2nd ICHMS & 2nd LSC

PROCEEDING

ISBN: 978-602-757-793-0

PROCEEDING

The 2nd International Conference of Medical and Health Sciences (ICMHS) and The 2nd Life Sciences Conference (LSC) 2016

"Towards a Better Quality of Life through Interdisciplinary Research"

Yogyakarta, 9th-10th December 2016
The Alana Hotel and Convention Center

UMY ICMHS Life Sciences SOCIETY

PROCEEDING

The 2nd International Conference of Medical and Health Sciences (ICMHS) and The 2nd Life Sciences Conference (LSC) 2016

"Towards a Better Quality of Life through Interdisciplinary Research"

Yogyakarta, 9th-10th December 2016
The Alana Hotel and Convention Center

TABLE OF CONTENT

Committee of ICMHS & LSC 2016

Supervisor	dr. Ardi Pramono, Sp.An, M.Kes
Chair	dr Iman Permana, M.Kes, Ph.D
Partner	Dr Zahid Iqbal, Ph.D
Secretary	Winnie Setyonugroho, S.Ked, MT, Ph.D
Secretariat	dr Bramantyas Kusuma H, M.Sc
	Futuh Hidayat, SEI
	Elida Tri Grahani, SE
Treasury	dr Hidayatul Kurniawati, M.Sc
Scientific section	Dr dr Ikhlas M Jenie, M.Med, Sc
	Dr Sri Nabawiyati Nurul Makiyah, S.Si, M.Kes
	Lia Fitriana, SP
Programme section	dr Ika Setyawati, M.Sc
	dr Imaniar Ranti, M.Sc
	dr Ahmad Ikliludin, SpM
Publication and Documentation section	dr April Imam Prabowo
	Arif Hadianto, ST
Logistic and Transportation	dr Muhammad Kurniawan, M.Sc
	Aris Nuryanta, SH
	Muhammad Ma'rifatullah Katiga Putra
	Dwi Hatmo Budi, S.IP
Fund Raiser	dr Maria Ulfa, MMR
	dr Akhmad Syaiful Fatah Husein, SpAn

Chair person of The 2nd International Conference of Medical and Health Sciences and The 2nd Life Sciences Conference 2016

Welcome to Jogja, sugeng rawuh!

For the second time, the Faculty of Medicine and Health Sciences Universitas Muhammadiyah Yogyakarta is going to conduct the 2nd International Conference of Medical and Health Sciences (ICMHS) this December in vibrant Yogyakarta, Indonesia. This year we are going to collaborate with the Life Sciences Society of Pakistan for their 2nd Life Sciences Conference (LSC) with Dr. Zahid Iqbal as the general secretary.

This year's conference theme "Towards a better quality of life through interdisciplinary research" will be celebrating an era of seamless interdisciplinary integration and collaboration in scientific innovations with the involvement of more extensive topics and disciplines in the conference. We aim to exhibit the products of that kind of approach in solving challenges, improving the quality of life, and creating sustainable developments.

We are happy to announce that our conference is filled with Invited speakers from Pakistan, United States of America, Uni Emirates Arab, Malaysia and Indonesia. Presentations will be conducted in oral as well as poster that covers topics from medicine, public health, dentistry, pharmacy, biomedical to agriculture. To put more credibility to the conference we are collaborating with Isra Medical Journal and the Asian Journal of Agriculture and Biology to publish selected papers from the event. Other paper will be published in the ISBN Proceeding book.

The last but not least, enjoy the conference, start networking and sharing ideas, and let immerse yourself to the heritage cultural ambient of Jogja, sumonggo!

Yogyakarta, 1st December 2016

dr. Iman Permana, M.Kes, Ph.D.

Dean of Faculty of Medicine and Health Sciences, Universitas Muhammadiyah Yogyakarta

Assalamu'alaikum Wr. Wb.

Science, especially in the areas of health and life growing more rapidly. We need to work together in the research of various disciplines to the advancement of science and to provide benefits to human life.

After successfully organized international scientific meeting last year, the Faculty of Medical and Health Sciences Universitas Muhammadiyah Yogyakarta, held the second scientific meeting ICMHS along with "2nd Life Sciences Conference". In this second scientific meeting, FKIK UMY collaborates with various researchers, among others from Pakistan, Malaysia, and the United States. Taking the theme "Towards a better quality of life through interdisciplinary research" we hope to establish cooperation with various parties to be able to contribute ideas to the civilization of human life.

Finally, we congratulate the scientific meeting in the city of Yogyakarta Indonesia. Enjoy the beautiful city of Yogyakarta with priceless historical relics. We hope that this meeting can run smoothly and provide benefits to the advancement of knowledge.

Wassalamu'alaikum Wr. Wb.

Yogyakarta, 1st December 2016

dr. Ardi Pramono, M.Kes, Sp.An.

Rector of Universitas Muhammadiyah Yogyakarta

Assalaamu'alaikum Wr. Wb.

Ladies and Gentlemen,
Welcome to the 2nd International Conference on Medical and Health Science in conjunction with the 2nd Life Sciences Conference 2016
Welcome to Yogyakarta City of Tolerance
Our Faculty of Medicine and Health Sciences has been doing such international conference almost every year for the last ten years. This and other previous conferences are the things that supporting our vision as an excellence and Islamic university, a young and global university. We will always try to keep monitoring the development of science through sending more lecturers to do the sabbatical leave overseas, doing international research collaborations and also the international conference. Each department should do this strategy of internationalization so that each department has its own network. Faculty of medicine and health science is one of the most progressive units in implementing this strategy by inviting international experts on a regular basis. This program will certainly strengthen our vision.
International conference on medicine and health sciences is a smart choice to offer our lecturers access to the most recent development of the subjects. The participants will also gain the same knowledge and latest information on medicine and health sciences. As everyone knows that the development of science and technology are faster today compared to the previous period. Information technology, computer, and other development havefastened the transformation of medicine and health science into the different and more complex stage.

Cellular technology, for instance, can be used for several functions including those that directly impacts our daily life. There is no long distance call anymore today because cellular phone can do everything we need to contact other people far from where we stand anytime anywhere. People will finally innovate cellular phone for the sake of personal health services. We will in the future using our simple cellular phone to detect our body temperature, blood pressure, even how much fat we have in our body and how much it is supposed to be. We may also be able to check the health of our body without leaving our house and order medicine without going into the drug store. Everything is almost possible as long as we think hard for the better of people in the future. Enjoy the conference and don't forget to visit our rich tourist destinations, mountains, beaches or caves (underground waterways).

Thank you

Wassalaamu'alaikum Wr. Wb.

Prof. Dr. Bambang Cipto, MA

Keynote Speech

by Head of Provincial Health Office Special Region of Yogyakarta in International Conference of Medical and Health Sciences and Life Sciences Conference

The Alana Hotel and Convention Center, Yogyakarta, December 9-10, 2016

The honorable:

- Rector of Muhammadiyah University of Yogyakarta,
- The Dean of Medical and Health Sciences Muhammadiyah University of Yogyakarta,
- The chairman of organizing committee of the international conference of medical and health,
- Distinguished guests and colleagues.

Assalamu'alaikum Warahmatullahi Wabarakatuh,
First of all, we thank God for His blessings that today we may attend the International Conference of Medical Health Towards a Better Quality of Life Through Interdisciplinary Research in Yogyakarta.

My distinguished colleagues,
In Indonesia National Long Term Development Plan (2005-2024), the Indonesian Ministry of Health have determined a paradigm shift that have governed health services in health development plan. There has been a shift from Curative Health Services to Preventive and Promotive Health Services.
Recently, Indonesia suffers from a triple burden of diseases as health development challenges. The triple burden of diseases are: 1) the backlog of common infections, undernutrition, and maternal mortality; 2) the emerging challenges of non-communicable diseases (NCDs), such as cancer, diabetes, heart disease; and 3) mental illness, and the problems directly related to globalization, like pandemics and the health consequences of climate change.

Dear colleagues,
Here are some data that show several health problems in Indonesia:

1. Maternal mortility rate in 2015 is 4,809 cases, infant mortality rate in 2015 is 22,267 cases;
2. Regarding to children under the age of five, the national stunting rate is 37.2% which consists of 18% for very short dan 19.2% for short (Riskesdas 2013);

3. HIV testing coverage is 14% dan antiretroviral (ARV) therapy coverage is 65.58% (Directorate General of Disease Control and Prevention Ministry of Health, 2015);
4. Tuberculosis (TB) notification rate in 2015 is 73.5% and tuberculosis treatment success rate is 72% (Directorate General of Disease Control and Prevention Ministry of Health, 2015).

Distinguished guests,
Indonesia Health Development Program in 2015-2019 strengths in improving human quality life through Health Indonesia Program with family approach. The Indonesian Ministry of Health issued The Minister of Health Regulation (Permenkes) No. 39 Year 2016 as a Guideline of Implementation of Health Indonesia Program with Family Approach. This program has 12 main indicators as markers of a family health status.
Currently, many health programs have been implemented by Indonesian Ministry of Health, Provincial Health Offices, and District Health Offices. However, many health problems, some as mentioned above, still become health burdens. We may ask a question whether the programs that we conducted have answered the health problems we have in Indonesia.
It would be better if all health programs that we implement based on scientific health research, especially interdisciplinary research. The research should be related to detection, prevention, and treatment of diseases or problem solving for better health.
My dear colleagues,
Being a province with speciality, Special Region of Yogyakarta placed Traditional Medicine as one of the priority programs in Provincial Medium Term Development Plan (2017-2022). We still encounter many challenges in developing Traditional Medicine, especially in providing services which are based on scientific evidence.
Distinguished colleagues,
We look forward to results of interdisciplinary research which would support health problem solving, especially by developing traditional medicine in Yogyakarta. We believe that collaboration in interdisciplinary research would improve quality of human life.
Finally,
Thank you for your attention. We wish you a successful conference.

Wassalamu'alaikum Warahmatullahi Wabarakatuh,

On behalf of
the Head of Provincial Health Office
Special Region of Yogyakarta

Drg. Pembajun Setyaningastutie, M.Kes

SPEAKER OF INTERNATIONAL CONFERENCE

Zahid Iqbal
Al-Nafees Medical College Isra University Islamabad Campus Islamabad, Pakistan
"One Health Program for Public Health Benefit"

Prof. Dr. Abdul Khaliq
Professor, Department of Agronomy, University of Agriculture, Faisalabad
"Role of Agriculture in Poverty Alleviation of Rural Areas"

Fitri Arofati
Universitas Muhammadiyah Yogyakarta, Indonesia
"Continuing Professional Development of Practicing Nurses in Indonesia"

Tri Wahyuliati

Universitas Muhammadiyah Yogyakarta, Indonesia
"Diabetic Neuropathy - A Chance Towards A Better Treatment"

Mohammad Khalid Ashfaq
University of Mississippi, USA
"Natural Products –Use or Misuse"

Muhammad Mukhtar
American University of Ras Al Khaimah, United Arab Emirates
"Emerging Biotechnologies and Genomic Medicines in Human Health and Well-Being"

Muhammad Sasmito Djati
Brawijaya University Malang, Indonesia
"Herbal Medicine a Holistic Approach: in case of food supplement formulation of Sauropusandrogynus and Elephantopusscaberto modulate immune and hormonal system in pregnant Salmonella typhi infected mice"

REVIEWER

1. Dr. Zahid Iqbal, Ph.D (Isra University, Islamabad, Pakistan)
2. Prof. Dr. Abdul Khaliq (University of Agriculture, Faisalabad)
3. Dr. Mohammad Khalid Ashfaq, DVM, DTVM, MS, Ph.D (University of Mississippi, USA)
4. Dr. Muhammad Mukhtar, Ph.D (American University of Ras Al Khaimah, United Arab Emirates)
5. Dr. Ir. Muhammad Sasmito Djati, MS. (Brawijaya University Malang, Indonesia)
6. Fitri Arofiati, S.Kep., Ns., MAN., Ph.D (Universitas Muhammadiyah Yogyakarta, Indonesia)
7. Dr. SN Nurul Makiyah, S.Si., M.Kes (Universitas Muhammadiyah Yogyakarta, Indonesia)
8. dr. Iman Permana, M.Kes, Ph.D (Universitas Muhammadiyah Yogyakarta, Indonesia)
9. Dr. dr. Ikhlas M. Jenie, M.Med, Sc (Universitas Muhammadiyah Yogyakarta, Indonesia)
10. Dr. dr. Arlina Dewi, M.Kes, AAK (Universitas Muhammadiyah Yogyakarta, Indonesia)
11. dr. Oryzati Hilman, M.Sc, CMFM (Universitas Muhammadiyah Yogyakarta, Indonesia)
12. Dr. Dra. Yoni Astuti, M.Kes, Ph.D (Universitas Muhammadiyah Yogyakarta, Indonesia)
13. Dr. drg. Tita Ratya Utari, Sp. Ort (Universitas Muhammadiyah Yogyakarta, Indonesia)
14. Dr. dr. Tri Wahyuliati, Sp.S, M.Kes (Universitas Muhammadiyah Yogyakarta, Indonesia)
15. Dr. Elsye Maria Rosa, M.Kep (Universitas Muhammadiyah Yogyakarta, Indonesia)
16. Dr. dr. Titiek Hidayati, M.Kes (Universitas Muhammadiyah Yogyakarta, Indonesia)
17. Dr. Shanti Wardaningsih, M.Kep., Ns., Sp.Kep.J., Ph.D. (Universitas Muhammadiyah Yogyakarta, Indonesia)
18. Dr. dr. Sri Sundari, M.Ke (Universitas Muhammadiyah Yogyakarta, Indonesia)
19. Dra. Lilis Suryani, M.Kes (Universitas Muhammadiyah Yogyakarta, Indonesia)
20. Drh. Tri Wulandari K, M.Kes (Universitas Muhammadiyah Yogyakarta, Indonesia)
21. Dr. dr. Wiwik Kusumawati, M.Kes (Universitas Muhammadiyah Yogyakarta, Indonesia)
22. Sabtanti Harimurti, S.Si., M.Sc., Ph.D., Apt. (Universitas Muhammadiyah Yogyakarta, Indonesia)

SPEAKER OF INTERNATIONAL CONFERENCE

ICMHS-P-1-38

Effect of Early Mobilization Education of the Level Anxiety and Independence of Patients After Total Knee Replacement in Hospital

Amik Muladi[1]*, Sagiran[2], Azizah Khoiriyati[3]

[1] Nursing Academy 17 Karanganyar, Surakarta

*Email: amikmuladi@yahoo.com

[2] Surgeon at PKU Muhammadiyah Yogyakarta Hospital

[3] Faculty of Medicine and Health Sciences,
Universitas Muhammadiyah Yogyakarta

Abstract

Total Knee Replacement (TKR) patients who will have limited motion in the knee function, weakness, immobility and disability as a result is the inability to care for themselves, the individual is not able to do daily activities as usual. This study was to determine the effect of education early mobilization of the level of anxiety and the degree of independence in patients with after TKR. Research are using quasi-experimental design with pre and post control group design, with 34 respondents (22 experimental group, 12 controls group). The sampling technique using consecutive sampling.The independent variable is education early mobilization, while the dependent variable are the level of independence and anxiety. The population were patients with after TKR in Prof. Dr. R. Soeharso Surakarta Orthopaedic Hospital and Surgery Main Karima Surakarta Hospital. Data were analyzed using independent t-test and paired t-test. There are significant differences in the level of independence and anxiety in patients before and after education early mobilization. The result of independent t-test on the level of anxiety was obtained p value (0.000) <0.05 and independent was p value 0,000, significant difference of anxiety and self-reliance in patients given education with patients who were not given education early mobilization. There is an increased independence and decreased anxiety in patients who underwent surgery after TKR education early mobilization.

Keywords: total knee replacement, independence, anxiety

INTRODUCTION

Total Knee Replacement (TKR) surgery is commonly performed to treat patients with pain and immobilization caused by osteoarthritis and rheumatoid arthritis.[4] Ninety-eight percent of patients with osteoarthritis of the knee doing a total knee joint replacement surgery.[1] Since 2003 patients undergoing TKR surgery is increasing every year, namely 69.1% and 40.9% in operating THA.[2]

These surgical have reduced intraoperatie blood loss, length of hospitalization, and postoperative pain, they have increased revorery rate, range of motion (ROM). [17] The patients reported the pain, dizziness, impaired functional, negative health perceptions, anxiety, and low life satisfaction, after surgery, and at one until six months after surgery.[15] Pain greater preoperative compared with postoperative pain. Depression and anxiety experienced by patients before surgery is associated with increased pain at one year after surgery.[8]

Patients undergoing TKR who do will have limited motion in the knee function, weakness, immobility and disability. This causes the patient is unable to care for themselves and not be able to perform daily activities as usual. Failure to provide sufficient information about illnesses and treatment as well as the physical adaption, ambulation period, and health related stressors to prostheses cause anxiety of THA and TKA patients after surgery.[3] The nurses have always given information to patients about early mobilization education. It is may increase the independence and reduce the anxiety of patients and their families.

From the studies reviewed on hospital showed that most patients feel anxiety and fear about the possibility after surgery can still run or not. Patients worried about not being able to do daily activities as usual after surgery. Results of studies showed that on average the first day and the second day after surgery the patient was totally dependent on nurses and family assistance in performing daily activities. The most patients have experience anxiety before surgery. Patients generally feel anxious about walking ability and changes in normal activities after surgery.

The role of nurses and physiotherapists in training before the operation is very necessary for the patient's independence as soon as possible. The objective of nursing in patients with the problem of limited range of motion is that the patient can perform self-care capabilities in total so far he could do.[5] This study was to know whether education about early mobilization education may increase the independence and reduce anxiety of patients after Total Knee Replacement surgery at the hospital.

MATERIALS AND METHODS

The method used for this research is a quasy experimental with pre and post test control group design. This study was conducted to see the effect of education early mobilization of the level of anxiety and the degree of independence of after TKR surgery patients in the hospital. This research was conducted in Prof. Dr. R. Soeharso Surakarta Orthopaedic Hospital and Surgery Main Karima Surakarta Hospital in May to August, 2016

The population for this study is all patients who had TKR surgery in Prof. Dr. R. Soeharso Surakarta Orthopaedic Hospital and Surgery Main Karima Surakarta Hospital. The inclusion criteria is patients with a primary diagnosis of knee osteoarthritis; age 40-75 years; patients who is willing to become the respondents. Exclusion criteria is consisted of patients who involved having cognitive, affective, or verbal impairment; patients with pain scale ≥ 7 (severe pain); patients with other than TKR surgery; patients had lower extremity fractures; patients with a history of stroke. The samples are collected using consecutive sampling method and 34 patients are taken as the study samples.

Data were collected using a questionnaire which consists of four questionnaires; a respondents characteristics, level of independence, and the level of anxiety, and pain level. Independence level was measured using the scoring with five indicators: overall independence, 4: use of tools, 3: minimal assistance, 2: require tools, 1: total aid (Hapsari, 2013). There are 19 questions, with the assessment of the degree of independence: a score of 19-44 depending on the total, a score of 45-70 independent part, a score of 71-95 in total self. Anxiety was measured with the Hars (Hamilton Anxiety Rating Scale). There are fourteen questions, the assessment of the degree of anxiety: a score <6 no anxiety, mild anxiety 6-14, 15-27 moderate anxiety,> 27 severe anxiety.

RESULTS

Table 1. Distribution of Respondents Characteristics in TKR

Characteristics	n (%)
Age (years old)	
36 – 45 years old	4 (11,8)
46 – 55 years old	7 (20,6)
56 – 64 years old	14 (41,2)
>65 years old	9 (26,4)
Gender	
Female	27 (79,4)
Male	7 (20,6)

Characteristics	n (%)
Education	
Elementary school	5 (14,7)
Primary school	11 (32,3)
High school	13 (38,3)
University	5 (14,7)
Occupation	
Unemployed	20 (58,8)
Private employes	4 (11,8)
Trader	8 (23,5)
Labor	2 (5,9)
Hospital sheet	
Diabetes melitus	4 (11,8)
Hipertension	1 (2,9)
Uric acid	1 (2,9)
No disease	28 (82,4)
Weight	
Underweight	1 (2,9)
Normal	23 (67,7)
Overweight	10 (29,4)

Table 2. Distribution of Respondents based on the Anxiety and Independence Levels

Variable	Study group Σ(%)	Control group Σ(%)	Total (%)
Pre intervension anxiety			
No anxiety	3 (8,8)	1 (2,9)	4 (11,7)
Mild anxiety	16 (47,1)	11 (32,4)	27 (79,5)
Severe anxiety	3 (8,8)	0 (0)	3 (8,8)
Post intervension anxiety			
No anxiety	21 (61,8)	8 (23,5)	29 (85,3)
Severe anxiety	1 (2,9)	4 (11,8)	5 (14,7)
Pre intervension independence			
Total dependence	2 (5,9)	0 (0)	2 (5,9)
Self partially	5 (14,7)	0 (0)	5 (14,7)
Total independence	15 (44,1)	12 (35,3)	27 (79,4)
Post intervension independence			
Self partially	11 (32,3)	8 (23,5)	19 (55,9)
Total independence	11 (32,3)	4 (11,8)	15 (44,1)

Table 3. Influence of the Anxiety and Independence Levels in Intervention Group

Variable	Mean±SD	95% CI	*P*
Anxiety			
Before education	9,13±4,41	4,05-8,03	0,000
After education	3,09±1,10		
Independence			
Before education	83,8±16,19	6,13-19,40	0.001
After education	71,04±8,76		

Table 4. Difference of the Anxiety and Independence Levels

Variabel	Difference Mean±SD	95% CI	*P*
Anxiety	4,32 ± 0,58	3,13 ± 5,51	0.000
Independence	19,28 ± 2,98	13,21 ± 25,36	0.000

DISCUSSION

This study looked into the anxiety and independence levels of patients who have undergone TKR after early mobilization education. Surgery affects respondents' experience anxiety score. Some respondents had never done before TKR surgery. This makes the patient to be more prepared for the surgery and understand more about early mobilization after surgery. Anxiety is also influenced by the patient's comorbidities. Of the 34 respondents, there are 4 respondents who suffer from diabetes mellitus, one respondent suffered from hypertension. Respondents who suffer from diabetes mellitus worrying about blood sugar levels after surgery, which will affect the recovery of the surgical wound. While respondents have hypertension can increased anxiety score prior to TKR surgery, due to an increase in blood pressure operation had been delayed.

TKR patients after surgery can not all be immediately early mobilized. This is due to various factors: 1) Physiological factors such as pain status, kardiopulmonary, 2) emotional factors such as motivation, anxiety, and 3) Demographic factors, such as age and level of education.[14] Similar to the findings of research, greater preoperative pain was associated with more postoperative pain. However, preoperative depression and anxiety, which are stress related emotions, were related to heightened pain at 1 yea postoperatively, suggesting that stress may also affect patient outcomes after TKR surgery.[8] Patients try to arrange care for themselves, this can create stress for both patients and families.[15]

This research found that respondents feel pain after 2 hours after surgery, more pain is felt when the operated leg moved. This makes some of the respondents have not dared to mobilize because they still feel pain when performed movement.

The emergence of pain is the result of fear or anxiety about the pain itself. [7] Anxiety increases with increasing levels of pain after surgery.[6] Early mobilization is one of the non-pharmacological therapy can reduce pain.

The independent category partial and total self that is 32.3%. Independence of respondents are visible starting from the first day of operation. The first day of operation the respondents who exercise 58.8%, up to the last day of respondents admitted to practice is still carried out, namely 88.2%. Treatment immediately after surgery, should be mobilized in order to function independence can be maintained. Mobilization is an important activity in the postoperative recovery to prevent complications, one of them contractures. Mobilization particular movement exercises will improve blood circulation to speed healing, prevent thrombophlebitis, and reduce pain. [11]

The results showed that there were significant differences in anxiety levels in the control and the experimental groups. This is probably due to the intervention groups could accept the condition of the disease after being given the supportive early mobilization educative. In the intervention groups more aware of the importance of early mobilization and exercise will do after surgery compared with the control group without the granting of education, so that anxiety began to diminish. Supportive educative given to patients who need to support education in the hopes of patients able to require treatment independently.[13]

The control groups decreased anxiety obtained without be educated. This is because some respondents had never had any previous experience TKR surgery. Patients is willing to do early ambulation due to among others the knowledge through the experience of others or his own family and the desire to get well soon. [10] In the control groups of patients who experience anxiety found more mild anxiety that is 32.4% compared with the intervention groups. The results of interviews with respondents showed that anxiety is reduced because the patients also received support from family, friends, nurses, doctors and medical team at the hospital in performing early mobilization. Family involvement in the nursing care plan can help patients in the recovery process. Help patients change the dressing, preparing medicines, and help patients in ambulation training.[16]

In the intervention group on average increased independence of the same, namely 11 respondents in most independent and self-contained 11 respondents in total after supportive educative. While in the control group also increased albeit slightly, from 12 respondents were categorized as partially independent 8 respondents, and independently total of 4 respondents. This is likely due to the intervention group to understand more about the importance of mobilization and more ready for operation after being given an education.

Preoperative rehabilitation program, continued until physical therapy after THA (Total Hip Arthroplasty) surgery. The results of the comparison of the groups was found an increase in ambulatory functions in the intervention group, compared with routine care in the control group.[18] The patient mobilization after surgery should be performed and taught in the family. This needs to be explained to people who could help mobilize patients and assure that this will not cause any damage to the wound or further problems. Nurses and physiotherapists take action early mobilization in patients after TKR surgery is well, and patients can work together to meet the needs of early mobilization, so that the patient's anxiety is resolved.

LIMITATIONS

The sample was small and nonrandom, and therefore, findings are not generalizable to all patients who receive a TKR. Future studies need to include a larger sample size. The findings from this study can be used to assist with the development of checklist of anxiety that may be experienced by TKR patients discharged to home. Possible diffrences in anxiety according to the number of days after hospitalization need to be examined.

CONCLUSION

There is an increased independence and decreased anxiety levels among respondents who undergoing TKR surgery after early mobilization education. There were significant differences in the independence and anxiety levels respondents between those receiving early mobilization education and those without early mobilization education. Early mobilization education can provide a sense of comfort and prepare patients for recovery after surgery.

REFERENCES

1. American Academy of Orthopaedic Surgeons. (2015). *Total Knee Replacement.* accessed March, 2016 from http://www.orthoinfo.aaos.org/topic.cfm?topic=A00389
2. Australian Orthopaedic Association. *Australian Orthopaedic Association National Joint Replacement Registry annual report 2013*. Adelaide: AOA. 2013
3. Backer, J., Barksdale, P. Health Related Stressor Experienced by Patients Who Underwent Total Knee Replacement Seven Days After Being Discharged Home. *Orthopedic Nursing* 2005*;* 24, 5
4. Bambang, Setiyohadi. *Osteoartritis selayang pandang*. Temu Ilmiah Rheuatologi. 2003
5. Beaupre, L. A., Lier, D., Davies, D. M., & Johnston, D. B. C. The effect of a preoperative exercise and education program on functional recovery, health

related quality of life, and health service utilization following primary total knee arthroplasty. *Journal of Rheumatology* 2004*;* 31,1166-1173

6. Chapman & Gavrin. Suffering contribution of persistant pain. *The Lancet* 1999; 353, 2233-2237.
7. Dawana, S. Sex differences in pain-related disability among primary care patients with chronic musculoskeletal pain. *American Academy of Pain Medicine Pain* 2010; 11, 232-239.
8. Fitzgerald, J. D., Orav, E. J., Lee, T.H., Marcantonio, E. R., Poss, R., Goldman, L., et al. Patient quality of life during the 12 months following joint replacement surgery. *Journal Arthritis and Rheumatoism* 2004; 51(1), 100.
9. Hapsari, Woro. *Efektifitas latihan activity daily living dalam meningkatkan kemandirian dan menurunkan kecemasan pada pasien fraktur tulang belakang di RSO Prof. Dr. Soeharso Surakarta*. Tesis. Universitas Muhammadiyah Yogyakarta. Yogyakarta. 2013
10. Kardiatun, Tutur. *Pengalaman ambulasi dini pasien post operasi apendiktomi perforasi (Studi Fenomenologi).* Tesis. Universitas Muhammadiyah Yogyakarta. Yogyakarta. 2013
11. Ningsih, A. R. *Faktor-faktor yang mempengaruhi perawat dalam pelaksanaan penyuluhan mobilisasi dini pada pasien pre operasi di Irna Bedah RSUP Dr. M. Djamil Padang*. 2011
12. Peate, I. Caring for people with appendicitis. *British Journal of Healthcare Assistants* 2008; 2(8), 389-392.
13. Piette, J. D. Dimensions of patient provider communication and diabetes selfcare in an ethnically diverse population. *J Gen Intern Med* 2003; 18;624-633.
14. Potter, A.P., & Perry, A. G. (2009). *Fundamental of nursing*. 7th edition. Penerjemah; Diah Nur., Onny Tampubolon, Farah Diba. Jakarta: Salemba Medika.
15. Salmon, P., Hall, G., Peerbhoy, D., Shenkin, A., & Parker, C. Recovery from hip and knee arthroplasty: Patients perspective on pain, function, quality of life, and well being up to 6 months postoperatively. *Archives Physical Medical Rehabilitation* 2001; 82, 360-366.
16. Sjamsuhidajat,R & Jong.D.W. *Buku Ajar Ilmu Beda.* 2th edition. Jakarta: EGC. 2005
17. Tria, A. J., & Coon, T. M. Minimal incision total knee arthroplasty: early experience. *Clinical Orthopaedics* 2003; 416, 185-190.
18. Wang, A.W, Gilbey, H.J & Ackland, T.R. Perioperative exercise programs improve early return of ambulatory function after total hip arthroplasty: A randomized, controlled triad. American Journal of Physical Medicine & Rehabilitation 2002; 81 (11), 801 – 806