as physical, and mental health, this means that a person is able to deal with everyday life, in a way that lead to insight of potential, meaning and purpose of life, and satisfaction (Dhar, Chaturvedi, & Nandan, 2011). Therefore, every health care provider is obliged to provide spiritual support, as Driscoll (2001) mentions that spiritual care is beyond religious care; it includes respect for meaning and value of a human being. In addition, as mentioned by Scottish Executive (2002, as cited in Lugton & McIntyre, 2005), spiritual care is completely person-centred without any assumptions about personal belief or life orientation, and is usually given within the context of a personal relationship.

**Person-Centred Care Framework**

McCormack and McCance (2006) developed the Person-Centred Care (PCC) framework for use in the intervention that focused on measuring the effectiveness of the implementation of PCC in hospital settings. Person-centred processes focus on providing care through various activities, which operationalize PCC nursing and including working with patient’s beliefs and values, engagement, having sympathetic presence, sharing decision-making. McCormack & McCance (2006) describe the framework that includes four constructs, such as prerequisites, which include attributes of nurses, caring environment, person-centred process, and expected outcomes.

The importance of PCC in palliative care context in hospital settings, leads advanced practitioner nurses’ decision making from traditional nursing roles towards advanced communication, counseling, and care planning (McCormack et al., 2011b). Further in this study, the term patients’ will be used refer to a person who is receiving care in a hospitals settings.

**Nursing in Palliative Care**

Meleis (2012) describes the domain of nursing, which fundamental to nursing are: nurse-patient relationship, transitions, interaction, nursing process, environment, nursing therapeutics and health (Meleis, 2012). In addition, by the International Council of Nurses ([ICN], 2012), stated that in providing care, the nurse promotes an environment in which human rights, values, customs and spiritual beliefs of the individual, family and community are respected.

Palliative care nurses’ major responsibilities are caring for dying patients and families, providing an empathetic relationship, being there and acting on the patient’s behalf, fostering hope, supporting and helping them to live with the psychological, social, physical, and spiritual consequences of their illness (Johnston in Lugton & McIntyre, 2005).
The nurses are expected to play a significant role in improving patients’ and families’ quality of life during a tough period (Murray, 2007). Some nurses hold very positive views about spiritual care and consider that they have a role to play in addressing patients’ spiritual needs, however they need to have more education in order to provide spiritual care (Timmins et al., 2016).

Nurses are members of a team within palliative care and in hospital settings the team consists of doctors and nurses, including chaplain. The team provides support and advice of pain and symptoms control, management of pain, psychosocial and spiritual support, and bereavement support (Johnston in Lugton & McIntyre, 2005). Palliative care teams, especially nurses are expected to be able to provide opportunities for patients and families to express their spiritual and existential dimensions in a respectful manner, to integrate their spiritual, existential and religious needs in the care plan, respect their decisions, and be aware of the limitations and respect of cultural taboos, values and choices (Gamondi et al., 2013).

PROBLEM STATEMENT

Considering the magnitude of vast increments of life-threatening illnesses globally, in 2011 the estimated number of adults in need of palliative care at the end of life was over 19 million, with majority died from cardiovascular diseases (38.5%) and cancer (34%). Despite ‘meeting spiritual needs of patients’ with life threatening illness being as one of core competencies of palliative care, several studies have stated that nurses do not habitually integrate spiritual care to their routine care plan. These might be attributed to feeling of nurses lacking the essential skills to individually provide spiritual support to patients, lack of education on spirituality within nurse training programs and lack of time which makes spiritual care seem to be neglected. Therefore this literature review is emphasizing to determine the existing evidence of spiritual interventions that could help the nurses promote spiritual health according to patients need in clinical setting, specifically hospital.

AIM

The aim of this study was to describe nursing interventions applied in promoting spiritual health for patients with life threatening illness in hospital settings.

METHOD

Design

The research design in this study was systematic literature review. A systematic review is a design to identify comprehensively and discover all the available literature on a topic, with a comprehensive methodology, and well-focused searching strategy (Aveyard, 2010). In addition according to Aveyard (2010), inclusion and exclusion criteria are developed in order to assess which information to retrieve, and ensure included only studies that are relevant to the aim were addressed by the literature review. A literature review was used to carry out this study. A literature review is a critical summary of research on a topic of interest, frequently prepared with placed a research problem in the framework (Polit & Beck, 2012). In addition according to Garrard (2011), this method is done by reading, analyzing,
accumulating knowledge about the topic studied, and writing scholarly materials about a specific subject or area of interest; the author must focus on the scientific methods, results, strengths, weakness, analysis and conclusions. The author was choose the literature review in order to find summary of topics to initiate research in spirituality and nursing interventions.

**Data Collection**

The electronic health-related databases used to gather articles were from Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Medical Literature On-Line (MEDLINE). CINAHL is an important electronic database which covers references to all English-language nursing and allied health journals, books, dissertations, and selected conference proceedings in nursing and allied health fields (Polit & Beck, 2012). MEDLINE database accessed for free through PubMed website, it is cover mostly the biomedical literature, it used the controlled vocabulary called MeSH (Medical Subject Headings) to index articles (Polit & Beck, 2012).

The search words used by MeSH term in MEDLINE were palliative care, nursing, nurse, spirituality, terminal care, critical illness, acute, and emergency. The free text search words were hospital, life threatening illness, spiritual care, and spiritual health. The author used similar terms for search process in CINAHL, the difference was option for MeSH term was changed by MW word which included subject heading and subheadings. In both databases, the Boolean operators used “AND” and “OR” to connect words together to either narrow or broaden results.

Only peer-reviewed and primary research articles were included after being assessed to establish significance and trustworthiness (Richardson, 2011). According to Garrard (2011), a peer-reviewed paper is the one which has gone through one or more scientific experts. Primary research or primary source materials are original research papers written by the authors who essentially conducted the study. The primary source includes the purpose, methods, and results section of a research paper in a scientific journal (Garrard, 2011).

The author chose matrix method according to Garrard (2011), as the articles presented in a matrix includes author, year, and country, title, aim, method, sample, results, type, and quality. In order to collect the documents, all titles from hits displayed were reviewed, then the author read the abstract to determine relevance to the aim. When the abstract’s objective and results seemed to be relevant to the study aim, then the entire article was read. Finally, the author decided which articles to be used in this review. Each article was read several times, and a few articles were eliminated if they did not include nursing interventions. The analysis process started when sixteen articles were found relevant to the aim, and data saturations have been reached.

**Inclusion and Exclusion Criteria**

Inclusion criteria for the research focused on original studies or primary research which used either qualitative or quantitative, and mixed methods. The articles sources would be within ten years between 2006 and 2016, published in
English, peer reviewed, related to palliative care, nursing interventions were included, and the population were adult patients. On the other hand, articles published prior to 2006, used language other than English, focused in home care setting, and articles which involved infant, children, and adolescent were not used. All reports, review articles, and grey literature were also excluded.

**Ancestry Search**

The author was carried out an ancestry search, which involved using citations from related studies to discover earlier research on the same topic (Polit & Beck, 2012). The author did the search by examined links suggested in the databases, and searched in references list from chosen articles. Five articles were included from the ancestry search in this literature review.

**Data Analysis**

Sixteen articles were included in this literature review. The assessment and analysis of the articles were done by using the matrix method, and steps used were organized in the documents in an Excel spreadsheet to set up the review matrix on computer and the documents were ordered in alphabetical order, prior to finding the themes (Garrard, 2011).

According to Polit & Beck (2012), a convenient method to display information clearly and analyzing the data from a literature review is using matrix, as the information can be sorted chronologically, with author’s names, time of publication from oldest to recent, or common terms. The result matrix contains information about findings of each research study that answered the aim of the literature review (Polit & Beck, 2012). Articles analysis used thematic analysis, which is the most common method for summarizing and synthesizing findings in a descriptive methods, and applicable for mixed literature, qualitative and quantitative studies (Coughlan, Cronin, & Ryan, 2013). Further, Coughlan et al. (2013) explained that the first step in thematic analysis is identifying codes, and labels to classify results from the findings of the research, PCC framework (McCormack & McCance, 2006) was used as guidelines for constructing themes in results.

**ETHICAL CONSIDERATIONS**

The term ‘ethics’ in the research context refers to the principles, rules and standards of conduct that apply to investigations (Wager & Wiffen, 2011). Ethical consideration is applied when one discusses data, articles, and research accurately, objectively, and honestly. It should be interpreted carefully to prevent misrepresentation, misinformation, and/or intentional misinterpretation (Polit & Beck, 2012).

In this literature review ethical consideration did not emphasize on the protection of human and animal subjects, but rather, focused on respecting the public trust. Thus, the author paid attention in research misconduct. Research misconduct refers to fabrication, falsification and plagiarism. Plagiarism is a form of misconduct and intentional representation of another person’s own work (Wager & Wiffen, 2011). Falsification is manipulating data, or distorting results not as accurately represented as in reports. Fabrication involves making up data or study results (Polit & Beck, 2012). The author avoided
plagiarism by fully admitting all data used and giving appropriate credit when using other researchers’ work.

Fabrication and falsification were avoided by writing whatever the results were in the articles without any distortion.

Articles selected for the review must take into consideration ethical principles in accordance with the World Medical Association’s (WMA) Declaration of Helsinki, Ethical Principles for medical research, which stated that in research involving human subject, each participant must be adequately informed of the aims, methods, the anticipated benefits, and potential risk of the study (WMA, 2013).

In this literature review, risk and benefit to participants have been assessed by the authors of the investigated studies. The author made sure that all participants included in the investigated study were given informed consent, and had the rights to refuse or withdraw consent to participate without reprisal. The author also made sure that the studies included privacy, confidentiality, and received approval from an ethical review board. In regards of professionals’ code of ethics when undertaking a literature review, nurses have to consider their responsibility to care for people. In research context, the research should be used to improve nursing practice (ICN, 2012).

RESULTS

The results in this study are presented under three main themes; Person-centred communication, Adapting a team approach, and Modifying the physical environment. Sub-themes were included under the main themes.

**Person-centred communication**

Communicating on a deeper level

The nurses’ facilitated communication in a deeper level found as one of the most frequently reported interventions. The nurses explored efforts on finding sense and meaning in life (Baldacchino, 2006; Kisvetrová et al., 2016). Baldacchino (2006) found that nurses did the communication about accepting the limitation and identifying the positive aspects of the current situation, assisting in finding sense and purpose in life. This was supported by Kisvetrová et al. (2016) that stated the nurses explored patients’ hope and wishes for the future, moreover deeper into their wish for funeral arrangements. Coenen, Doorenbos, and Wilson (2007) also found that nurses in India were maintaining hope or faith, accepting clients’ feelings helping and trying to fulfill patients’ last wishes, while in Ethiopia the nurses and giving psychological reassurance.

Besides hope and wishes, the nurses’ also explored patients’ distresses by listening to patients’ deep concerns (Giske & Cone, 2015; McBrien, 2010). Nursing intervention which explored patients’ distress can also be a creative way, such as using pictures to help patients talk about spiritual aspects (van Leeuwen et al., 2006), and a storytelling method which allowed patients to share their personal experiences and achieved a sense of connectedness and intimacy (Tuck et al., 2012).

**Active listening and being present**

Nurses build nurse-patient trust relationship with active listening and
being present with patients. Active listening can promote patient self-reflection (Burkhart & Hogan, 2008; Tanyi, et al., 2009; Tuck et al., 2012). Nurses attitudes in performing active listening demonstrated respects when talking to patients in order to support patients’ coping with illness (Hanson et al., 2008), to communicate with empathy (Baladacchino, 2006; McBrien, 2010), to listen to patient expressing their feeling (Kisvetrová, Klugar, & Kabelka, 2013), to listen with interest, to be careful, and to listen deeply to patients story, to act with honesty, compassion (Coenen et al., 2007), and also to show gestures such as smiling and giving therapeutic touch by holding hand, and hand shaking (Coenen et al., 2007; Giske & Cone, 2015; McBrien, 2010).

Nurses also being present for patients and families in promoting spiritual health, by staying with patients at the bedside and also being with patient and family (Coenen et al., 2007; Gallison, Xu, Jurgens, & Boyle, 2013; McBrien, 2010; Smyth & Allen, 2011; Tuck et al., 2012). Nurses intervention of being present is described by Tuck et al. (2012) as therapeutic presence, while Giske and Cone (2015) called it as attentive engaging.

Assessing spiritual needs

Assessments of patients’ spiritual needs were carried out by the nurses prior to interventions. Assessments were done by listening to patients’ complaints about their current condition, by assessing privacy, and nonverbal cues shown by patients (Baladacchino, 2006), by assessing spiritual needs (Burkhart & Hogan, 2008; Lundberg & Kerdonfag, 2010; Smyth & Allen, 2011), by assessing patient’s comfort level with the spiritual topic (Tanyi, McKenzie, & Chapek, 2009), and by assessing whether patients belong to a religious community and patients spiritual view, and how patients handled previous situations (Hanson et al., 2008; van Leeuwen, Tiesinga, Post, & Jochemsen, 2006).

Promoting patients’ belief and values

Nursing interventions in promoting patients’ value and belief is manifested by treating patients with respect and dignity. This was found consistently in two studies (Kisvetrová et al., 2013; Kisvetrová et al., 2016). Nurses were facilitating patients religious coping (Baladacchino, 2006), allowing patients doing yoga or meditation (Coenen et al., 2007; Tanyi et al., 2013). Nurses allowed patients to conduct spiritual practices and religious rituals for instance praying in chapels (Lundberg & Kerdonfag, 2010).

Respecting patients’ belief is demonstrated by respecting patient’s belief about existential issues and connectedness with higher power (Burkhart & Hogan, 2008), and for Christian patients, nurses in USA and Ethiopia respected them to have assurance of belief from the Word of God (Coenen et al., 2007). Several articles stated that nurses prayed with patients, if only they were asked (Burkhart & Hogan, 2008; Gallison et al., 2013; Giske & Cone, 2015; Hanson et al., 2008; Kisvetrová et al., 2013; McBrien, 2010; van Leeuwen, et al., 2006).

In order to support culturally based spiritual practices, Coenen et al. (2007) found that nurses in India allowed patients to use Tulsi Patra leaves and water from
Gangga river, or chanting prayers (Bhajams and shlokas) for preparing self to have a peaceful death. McBrien (2010) supported this by stating that nurses respected patients’ and families’ cultural belief and practices.

**Adapting a team approach**
Facilitating referrals to other team members

As part of health care providers and palliative care team, nurses collaborated in promoting patients’ spiritual health. For more specific and detailed intervention in spiritual care, nurses collaborated by referring patients to hospital chaplains (Baldacchino, 2006; Gallison et al., 2013; Giske & Cone, 2015; McBrien, 2010), and calling religious ministers (Smyth & Allen, 2011).

Patients were also allowed to have their own spiritual advisors, as it had already been discussed with patient, family, and palliative care team (Kisvetrová et al., 2016). Another spiritual mentors such as priests, pastors, members of the clergy, or other spiritual leaders, were also facilitated by nurses for being with patients (Coenen et al., 2007).

**Family and significant others**

Nurses’ support in promoting spiritual health was for patients as well as their families. Nurses showed respect and facilitated families’ participation in the teamwork for spiritual care (Lundberg & Kerdonfag, 2010). Families’ participation in caring patients can strengthen patient-family relationship (Baldacchino, 2006), as Kisvetrová et al. (2016) found that families were being involved by the nurses in giving spiritual support for patients, in order to promote connectedness between patients and families (Burkhart & Hogan, 2008).

Similarities in facilitating family members’ presence were found in three studies (Baumhover & Hughes, 2009; Bloomer et al., 2013; Coenen et al., 2007). A study by Baumhover and Hughes (2009) addressed patients’ and families’ wishes to allow them together during critical and difficult situation, during invasive procedures and resuscitation in critical care unit and emergency department. In a palliative ward, nurses also cared for families by simply giving them cups of tea and offering chair to sit, and allowing visitors to stay as long as they like (Bloomer et al., 2013). Coenen et al. (2007) in their research found in four countries (Ethiopia, India, Kenya, and USA) that nurses were encouraged families to be with patients. In addition, Coenen et al. (2007) added that nurses supported, reassured, and involved families in the care to promote patients dying with dignity.

Furthermore, interventions for spiritual health for patients were not only given when patients were still alive, but also when patients had already passed away, as Smyth and Allen (2011) addressed that nursing care in providing spiritual care was demonstrated by nurses giving care after the patient died, including washing the body, placing flowers on the body, and letting family or partners to be involved in after death care. In Ethiopia, nurses helped family members in acceptance of death and the belief in life after death (Coenen et al., 2007).

**Modifying the physical environment**
Facilitating privacy
In two countries, United Kingdom and Czech Republic, nursing intervention includes environmental modifications which provide privacy and allow patients to have quiet time for spiritual activities (Giske & Cone, 2015; Kisvetrová et al., 2016). It is supported in a study in USA by Coenen et al. (2007), that nurses offered privacy, a homelike environment, a quiet room, and soft music and lighting. Coenen et al. (2007) added that nurses in India provided peaceful environment and allowed patients and family to sing their favorite songs. A support in spiritual health can also come from domestic animals visit, this was covered in study in Australia (Smyth & Allen, 2011) and USA (Coenen et al., 2007).

A study has shown that modified ward design in a quiet and peaceful environment can support spiritual health (Baldacchino, 2006). On the other hand, Bloomer et al. (2013) argued from their findings, that end-of-life care in a single room could have negative consequences for the dying. It caused patients to feel scared and alone, and could be forgotten by the nurses, even though nurses modified the room by putting some tissue and a vase of flowers, and provided comfortable chairs for family and visitors.

DISCUSSION

Method Discussion

The method used to answer the aim in this study was a literature review. This method was considered suitable as the aim of the study was to describe narratively available published research (Aveyard, 2010). A qualitative study with semi structured interview or focus group discussion could have been an alternative method to carry out this research. The method, however, is time consuming for daily practice (Polit & Beck, 2012). Moreover, since the subjects are patients with LTI and spiritual health, this topic could have been as high risk for patients as vulnerable group in their critical situation.

The strength of a literature review method was the feasible and convenient method to answer the aim of the review (Polit & Beck, 2012; Garrard, 2011). Literature review is important because there was an increasing amount of studies that cannot be expected to be reviewed and assimilated in only one topic (Aveyard, 2010). Aveyards (2010) added in order to update the information, that it is one of suitable ways for practitioners to assimilate, decide, and implement all this information in their professional lives. Articles gathered within the past ten years, were taken from several countries, and used various methods such as qualitative, quantitative and mixed methods, recognized by the author as strength from this study.

According to Aveyard (2010), the weakness of literature review includes language issues and time limitation. At that point, the author was aware of time limitation and insufficient English language proficiency required to carry out an empirical study, thus the author decided to perform the study by using a literature review.

Researcher subjectivity is one of the biases that can occur in a research, where researcher may search findings within their expectations or their own experiences (Polit & Beck, 2012). This
bias was avoided by the author by trying to explore various articles until data saturation was found. Data saturation in the literature review is similar to a qualitative study, which means pursuing information until saturation is achieved, and the analysis of data typically contains similar themes (Polit & Beck, 2012). Data saturation in this study were achieved when the findings contains similar topics and showed reappearance within the themes.

Validity and reliability in this study was obtained by evaluating and assessing the quality of the selected papers. Studies which do not meet the inclusion criteria, are excluded from the study. This is to ensure that only high-quality papers that are relevant to the aim are included (Aveyard, 2010). A comprehensive and systematic search was conducted in two databases (CINAHL and MEDLINE) in different times, and also an ancestry search was obtained. Exploration was within the aim in this study, which included nursing interventions, palliative care, and spiritual as the main contexts.

The author firstly focused on the general health and medical database (MEDLINE) to have a global picture of potential findings using search terms “palliative care”, “nursing”, and “hospital” which yield a great number of articles. Then the author continued the search in CINAHL, which covered subjects in nursing and allied health. There were duplicates of articles found both in MEDLINE and CINAHL. In order to gather specific articles according to the study aim, the author modified the search by using the MeSH terms in MEDLINE, and MW word in CINAHL, to be more specific in studies searched.

The search process was restricted by year between 2006 and 2016, the oldest article found was from 2006, and the most recent was 2016, most studies were published between 2008 to 2013. The articles covered several countries across the world, in which most articles are from United States of America (USA) seven articles, followed by two studies from Australia. There were also articles from Czech Republic, Norway, the Netherlands, Ireland, and Malta are taken as representatives from the European region. Other articles were from Ethiopia, Kenya, Thailand, and India.

The following results offer a large spectrum of findings from different countries and cultures. This picture offers information regarding palliative care in several countries and nurses as the subject of interest. It was surprising that the findings have shown similarities, even though they were conducted in different countries within ten years. However, a weakness of this literature review is that it is not truly representative of a global perspective with only two studies done in Asia: in India (Coenen et al., 2007) and Thailand (Lundberg & Kerdonfag, 2010). This could be due to the fact that palliative care is still developing in Asia, According to WPCA (2014) this group of countries are still in the development stage of palliative care due to funding issues, morphine limitation, and a small number of hospice-palliative care services compared to the size of the population.

Various settings in hospitals were found in the findings, such as medical surgical wards, palliative care wards,
intensive care unit, and emergency department. Initially the author expected to find greater amount of research studies in acute settings as relevant settings to most patients with life threatening illness. However, the search process showed that there were only a few articles that published specifically about spirituality in acute care settings. One main reason is in acute or emergency settings in which there were great responsibilities, as a result the nurses not having time to conduct spiritual assessments in order to facilitate patients’ spiritual needs (Ellis & Narayanasamy, 2009). On the other hand, this insufficiency of research in particular settings could be an opportunity to develop further research on how nurses may promote a spiritual care in acute care settings.

With the intention of articles evaluation and analysis, the author first read the titles, then abstracts, and then the entire text of each chosen article. Some articles that have no relevance to the aim were excluded. Likewise, the articles that more highlighted the nurses’ or patients’ perception and experience, and not included nursing interventions were excluded. There were articles by chaplains and physicians researchers that were excluded, as they were not really addressing nursing roles and interventions.

Findings of this review were based on the results of the included sixteen articles, which used different methods, eight articles used a qualitative method, five articles used a quantitative method, and three articles used mixed method both quantitative and qualitative approaches. Some articles displayed their results in tables, and other articles include the quotes from the participants’ response. Having a variety of study methods is one of the strengths and might contribute to the validity of this literature review (Aveyard, 2010).

To avoid the risk of misinterpretation of the findings, the author read the articles several times, in addition, the author also discussed them with the advisor to double check the findings. The author sought to avoid falsification, misinterpretations or research misconduct (Polit & Beck, 2012). For ethical consideration, the author carefully searched and read for ethical approval in each article. Since the studies involved human as participants, ethical concerns in each study were examined to make sure participants get adequate information about the aim, method, benefit and risk of the study, and each study contributed to the improvement in nursing practice (WMA, 2013; ICN, 2012).

The author documented essential evaluation of methods used in each study which included sampling, setting, and data collection sections. The majority of studies used purposive sampling approach with convenience sample, where the researcher selected participants based on specific criteria such as which ones will be most informative (Polit & Beck, 2012). Only one study by Badalacchino (2006) used stratified random sampling for male and female nurses, it was where the participants were randomly selected from two or more strata of the population independently (Polit & Beck, 2012).

There were three studies which used enormous samples in data collection.
Coenen et al. (2007) included 560 nurses within four countries (Ethiopia, Kenya, India, and USA). However the attrition rate was also plentiful 44 percent, as regards to emailed survey on the internet (USA) and at that time in Ethiopia there was political incident which caused many people including the participants, out of the country. Kisvetrova et al. (2013), conducted a research involving 750 nurses who had cared for patients with LTI, and several years later Kisvetrova et al. (2016) conducted a research with 450 ICU nurses, both in Czech Republic. Even though there were also a high attrition rate (38 percent), the internal consistency of the structured questionnaire was considered acceptable because Cronbach’s α coefficient was 0.92 for the entire questionnaire (Kisvetrova et al., 2016).

In contrast, studies with small numbers of participants were represented by four studies. Smyth and Allen (2011) were doing research to 16 nurses from acute medical wards in a hospital in Australia. In spite of small numbers of participants and in one hospital, they did an unstructured focus group interview to explore more information from participants, and did triangulation in data analysis to strengthen the generalizability of the study. In the study by Tuck et al. (2016), there were 5 out of 18 participants dropped from the study, due to worsened condition and no longer being able to communicate. It was one of the conditions that could occur in research within palliative care settings.

Another study with a small sample size was from Tanyi et al. (2009), which studied only ten participants with inclusion criteria of those who have lived the experiences in incorporating spiritual care in their practices as regards to phenomenological research methodology. Last study was from Thailand by Lundberg and Kerdofag (2010) that were obtained from a relatively small number of registered nurses who are not representative of the whole population of nurses in Thailand, consequently results obtained should not be generalized to Thailand registered nurses in general.

The author was constructing the results findings according to theme. This review captured wide range of themes but most of the studies had similar findings. The author used different colors in order to highlight the recurrent sections relevant to each theme, while considering PCC as framework.

Results Discussion

The result of this literature review were displayed in themes according to nursing interventions in promoting spiritual health for patients with LTI in hospitals settings. The main theme focuses on patients, which is person-centred communication, the nurses also adapting a team approach by including family and chaplain in the team work, and in addition modifying physical environment to support patients and family privacy during their critical moments.

According to McCormack and McCance (2006), the primary stage in PCC approach is focus on the nurses’ attributes, whereas professional competence focuses on the knowledge and skills to make decisions and prioritize care, and include competencies in taking assessments. This first step of caring was shown in several articles, due to the nurses
taking assessments in patients’ spiritual needs prior to interventions in order to recognize patients’ spiritual needs, spiritual history, and religious views (Baldacchino, 2006; Burkhart & Hogan, 2008; Hanson et al., 2008; Lundberg & Kerdonfag, 2010; Smyth & Allen, 2011; Tanyi et al., 2009; van Leeuwen et al., 2006).

Simply taking a spiritual history may honor the patient’s need to be seen as more than a physical being, and health care providers can learn this skill (Hanson et al., 2008). In addition, Baldacchino (2006) stated that the nursing assessment might influence the patients to confide their inner self to nurses as a trustful nurse–patient relationship.

An early identification and holistic assessments related to physical, psychosocial needs, and spiritual needs are major parts in palliative care (WHO, 2002). Therefore, when the healthcare professionals address patients’ spiritual needs to promote spiritual health; they provide spiritual care (Taylor, 2006). Spiritual care is closely tied up with dignity in care, holistic care, and respect patient’s perspective (Cockel & McShery, 2012).

A person-centred communication conducted by nurses leads to a deeper level communications, such as explored patients sense, meaning, hope, and purpose in life (Baldacchino, 2006; Kisvetrova et al. 2016; Coenen et al., 2007). When discovering about patients’ wishes, the nurses also gain more information about patients’ distress and deep concerns (Giske & Cone, 2015; McBrien, 2010). Such approaches conducted by the nurses to allow patients to talk about their personal experiences include using pictures (van Leeuwen et al., 2006) and storytelling (Tuck et al., 2012).

There was finding that uncovered that the nurses did not only communicate about patients’ hope and last wishes, but also talked further about funeral arrangements requests (Kisvetrová et al., 2016). Nursing interventions supported patient dignity in their last moments. Interventions identified by nurses to promote dignified dying reflected a holistic approach to caring for patients and their families (Coenen et al., 2007). As it is according to EAPC (2010), which stated that all people have the right to receive high quality care during serious illness and to a dignified death free of overwhelming pain and in line with their spiritual and religious needs.

In order to perform communication on a deeper level, an active listening and being present for patients are important. More than half of the total articles results discussed these evidences. Active listening promoted patients’ self-reflection (Burkhart & Hogan, 2008; Tanyi, et al., 2009; Tuck et al., 2012) and supported patients’ coping with illness (Hanson et al., 2008). Listening to patients feeling required several approaches such as listening with interest, honesty, and compassion (Coenen et al., 2007), empathy (Baldacchino, 2006), and giving therapeutic touch like holding hands (Coenen et al., 2007; Giske & Cone, 2015; McBrien, 2010).

According to Tuck et al. (2012), when listening to a patient, the nurse pays attention not only to the patient’s words, but also voice tone and body language. In
addition, therapeutic touch was also described as positive affective and comforting touch. It is supported by Pesut (2008), that stated that nurses managed therapeutic use of self includes interventions such as presence, listening, touch, respect, in order to help patients to find meaning, purpose, hope, values, connection, and forgiveness.

Nurse presence for patients and families implies therapeutic presence, a special way of being with the other that recognizes other’s values and priorities (Tuck et al., 2012) and attentive engaging (Giske & Cone, 2015). These results are in line with Pesut (2008), which described that nurses’ caring presence as important to patients and has the potential to make a significant difference for patients to understand their circumstances.

Several studies addressed nursing interventions in promoting spiritual health by respecting patients’ belief and values, by treating patients respect and dignity (Kisvetrová et al., 2013; Kisvetrová et al., 2016), facilitated religious coping Baladacchino, 2006) such as praying in chapel (Lundberg & Kerndonfag, 2010), or through yoga and meditation (Coenen et al., 2007; Tanyi et al., 2013). Nurses also prayed with patients if they were asked (Burkhart & Hogan, 2008; Gallison et al., 2013; Giske & Cone, 2015; Hanson et al., 2008; Kisvetrová et al., 2013; McBrien, 2010; van Leeuwen, et al., 2006). These results have important implications for developing a PCC focus on providing care through various activities including working with patient’s beliefs and values (McCormack & McCance, 2006).

There is only one study by Coenen et al. (2007) that showed spesifically how nurses supported cultural based spiritual practices in India, nurses allowed patients and family used Tulsi Patra leaves and Gangga’s river water, or doing specific chanting prayers (Bhajams and Shlokas) for preparing self to have a peaceful death. Even though it is only found in a particular study, this is an important issue for future research for nurses to conduct further research with regards to supporting spiritual practices in various cultures. According to the author’s previous experience working in ICU ward in Indonesia, where there were plenty of traditional cultural diversities. The nurses there respected patients and families spiritual practices in the ICU ward, for example families asked the nurses to give the patients specific water with paper containing arabic prayer, with the purpose of cleaning from sin, and for drinking and bathing. One of the issues emerging from these findings is in accordance with the study by Gamondi et al. (2013), which stated nurses as a part of palliative care teams. Nurses provided opportunities for patients and families to express their spiritual and existential dimensions in a respectful manner.

Another important finding is including others in a teamwork, families and significant others, and also referrals to hospital chaplain. More than one studies shown that nurses included families, relatives, visitors to participate in giving spiritual support to patients with LTI whether it was in a palliative care ward (Bloomer et al., 2013; Coenen et al., 2007) or during resuscitation and invasive procedure in ICU and emergency ward (Baumhover & Hughes, 2009). Furthermore, involving family in nursing
care was also encouraged when patients had already passed away (Smyth & Allen, 2011; Coenen et al., 2007). According to EAPC, it is one of palliative care nursing competencies for practicing an interdisciplinary teamwork and providing comprehensive care co-ordination throughout all settings where palliative care is offered (Gamondi et al., 2013).

Collaboration with other team members was represented with nurses refer patients to hospital chaplains (Baldacchino, 2006; Gallison et al., 2013; Giske & Cone, 2015; McBrien, 2010), religious ministers (Smyth & Allen, 2011), spiritual advisors (Kisvetrová et al., 2016), and other spiritual mentors such as priests, pastors, members of the clergy, or other spiritual leaders (Coenen et al., 2007). These findings may help us to understand that nurses are members of a team within palliative care, who provide support not only for reducing pain and other symptoms, but also for promoting psychosocial, spiritual support, bereavement support (Johnston in Lugton & McIntyre, 2005). In addition, these results are in agreement with nurse’s responsibilities not only listen to the patient and assess any spiritual need, but also to make referrals to others who have the essential skills and experience to help (McCormack et al., 2011b).

Besides caring for patients and family, nurses should also caring for the physical environment (McCormack & McCance, 2006). The study also uncovered that by providing privacy and allowed patients to have quiet time for spiritual activity should be made possible (Giske & Cone, 2015; Kisvetrová et al., 2016). Although this may be true that a single room helps promote patients’ privacy, surprisingly in contrast to the findings, Bloomer et al. (2013) found that care for patients with LTI in a single room could have negative consequences for patients who are dying, because they might feel alone and scared, and could be neglected by the nurses.

To emphasize PCC approach according to McCormack and McCance (2006), the care within environment should be a major impact on the implications of person-centred approach, it is involving the potential of innovation and risk taking. In line to the statement, the results found that creating a homelike environment in hospital settings (Coenen et al., 2007) supports patients’ spiritual health, the same condition also relates to allowing domestic animals visit (Smyth & Allen, 2011; Coenen et al., 2007). From the author’s experience working in Indonesia, there was a regulation that prohibits taking domestic animals into the hospitals, for hygiene and infection control reasons. In contrast, while the author conducted field studies in several hospitals in Stockholm, Sweden, the nurses allowed the patients in palliative wards to take their domestic animals in the room. It showed that the nurses carried out PCC approach in taking care of patients with LTI in their end of life condition.

There is a concept of environment that was expanded from Nightingale’s primary focus about hygiene and sanitation, it also includes concerns about the social, psychological, and spiritual environments (Shaner, 2006, as cited in Small & Small, 2011). As a matter of facts, most hospitals and healthcare facilities have been constructed with clinical
efficiency and not yet a person-centred approach. Infection control in many countries may be added to depersonalization, for instance no flower, plants of paintings are permitted in some clinical settings (McCormack et al., 2011b). Therefore, future study in evidence based care needs to consider PCC approach in environment modification in supporting patients’ spiritual health.

CONCLUSION

Acknowledgement of dying is essential in providing appropriate care. The nurses need to be adequately prepared, educationally, socially and emotionally, to provide such care. The most common nursing interventions in promoting patients’ spiritual health in hospitals settings within a PCC approach was a person-centred communication, which was built from a nurse-patient trust relationship and from a communication in deeper level. It is also important to realize that therapeutic communication was developed by active listening and being present for patients. Another point to address is that the nurses should respect patients’ belief and values in the context of their cultural diversity. Nursing assessments on spiritual needs is conducted prior to interventions.

Nurses which work in a team, should also involve families in promoting spiritual care, and making referrals to hospitals chaplains or other religious leaders. Facilitating patients’ privacy and creating homelike environments should also be addressed in nursing interventions. As a result by addressing patients’ spiritual needs sensitively and wisely, nurses certainly will promote not only spiritual health, but also holistic healing (EAPC, 2004).

CLINICAL SIGNIFICANCE

The information from this study may improve the delivery of spiritual care in hospital settings for patients with LTI. Application from this study is to enable nurses’ use of available evidences available to improve quality of care and implement best practice in spiritual care in a PCC approach. Training and workshop about how to conduct interventions with regards to spiritual health might be needed in addition to regular nurses’ education. Further recommendation for future research is to explore deeper about various spiritual nursing interventions from a culturally diverse perspective.

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FACTORS ASSOCIATED WITH PREFERENTIAL PLACE OF DEATH FOR PATIENTS WITH CANCER RECEIVING PALLIATIVE CARE
A Literature Review

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ABSTRACT

\textbf{Background}
Cancer is a disease caused by uncontrolled growth of abnormal cells. Cancer is often related to a need for palliative care. Palliative care is an approach and treatment provided to improve quality of life for patients with life threatening illness, such as cancer. Dying patients at the end of their life may lose their autonomy towards themselves especially related to their desires and preference. Patients’ preference towards place of death may be influenced by many factors. Patients with cancer require support from their family members as well as health care professionals, especially nurses. Therefore, through the support given, patients’ might be able to express their desires.

\textbf{Aim}
To describe factors associated with preferential place of death for cancer patients receiving palliative care.

\textbf{Method}
A literature review of 12 scientific articles that met the inclusion criteria was carried out. The articles were collected using two electronic database searches: PubMed and CINAHL.

\textbf{Result}
Demographic factors such as, gender, age, marital status, economic status, country of birth and place of residence were found to be the most influential factors regarding the preference of home as place of death. The wishes related to place of death of both patients and family caregivers were expected to be recorded in the first meeting. Nurses in providing support for patients with cancer should have to empower patients express their desires.

\textbf{Conclusions}
This literature review showed that promoting autonomy and decision making are challenging for nurses. There are many factors that contribute to the decision of location of death. Therefore, it is important for nurses to empower patients’ autonomy and to respect their values in order to provide support for patients with cancer in making decision related to place of death.

\textbf{Keywords:} Place of death, Cancer, Palliative care
INTRODUCTION

Palliative care is an approach to improve patients’ and families’ quality of life in facing problems related to life threatening illness, through prevention and release of suffering by early identification and assessment as well as implementation of treatment of pain and other consequences of the illness and its treatment including physical, psychosocial and spiritual (World Health Organization [WHO], 2005). National Cancer Institute ([NCI], 2010) described palliative care as a treatment given to improve the quality of life of patients who have life threatening illness such as cancer. Cancer is a disease caused by uncontrolled growth of cells in the body (World Health Organization (WHO), 2015). Based on WHO (2015), cancer is the leading cause of mortality all over the world, with around 14 million of new cases and about 8.2 million cancer related deaths in 2012. According to International Agency for Research and Control (IARC) there were 32.6 million people living with cancer worldwide in 2012 (Ferlay et al., 2013). Ferlay et al (2013) assumed that the number of people with cancer will increase up to 24 million by 2035.

For many people, cancer cannot be controlled and it can affect the body and spreads to other organs or can be called metastatic (NCI, 2010). Stoppelenburg, Philipsen & Van der Heide (2015) explain that patients with life threatening illness may develop problems and symptoms which affect their quality of life. Furthermore, Cogo & Lunardi (2015), explain that patients may also experience suffering when there are inadequate resources that may lead to disregard of dignity and autonomy during the end of life decision making process. These conditions make patients need palliative care at the end of their life (NCI, 2010; Visser, Hadley & Wee, 2015). As mentioned by Stoppelenburg et al., (2015), palliative care treatment can be given to minimize both patients’ and families’ suffering as well as to improve their quality of life. Therefore, according to Izumi, Nagae, Sakurai & Imamura (2012), suggest that palliative care should be offered at the first time someone is diagnosed until the end of their life.

Dying patients often lose their autonomy (Wheatley & Baker, 2007). This is because patients find it difficult to express their end of life preferences and sometimes they miss the opportunity to express it (Abba et al. 2013). These conditions constitute complex situations which also involve family and health care providers. Therefore, it is necessary to discuss each plan of care and to make decisions together with patients in order to maintain person-centered care (Lugton & McIntyre, 2005).

Person centered care focuses on providing care through a variety of activities that operationalize person-centered nursing, including working with patients’ values and beliefs, having a compassionate presence, shared decision making and providing care for physical needs of patients (McCormack & McCance, 2006). Person centered care is associated with patients’ autonomy. Autonomy is respecting an individual uniqueness for what beliefs, choices, and values they hold on (Lugton & McIntyre, 2005; Wheatley & Baker, 2007).
In palliative care, ethical dilemma may arise and may be difficult to solve especially when related to choices, preferences and demands of the patients (Balducci, 2012). Thus, it is important to have patients’ desires expressed before the end of life, and patients’ autonomy is supported so that patients’ values are respected (Balducci, 2012).

Preferential place of death is multifaceted. Munday et al. (2009) explain that there were some patients who very clearly expressed their preference for place of death, however, that preference usually changed in the last hours of their life. Moreover, Munday et al. (2009) state that the experience of relatives of home death may affect patient’s preferential place of death. Therefore, this preference is less expressed when death is approaching (Munday et al., 2009). This is supported by Abba et al. (2013), many home care residents in the UK recognized that the decision of place of death during end of life was not made by the patient. This is because patients do not have choices when it comes to an end of life care decision because preferences were not recognized by family or health care professionals, especially regarding preferential place of death. It is crucial for nurses to know possible factors associated with preferential place of death in order to support patients and families in decision making.

**METHODOLOGY**

The purpose of this study was to describe factors associated with preferential place of death for patients with cancer receiving palliative care. The method used for this study was a literature review. A literature review is a systematic summary of a chosen topic from available research resources which include the research problem (Polit & Beck, 2012). This study used relevant articles that reported studies previously carried out by other researchers and the articles chosen were analyzed and reviewed. Articles included in this literature review were collected using the databases PubMed and CINAHL (Cumulative Index to Nursing and Allied Health Literature) and manual searching. Articles included were peer reviewed within ten years from 2006-2016 and focusing on adult patients with cancer. Articles that focused on children with cancer, non-peer reviewed or more than ten years old were not included in this study.

Articles were initially screen by the article title, then by reading the abstract of seemingly relevant articles including background, aim, method and results. The author used Boolean operators such as AND and OR to limit or expand the search results (Polit & Beck, 2012). Besides that, a truncation symbol (use asterisk*) was also applied. Keywords used are cancer OR neoplasm, place of death OR location of death, preferential OR preference AND decision making AND autonomy AND nurses role. Fourteen articles were selected and included.

Analyses was done by reading all the articles and re-reading several times. The author used a thematic analysis. According to Braun & Clarke (2006), thematic analysis is “a method for identifying, analyzing and reporting patterns (themes) within data” (p.6). In this study, themes were categorized based
on the research questions on preferential place of death for cancer patients, factors associated with place of death, how patients’ autonomy affecting decision making and how nurses provide support for patients in decision making. All articles included in this study were ethically approved and included measures to protect privacy.

RESULTS

Preferential place of death.

There were several places of death mentioned in the articles such as home, hospital, hospice and nursing homes. Home was the most preferable place of death chosen by patients and their relatives as described in more than half articles included. Two studies showed that more than 40% adults patients chose home as their place of death (Fukui, 2011a; Agar et al., 2008). Six others articles mentioned that there were 60% patients with cancers preferred home as their location of death (Foreman et al. 2006; Schou et al., 2015; Choi et al., 2010; Gomes et al., 2015; De Graaf et al., 2016). However, hospital was also discussed to be the chosen place of death by 70 – 90 percent patients as mentioned in two studies (Howet et al., 2007; Hyun et al., 2013). Foreman et al. (2006), report that about 10 percent patients chose hospice while only one percent preferred nursing home. Moreover, study by De Graaf et al. (2016) explain about 20 percent chose hospice.

Factors associated with preferential place of death.

Gender. There were some factors that linked with preferential place of death. Gender was mentioned in four articles. It reported that male patients were more likely selected home compared to women (Choi et al., 2010; Foreman et al., 2006; Howat, Veitch & Cairns, 2007; Loucka, Payne & Brearley, 2014; Schou-Anderson et al., 2015). Men would prefer their spouse or wife to look after them during terminal illness (Choi et al. 2010). This is because women have more caring role compared to men, thus women preferred hospice as their place of death (Foreman et al., 2006).

Age. Young adult wished to die at home compared to older people (Foreman et al., 2006; Howat et al., 2007). Young people was reported to choose home because they have a younger and healthy spouse who they believe able to help them with the care and will be committed as their carer (Howat et al., 2007). On the other hand, older people may not having help with the care due to a deceased spouse or frail spouse (Foreman et al. (2006)

Marital status. Married men would prefer to be at home at the end of their life compared to married women. This is because they have spouse who had committed to be their carer to support them in the end of their life (Howat et al., 2007). Additionally, patients that are married usually have their daughter or daughter in law as their caregiver (Fukui et al., 2011a).

Education. According to Hyun et al. (2013), higher education of the caregiver was one of the factors of hospital death. In the contrast, Loucka et al. (2014), stated that people in Czech Republic with higher education were more commonly chose home as their location of death than
people in Slovakia. Loucka et al. (2014) explained that people with higher education used to move to a small flat which made them less likely to access informal care at their home while nowadays educated people moved to the city so they were more possible to access care.

**Economic status.** Patients with cancer prefer home as their place of death when they have high income or well economic status (Schou-Andersen et al., 2015). While, patients with low income would choose hospital as their place of death (Foreman et al., 2006). Moreover, Choi et al. (2010) explained that length of stay in hospice might be one factor that can influence patients to choose home as their place of death due to payment or the cost of the care.

**Residence and country of birth.** Other demographic factors that were mentioned, which influence patients’ choice about place of death is residence and country of birth. People who lived in a smaller community tend to die at home (Foreman et al., 2006; Schou-Andersen et al., 2015). Schou-Andersen et al. (2015) added that metropolitan people preferred hospice as a place to die. This can be related to the fact that cancer patients preferred to die at home because they feel more peace at their end of life compared to cancer patients who died in hospital (Gomes et al., 2015). Foreman et al. (2006) in their study also added that people who were born in Australia, UK and Ireland were more common to die in hospice.

**Other factors associated with preferential place of death**

A strong preference from both patients and caregiver were reported to be the reason of choosing home as place of death (Nakamura et al., 2010; Fukui et al., 2011a). Nakamura et al. (2010) and Gomes et al. (2015) explained that home was selected if health care professionals are able to do home visit at least more than three times. Fukui et al. (2011b) reported if nurses and physician gives 24 hours support for patients, there was also a higher chance of a home death. Moreover, Choi et al. (2010) state that when someone have a higher concept of good or peaceful death, then they prefer home as their place of death.

Home visit experience in collaboration with the caregiver was also considered as factor that associated home death (Sasao et al, 2015). Being hospitalized for more than a month in the last three months was a risk factor that leads to hospital death (Gomes et al., 2015). Another factors of hospital death was when someone does not have caregiver to look after them (Foreman et al., 2006). Alonso-Babbaro et al. (2011), found in their study that caregiver burden was the main reason of hospice admission.

**Patients’ autonomy affect decision making with regards preferential place of death.**

Four studies report that strong preference from both patients and their caregiver affect their decision making to choose where they would like to die (Nakamura et al. (2010); Fukui et al. (2011a). However, De Graaf et al. (2016) explained that some of the patients were found less likely to express their preferences and even denied their own choice. Choi et al. (2010) explained that
many patients were worried of being a burden to their family. 

**Nurses’ support in patients decision making related to preferential place of death**

Preferential place of death can be very challenging at the end of life. Discussing preferences of dying is not easy, nevertheless, it is vital to discuss patients’ preference to their carers (Holdsworth & King, 2011). In a study done by Holdsworth & King (2011), around 90 percent of cancer patients’ have their preferential place of care and place of death recorded. They also stated that preferences needed to be discussed in the first meeting to help patients make consideration. This is supported by Agar et al., (2008) and Holdsworth & King, (2011) who informed that preferences of both family and patients related to place of care and place of death was essential.

Agar et al. (2008) stated that discussion about preferences of location of death are very crucial. Therefore, support from palliative care services related to place of death is required to help patients verbalize their preferences (De Graaf et al., 2016). As well as mentioned by Sasao et al. (2015) that nurses should be able to support patients’ desire when selecting place of death.

**DISCUSSION**

This study showed that most of the articles reported that home was the most preferred place of death chosen by patients with cancer. Home was explained to be the most comfortable place with the presence of the family members and that patients can enjoy their day by day life with their loved ones (Gomes & Higginson, 2006). The articles also mentioned that demographic aspects were one of the factors that connected to the preferential place of death.

If seen from marital status, married men were prefer home as their place of death because they have their spouse as their caregiver (Howat et al., 2007; Choi et al., 2010; Foreman et al., 2006; Loucka et al., 2014; Schou et al., 2015). This can indicate that men express their own feelings more easily as compared to women. While women are reluctant to express their wishes or wants and more careful in making decisions. Women were thinking more in making decision and they were more likely to be in hospice rather than at home, even though they may actually prefer to be at home when they die (Foreman et al., 2006). This has implications on autonomy, where patients’ right to choice is not respected.

Regarding marital status, men would like to die at home because they believe that their family member can be with them to look after them (Choi et al., 2010). It can be seen that the patient use their right in choosing a place where they want to stay at the end of their life. This was also related to the age, where younger patients preferred home because they have a healthy and young spouse who can provide care for them at home (Howat et al., 2007). The decision of stay in a place for younger age possibly affected by their parents where they may be considered as young adult who are under their parents’ responsibility and cannot make decision for themselves. Whereas, older people have their own right to choose where they would like to die as they are mature enough to decide their own choice.
The strong preference of patient is showing how patient would like to be heard in regards of the option of place of death (Nakamura et al., 2010; Fukui et al., 2011a). These factors are common founded in many articles. It is evident that younger patients, men and married preferred home as their place of death because they have their family to look after them and can support them during their disease phases. Overall, the availability of caregiver affects patients with cancer to choose home as their last place to die as the family/caregiver can look after them (Choi et al., 2010; Nakamura et al., 2010).

Autonomy is considered as a very important part in medical setting especially while planning treatments (Kinoshita, 2007). It is necessary to discuss each plan and decision with the patients in order to maintain person centered care, therefore, it is nurses’ role to promote the patients’ autonomy (Lugton & McIntyre, 2005). In palliative care, it is crucial to have patients’ wishes expressed and their autonomy is supported so that patients’ values and desires are respected. However, the fact remains that many patients with terminal disease such as cancer were not able to make their own decision. Hyun et al. (2013) done a survey used death certificate related to place of death. They report that there were 191 out of 463 patients with cancer wanted to die at home but unfortunately only 26 patients died in home. It is clearly seen that patient’s wish was not supported.

A study by Cohen et al. (2006) who reported that physician tend to discuss end of life decision with family because when patients are in hospital, they are regarded not capable to participate in decision making. Furthermore, reporting that patients and relatives are the decision maker for patients in home setting but when in hospitals, doctors are most often decision makers for patients.

Patients were seen as having no rights for themselves and perhaps afraid that they would be a burden for the family (Choi et al., 2010). This can be related to other study by Tang, Hui-Chen, Tang & Wu Liu (2010) that Taiwanese families preferred their loved ones died in home due to cultural norms, “the fallen leaves can return to their roots”. This idiom means returning someone to their hometown or their family. Moreover, Taiwanese people are often influenced by Confucius’ idea of caregiving by repaying their parents or family members. This example highlights the importance of nurses being aware of patients’ preferences related to the place of death and how to accommodate the needs, especially if associated with cultural diversity (Pollock, 2015).

Nurses are responsible in providing support for patients physically, socially, spiritually and psychologically (Lugton & McIntyre, 2005). Based on Neuman’s theory (1982), a main point is that caring patients should not only be seen from their illness, treatment and care, but also as individuals in a holistic perspective. Even though, discussing the preference of place of death is not easy, it is very important that both patients and families’ preferences are recorded (Holdsworth & King, 2011). Communication between patients, family members and health care professionals are seen as a key primary care to patients. In
providing support for patients in decision making, nurses also need support from others in the health care team (Klarare, Lundh Hagelin, Fürst & Fossum, 2013).

It is essential for nurses to empower patients’ autonomy in decision making related to preferential location of death. As a result of empowering patients’ autonomy, health care professionals can support patients to express their wants and needs (Kuhl, Stanbrook & Hebert, 2010).

CONCLUSION
At the end of life, patients may have their own desires towards place of death. It is important for nurses to provide support for patients with cancer in making decision related to preferential place of death. Preferential place of death is mostly affected by demographic factors such as age, gender, marital status, residence, economic status and country of birth. Nurses are frequently in contact with the patients; therefore they must be aware of patients’ autonomy in order to be able to provide support for patients with cancer in making decisions related to place of death.

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THE CORRELATION BETWEEN MOTIVATION AND BEHAVIOR OF ASSERTIVE NURSES WITH PATIENT SATISFACTION LEVELS IN JANGER WARDS OF BADUNG MANGUSADA HOSPITAL.

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ABSTRACT

Patient satisfaction is one of the components that may affect health care quality improvement. Patient satisfaction against the health service given can be caused by the attitude and behaviour of the nurse. It would be a negative impact for the hospitals as a means of health services. The purpose of this research is to know the relationship of motivation and behavior of assertive nurses with patient satisfaction levels. As for the draft in this study was analytic correlation (cross sectional). The sample consists of 36 respondents nurse executor by using the technique of sampling and a total of 62 respondents using purposive technique. This research was conducted by disseminating a questionnaire filled directly by the respondents. The results of statistical tests Spearman-Rank indicates that there is a significant association between the motivation of nurses with patient satisfaction ($p = 0.014; \alpha < 0.05$) and assertive behavior of nurses with patient satisfaction ($p = 0.009$). The results of this research can be recommended as a reference for hospital management in an attempt to increase the motivation and assertive behaviour among nurses in order to improve nurse-patient satisfaction.

Keywords: assertive, satisfaction, motivation, patient, nurse.
THE EFFECT OF BALANCE AND LOWER LIMB STRENGTH TRAINING TO FUNCTIONAL BALANCE, MOBILITY AND FALL INCIDENCE IN THE ELDERLY

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ABSTRACT

Aging is associated with a progressive decline in muscle strength. Loss of lower limb strength can lead to an increasing risk of falls which results in morbidity and mortality. Given the magnitude of the impact caused by the fall incident, it is necessary to implement exercise prevention. The purpose of this study was to investigate whether balances and lower limb strength training leads to improve functional balance, mobility and decrease the incidence of fall of elderly in Banjar Tangtu Desa Kesiman Denpasar Timur. The study was one group pre post test design with 22 respondents. Intervention was given three times a week and was assessed for one month. Bivariate analysis using dependent t-test on BBS and TUGT measurements was employed. The result shows that there are significant difference of BBS and TUGT values on the measurement before and after the intervention with p value <0.001 and 0.001. Meanwhile, measurement of risk of fall before and after intervention using Wilcoxon test with p value 0.083. Although there was no statistically significant different of risk of falling before and after the intervention, it found a clinically decreased incidences of falling. Improvement in balance and lower limb strength may lead to balance and mobility enhancement to prevent the risk of falling in the elderly.

Keywords: balance, lower limb strength training, functional balance, mobility, fall incidence, elderly
EFFECT OF AEROBIC DANCE AND ZUMBA DANCE ON TOTAL CHOLESTEROL LEVEL AMONG ADULT WOMEN IN BANJAR TARUNA BHINEKA DENPASAR

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ABSTRACT

High cholesterol level can increase a risk of cardiovascular disease. One of the ways that can be done in order to control level of cholesterol is increasing physical activity. There are two type of dances that popular among women are aerobic dance and zumba dance. The aim of this study was to determine the difference of effectiveness between aerobic dance and zumba dance on total cholesterol in adult women. This was a quasi experimental design with two group pre-test post-test approach. The sampling technique was purposive sampling, and 40 adult women around 25-40 years old as the samples. The selected sample were divided into two groups, which consisted of 20 adult women in the aerobic group and 20 adult women into zumba group. Each group has to do dance three times a week for five weeks with a duration of 60 minutes. The level of total cholesterol was measured before the intervention starts and five weeks after that day. The average of total cholesterol level before and after intervention on aerobic group (from 188,60 mg/dL to 163,20 mg/dL) and on zumba group (from 217,15 mg/dL to 179,70 mg/dL). Based on dependent t-test, there was a significant effect of aerobic and zumba dance for total cholesterol level on adult women (p<0,05). According on independent t-test, it showed that the value of p=0,474 (p>0,05), which means there was no difference. It can be concluded that aerobic as effective as zumba in influencing total cholesterol levels on adult women and both dances can be alternative of physical exercise to control total cholesterol level.

Keywords: total cholesterol, aerobic dance and zumba dance
QUALITY OF LIFE CERVICAL CANCER PATIENTS POST CHEMOTHERAPY

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ABSTRACT

Background: Increasing number of cervical cancer's survivor giving special attention to the impact of the disease and its treatment on patients' quality of life. Several treatment options for cervical cancer treatment, namely chemotherapy has side effects that can cause changes in the quality of life of patients.

Objective: Knowing the quality of life in patients with cervical cancer post chemotherapy

Methods: The population in this study were all cervical cancer patients post chemotherapy at the RSUP Dr. Sardjito and RSUP Dr. Kariadi in July 2015-January 2016. This study used consecutive sampling with 60 respondents of cervical cancer patients post chemotherapy. This study used EORTC QLQ-C30 (Indonesian version). The patient's quality of life was measured within one week after completing the first cycle of chemotherapy.

Results: Patients' quality of life with cervical cancer post chemotherapy has a level of function and quite high health status, with the mean value scale functional >50 and the mean scale public health 59,98 ±15,116. Furthermore, the level of symptoms fairly low with mean symptom scale <50 except for fatigue, nausea and vomiting, and loss of appetite for post chemotherapy.

Conclusion: Patient's quality of life with cervical cancer post chemotherapy has a level of symptoms quite high in fatigue, nausea, vomiting, and loss of appetite symptom. Assessment for symptom used quality of life instrument could be used on planning nursing care for increasing patient's quality of life.

Keywords: Quality of Life, Cervical Cancer, Post Chemotherapy

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EFFECT OF PROGRESSIVE MUSCLE RELAXATION TO SLEEP QUALITY AND SIDE EFFECTS OF CHEMOTHERAPY IN CHILDREN WITH CANCER: RANDOMIZED CLINICAL TRIAL

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ABSTRACT
Sleep disturbances can affect quality of life in children receiving chemotherapy. The aim of this study is to identify the effect of progressive muscle relaxation for the sleep quality and side effects of chemotherapy in children with cancer. In this study, randomized clinical trial with single blind method was applied. There were 30 children allocated randomly to the control group and intervention group. The intervention group received progressive muscle relaxation twice a day, in the morning and evening, 15 minutes each session for 7 days. Control group received routine nursing care. The study concluded there was no significant difference in the two groups on fatigue, pain, and nausea, vomiting. However, progressive muscle relaxation significant to decrease the quality of sleep score 1 point. Relaxation therapy particularly progressive muscle relaxation may be one of the nursing care to improve sleep quality and to reduce the side effects of chemotherapy in children with cancer.

Keywords: cancer, progressive muscle relaxation, sleep disturbances
OVERVIEW AND CHARACTERISTIC BULLYING AT SCHOOL AGE CHILDREN IN ELEMENTARY SCHOOL IN PEKANBARU

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ABSTRACT

Background: Bullying is a problem that often occurs in school-age children around the world. Bullying in various regions in Indonesia has entered the stage of concern. Quite a lot of students who think that bullying experienced or done as a reasonable action. Many teachers and parents of students who tend not to complain for fear was blamed.

Aim: This study aims to the descript and know characteristics of bullying in elementary schools in Pekanbaru.

Method: This study is a cross-sectional descriptive study involving 236 elementary school students in grades 3, 4 and 5. Data obtained from filling the questionnaire by respondents. Data were then analyzed descriptive quantitative and the sampling technique is incidental sampling. Univariate analysis using descriptive statistical tests.

Results: The incidence of bullying obtained from this study is 178 students (75.4%) mild bully category, most bullies are seniors 174 (74.6%), and the majority of respondents (74.8%) stated that the actions of bullying happened known teachers / parents. For this type of bullying is 135 respondents (57.2%) bully verbally, as many as 125 respondents (53%) had at being bullied physically and as many as 71 respondents (30.1%) has at bully sexually with seduction.

Recommendation: Student elementary school level are extremely vulnerable / at risk with bullying behavior so expect to students Level Elementary School should be better in choosing friends in the association and to follow the activities of school and out of school are positive so that the learning process becomes better and conducive to can be accomplished with good and the school is expected to give more attention to the students about bullying and provide strict sanctions to perpetrators of bullying that occur in the school environment, both directly and indirectly.

Keywords: Bullying, Characteristic, elementary school
THE CORRELATION BETWEEN RELIGIOSITY LEVEL OF PARENTS AND SEXUAL BEHAVIOR OF THIRD GRADE JUNIOR HIGH SCHOOL STUDENTS IN DENPASAR

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ABSTRACT

Adolescence sexual behavior is begun from kissing, necking, petting, anal to intercourse. Parent’s religiosity will affect their attitudes and actions in nurturing, educating and shaping their adolescent’s behavior. The purpose of this study is to determine relationship between level of religiosity with the sexual behavior of 3rd grade students in junior high school in Denpasar. Type of this research is correlational descriptive research and using cross-sectional research design. The sample that used in this research were 200 people that selected through simple random sampling technique and stratified random sampling technique. Data collection in this study used questionnaires that consists of demographic data instrument, parent’s religiosity level instrument, and adolescent sexual behavior instrument. Based on Spearman Rank test, it obtained p value= 0.000 (p <0.05). In conclusion, there is a significant correlation between parent’s religiosity and sexual behavior of 3rd grade students of junior high school in Denpasar. Results of this study can be used as reference for socialization programs regarding prevention of negative adolescent sexual behavior.

Keywords: adolescents, adolescent sexual behavior, parents, religiosity.
STUDY OF SPIRITUAL SUPPORT ON PATIENT TERMINAL: LITERATURE STUDY

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ABSTRACT

Spiritual support for terminal patients who are receiving palliative care at the Hospital is one factor that affects healing. Whatever the disease, whether it is contagious or not, spiritual support is able to motivate and reduce anxiety of the patient in dealing with his illness and undergoing treatment. So that patients can be more comfortable and quiet as long as the process.

This literature study aims to provide a summary and analysis of the effect of spiritual support on terminal patients that receiving palliative care at the Hospital.

The review is conducted by reviewing journals obtained through electronic journal providers such as EAPC and google scholar. The journal gained 26 journals based on keywords of spiritual support for terminal patients, spiritual support for patients that receiving palliative care, and the influence of spiritual support on terminal patients. Criteria of the journal taken is published in 2013-2017, using Indonesian and English. The journal taken and extracted in this literature study amounted to 11 journals of quantitative and qualitative research.

This literature study analyzes the effect of spiritual support on terminal patients receiving palliative care, the definition of spiritual support, terminal and palliative care, the benefits of spiritual support in terminal patients, management of spiritual support and nursing care related to spiritual support in terminal patients receiving palliative care.

Keywords: spiritual support, terminal patient, palliative care.
THE INFLUENCE OF FAMILY SUPPORT GUIDELINES TOWARDS FAMILY FUNCTION IMPROVEMENT IN ADOLESCENT WITH UNWANTED PREGNANCY

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ABSTRACT

Objective: This study were to determine the effect of family support guidelines application to increased the family function in adolescents with unwanted pregnancy.

Methods: This study used Quasi Experiment with pretest and posttest Nonequivalent Control Groups Design. The study was conducted in KYC Bali Province. The subjects in this study were adolescents with unwanted pregnancy who came with her parents. Consecutive Sampling was used to determine the total sample of 56 respondents, then the randomize allocation was conducted to divide into two groups: 28 people of intervention group and 28 people of control group. Collecting data used the questionnaires. Analysis used Mann Whitney test to evaluate the difference between intervention and control group and Wilcoxon test to determine the family function changes in adolescents with unwanted pregnancy after intervention.

Result: This study showed significantly of the family function changes in adolescents with unwanted pregnancy after received assistances with family support guidelines (p<0,05).

Conclusion: Application of family support guidelines can improve family function in adolescents who experience unwanted pregnancy.

Keywords: Unwanted Pregnancy, Family Support Guidelines, Family Function.

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DESCRIPTION OF KNOWLEDGE OF LAWAR PROCESSING ON LAWAR TRADERS IN KECAMATAN ABIANSEMAL OF BADUNG REGENCY

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ABSTRACT

Background: The identification of lawar traders' knowledge relating to lawar processing is still low. The improper lawar processing such as, using raw meat, uncleansed raw vegetables, and unwashed hands prior to processing lawar are usually practiced. The use of raw meat and fresh blood can cause the growth of microorganism, which can affect the health issue such as meningitis. This health problem may further affect economically as well as psychologically. Knowledge of the proper way of processing lawar is important.

Aim: This study aims to find out the description of knowledge of "lawar" processing on lawar traders in Kecamatan Abiansemal of Badung Regency.

Methods: This research is a quantitative research using descriptive design study. Samples were selected by using total sampling technique, with a number of 28 respondents. The data were collected using questionnaire of lawar processing knowledge.

Findings: The result of this study indicates that most respondents graduated from primary schools only. Seen on the base of knowledge found that most respondents have a low level of knowledge about lawar processing technique.

Discussion: Based on the results of this study, it can be concluded that the knowledge of respondents is still relatively low; therefore, it requires the government efforts together with local health centers to conduct counselling or coaching on lawar traders in Abiansemal District.

Keywords: Way of processing lawar, traditional food, knowledge

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DETERMINANTS OF ASSOCIATE NURSE’S SELF-EFFICACY IN TREATMENT
ROOM INSTALLATION OF HOSPITAL IN BALI, INDONESIA

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ABSTRACT

Associate nurse’s self-efficacy is the perspective of associate nurses about their ability to implement specific task, which can affect some aspects of change in purpose to producing better nursing care. This study aims to identify the determinants of associate nurse’s self-efficacy. This research design was a cross-sectional study with a sample size of 70 people chosen by purposive sampling using inclusion and exclusion criteria. The questionnaire used was analyzed by univariate, and bivariate analyses. The results of normality test with Kolmogorov-Smirnov (n>50) shows that age, work experience, burnout, self-efficacy and self-esteem data did not meet the normal distribution criteria (p value<α, α=0,05). The rank spearman, and Mann-Whitney statistics test used in this research (p value<α, α=0,05). Rank spearman correlation shows that there is a significant relationship between age (p value=0,039, r=0,247), work experience (p value=0,019, r=0,280), burnout (p value=0,000, r=-0,603), and self-esteem (p value=0,000, r=0,476) with associate nurse’s self-efficacy. However, there are no significant relationships found between gender (p value=0,370), and level of education (p value=0,396) with associate nurse’s self-efficacy. Based on this study, it is recommended that associate nurses can increase self-efficacy value in their self through increasing an optimal self-function which can have an effect on nursing care quality.

Keywords: burnout, characteristics, nurses, self-efficacy, self-esteem.
THE EFFECT OF DYSMENORRHEA WEB-BASED HEALTH EDUCATION PACKAGE TOWARD MENSTRUAL PAIN IN ADOLESCENT.

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ABSTRACT

Dysmenorrhea is one of the menstrual problem that can affect adolescent’s activities. The aim of this study was to identify the effect of dysmenorrhea web-based health education package toward menstrual pain in adolescents. This research used quasi-experiment pretest-posttest with control group design. There were 94 samples chosen by simple random sampling and divided into intervention group (47 respondents) and control group (47 respondents). The results show that the dysmenorrhea web-based health education packages reduced menstrual pain intensity (p=0.001), but did not influence to the number of dysmenorrhea complains among adolescent (p=0.52). Dysmenorrhea web-based health education package is recommended to use for adolescence.

Keywords: Dysmenorrhea Health Education, Web, Adolescent, Dysmenorrhea.
NATURE-BASED ACTIVITIES MAY IMPROVE SELF-ESTEEM OF ELDERLY


ABSTRACT

Background: Gardening gives older adults benefits like improving self-esteem. Self-esteem is an important aspect of the adaptive processes at all stages of life, especially in older adults. It is not related to chronological age, but to the people’s quality of social integration and adaptive capacities to cope with life events, including physical and cognitive decline. The purpose of this study is to know whether green environments and activities related to plants have effects and are positively associated with the level of self-esteem of the Filipino elderly. Researcher’s study perceives that out-door activities particularly gardening may affect the level of self-esteem of Filipino Elders.

Methods: The researchers used a quantitative quasi-experimental approach specifically comparative design. Researcher involved thirty non-gardener elderly from Bulacan using purposive sampling to answer the survey questionnaire. Elderly were divided in to two different groups, (1) group chosen to be trained in gardening for about two weeks and (2) group who did not exposed or performed any gardening activities. This, for us to compare the difference of their level of self-esteem.

Results: Results revealed that there is statistically significant difference between Nature-based Activities: Gardening and Level of Self-esteem of Filipino elders. Group A who are exposed in gardening directly affect their level of self-esteem while group B, who were not exposed in gardening have still remains low levels of self-esteem before and after answering the survey questionnaire given.

Conclusion: The study indicated that plants can be a source of joy and tranquility for some elders. The result that seeing the plants may enhance the mood of the elderly and that green environment can be used in emotion regulation, emphasizes the importance of visual access to a green environment which should be made available to the elders. The results represents validation if Nature-based Activities can truly enhance the level of self-esteem of elders in the Philippines.

Keywords: Gardening, Self-Esteem, Elderly
DIGITAL DESIGN SYSTEM AS DECISION SUPPORT SYSTEM DIAGNOSIS WITH FORWARD CHAINING METHOD FOR SUPPORTING NURSE PERFORMANCE IN THE HOSPITAL

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ABSTRACT

The low ability of nurses to documenting nursing care is the impact of human resource limitations, too many format to be documented, the difference between the nurse's perception. The nurse, which has not been able to accurately in composing nursing diagnosis will affect their performance and service during nursing care delivery. One effort that can be done is to develop a form of nursing application through research as Decision Support System with forward chaining method is expected to facilitate the nurse in nursing diagnosis so that can support the performance of nurses in the Hospital. The research method used one group pre-post test design approach with the provision of installation of nursing diagnosis support system for forward chaining method on computer or nurse gadget. The sampling technique using Simple random sampling on the nurse with 35 samples. Statistical analysis using algorithm test, Chi-square test and Paired t Test. The results of this study is expected to be used as a guide for nurses in determining the decision of nursing diagnosis. The results showed that most respondents (77.14\%) found it easy to apply the program, the accuracy of the application program (82.85\%) and statistically forward chaining computation method of nursing diagnosis affects the nurse’s performance in providing nursing care in the hospital. (P: 0.004). Based on the results of research, the application of forward chaining computational method of nursing diagnosis can be applied nurse as supporting nurse performance to giving nursing care in Hospital.

Keywords: Nursing Diagnosis, Forward Chaining Method, Nurse Performance
THE EFFECT OF HEALTH EDUCATION BY JIGSAW LEARNING MODEL ON
THE IMPROVEMENT OF CLEAN AND HEALTHY LIFE BEHAVIOR OF
STUDENTS IN SDN 4 NYALIAN

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ABSTRACT

Implementation of clean and healthy behaviour in schools still under average, if reflected form the incidence of disease that caused by bad health behavior in school. Cooperative learning with jigsaw is a health education model that demands student activeness in learning process. Purpose of this research is to determine the effect of jigsaw model to increase student’s clean and healthy behaviour of SDN 4 Nyalian. This research used quasi experiment with non-equivalent control group design. Sample consisted of 20 students in intervention group and 20 students in control group. The intervention group received clean and healthy behaviour education with jigsaw learning model, meanwhile the control group received education with learning model that usually used in SDN 4 Nyalian (lecture and discussion). Health education was given once per week (70 minutes) for two weeks. Student's clean and healthy life behavior is measured using knowledge, attitude and action questionnaire. Based on statistical analysis, the intervention group obtained knowledge (p=0.001), attitude (p=0.000), and action (p=0.000)(p<0.05). Afterwards, in control group obtained knowledge (p=0.011), attitude (p=0.157), and action (p=0.317). Health education with jigsaw model could give significant improvement to three behavioral variables: knowledge, attitude and action. Besides, the model of education in control group is only able to increase knowledge of students. As shown above, health education with jigsaw learning model has effect on the improvement of clean and healthy behavior in SDN 4 Nyalian’s students.

Keywords: Clean and healthy behavior, elementary students, health education, Jigsaw
HOW IS PARENT REACTION WHILE BEING INFORMED ABOUT THEIR CHILDREN HAVING ACUTE LYMPHOBLASTIC LEUKEMIA?

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ABSTRACT

Acute Lymphoblastic Leukemia (ALL) is white blood cells malignancy that appear suddenly. However, if left untreated the disease progression will be faster. Cancer management in children requires complex and sustainable planning in order to achieve optimal cure. Cancer management in children also needs to pay attention on psychosocial aspects of the child and family involving various health professionals. Families with children suffering from cancer have high levels of stress due to fear of death and concerns about the effects of illness on their child's life. Nurses need to identify concerns, difficulties, and family experiences in caring for their children to plan for nursing interventions needed by the family and it can be supportive for the family, thereby reducing the stress level on the family. This study aims to obtain a picture of the experience and meaning of family in caring for children suffering from ALL. This research is a qualitative research using phenomenology approach. This research uses the researchers themselves as an instrument of data collection because researchers seek and explore information in depth so that the researcher's own role as a tool for obtaining information. The supporting instrument used in this research is semi-structured questionnaire, which is an interview guide. Analysis was done by assessing the semantic relationship between the variables studied. The results showed there were four themes namely emotional responses, family perceptions about the disease, difficulties faced by families, and family expectations. Nurses are expected to continue to provide support to patients and families in the form of education required by the family.

Keywords: Acute Lymphoblastic Leukemia, families’ experience, taking care of children
OUTCOMES-BASED EDUCATION (OBE) CLASSROOM PRACTICES: PREFERENCES AND PAYBACKS ON TEACHING STRATEGIES AMONG ENGAGED MILLENNIAL NURSING ETHICS CLASS

Neil M. Martin

ABSTRACT

Background: The advent of globalization in healthcare challenges all sectors of society towards a shift in paradigm. Education in nursing is one among the areas to deal with particularly on the premise that curriculum is designed to produce a competent and a world class nurse ready to care for the world. Nurse preparation towards the ASEAN demands for nurses requires the practice of nursing according to established nursing standards across borders. OBE as a framework in Philippine Nursing landscape is determined to succeed.

Aim: This paper unravelled the Outcomes-based Education Classroom Practices: Preferences and Paybacks on Teaching Strategies among Engaged Millennial Nursing Ethics Class.

Method: This paper employed an action research geared on a course level evaluation at the end of the semester based on the free-willed written experiences of the forty Millennial Nursing students taking up Nursing Ethics subject under Bachelor of Science in Nursing Program offered by a State University in Southern Philippines. Qualitative summative content analysis was undertaken to draw experiences of millennial nursing ethics students. Verbatim transcriptions of the students’ written claims as experienced all through the course were reviewed, summarized, themed, and text data analysed to explicate findings.

Findings: Almost all participants were able to express their constructive experiences in writing at their own will. Preferences were highlighted on the various student-managed teaching-learning strategies as experienced by the participants owing to a more meaningful learning experience such as debates, case presentations and case analysis. Paybacks were claimed as more engaging in active learning experiences facilitating moral development, allowing students to manage their own learning, skills development on collaboration, solving problems, thinking critically, making decisions, and boosting self confidence in public speaking and communicating.

Conclusion: Outcomes-based education classroom practices as evaluated by the millennial nursing students brought the expected learning outcomes generally attained in a more engaged and student-managed approach.

Keywords: nursing, students, experiences
RELATIONSHIP OF KNOWLEDGE AND MOTIVATION WITH HAND WASHING COMPLIANCE LEVEL OF ASSOCIATE NURSES AT UDAYANA UNIVERSITY HOSPITAL

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ABSTRACT

Hand washing compliance is become one indicator of patient safety. The compliance of hand washing should be owned by health workers, especially nurses. Nurse’s compliance while implementing standard operating procedures should be appropriated, a hand washing procedure becomes one of the successful factors in preventing nosocomial infections. This study aimed to determine the relationship of knowledge and motivation with the level of hand washing compliance in associate nurses of Udayana University Hospital. This research used an analytic descriptive design with cross-sectional approached with 30 samples of associate nurses chosen by total sampling technique. Data collecting used questionnaire of knowledge and motivation and observation of hand washing compliance. The result of rank spearman statistical test showed correlation of knowledge and motivation with the level of hand washing compliance on associate nurses with positive correlation direction. Thus means that the higher level of knowledge and motivation the hand washing compliance will be increase. An advice given to the head nurses and hospital management to conduct supervisions regularly and a specific training about hand washing to improve the nurse’s performances.

Keywords: associate nurses, hand washing compliance, knowledge, motivation
THE EFFECTS OF CARTOON AUDIOVISUAL TO SCHOOL-AGE CHILDREN
CONSUMPTION BEHAVIOR IN SEKOLAH DASAR NEGERI 13 KESIMAN

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ABSTRACT

Consumption behavior of unhealthy snacks in school-aged children was caused by the lack of their understanding about the snacks itself. Lack of understanding about snacks could affect the development of their attitude and positive behavior in choosing and consuming snacks. To improve their understanding about snacks could be done by health education using audiovisual cartoons. This study aimed to determine the effect of audiovisual cartoons on consumption behavior of healthy snacks in school-aged children. The research is a Quasi Experimental Design with Nonequivalent Control Group Design approach. The sampling technique used in this research was probability sampling with simple random sampling. The sample in this study is 68 fourth grade students who divided into two groups, in which the first group was treated with audiovisual cartoons and the second group was given no treatment. This study was conducted on the late December 2016 to early February 2017 and the data were collected in six weeks. Data on the control group were collected in the first three weeks and data on the treatment group were collected in the next three weeks. In the treatment group, audiovisual cartoons were given to students twice a week with duration of 30 minutes. Value p= 0.000 (p <0.05) was obtained using Mann Whitney statistical test in both groups. This result indicates that there is a difference between the control groups to the treatment group on the level of consumption behavior of healthy snacks in school-age children. Through the research above, it can be concluded that the audiovisual cartoon is an effective and recommended media for health promotion, especially in school-aged children.

Keywords: audiovisual cartoon, snacks, consumption behavior of healthy snacks
ERGONOMIC PROGRAM AND NURSING INTERVENTION IN NURSING STUDENTS

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ABSTRACT

Ergonomics position is the position that should be done while working to improve work safety, work efficiency and reduce risk factors. Health workers are vulnerable individuals with various work-related risk factors, including improper work positions. Nurses are the health workers with the high exposure of risk factors. Performing nursing intervention such as patient lifting, transferring patients, wound care, performing intravenous infusion, inserting catheter and others are required standard ergonomic positions to avoid health risks. The ergonomic program is an activity to provide an understanding of the accurate working position while performing nursing interventions based on ergonomic standards.

This study aims to know the effect of comprehensive ergonomic program on ergonomic position of students when performing nursing interventions. This study was conducted at Nursing Science Program in Udayana University. The results of the preliminary study showed that more than 50 percent of the students are still doing the wrong position while performing nursing interventions. Additionally, more than 48 types of nursing interventions were studied by the students. The errors of working position practiced by students are potentially being applied until they are in the workforce.

This study was a quasi experimental design with action research application to analyze the effect of an ergonomic program on knowledge, attitude and behavior of nursing students while performing nursing interventions. There were 60 respondents selected using simple random sampling among nursing students of medical faculty Udayana University. Evaluation of this study was involved the readiness of institutions to apply specific programs regarding ergonomic position and modifications according to institutional conditions.

The results showed that there is a significant effect of ergonomic program on student's knowledge, attitude and behavior related to ergonomic standard in performing nursing interventions with statistic test result $p <0.05$. Student behavior can be improved by enhancing the students' knowledge on the ergonomic position while performing nursing intervention. Based on the results of this study, the nursing study program Udayana University is expected to provide knowledge about the importance of ergonomics position to nursing students. The proper ergonomic position can be informed through counseling or by integrating into one of the subjects in the curriculum.

Keywords: Ergonomic program, Nursing student and Nursing intervention
THE INFLUENCE OF SELF-HELP GROUP ON THE QUALITY OF LIFE OF DIABETES MELLITUS PATIENTS AT THE PUBLIC HEALTH CENTER II OF WEST DENPASAR.

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ABSTRACT

Diabetes mellitus is one of the serious health problems in modern society. Type 2 diabetes mellitus has a negative effect on the health status and quality of life of patients. Improving the quality of life of patients with diabetes mellitus can be done in groups through the Self-Help Group (SHG) program. This study aimed to assess the influence of self-help group on the quality of life, which it began with exploring the specific problem of diabetes mellitus patients involved in the group. This study is a quasi-experimental research with one group pre-test and post-test design. The sample consisted of 30 diabetic patients who joined in the diabetic community at the Public Health Center II of West Denpasar. Total sampling technique was used in this study. The data was collected by filling out the questionnaires of World Health Organization Quality of Life-BREF (WHOQOL-BREF). Result showed that the average value of the quality of life of patients with diabetes mellitus after a given intervention during three meetings was at 88.53. Based on the dependent t-test, it was obtained the p value (0.000)<α (0.05), which means there is influence of the Self-help Group on the quality of life of patients with diabetes mellitus in West Denpasar Public Health Center II. The continuing implementation of SHG can help improve the quality of life of diabetes mellitus patients.

Keywords: Diabetes Mellitus, Self-Help Group, Quality of Life
THE CORRELATION OF NURSES KNOWLEDGE ON RISK ASSESSMENT AND CONTROLLING FUNCTION OF HEAD NURSE WITH NURSE COMPLIANCE IN RISK ASSESSMENT

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ABSTRACT

Fall risk assessment is the first step of the risk reduction program. Risk assessment regarding falling prevention was performed by nurses, and the assessment has done since the patient first entered the hospital until the patient was discharged. This study aims to determine the relationship between nurse knowledge about risk assessment of falls and the function of head nurse supervision of nurse compliance in risk of fall assessment at Badung Hospital. This research is a quantitative research with descriptive correlation method and using cross-sectional research design. The sample was 78 people selected through purposive sampling technique. Result of analysis test with Spearman’s rho was that there was a strong and positive association between nurse knowledge about the assessment risk of falling with nurse compliance in the assessment. The result showed p value <0.001 with value of Correlation Coefficient equal to 0.624. There is a very strong and positive association between the head nurse control and the nurse's compliance in risk assessment falling where p value 0.001 with the value of Correlation Coefficient of 0.783. The conclusion of this study is that the better the knowledge and function of the nurse supervisor the more obedient of nurses in implementing falling risk assessment. Researchers expect management active to provide workshop related patient safety.

Keywords: controlling, compliance, fall, knowledge, nurse.
THE RELATIONSHIP OF NURSE KNOWLEDGE ON FALL RISK ASSESSMENT AND FUNCTION OF ROOM HEAD CONTROL WITH NURSE COMPLIANCE IN FALL RISK ASSESSMENT

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²Department of Basic Nursing and Nursing Basic and Nursing Management, Faculty of Medicine, Udayana University
³Department of Nursing Community, Family, and Gerontology, Faculty of Medicine, Udayana University

Abstract

Fall risk assessment is the first step in the risk reduction program due to falling patients. Risk assessment of the falls was performed by the nurse since the patient entered the hospital until the patient was discharged. This study aims to determine the relationship between nurse knowledge about risk assessment of falls and the controlling function of head of the room compliance in risk assessment fell at Badung Hospital. This research is a quantitative research with descriptive correlational method and using cross-sectional research design. The sample that will be used in this research is 78 people selected through purposive sampling technique. Result of analysis test with Spearman's rho that there is a strong and positive relationship between nurse knowledge about risk assessment fall with nurse compliance in risk assessment falling p value <0.001 with value of Correlation Coefficient equal to 0.624. There is a very strong and positive relationship between the headroom control function and the nurse's compliance in risk assessment falling p value 0.001 with the value of Correlation Coefficient of 0.783. The conclusion of this study the better the knowledge and function of the head of the supervision of the room the more obedient the implementing nurses do risk assessment fall. Researchers expect management active to provide workshop related patient safety.

Keywords: controlling, compliance, fall, knowledge, nurse.

BACKGROUND

Good hospital services ideally suited to the expectations of patients and families of patients. Health workers are required to reduce the level of error, re-work, failure and dissatisfaction patients and their families (Virawan, 2012). Morse's 2008 survey of the incidence of falling patients in the United States showed that 2.3-7 / 1000 patients fell out of bed each day. Ganz, et al. (2013) states that there are 152,000 cases of patients falling in England and Wales each year.

The incidence of falling patients in Indonesia reflects the iceberg phenomenon. The XII Congress of the Indonesian Hospital Association (PERSI) said that the number of incidents of patients falling in Indonesia from January to September 2012 was 34 incidents. The incidence of falling patients is included in the three major hospital medical incidents in Indonesia after drug error and decubitus.

Fall events result in various types of physical disorders and psychological disorders. The most dreaded physical disorder is pelvic bone fracture. Other types of fractures that often occur due to falls include fractures of the wrist, upper arm fracture, and pelvic fracture and
soft tissue damage. The psychological impacts often encountered in the event of falling include shock and fear will fall again (Stanley and Beare, 2006). Improvements continue to be intensified to reduce the incidence of falling patients.

Joint Commission International (JCI) requires all hospitals that are accredited by JCI or similar institutions to implement the International Patient Safety Goals (IPSG) program consisting of six focuses on patient safety objectives. One focus is to reduce the risk of injury from falling patients. Falling risk assessment is the first step in reducing the incidence of falling patients. (Darmojo, 2009). It takes nurse compliance to undertake risk assessment (Handayani, 2013). Compliance is influenced by several factors such as knowledge and function of headroom supervision (Setiadi, 2007; Asmadi, 2008).

Badung District General Hospital is a type B hospital and predicated by the Plenary Accreditation Commission of the Hospital in 2012 so that since 2013 Badung Hospital apply patient safety and targeting 0% incidence of falling patients. In fact, the nurse said that after the patient safety was applied there was a patient falling in Oleg room.

The researcher was interested in interviewing the nurses knowledge about risk assessment and the head room supervision function and the researcher conducted nursing care documentation to ten nurses in Janger room and Oleg knowledge. Most well-informed nurses are good about falling risk assessment and the function of the head of the room is perceived to run well. Based on the documentary study the researchers found that 30% of the patient's risk falling documentation form was not appropriate for the current patient's condition and 20% of the patients at risk did not use a high-risk marker to fall.

Based on the existing phenomenon in the field and similar research has never been implemented in Badung Hospital makes the researcher interested to conduct research entitled "The relationship of nurse knowledge about risk assessment of fall and function of headroom supervision with nurse compliance in risk assessment fall".

### RESEARCH METHODS

<table>
<thead>
<tr>
<th>No</th>
<th>Gender</th>
<th>Frequency (f)</th>
<th>Proportion (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Male</td>
<td>12</td>
<td>15.4%</td>
</tr>
<tr>
<td>2.</td>
<td>Female</td>
<td>66</td>
<td>84.6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>78</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

This research is a quantitative research with descriptive analytic and using cross-sectional research design. The population used in this study is all nurses in the inpatient ward in Badung Hospital, amounting to 101 people. The sampling technique used in this research is nonprobability sampling with purposive sampling technique to get sample of 78 housekeeper nurses.

Data collection was conducted on 19 - 23 May 2017 using a nurses' knowledge questionnaire on fall risk assessment, headroom control function, and observation sheet to measure nurse compliance in fall risk assessment which has been tested for validity and reliability at 30 implementing nurses in Cilinaya Room and Margapati Room Badung Hospital. This research has been through...
ethics test of Udayana University Medical Institute/Sangah Medical Faculty Ethics Committee.

Univariate analysis is done to know the description of distribution of value of each variable. Bivariate analysis using Spearman's rho correlation test. The confidence level used is 95% ($\alpha = 0.05$).

**RESEARCH RESULT**

**Characteristics of Respondents Research**

The characteristics of the respondents who have been researched and distributed into the distribution table are as follows.

**a. Age**

Age categorization is based on age category according to Depkes RI (2009). Characteristics of respondents by age can be seen in table 1.

**Table 1. Frequency Distribution of Respondents by Age**

<table>
<thead>
<tr>
<th>No.</th>
<th>Age (year)</th>
<th>Frequency (f)</th>
<th>Proportion (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>17-25</td>
<td>14</td>
<td>17.9%</td>
</tr>
<tr>
<td>2.</td>
<td>26-35</td>
<td>63</td>
<td>80.8%</td>
</tr>
<tr>
<td>3.</td>
<td>36-45</td>
<td>1</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

Table 1 shows that most respondents are in the range of 26-35 years or are in early adulthood.

**b. Gender**

Characteristics of study respondents by gender can be seen in the table 2.

**Table 2. Frequency Distribution of Respondents by Gender**

Based on table 2 it can be seen that most of the respondents were female (66.6%).

**c. Level of Education**

Characteristics of study respondents by education level can be seen in table 3.

**Table 3. Frequency Distribution of Respondents by Level of Education**

<table>
<thead>
<tr>
<th>No.</th>
<th>Level of Education</th>
<th>Frequency (f)</th>
<th>Proportion (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>DIII Nursing</td>
<td>61</td>
<td>78.2%</td>
</tr>
<tr>
<td>2.</td>
<td>Ners</td>
<td>17</td>
<td>21.8%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>78</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Based on table 3 it can be seen that most of respondents of research are DIII nursing that is 61 people (78.2%).

**d. Marital Status**

Characteristics of study respondents by marital status can be seen in table 4.

**Table 4. Frequency Distribution of Respondents by Marital Status**

<table>
<thead>
<tr>
<th>No.</th>
<th>Marital Status</th>
<th>Frequency (f)</th>
<th>Proportion (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Married</td>
<td>56</td>
<td>71.8%</td>
</tr>
<tr>
<td>2.</td>
<td>Single</td>
<td>22</td>
<td>28.2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>78</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Based on table 4 it can be seen that most of the research respondents have married status with 56 people (71.8%).

**e. Working Period**

Characteristics of study respondents by working period can be seen in table 5.

**Table 5. Distribution Description of Respondents by Working Period**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Median</th>
<th>IQR</th>
<th>Minimum-Maksimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Period</td>
<td>5</td>
<td>4</td>
<td>1-25</td>
</tr>
</tbody>
</table>

Based on table 5, the working period of the shortest respondent was observed for one year and the longest for 25 years.
Research Results on Research Respondents Based on Research Variables

The results of research on respondents based on research variables described as follows.

a. Nursing Knowledge of Risk Assessment

The knowledge level of the implementing nurses on fall risk assessment can be seen in table 6.

<table>
<thead>
<tr>
<th>Knowledge Level</th>
<th>Frequency (f)</th>
<th>Proportion (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>17</td>
<td>21.8%</td>
</tr>
<tr>
<td>Pretty Good</td>
<td>39</td>
<td>50%</td>
</tr>
<tr>
<td>Not Good</td>
<td>22</td>
<td>28.2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>78</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Based on Table 6 it can be seen that as many as 39 people (50%) of the implementing nurses have a good knowledge of fall risk assessment.

b. Head Room Control function

The frequency distribution of the headroom supervision function in the implementation of the fall risk assessment can be seen in table 7.

<table>
<thead>
<tr>
<th>Level of Controlling Function</th>
<th>Frequency (f)</th>
<th>Proportion (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>36</td>
<td>46.2%</td>
</tr>
<tr>
<td>Pretty Good</td>
<td>25</td>
<td>32.1%</td>
</tr>
<tr>
<td>Not Good</td>
<td>17</td>
<td>21.8%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>78</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Based on Table 7 can be seen that there are 17 people (21.8%) of nurses implementing the function of head supervision of the room is running poorly.

c. Nurse Compliance in Risk Assessment Fall

The frequency distribution of nurse compliance in fall risk assessment can be seen in table 8.

<table>
<thead>
<tr>
<th>Nurse Adherence Level</th>
<th>Frequency (f)</th>
<th>Proportion (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obedient</td>
<td>26</td>
<td>33.3%</td>
</tr>
<tr>
<td>Fairly Compliant</td>
<td>28</td>
<td>35.9%</td>
</tr>
<tr>
<td>Less Compliant</td>
<td>24</td>
<td>30.8%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>78</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Table 8 shows that as many as 24 people (30.8%) were less adherent in carrying out remote risk assessments.

Analyzed Nurses Knowledge Relations Data on Falling Risk Assessment with Nurse Compliance in Risk Assessment Fall

Data analysis using Spearman's rho obtained p-value <0.001 which means there is a relationship between nurse knowledge about risk assessment fall with nurse compliance in risk assessment fall. The strength of relationship and the direction of the relationship can be seen in the value of Correlation Coefficient is worth 0.624 which states the relationship strong and positive, so it can be concluded that the better the nurse knowledge about risk assessment fell then the more obedient nurses in risk assessment fell.

Data Analysis Relationship Function of Room Head Control with Nurse Compliance in Risk Assessment Fall
Test Data analysis using Spearman's rho obtained p-value value <0.001 which means there is a relationship between the function of headroom supervision with nurse compliance in risk assessment fall. The strength of relationship and direction of relationship can be seen on the value of Correlation Coefficient is worth 0.783 which states very strong and positive, so it can be concluded that the better the function of supervision of the head of the room the more obedient the implementing nurses in risk assessment fall.

**DISCUSSION**

**Nursing Knowledge of Risk Assessment**

The results of nurses' knowledge of risk assessment fell indicating that most of the implementing nurses had good knowledge of fall risk assessment. Some factors that influence the nurse's knowledge level about risk assessment fall among other levels of education, age, mass media / information, length of work, experience, and years of service (Notoatmodjo, 2007).

Most nurses are DIII nursing staff. Education is closely related to the intellectual property of the nurse (Muliono, 2007). The higher a person's education the easier the person will receive information (Notoatmodjo, 2007). Qaddumi and Khawaldeh (2014) stating that Ners nurse knowledge level is better than nurse DIII nursing about patient safety.

The majority of respondents are in the range of 26-35 years. The Central Bureau of Statistics stated that the human productive age is in the range of 15-64 years. This indicates that most of the implementing nurses are within the productive age range. Someone who is in the productive age range tends to have the ability to catch and a good mindset so that this period is the right time for someone to get information (Notoatmodjo, 2007).

Based on the results of interviews conducted by the researchers to the implementing nurses, the investigators found that the implementing nurses were never given any information related to the fall risk assessment that included definitions, objectives, indications, and fall risk assessment procedures. Lack of information related to risk assessment falls impacting on the knowledge level of nurses who are in fairly good categories about fall risk assessment (Widodo, 2013).

The working period of the executing nurses assigned in the Janger and Oleg rooms of Badung Hospital has a median of five years. Working period is closely related to experience. The longer a person's working period, the more experience he gets from the various cases he handles (Handoko, 2010). In this study the experience of the managing nurse did not affect the nurse's knowledge of risk assessment of falls.

**Head Room Controlling Function**

Most implementing nurses perceive supervisory functions to work well. Skills are the main factors affecting the function of headroom control (Susanti, 2009). Skills are skills that a person needs to perform some task that is the development of training outcomes and experience (Dunnette, 2012). Susanti (2009)
states there is a relationship between the skill of the head room management function with the compliance of the nurses in applying patient safety. Skills in performing headroom supervision functions are obtained through training, work experience, and education (Soemarjadi in Dunnette 2012).

The head of a room with a high education has a large vocabulary, so the head of the room can influence the nurse's implementers to achieve the vision of the room by using effective communication techniques (Nursalam, 2011). The head of a highly educated room is also easy to receive information from the training provided related to the implementation of the head room's supervisory function (Susanti, 2009). The work experience of the head of the room also affects the function of head control of the room. The head of the room who is experienced in performing the functions of the head control of the room understands the gaps in the shortcomings and the advantages of the nursing care actions provided by the nurses and has an image of appropriate action taken to prevent and deal with unwanted actions (Alviona, Siti, and Sofia, 2015).

Nurse Compliance in Risk Assessment Fall

Most implementing nurses who are adherent in carrying out risk assessments fall under the SOP. Akrodhana (2004) mentions there are several factors that influence the level of compliance, among others, motivation, educational level, and headroom supervision function. Motivation is based on the level of human needs, self-actualization (Maslow, 2006). Self-actualization of an implementing nurse can be enhanced through the awarding of material and positive reinforcement of the things that have been done (Handoko, 2003). Based on the results of interview, to the executing nurses, the head of the room in Janger and Oleg space rarely gave the award of material or positive reinforcement to the implementing nurses who did risk assessment fell well and correctly. This has resulted in a lack of motivation for implementing nurses to comply with the SOP for risk assessment fall.

The Relationship of Nurses' Knowledge of Risk Assessment Falling with Nurse Compliance in Risk Assessment

Based on the analysis using Spearman's rho, it is known that there is a strong and positive relationship between nurse knowledge about risk assessment fall with nurse compliance in risk assessment of fall. That is, the better the nurse knowledge about risk assessment falls then the more obedient nurses in doing risk assessment fall. The incidence of falling patients results in a variety of physical and psychological disorders. Common physical disorders include pelvic fractures, wrist fractures, upper arm fractures and pelvic fractures. The psychological effects that are commonly encountered in post-event patients include shock and fear of falling again (Stanley and Beare, 2006). Nurses who know the impact of risk assessment fall will seek to reduce the incidence of falling patients so that nurses are encouraged to abide in doing risk assessment fall.
The Relationship of Head Room Control Function with Nurse Compliance in Risk Assessment

Analysis using Spearman's rho is known to have a very strong and positive relationship between the headroom control function with nurse compliance in risk assessment of fall. This means that the better the function of supervision of the head of the room the more obedient nurses in doing risk assessment fell.

The supervised nurse will work to work in accordance with the SOP in order to minimize the inequality that occurs between the SOP and the thing done by the implementing nurse (Handoko, 2003). Headroom supervision can be done directly or indirectly, by making prior or unexpected agreements (Handoko, 2003).

The indirect, and suddenly, indirect headwaters will spur the executing nurses to adhere to risk assessment (Matteson, 2006). This is because the vigilant nurse will be assessed in carrying out the risk assessment to fall so that the nurses will continue to undertake risk assessment (Handoko, 2003). The habit of undertaking risk assessment fell to make the implementing nurses obedient in undertaking risk assessment (Asmadi, 2008).

CONCLUSIONS AND RECOMMENDATIONS

There is a strong and positive relationship between the nurse's knowledge of risk assessment falling with the nurse's compliance in fall risk assessment and there is a very strong and positive relationship between the headroom control function and the nurse's compliance in fall risk assessment. Most of the implementing nurses are female, 26 years old and married. The majority of nurses implementing end of DIII nursing with five years of service.

The researchers did not control other factors of the study. Researchers hope, researchers can further control other factors in the study. The factors that can be studied further are internal factors which include: (1) attitude, (2) ability, (3) motivation, (4) service period, and (5) education and external factors which include: (1) group characteristic, (2) job characteristics, and (3) environmental characteristics.

Completeness of the test factors affecting nurse compliance is expected to identify which factors have the highest level of influence, so that in improving adherence nurses can use the approach of one factor that has the level of influence on the highest compliance. All of these efforts are efforts to improve the human resources of health workers that will have implications for the improvement of health services in general.

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THE CORRELATION OF NURSES’ CHARACTERISTICS AND PERCEPTION ABOUT SUPERVISION BY HEAD NURSES WITH HANDOFF IN OLEG WARD IN BADUNG HOSPITAL

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ABSTRACT

Increasing the quality of health services can be noticed through effective communication between nurses, as well as nurses with other health professionals. One of the forms of communication that must be increased is the communication during handoff. Implementation of handoff at the hospital sometimes is still not in accordance with the procedure, so that it may result in decreasing quality of nursing care. This study aims to determine the association between nurse characteristics and nurse perceptions about the supervision of the head nurses with the perception of handoff in the Oleg Room of Badung Hospital. This research uses correlational study design with cross sectional approach. Sampling technique using total sampling with samples used amounted to 35 respondents. The data collection instrument is a questionnaire. The results showed that the median respondent was 28 years old, 30 (85.7%) respondents were female, 24 (68.6%) respondents with education level of Diploma in Nursing, median of respondent has 3 years working period, 18 (51.4%) respondents with good supervision perception, 19 (54.3%) of respondents have good handoff. Result of correlation test does not relate to age (p value = 0.186, r=0.229), sex (p value = 0.21, r=0.206) with perception of handoff. The correlation exists between educational level (p value = 0.027, r=0.374), working period (p value = 0.015, r=-0.410) and perception of head room supervision (p value = 0.028, r=0.370) with perception handoff. Good perceptions of head nurse supervision tend to produce good handoff perceptions. It is expected that nurses can improve their knowledge through education and training regarding supervision and handoff.

Keyword: Handoff, Head Room Supervision, Nurse’s Perception
THE EFFECT OF GUIDED IMAGERY ON SLEEP QUALITY IN ELDERLY IN BANJAR BUAGAN DESA PEMECUTAN KELOD

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ABSTRACT

Sleep quality is a ability to maintain adequate sleep which can provide a sense of fit when awake from sleep. Guided imagery is one of interventions that aims to improve sleep quality. This research aims to determine the effect of guided imagery on sleep quality in elderly in Banjar Buagan Desa Pemecutan Kelod. This study uses a quasy-experimental design with pre-test and post-test with control group design conducted on 34 respondents, selected by purposive sampling differentiated by the intervention group 17 people and the control group 17 people. The data collection conducted by giving The Pittsburgh Sleep Quality Index (PSQI) questionnaire before and after intervention. Based on Independent sample’s t-test on analysis of differences in sleep quality in elderly pre-test and post-test between the intervention group and the control group p value = 0.000, means that there is an effect of guided imagery on sleep quality in elderly in Banjar Buagan Desa Pemecutan Kelod. Based on the research, it is suggested to the elderly for implementing guided imagery techniques in order to improve their sleep quality.

Keywords: elderly, guided imagery, sleep quality.
THE EFFECT OF STATIC STRETCHING ON FLEXIBILITY LEVEL IN NURSE OF PRIMARY HEALTH CARE CENTER IN DENPASAR

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ABSTRACT

Sedentary lifestyle such as prolonged sitting can cause health problems. The minimum frequency of physical activities conducted by nurse can give bad impact on the individual. Thus, a simple strategy that can be chosen as an alternative physical activity to be conducted in the workplace is needed. This study aimed at investigating the effect of static stretching on the nurses’ flexibility in primary health care center in Denpasar. This study is a quasi-experimental research (One-Group Pretest-Posttest design). The sample consisted of 30 people selected by using purposive sampling technique. The data were collected through the measurement of flexibility by using Goniometer and SRT box. There is no significant difference on flexibility level based on the subjects’ characteristics, except on the gender category regarding to the flexibility of knee. The result of the study on the flexibility level, before the intervention, on neck, shoulder, elbow, knee, hamstring muscle and low back, respectively are 52.16°; 156.5°; 129.16°; 123° and 5.96 cm. The level of joint flexibility after the intervention, on neck, shoulder, elbow, knee, hamstring muscle and low back, respectively are 58.83°; 163.33°; 132.22°; 127.50° and 9.56 cm. Based on the result of Paired t-test and Wilcoxon Signed Rank Test, it was obtained that the p-value of the data was less than or equal to 0.0001 (p≤0.0001). This result indicated that there is a significant effect of static stretching on the nurses’ flexibility level in primary health care center in Denpasar. The result of the study indicates the need for conducting static stretching or other physical activities by nurses during their rest breaks at work, so that their level of joint flexibility can be increased and physical injuries at work can be prevented.

Keywords: flexibility level, nurse of primary health care center, static stretching
ABSTRACT

Background: The challenge for nursing educators (lecturer) to effectively disseminate complex material to students is currently a trend. There are many learning methods used by lecturers to improve students’ knowledge and skill. One of the factors that determine the success of learning is how to improve students to be active in the classroom. A strategy that can be used as a reference lecturer is Flipped Classroom method.

Aim: To describe perception and motivation of lecturer in implementing Flipped Classroom at Sekolah Tinggi Ilmu Kesehatan Bali.

Method: This study used mix methods both descriptive and qualitative method. The present study involved 25 participants recruited by purposive sampling technique. Data were collected by questionnaires and five participants were interviewed using structured questions. Further data were analyzed by descriptive and qualitative analyzing.

Findings: The study found that there were 17 respondents (68%) had good perception and motivation for implementing of Flipped Classroom. Whereas, there were 8 respondents (32%) had good enough perception and motivation in implementing of Flipped Classroom. Based on interviewing of participants, they pointed that Flipped Classroom is one of methods to improve critical nursing students. Moreover, the lecturers want to implement the method to encourage students’ activity.

Conclusion: Findings of this study suggested that lecturers at Sekolah Tinggi Ilmu Kesehatan Bali should modify learning activities for students and provide varieties of subject materials to maintain students’ independence in learning.

Keywords: perception, motivation, implementation, flipped classroom
THE EFFECT AUDIO VISUAL HEALTH EDUCATION ABOUT ERGONOMIC POSITION ON KNOWLEDGE AND BEHAVIOR AMONG COMPUTER SCIENCE PROGRAM STUDENTS IN SMK PGRI I DENPASAR

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ABSTRACT

The use of old fashioned computers and improper ergonomic position among students can cause health problems such as musculoskeletal and vision. Practice of unappropriated ergonomic position may cause pain in the neck, upper back, shoulders, arms, or hands. This study aims to find out health education about ergonomic position based on audio visual in improving knowledge and attitude of computer program students. The design of this study using pre-experimental design is one group sample pretest-posttest. Respondents in this study are students of computer majors amounted to 33 people selected by purposive sampling. Based on Wilcoxon test on knowledge and attitude after given Audio-based health education obtained p value = 0.00 (p <0.05) it means that there is a difference of knowledge and attitude before and after given by education intervention health education based on visual audio. Based on the findings above, it is recommended that students apply ergonomic positions when using computers to prevent musculoskeletal disorders and visual impairment.

Keywords: audio visual, computer, ergonomic, attitude, knowledge, position
HIPERTENSION IN ADULT AGE AND RELATED RISK FACTORS

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ABSTRACT

\textbf{Background:} Hipertension is one of the significant risk factors for further severe cardiovascular diseases. Furthermore, the incidence of hipertension in adult age population has increased gradually. Thus, assessment of hipertension incidence and their risk factors in adult age people has given the benefit for treating and preventing program earlier.

\textbf{Aim:} To analyze hipertension incidence in adult age and their risk factors that dominantly effect the occurrence of hipertension.

\textbf{Method:} This study was correlational with survey method. Accidental sampling was conducted to 120 respondents who live around Malioboro district. Hipertension was detected from sistole and diastole value, while the risk factors of hipertension were age, gender, family disease history, type of activity, the number of cigarette each day, the length of smoking, random blood glucose, and body mass index. Analyzing the data used Pearson correlation if data was normal, or used Spearman correlation if data was not normal.

\textbf{Findings:} From 120 participants, mean of sistole pressure was 120.7 mmHg and mean of diastole pressure was 78.5 mmHg. Age mean was 39 years old, dominantly was woman amount 83 (69.2%), and without family disease history as 66 (55%). Mostly they had moderate physical activity amount 71 (59%). Mean of cigarette consumption was 11 pieces/day for 23 years. Random blood glucose mean was 131 mg/dl and mean of body mass index was 26 kg/m\textsuperscript{2}. Correlation analysis mentioned that body mass index had correlate with sistolic and diastolic value significantly (p< 0.05).

\textbf{Conclusion:} Sistole and diastole pressure value in adult age were still normal. Risk factor that correlate significantly with adult age blood pressure was body mass index. Another risk factors such as cholesterol level, blood glucose in fasting condition and two hour post meal, also food consumption were considered should be included in next study.

\textbf{Key words:} adult age, cardiovascular, hipertension, risk factors
THE EFFECT OF CREATIVE ARTS THERAPY TO ELDERLY STRESS MANAGEMENT WITH HYPERTENSION

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ABSTRACT

Hypertension in the elderly caused by stress due to aging, role adjustment, socioeconomic conditions and degenerative diseases. Stress management can be solved with creative arts therapy consisting of singing, drawing, and stories telling that have a relaxation effect. The aim of this study is determine the effect of creative arts therapy to elderly stress management with hypertension in Kesiman Kertalangu Village East Denpasar. This type of research used pre-test and post-test design. The samples used were 63 elderly hypertensive patients with mild and moderate stress using purposive sampling technique divided into three treatment groups with 21 respondent each groups. The results showed there was a decrease in stress level as many as 46 elderly people. Test statistic using Wilcoxon test obtained p value 0.000 <0.05 means there is effect of creative arts therapy to stress level of elderly with hypertension. The mean systolic blood pressure of elderly decreased 5.87 mmHg and diastolic 3.81 mmHg. Test statistic using Paired t test obtained p value 0.000 <0.05 means there is effect of creative arts therapy to elderly blood pressure with hypertension. The combination of creative arts therapy with local culture can be an effort as a health intervention to improve the elderly health. Improving elderly coping for managing stress using creative arts therapy can be developed and implemented through monitoring by families with assistance from community nurses.

Keywords: elderly, creative arts therapy, singing, drawing, story telling
INFLUENTIAL FACTORS OF SAFETY RIDING ON ELDERLY IN DENPASAR

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ABSTRACT

Traffic accidents are an unexpected and accidental incident on the road involving a vehicle that can happen to anyone, one of whom is the elderly. Safety driving is an action that can minimize an accident. This study aims to determine the factors associated with driving safety in elderly. This study is correlational descriptive research with cross sectional design, the sample consisted of 80 elderly with cluster sampling technique. The data was collected by filling out the questionnaire of the safety of the vehicle. The result showed that some riders are elderly (97.5\%), sex is mostly male (68.8\%), the education level is mostly secondary education (68.8\%), mostly have a good knowledge (30.0\%), positive attitude (53.8\%) and most of the respondents has SIM C (88.8\%). Based on Spearman Rank test, it was obtained the p value of age (p = 0.831 > 0.05), gender (p = 0.857 > 0.05), education level (p = 0.006 <0.05), SIM C (p = 0.000 <0.05), knowledge (p = 0.001 <0.05), and attitude (p = 0.006 <0.05). There is an association between education level, ownership of SIM C, knowledge, and attitude with safety driving. There is no correlation between age and gender with safety driving. Elderly can do driving, but they have to pay attention on safety standards such as helmets, jackets, gloves, and foot protector.

Keywords: elderly, safety driving

Reference (92: 2002-2016)
THE EFFECT OF BRISK WALKING EXERCISE ON WEIGHT AND
CHOLESTEROL LEVEL ALTERATION IN OVERWEIGHT
FEMALE ADOLESCENT

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ABSTRACT

Most of adolescent whom live in the urban area, especially in Denpasar tend to consume fast food that can be increasing the risk for overweight. Overweight in adolescent can be managed by brisk walking exercise. The aim of this study was to determine the effect of brisk walking exercise on weight and cholesterol level alteration in overweight female adolescent. This was a quasi-experimental design with nonequivalent control group design. Sample size consist of 26 people chosen by purposive sampling method divided into intervention and control group. Brisk walking exercise within 30 minutes five times a week in four weeks were given as the intervention, while the control group did not receive any intervention. The weight and the cholesterol level of the sample were measuring before and in the last of intervention. Based on mann-whitney statistic, there was a significant between the two group on the last intervention (p<0,001 (p<0,05). In conclusion, brisk walking exercise has a significant effect on weight and cholesterol level alteration in overweight female adolescent.

Keywords: brisk walking exercise, cholesterol, weight
ABSTRACT

Background: Preliminary study showed that 7 out of 10 male college students in Banjarbaru ever tried smoking. Smoking affects both respiratory and cardiovascular system, and thus affects cardiorespiratory endurance as well. One simple test, which can be used to indicate cardiorespiratory endurance, is Harvard Step Test.

Objective: The aim of this research was to identify the score of Harvard Step Test as indicator of cardiorespiratory endurance on college student smokers.

Method: This was a descriptive cross-sectional study; 40 samples who met inclusion and exclusion criteria were selected using purposive sampling. The instruments of this study were questionnaire, metronome, stop watch, and 19 inches bench. Data were analyzed using descriptive statistics.

Findings: The result showed that 47.5% samples had poor score, 42.5% had average score, and 10% had good score of Harvard step test. There were 65% samples light smokers and 35% were heavy smokers.

Conclusion: It can be concluded that nearly half of college student smokers had poor harvard step test score as indicator of cardiorespiratory endurance.

Keywords: Harvard Step Test, Cardiorespiratory Endurance, College Student Smokers
THE PRIORITY OF NURSE IN GIVING TRAINING ABOUT A BALANCED NUTRIENT FOR ELEMENTARY SCHOOL’S TEACHER IN THE FRAMEWORK OF IMPROVEMENT OF NUTRIENT STATUS FOR INDONESIAN STUDENTS

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ABSTRACT

Nutrient problem is one of important factor to determine a success of human development in Indonesia (Atmaja, 2011). Indicator quality of human resources is a good nutrient, where the basic can be fulfilled by both of quality and quantity. One of factors to influence nutrient status is a knowledge of food, nutrient, beside the availability of food (Sungkowo 2009). Since, giving the nutrient education nowadays is an important point.

Nutrition education must be given by the exact mediator. Teachers have an important role in giving information of nutrient to students of elementary school, because a teacher is a role model for her/his students and spends adequate time to interact with them at school. Thus, it is important to train elementary school’s teachers about a balanced nutrient; this training is an effort in improving nutrient status of students in Indonesia. The nurse and teacher have an important part of health education specifically about a balanced nutrient.

Students are the next generation for the nation. They need to have a good nutrient status and a good academic achievement. Because of that, education given at school is important to maintain healthy community. The nurse has a role to provide the teacher with adequate information about nutrition. Well-informed teachers could give appropriate nutrition information to their students. Therefore, these teachers could support the role of the schools in developing good quality of resources.

A teacher does not only teach and give information; but a teacher is also a facilitator and a motivator, who guide information about a balanced nutrient to their students. Thus, the students can apply it in their daily life.

However, elementary school teachers’ knowledge about balanced nutrient in Indonesia are still in low, so they need a training about balanced nutrient. This activity needs a lot of support from the health services and the relevant agencies.

Keywords: Training, teachers, nurse
EFFECTIVENESS OF CHEST PHYSIOTHERAPY (CLAPPING AND VIBRATION) COMBINED WITH WARM WATER OVER EXPENDITURE SPUTUM OF COPD PATIENTS

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ABSTRACT

COPD is a disease characterized by airway obstruction that it is not fully reversible. Blockage of air flow is generally progressive and associated with an abnormal inflammatory response of the lungs to noxious particles or gases. WHO (2008) reported that COPD with asthma were third diseases causing death in the world (4.3 million death). In DR. W.Z Johannes Kupang hospital, there were 56 patients who diagnosed COPD from January-September 2014. One of patient complaints was difficulty to release the sputum from airway. Chest physiotherapy and warm water hydration therapy are one of the non-pharmacological measures to remove sputum from airway.

The purpose of this study was to identify effectiveness of chest physiotherapy (clapping and vibration) combines with warm water to release the sputum of patients with COPD. The research design used in this study was pre-experimental, with one group pre-post test design. The total sampling for one month were 25 respondents. This research was done at Kelimutu ward in DR. W.Z Johannes Kupang hospital on January 2015.

The results showed an average of expenditure sputum before the action was 4.64 cc, the average amount of sending sputum after the action was 6.96 cc. This study used t-test where the test result obtained with the value p= 0.000. It meant physiotherapy (clapping and vibration) combined with warm water proved to be effective expenditure of sputum for COPD patients. Thus, slapping and vibration combined with warm water can be continued to be a non-pharmacological intervention that can be done independently by nurses.

Keywords: chest physiotherapy, warm water, expenditure sputum

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ABSTRACT

Background: The infection time of *Mycobacterium leprae* is related to determine type of leprosy, as known as pausibaciller (PB) and multibaciller (MB). Therefore, type of leprosy is determined multi drug therapy that correlated adherence to medication and motivation of healing among leprosy patients (LP).

Aim: To determine the difference between infection times, adherence to medication, motivation for healing and type of leprosy among LP in Jember of public health center (PHCs).

Method: A cross-sectional study was conducted among 35 LP at PHCs in Jember from March to May 2017. A self-administered questionnaire was designed to collect data from the participant. Data was analyzed using t-test and Chi-square test to measure the difference between infection time, adherence to medication, motivation for healing and type of leprosy in LPs.

Findings: Among 35 LPs, the percentages of LPs of from PB and MB types of leprosy were 25.7% and 74.3%, respectively. There were significant difference between infection time, adherence to medication, motivation for healing and type of leprosy (*p*<0.05). LPs with MB leprosy were diagnosed way before those with PB leprosy (8.6 months vs. 5.7 months). Meanwhile, the LPs with PB leprosy has lower was adherence to medication compared with those with MB leprosy. On the other hand, LPs with MB leprosy had higher motivation for healing compared those with PB leprosy.

Conclusion: The prevalence of MB LPs was higher compared to PB LPs. Case finding should be assessed for early detection of LPs in the community. Therefore, self-detection actively in the LPs could be improve awareness of them to join LPs the self-care groups in PHCs to limit infection time and to improve adherence to medication and motivation for healing.

Keywords: Patient leprosy; Infection time, Adherence to medication; Motivation for healing; Public health centers
ABSTRACT

Maternal and child health (MCH) book is a tool for early detection of the disorder or maternal and child health problem; this is also a communication tool and counseling with important information for mothers, families and communities regarding maternal and child health services. The purpose of this study to describe the knowledge, attitudes and actions of mothers towards the utilization of MCH handbook in Public Health Center (PHC) Tanjung Paku at 2016.

Data were collected using questionnaires, and observations. This study was conducted on June 2016 in PHC Tanjung Paku. The sample was 50 mothers selected with accidental sampling technique. The results obtained by the majority (70.0%) of respondents knowledgeable about MCH Handbook is high, more than the majority (64.0%) of respondents have a positive attitude about the utilization of MCH Handbook, more than the majority (54.0%) of respondents bring the MCH Handbook when visiting health service. Suggested to health workers in PHC Tanjung Paku to provide counseling on the use of MCH Handbook and for further research to be able to be referenced in the learning activities for support in future studies.

Keywords: MCH Books, Knowledge, Attitude, Action

PREGNANT WOMEN WITH GESTATIONAL DIABETES IN SELECTED GOVERNMENT HOSPITALS: BASIS FOR BEHAVIORAL MODIFICATION PRACTICES

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ABSTRACT

Diabetes Mellitus is the 8th leading cause of mortality in the Philippines. In this scholarly work, we discuss findings of a descriptive research pertaining to the incidence of diabetes in pregnant women. The study executed in selected government hospital sought to provide a basis for behavior modification. Data gathering was conducted utilizing a survey questionnaire from 57 pregnant patients who were clinically diagnosed with Type 3 Diabetes. Most mothers diagnosed with gestational diabetes belong to 20-25 years of age. The overall mean of the extent or level of practices along lifestyle is 3.25. From the list of practices, the highest is 4.37, eating full meals three times a day. Mean of 3.25 for physical mobility and mean of 3.63 for pre-natal checkup. Improving ways in promoting healthy lifestyle among pregnant women with GDM through behavioral modification practices is the main purpose of this study. Which in turn, provided a basis for a behavioral modification program. Massive information dissemination about gestational diabetes must be done particularly on mothers and women belonging to the age groups 20-30 years old, married and single mothers, regardless of educational attainment and frequency of pregnancy. An extensive health education of mothers must be conducted on topics about lifestyle practices, health regimen and attitude modifications using the modules written as primer produced in this study.

Keywords: Diabetes, Pregnancy, Gestational Diabetes, Behavior Modification, Prenatal care
CHEWING GUM IS MORE EFFECTIVE THAN HONEY SOLUTION GARGLING REDUCING ORAL MUCOSITIS

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ABSTRACT

Mucositis is one of side effect in patients undergoing chemotherapy, it can cause physiological and functional disturbance which lead to decrease quality of life in pediatric cancer patients. An established non pharmacological intervention to overcome oral mucositis is gargling with honey solution and chewing gum. The aim of this study was to compare effectiveness of chewing gum and gargling with honey solution in the oral mucositis score. This study used quasi experiment. Sample size was 44 children divided into two groups. The analysis of the data was using Wilcoxon Test. There was a significant difference between oral mucositis score after intervention (p=0.001). It was also shown a significant mean difference between both groups, which the mean difference of decreasing oral mucositis score in chewing gum was higher than gargling with honey solution (p=0.001). In conclusion, chewing gum is more effective than gargling with honey solution and it can be used as a nursing protocol for pediatric cancer.

Keywords: chemotherapy, chewing gum, mucositis, honey solution
THE CORRELATION OF SPIRITUAL NEEDS WITH MENTAL STATUS LEVELS IN PEOPLE WITH MENTAL DISORDERS AT DENPASAR

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ABSTRACT

The fulfillment of spiritual needs is required by the people with mental disorder; considering the spiritual needs are very important in changing mental status. This study aims to find out the correlation between spiritual needs and mental status level in people with mental disorder at Denpasar. This is a quantitative study that applies cross sectional method. The sample for this study is 69 respondents by using purposive sampling technique. The data are analyzed by using Spearman-Rho. The instruments which are used for collecting data of this study are a questionnaire about spiritual fulfillment and Mini Mental State Examination (MMSE) questionnaires. The results showed that the number of loading spiritual needs either as much as 46 respondents or 66.7%. Meanwhile, most of the respondents has a high level of mental status that is 37 respondents or 53.6%. The result of the analysis shows that there is a correlation between spiritual needs and mental status level (p value 0.000; OR 0.863). Based on the findings, it is advisable to the nurse to make programs related to the spiritual such as routine joint prayer as activity which is spiritual meaning.

Keywords: people with mental disorder, spiritual needs, mental status level
HEALTH PROMOTING LIFESTYLES AMONG COMMUNITY HEALTH NURSES WORKING IN COMMUNITY HEALTH CENTRE IN DENPASAR BALI

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ABSTRACT

Background
Health promotion (HP) provision is regarded as an integral component of the health professional’s role, particularly for nurses working in a primary healthcare context. In Indonesia, community health centres called Puskesmas serve as the main functional healthcare organisation unit.

Purpose
The purpose of this study was to determine any significant differences between selected socio-demographic variables and the health-promoting lifestyles of nurses working in all Puskesmas in the Denpasar area, Bali.

Methods
This study employed a quantitative research design using self-administered questionnaires contained several questions related to respondents’ socio-demographic information and a 52 item Health-Promoting Lifestyle Profile II (HPLP-II) questionnaire. Nurses working across 11 Puskesmas in Denpasar area were selected using convenience sampling. Independent t-tests and one-way analysis of variance (ANOVA) were employed.

Results
One hundred questionnaires were included in data analysis. The results showed that the means of several HPLP-II subscales were significantly different, namely, in spiritual growth according to respondents’ working experience (F = 6.38, p = 0.00), employment status (t = 4.03, p = 0.02), income (F = 6.05, p = 0.01) and general health status (F = 3.46, p = 0.02). Significant findings also found in nutrition subscale based on respondents’ employment status (t = 2.29, p = 0.02) and income (F = 6.37, p = 0.00). A variation in stress management scale also showed in different income (F = 4.00, p = 0.03). Significant differences in total scale (F = 3.15; p = 0.03), health responsibility (F = 4.19, p = 0.01) and interpersonal relations (F = 3.16, p = 0.03) based on respondents’ general health status were also revealed in this study.

Discussions
Based on particular socio-demographic characteristics, the Puskesmas nurses’ HPLP-II scores in several domains were significantly different, including in the spiritual growth subscale based on the respondents’ working experience, employment status, income and general health status; the nutrition domain according to respondents’ employment status and income; the stress management subscale based on their income status; and in the total scale, health responsibility and interpersonal relations according to respondents’ general health status. It is obvious from these results that spiritual growth consistently appeared in all domains with significant findings. Analysis on the employment status and monthly income variables resulted in significant differences in the respondents’ nutrition score, where those who were temporary employees and had lower monthly income were found to have lower nutrition scores. Bourne et al. (2010) also revealed that health practitioners with lower socio-economic status (lower income and working status) tend to adopt more unhealthy lifestyles compared with their fellows in better socio-demographic conditions. Perceived health status and working period were also revealed to be significantly correlated with Taiwanese nurses’ personal healthy lifestyles (Yao 1997 cited in Carlson & Warne 2007). No significant differences in the HPLP-II scores based on the respondents’ socio-demographic variables (gender, age, marital status, living arrangement, education level, health promotion training, body mass index and smoking status) were found. The fact that there were no significant differences in the HPLP-II scores between participants who had been involved in specific health promotion training addressing Puskesmas nurses with those who did not, and between nurses with higher versus lower levels of education leads to questioning of the nature and effectiveness of the existing health promotion training and the nursing educational system.

Conclusions
It can be concluded that the means of several HPLP-II subscales were significantly different based on particular socio-demographic characteristics of the respondents. Findings from this study may promote nurses’ health promotion practice by highlighting the need to develop health promotion strategies which take into account the targets’ socio-demographic characteristics.

Keywords: health promotion, primary health care, community health centre, community health nurses

NURSES’ PERCEPTIONS ON ETHIC OF CARE IMPLEMENTATION
ABSTRACT

The nursing ethical behaviour is one of the main influential factors for the value of nurses in the society. Some study show that ethics of care implementation has not been implemented optimally. This study was conducted to describe nurses’ perceptions on ethic of care implementation at Udayana University Hospital. This study is a descriptive analytic study with cross-sectional approach involved 30 nurses from hospital wards, emergency unit, and outpatient unit selected with total sampling. Data collecting used questionnaires. Results of the study explained that nurses’ perceptions on ethic of care implementation showed average score 145.13 (SD 10.53). Care ethic is the essence of nursing practice. Element of care that is considered a fundamental need in demonstrating caring consists of competence, attentiveness, responsibility, and responsiveness of the care receiver.

Keywords: Ethic of Carec, Nurse, Perception

TELEHEALTH AS AN EFFORT TO PREVENT NON-COMMUNICABLE DISEASES
Background
Non-communicable disease is a disease that cannot be curable but can be controlled. The best therapy for this disease is prevention. There are three types of prevention for non-communicable disease such as; primary prevention, secondary prevention and tertiary prevention. The primary prevention can be done by modified behavioral risk factors, such as tobacco use, unhealthy diet and physical inactivity and intermediate risk factors, such as elevated blood lipids, diabetes, high blood pressure and overweight/obesity. One of prevention methods that can help the health care provider for preventing the non communicable disease is telehealth. This method provides an opportunity to increase access and improve the current health care system. The American Occupational Therapy Association (AOTA) defines a Telehealth as an intervention to evaluate, prevent, consultation tools and therapeutic interventions delivered through information and communication technology

Aim
The aim of this study is to determine the effect of telehealth as the effort of primary prevention of non communicable disease in terms of physical activity, nutrition and healthy behavior

Method
This study was quasi experiment whereas the subjects were given phone calls and message as telehealth during six weeks. The contain of telehealth were the information about the physical activity, nutrition and healthy behavior. Those information were evaluated before and after intervention.

Result
The Wilcoxon test shows there are the significant effect of telehealth to the physical activity, healthy behavior and nutritional status with p value < 0.05 within CI 0.95.

Conclusion
Telehealth is capable of being a nurse’s tool to provide a variety of personalized management information in patients with non communicable disease such as; physical activity, healthy behavior and nutritional status

Keywords: telehealth, non-communicable diseases prevention
ABSTRACT

**Background:** Heart failure is one of the chronic diseases that can lead to decreased quality of life. Self care management is an important part of the care of patients with heart failure, in which health professionals work together with patients with heart failure to recognize the need for more specific recommendations regarding the patient's lifestyle. To achieve a good quality of life, patients with heart failure need to implement good self-management management.

**Objectives:** This study aims to determine and analyze the influence of self care management on the quality of life of patients with heart failure.

**Methods:** This research uses quasi experimental design with pre test and post test design with control group. Respondents in this study were heart failure patients who control to polyclinic Integrated Heart Disease Sanglah Hospital Denpasar. Respondents in this study were divided into two groups (treatment group as much as 16 respondents and control group counted 16 respondents). Treatment group is taught about self care management 4 times in 1 month.

**Results:** The mean age of respondents in the treatment group and control group was 58.88 years and 56.81 years. The average quality of life of respondents in pretest and posttest treatment groups was 33.56 and 21.18 (p = 0.00). The average quality of life of respondents in the pretest and posttest control groups was 38.56 and 38.38 (p = 0.083). Based on statistical test by using unpaired t test, got value p = 0.00 so it can be concluded that there is influence giving self care management to quality of life of patient of heart failure. Based on the results of this study, it is hoped to pasein heart failure to apply self care management in everyday life so as to improve the quality of life.
ANALYSIS CONFORMITY ORAL HEALTH ASSESSMENT INSTRUMENT: ORAL HEALTH ASSESSMENT TOOL (OHAT) AND ORAL ASSESSMENT SCALE (OAS) FOR ELDERLY IN PSTW WANÀ SERAYA DENPASAR

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ABSTRACT

Aging is a state that occurs in human life. Being old is part of the natural phase. One of the changes in body structure and function due to aging process is disorder of oral health. Elderly susceptible to changes in the mucosal epithelial layer of the mouth, thinning of the skin due to reduced collagen tissue, decreased the number of capillary blood vessels, and decreased blood supply. Therefore, regular oral health assessment is required, using adequate instruments. Some of them are Oral Health Assessment Tool (OHAT) and Oral Assessment Scale (OAS). This study is analytical observational study to identify interrater agreement between OHAT and OAS. The respondents were 40 elderly in PSTW Wana Seraya Denpasar, were gotten through total sampling technique. Data was collected through observation using OHAT and OAS checklist with two observers together. Data was analyzed with Kappa test. The result is most of respondents (85%) have mild dysfunction of their oral health. Kappa test obtained p value = 0.000 with Kappa index of 0.793. It means there is a suitability of the results between OHAT and OAS for assessing the oral health status in elderly with a good level of conformity. Oral health assessments should be done regularly, able to use specific instrument, both OHAT and OAS.

Keywords: assessment, OAS, OHAT, oral health
THE EFFECT OF GUIDANCE PROGRAM: HOME ROOM TECHNIQUE TO ADOLESCENT’S COGNITIVE AND ATTITUDES ABOUT PREMARITAL SEXUAL PREVENTION IN SENIOR HIGH SCHOOL 1 SAWAN, BULELENG REGENCY

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ABSTRACT

Most of adolescents have a high curiosity, so they will seek and try something that has never happened, including premarital sex. Prevention can be done by group counseling homeroom technique that aims to discuss the problems experienced by individuals in the group. The study purposes to determine the effect of group counseling homeroom techniques toward knowledge and attitudes of adolescents on premarital sexual prevention in SMAN 1 Sawan Buleleng. This study uses a quasi-experimental design that is one-group pretest-posttest samples were conducted on 33 samples were selected by proportionate stratified random sampling. The data collected by giving questionnaires knowledge and attitudes about prevention premarital sex before and after a given intervention homeroom group counseling techniques. Based on Wilcoxon Signed Rank value test p (Asymp.Sig. (2-tailed)) for 0.000 is less than the critical limit of 0.05 research, so there is influence between the pretest and posttest on knowledge and attitudes of adolescents about premarital sexual prevention. Based on the research, suggest to the guidance and counseling teachers, as well as nurses in health centers to implement the method group counseling homeroom techniques to provide guidance among adolescents.

Keywords: Premarital sex, group counseling, homeroom.
EFFECT OF BALINESE MUSIC ON REDUCING ANXIETY FOR PATIENTS WITH MYOCARDIAL INFARCTION

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ABSTRACT

Research consistently demonstrates that Myocardial Infarction (MI) patients commonly experience anxiety. Music intervention has been suggested to have beneficial effect on psychological including anxiety. This study aimed to evaluate the effect of Balinese music on reducing anxiety for patients with first MI. In this quasi-experimental, pretest-posttest design, 61 first MI patients were assigned to either the music group or control group. The music group (n = 30) received 20-minute Balinese music intervention, whereas the participants in the control group (n = 31) received routine care with no music intervention. All the participants were assessed using the State-Trait Anxiety Inventory for adult 10 minutes before and after intervention. The mean anxiety scores were found significantly decreased in the music group (p < .05) after receiving Balinese music. The mean anxiety scores were also found significantly lower in the music group (p < .05) than the control group. These results indicated that Balinese music intervention has simply intervention to reduce anxiety among first MI patients.

Keywords: Balinese music, anxiety, First myocardial infarction
TEMPERATURE INCREASE ON POST SURGERY HYPOTHERMIA PATIENT THROUGH WARmed IV LINE AND BLANKET

I Made Suindrayasa¹, Sri Yona², I Made Kariasa³

ABSTRACT

Hypothermia is a condition where the body’s core temperature is below 36 °C. This is a major problem in post-operative patients that should be handled properly to prevent complications such as heart failure, respiratory failure or even death. The purpose of this study was to examine the effectiveness of warmed IV line and blanket implementation on temperature variance changing in post-operative patients with hypothermia. This analytical descriptive study applied quasi experiment method that involved 34 subjects. The result indicated that the use of warmed IV line was effective to increase temperature in post-operative patients with hypothermia (p-value = 0.011). The findings could be useful for clinical practice related with nursing intervention of hypothermia in post-operative patients.

Keyword : Warmed IV line, Hypothermia, Post Operation
NURSES’ PERCEPTIONS ON ETHIC OF CARE IMPLEMENTATION AT UDAYANA UNIVERSITY HOSPITAL

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ABSTRACT
The behavior of nurses in providing nursing care based on the principles of nursing ethics is influenced by nurses’ perceptions on ethic of care and ethics of care implementation has not been implemented optimally. Element of care that is considered a fundamental need in demonstrating caring consists of competence, attentiveness, responsibility, and responsiveness of the care receiver. This study aims to describe the nurse’s perception of the application of ethical principles of nursing. Descriptive, analytic, cross-sectional design was applied involved 30 nurses from hospital wards, emergency unit, and outpatient unit selected with total sampling. Data collecting used questionnaires, with univariate analyzes. The data analysis of nurses’ perceptions on ethic of care implementation showed average score 145.13 (SD 10.53). The highest mean score was subvariable competence (47.15; SD 4.51). Competence is one of the indicators in care ethic that is important to apply because the nurse will show a sense of love and high responsibility in caring for the patient so as to increase the confidence of the patient to the nurse.

Keywords: Ethic of care, Nurses, Perceptions
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Keywords: Ethic of care, Nurses, Perceptions

INTRODUCTION
Ethics of care is based on an idea that caring is a foundation for human life and it also demonstrates humanism and equality principles for others. Gastman (2013) argue that persons who are in need of nursing care are vulnerable human beings. This vulnerability shapes the nursing care process from the beginning and transforms it into an ethical process. In nursing care, it becomes clear that ethics arises from the appeal to be susceptible to the vulnerability of the person who is in need of care.

Essentially, nursing care aims to lessen the vulnerability of a fellow human being or to deal with it in an appropriate way. As vulnerability is an essential component of nursing care processes, these care processes should always meet an ethical standard (Gastman, 2013). The Canadian Nurses Association in 2004 explains nursing ethics as a standard and guidelines for nurses in implementing nursing care to to improve patient welfare.

Some study show that ethics of care implementation has not been implemented optimally. Mohajjel-Aghdam, Hassankhani, Zamanzadeh, Khameneh, & Moghaddam (2013) from a patient perspective showed only 41.8% from 500 patients stated nurses behaving ethically.
Adam & Miller (2001) found only half of the nurses used the code of ethics as a foundation in their daily practice. Harihara, Jonnalagadda, Walrond, & Moseley (2006) in his study found more than 35% of nurses who experienced a weekly ethical dilemma that was half caused by the lack of awareness of nurses in applying nursing ethics.

Tronto (1993) explained four elements of the ethics of care, namely attentiveness, responsibility, competence, and responsiveness. Attentive can mean giving attention or being alert (Arvidson, 2006). Attentiveness also means respect (Bommarito, 2013). A caring person may give more outpouring of affection to please others or make others feel good (Klaver & Baart, 2011).

The second dimension of ethical care is the responsibility of providing care. Moral responsibility in nursing practice in a way to be human, to help others, and good effort from within or through the process of dialogue with others (Inga-Britt Lindh, Severinsson & Berg, 2007). Fakl-Rafael (2005) states nursing has a responsibility to care for humanity and the environment. Responsibility as a caring approach is a matter of cultural practice comparing rules or promises (Tronto, 1993). The component of responsibility that is used as an ethical obligation and is one of the important things that builds nursing (Snellman & Gedda, 2012).

The third component of ethical care is the ability to provide care to the patient. Tronto (1993) describes the ability to obtain quality. Zarifian (1999) states his ability for the various knowledge and actions required to realize the task.

The last component of ethical care is responsive. Responsiveness occurs when the nurse becomes concerned to perceive the giving treatment. Dimensions of responsiveness to treatment ethics in the care done and the fulfillment of patient needs (Tronto, 1998). Responsive nurses should be vigilant about the possibility of doing countermeasures and actions that endanger the patient (Tronto, 1993). Gastmans (2006) describes responsiveness as a reciprocal practice that occurs within the context of the work of the relationship between the nurse as the service provider and the patient as the recipient of the service.

Nurses perceptions on ethic of care implementation at Udayana University Hospital have not been identified yet; thus, this study aims to identify the nurses’ perceptions on ethic of care implementation at Udayana University Hospital.
METHODS
This is a descriptive analytic study. The study involved 30 nurses from hospital wards, emergency unit, and outpatient unit selected with total sampling. Data collected from the fourth week of April 2017 to the first week of May 2017. The study evaluated nurses’ perceptions on ethics of care implementation developed based on a Tronto concept theory of ethics of care using questionnaires. The validity and reliability test of the questionnaire involved 30 nurses, and it resulted the Cronbach’s alpha 0.957 and r table 0.361. This study was ethically appraised by the ethical research committee of the Faculty of Medicine Udayana University and Sanglah Hospital. The univariate analysis aimed to evaluate the distribution and mean of each variable.

RESULT
Table 1. The distribution of nurses based on gender and level of education (n=30)

<table>
<thead>
<tr>
<th>Variable</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Male</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>- Female</td>
<td>18</td>
<td>60</td>
</tr>
<tr>
<td>Level of Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Nursing diplome</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>- Ners</td>
<td>28</td>
<td>93.3</td>
</tr>
</tbody>
</table>

Table 2. The distribution of participants based on age and length of working experience (n=30)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Median</th>
<th>Min-Maks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>26</td>
<td>24-28</td>
</tr>
<tr>
<td>Length of working experience</td>
<td>24</td>
<td>8-36</td>
</tr>
</tbody>
</table>

Table 3. Mean score of nurses’ perceptions on ethic of care implementation (n=30)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total</th>
<th>Mean #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurses’ perceptions on ethic of care implementation</td>
<td>42-168</td>
<td>145.13 (10,53)</td>
</tr>
<tr>
<td>- Attentiveness</td>
<td>10-40</td>
<td>33.00 (22-40)</td>
</tr>
<tr>
<td>- Responsibility</td>
<td>10-40</td>
<td>33.50 (24-40)</td>
</tr>
<tr>
<td>- Competence</td>
<td>14-56</td>
<td>47.15 (4,15)</td>
</tr>
<tr>
<td>- Responsiveness</td>
<td>8-32</td>
<td>26.21 (2,2)</td>
</tr>
</tbody>
</table>

#normal distributed: mean (SD), not normal: median (min-maks)

DISCUSSION
The data analysis of nurses’ perceptions on ethic of care implementation showed average score 145.13 (SD 10.53). Care ethics is based on the idea that human life has special values (Gastmans & Vanlaere, 2005). Tschudin (2013) also expressed ethics in nursing over the last two decades more emphasis on duty, dignity, and caring. Memarian, Salsali, Vanaki, Ahmadi, and Hajizadeh (2007) emphasizes that ethical and moral behavior are significant personal characteristics that influence the responsibility, knowledge, and skills of nurses to improve clinical competence.
The highest mean score was subvariable competence (47.15; SD 4.51). Competence is a skill to develop knowledge and enhance professional practice in various ways. Competence can be described as the ability to act effectively in certain situations supported by knowledge and based on experience and training (Faustino & Egry, 2002).

Competence is not just a skill in doing a certain procedure more than that. Tronto (1993 in Yanti, 2015) states that the application of ethical principles based on indicators of competence can be seen from how nurses give love, honesty, show calm, and high responsibility to their patients. The results of Rhodes, Morris, & Lazenby (2011) show that nurses require skill-related competence as a condition for building trust with patients.

Ability in practicing nursing practice is viewed from several perspectives. Zhang, Luk, Arther, & Wong (2001) describe basic skills in nursing consisting of: 1) clinical ability, covering assessment skills and providing interventions, clinical considerations, and engineering skills; 2) general ability, consisting of communication, critical thinking, and problem-solving skills; 3) moral ability which is an individual's ability to live in a consistent way based on personal moral code and role responsibility. ICN and the World Health Organization (WHO) formulated the core components of the general competencies that must be possessed as professional nurses including: communicating credible things in an effective way, knowing and managing themselves, showing results, moving forward for environmental change, developing integration and teamwork, respecting and taking into account individual and cultural differences, modeling, building and developing cooperation outside the organization, creating empowerment and a motivating environment, ensuring effective use of resources, and enhancing organizational innovation and learning (ICN, 2003; WHO, 2009).

Improved moral learning supports the development of the nurse's moral capacities. The development of moral ability is important for nurses because nursing practice depends not only on knowledge and technical skills but also on values, beliefs, and ethics that play a significant role in shaping nurse decision-making (Jormsri, Kunaviktikul, Ketefian, & Chaowalit, 2005). Wright (1987) stated that ethical ability is a part of caring quality from the main health worker of nurse. Jormsri, Kunaviktikul, Ketefian, & Chaowalit (2005) stated that moral abilities consist of eight attributes derived from personal values, social values, and professional values such as love,
compassion, happiness, calmness, responsibility, discipline, honesty, respect for human dignity, values and rights.

CONCLUSION
Care ethic is the essence of nursing practice. Element of care that is considered a fundamental need in demonstrating caring consists of competence, attentiveness, responsibility, and responsiveness of the care receiver. Competence is one of the indicators in care ethic that is important to apply because the nurse will show a sense of love and high responsibility in caring for the patient so as to increase the confidence of the patient to the nurse.

REFERENCE


