



ICTMHS

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Medicine and Health Sciences

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ABSTRACT BOOK

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Welcome message



First of all, thanks to **Almighty Allah**, the most merciful, beneficent and compassionate, for His blessing that this conference could be held today. All respect and greeting to the **Holy Prophet, Muhammad ﷺ** who guided us of Allah and lead us to Islam rahmatalil alamiin.

I would like to express my greatest gratitude to Prof. Dr. Yos Johan Utama, S.H., M.Hum; Rector of Diponegoro University, Prof. Dr. dr. Tri Nur Kristina, DMM., M.Kes.; Dean of Faculty of Medicine Diponegoro University, Prof. Dr.rer.nat Heru Susanto, S.T., M.M., M.T.; Director of LPPM, for all of their kind supervision during the preparation of this event. I would like to express my sincere gratitude to dr. Ahmad Zulfa, Sp.And, Ph.D, Prof. dr. Sultana MH Faradz, PhD, Prof. Dr. dr. Hussein Gasem, Sp.PD, Prof. Dr. dr. Suprihati, Sp.THT, especially to my really partner dr. Nani Maharani, M.Si.Med, Ph.D and all of the committee members for all of your hard work, kind help, and best effort as a solid team work, by which this event can be held successfully today.

I would like to thank all of the honorable ICTMHS speakers for your willingness to come and give lectures here, and all of participants from various institutions in the world.

Welcome to **International Conference on Translational Medicine and Health Sciences (ICTMHS)**. It is a great pleasure to have all of you here in ICTMHS, Semarang Indonesia, on this October 27-28, 2017.

Translational medicine, also referred to as translational science, as *an interdisciplinary branch of the biomedical field supported by three main pillars: bench-side, bedside and community*, is a rapidly growing discipline aiming to improve the healthcare systems by “effectively translate the new knowledge, mechanism, and techniques, generated by advances in basic science research into new approaches for prevention, diagnosis, and treatment of diseases”. Research in the field of translational medicine is pivotal especially in finding scientific breakthroughs in the field of medicine, hence this type of research requires considerable amount of strategies, infrastructures and time.

Encouraged by the importance of this research field, Faculty of Medicine, Diponegoro University organize an international conference ICTMHS to promote educational and science development particularly on medical science, as well as to improve the research development and the growth of international scientific publications. Through ICTMHS, we hope to contribute in introducing and educating the scientific community on the nowadays advance in medical sciences.

ICTMHS in this year focuses on some highlight topics which are Infectious Disease, Immunology, Drug Discovery, Degenerative, Cardio – Metabolic Disease, Neuroscience, Oncology, Endocrinology, Holistic Nursing Science, and Nutritional Approach in Disease Prevention, which have been of interest to hundreds researcher and clinician that want to share their interesting research problems.

As a major goal of this event, we hope that it can be an excellent chance to discuss interesting ideas and develop fruitful project in the future, network opportunities with old and new colleagues, coordination new partnerships which advance collaboration either about the research field or not, as well as the careers of all participants.

This first ICTMHS is held on Semarang, a fascinating city with rich history and tradition of Java. It is a beautiful city, located on Central of Java, near Borobudur temple; one of Wonders of the World.

Please enjoy your participation in ICTMHS and have a great experience during your stay in Semarang.

Wish you the best in all your work.

Muflihatul Muniroh, MD, MSc, Ph.D

Organizing Chairperson
ICTMHS 2017

Welcome message



Praise to the God Almighty for the International Conference on Translational Medicine and Health Science (ICTMHS) 2017, Faculty of Medicine Diponegoro University and I are very excited for this event and we welcome to all of the participants and speakers to this event. The special acknowledgement, I address to the distinguished speakers Prof. dr. Soenarto Sastrowijoto, Sp.THT from Gadjah Mada University - Indonesia, Prof. Andre van der Ven from Radboud University – The Netherlands Prof. Dr. Johnson Stanslas from University Putra – Malaysia, Prof. Randi Hagerman, MD, Ph.D from University of California Davis – USA, Prof. Frank de Jong, MD, Ph.D from Erasmus University Medical Center – The Netherlands, and Prof. Gerard Pals, Ph.D from VUMC Amsterdam – The Netherlands.

I am very grateful for your willingness to attend and share your knowledge to us.

Faculty of Medicine Diponegoro University has a vision to be the centre for medical and health sciences, we would like to introduce and educate the public about medical research development from around the world, especially on the field of Infectious Disease, Immunology, Drug Discovery, Holistic Nursing Science, Degenerative, Cardio – Metabolic Disease and Neuroscience. And as a part of Diponegoro University, we would like to promote our goal as the World Class University, so I hope that from this event we will increase the number of Faculty of Medicine and Diponegoro University's international publications as well.

I wish that this event will give a big contribution on sharing knowledge and information about medical and health sciences for the academic members, researchers and all of the participants.

I also would like to appreciate to all of the committee members for their effort and hard work so that this event can happen.

Once again, welcome to the International Conference on Translational Medicine and Health Science (ICTMHS) 2017, I hope that all of you enjoy your stay at Semarang and we will see you again on the next event.

Prof. Dr. dr. Tri Nur Kristina, DMM, M.Kes

Dean

Welcome message



Assalamualaikum Warahmatullahi Wabarakatuh

It's a great pleasure and honour for our University to be the host of International Conference on Translational Medicine and Health Sciences. The special acknowledgement, I address to the distinguished speakers Prof. dr. Soenarto Sastrowijoto, Sp.THT from Gadjah Mada University - Indonesia, Prof. Andre van der Ven from Radboud University – The Netherlands Prof. Dr. Johnson Stanslas from University Putra – Malaysia, Prof. Randi Hagerman, MD, Ph.D from University of California Davis – USA, Prof. Frank de Jong, MD, Ph.D from Erasmus University Medical Center – The Netherlands, and Prof. Gerard Pals, Ph.D from VUMC Amsterdam – The Netherlands.

Thank you for the valuable time to deliver knowledge and share scientific information at this conference. I believe that this opportunity will provide the valuable information for us and deliberate some new research ideas for participants of this conference.

For all the participants, I would also like to welcome you at this conference. The origin of the conference theme is reflected from the idea of our Center of Excellence (CoE) which was established in 2012 representing our priority as a research university. Since the declaration of Diponegoro University as a research university, the main theme of every research result will be enhanced to the level of international benchmarking. Diponegoro University, has strong human resources and research background related to translational medicine and health sciences. It is also supported by laboratory such as Center for Biomedical Research.

Translational medicine is a rapidly evolving biomedical research aimed at finding new diagnostic tools and treatments with a multidisciplinary approach, with a bench-to-bedside approach, which will be applied for the benefit of society. Translational research is an important aspect in research, especially in helping to find scientific breakthrough in the field of medicine and use it as much as possible for the patient's health and to the general public. These interesting issues need to be discussed in this conference by sharing research finding and ideas. I am grateful to see that this conference has enormous responds from the participants either from domestic or from other countries. Number of publication indexed by reputable database has been set as an indicator for world university rank including Indonesia. Therefore, Diponegoro University also encourages all scientists and academic staffs to increase their publication records in these international reputation journals.

Currently, Diponegoro University is in the 6th position among universities in Indonesia for the number of publications in reputable International journals. I sincerely express appreciation to the organizing committee for their effort to realize this conference. By the end of my short welcome address, I hope our foreign guests take advantage of their stay here to enjoy our beautiful city, Semarang. Once again, it is my great pleasure to welcome you all to the International Conference on Translational Medicine and Health Sciences. I wish you a pleasant two fully scientific days of conferences and I hope you can get a fruitful share with other scientists on current developed knowledge and perhaps seeking for potential collaboration of your interested field.

Wassalamualaikum Warahmatullahi Wabarakatuh

Thank you for your kind attention.

Prof. Yos Johan Utama
Rector

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Scientific Programme

"International Conference On Translational Medicine And Health Sciences (ICTMHS) 2017" Crowne Hotel Semarang, 27-28 October 2017

| Day I (Friday, 27 October 2017) | | | | |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------|
| TIME | Topic : Drug Discovery, Nutritional Health Research, Infectious Diseases & Immunology, Holistic Nursing Science | | | |
| 07.00 - 07.45 | REGISTRATION | | | |
| 07.45 - 08.30 | Opening Speech (Organizing Chairperson, Dean of Faculty of Medicine, Rector of Diponegoro University), sing "Indonesia Raya", Photo Session | | | |
| | Plenary Session (Moderator : Prof.dr. Muhammad Hussein Gassem, Ph.D, Sp.PD, KPTI) | | | |
| 08.30 - 09.00 | Prof. dr. Soenarto Sastrowijoto, Sp.THT (Topic : Ethical Aspect on Translational Resarch) | | | |
| 09.00 - 09.45 | Prof. Andre van der Ven (Radboud) : Antimicrobial resistance formation: a global threat | | | |
| 09.50 - 10.30 | Prof. A.D.M.E (Ab) Osterhaus, Ph.D (Rotterdam): SARS, influenza, Ebola, MERS, Zika: what have we learned? | | | |
| 09.45 - 10.30 | Prof. Dr. Johnson Stanslas (UPM): Drug discovery and personalised medicine for cancer: the impact of translational research | | | |
| 10.30 - 10.45 | Discussion (Q & A) | | | |
| 10.45 - 11.00 | Coffee break | | | |
| 11.00 - 11.30 | Free Paper Oral & Poster Presentation | Free Paper Oral & Poster Presentation | Free Paper Oral & Poster Presentation | Free Paper Oral & Poster Presentation |
| | 3 paper @10 min | 3 paper @10 min | 3 paper @10 min | 3 paper @10 min |
| 11.30 - 13.00 | Sholat Jumat and Lunch | | | |
| | Invited Lectures | | | |
| | Grup I (Drug Discovery) | Grup II (Nutritional Health Research) | Grup III (Infectious Disease) | Grup IV (Holistic Nursing Care) |
| | Moderator: dr. Endang Mahati, M.Sc, Ph.D | Moderator: Dr. Diana Nur Afifah, STP, M.Si | Moderator: dr. Rahajeng NT, M.Si.Med, Ph.D | Moderator: Ns. Nana Rochana, S.Kep, MN |
| 13.00 - 13.30 | Prof. Christine Imbert, Ph.D | Prof. Peter Emery | Prof. Andre van der Ven | Assoc. Prof. Jennieffer Barr, Ph.D |
| | Finding new active compounds from natural resources to control fungal biofilms | Nutritional support to mitigate malnutrition in patients to reduce hospitalization cost | The interaction between platelets and host defense | The Evolution of Holism in Nursing |
| 13.30 - 14.00 | Megumi Yamamoto, MD, Ph.D | Assoc. Prof. Akio Ohta | Prof.dr. M.Hussein Gassem, Ph.D, Sp.PD, K-PTI | Dr. Meidiana Dwidiyanti, Ns. |
| | Experimental findings on methylmercury toxicity and its prevention | Encapsulation Technologies to Improve the Functional of Food Ingredients | Leptospirosis: diagnostic pitfalls and role of biomarkers in disease severity | Self-care model in chronic illness |
| 14.00 - 14.30 | Prof. Ocky Karna Radjasa, M.Sc, Ph.D | Dr. Ir. Umi Fahmida, M.Sc | Prof. Dr. dr. Tri Nur Kristina, DMM, M.Kes | |
| | Microbial Symbionts of Marine Invertebrates as an Environmentally Friendly Source of Marine Natural Products | Linear programming to develop dietary guidelines and food-based intervention to improve nutrition and health outcome | Contribution of education institution to solve problems of infectious diseases in community | |
| 14.30 - 15.00 | Discussion (Q & A) | Prof. Wan Abdul Manan Wan Muda | dr. Helmia Farida, Ph.D | Kusman Ibrahim, MNS, Ph.D |
| | | Decoding The Double Burden Paradox: Nutrition Transition in Malaysia | The etiology of community acquired pneumonia : Does geographical variation matter ? | Cultural approach in holistic nursing |
| 15.00 - 15.30 | Free Paper Oral & Poster Presentation | Discussion (Q & A) | Discussion (Q & A) | Discussion (Q & A) |
| | 3 paper @10 min | | | |
| 15.30 - 15.45 | Coffee break | | | |
| 15.45 - 17.05 | Free Paper Oral & Poster Presentation | Free Paper Oral & Poster Presentation | Free Paper Oral & Poster Presentation | Free Paper Oral & Poster Presentation |
| | 5 paper @10 min | 8 paper @10 min | 8 paper @10 min | 8 paper @10 min |
| 18.30 - 21.30 | Welcoming / Gala Dinner | | | |

Scientific Programme

| Time | Day II (Saturday, 28 October 2017) | | | |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| | Topic : Degenerative, Cardio-Metabolic Diseases & Neuroscience | | | |
| 07.45 - 08.00 | Opening | | | |
| | Plenary Session (Moderator: Prof. dr. Sultana MH Faradz, Ph.D) | | | |
| 08.00 - 08.45 | Prof. Randi Hagerman, MD, Ph.D (Targeted Treatments in Intellectual Disabilities) | | | |
| 08.45 - 09.30 | Prof. Frank de Jong, MD, Ph.D (Tittle: Endocrinology and Obesity) | | | |
| 09.30 - 10.15 | Prof. Gerard Pals, Ph.D (Cardiovascular) (Tittle:Direct transdifferentiation of human fibroblasts into smooth muscle cells and osteoblasts for drug discovey and functional analyses of mutations) | | | |
| 10.15 - 10.30 | Discussion (Q & A) | | | |
| 10.30 - 10.45 | Coffee break | | | |
| 10.45 - 12.00 | Free Paper Oral & Poster Presentation | Free Paper Oral & Poster Presentation | Free Paper Oral & Poster Presentation | Free Paper Oral & Poster Presentation |
| | 8 paper @10 min | 8 paper @10 min | 8 paper @10 min | 8 paper @10 min |
| 12.00 - 12.45 | Lunch (& Poster Presentation) | | | |
| | Invited Lectures | | | |
| | Grup I (Degenerative disease & Oncology) | Grup II (Translatinal Endocrinology) | Grup III (Translatinal Neuroscience) | Grup IV (Cardio-Metabolic) |
| | Moderator: dr. Muflihatul Muniroh, M.Si.Med, Ph.D | Moderator: Dr. dr. K Heri Nugroho Hario Seno, Sp.PD-KEMD | Moderator: dr. Yuriz Bakhtiar, Ph.D, Sp.BS | Moderator: dr. Nani Maharani, M.Si.Med, Ph.D |
| 12.45 - 13.15 | Prof. Randi Hagerman, MD, Ph.D | Prof. dr. Sultana MH Faradz, Ph.D | dr. Tri Indah Winarni, M.Si.Med, Ph.D | Dr. dr. Anwar SANTOSO, Sp.JP(K), FIHA, FAsCC, FESC. FACC |
| | The fragile X Premutation f from Neurodevelopment to Neurodegeneration | Molecular analysis of DSD genes toward its management, from research bench to clinical practice | Early intervention and targeted treatment in children with Fragile X syndrome: Where have we been so far? | Phospholipase A2 an Emerging CAD Risk Factors in the Horizon: Any genetic polymorphisms take a role in CVD |
| 13.15 - 13.45 | Prof. Chihaya Koriyama, MD, Ph.D | Prof. Frank de Jong, MD, Ph.D | Hirofumi Hirano, MD, Ph.D | dr. Bambang Widiantoro, Ph.D, Sp.JP, FIHA |
| | Molecular epidemiology of HPV-related cancers | Multi-facetted regulation of androgen activity | Malignant brain tumor and the treatment | Cardiac Remodeling in Diabetic Heart Disease: Learning from translational studies on Endothelin system |
| 13.45 - 14.15 | Prof. Dr.dr. Ign. Riwanto, Sp.B, Sp.BKBD | dr. Achmad Zulfa J, M.Si.Med, Ph.D, Sp.And | Prof. dr. Zainal Muttaqien, Ph.D, Sp.BS | dr. Bahruddin, M.Si.Med, Ph.D |
| | Fighting to colorectal cancer (CRC) stem cells | Hormonal analysis in Disorders of Sex Development | Well Organized Epilepsy Surgery Program in Semarang: Paving the way to start Multidisciplinary Translational Researches in the field of Epilepsy | Diagnostic tool, pathogenesis, and pharmacological intervention in hypertrophic cardiomyopathy caused by a mutant cardiac myosin-binding protein c |
| 14.15 - 14.45 | Discussion (Q & A) | Dr. dr. Hardian | dr. M.Thohar Arifin, Ph.D, Sp.BS | dr. Ali Sobirin, M.Si.Med, Ph.D |
| | | The effect of chronic pesticide exposure to the autonom nervous system | Intraoperative Electro Cortico Graphy (ECog): recent updates | Natural Killer T Cells Play a Cardioprotective Role Against Left Ventricular Remodeling and Failure After Myocardial Infarction in Mice |
| 14.45 - 15.15 | Free Paper Oral & Poster Presentation | Discussion (Q & A) | Discussion (Q & A) | Discussion (Q & A) |
| | 3 paper @10 min | | | |
| 15.15 - 15.30 | Coffee break | | | |
| 15.30 - 16.20 | Free Paper Oral & Poster Presentation | Free Paper Oral & Poster Presentation | Free Paper Oral & Poster Presentation | Free Paper Oral & Poster Presentation |
| | 2 paper @10 min | 5 paper @10 min | 5 paper @10 min | 5 paper @10 min |
| 16.20 - 17.00 | Closing ceremony & Award announcement | | | |

HN 1-02

Phenomenology Study : Analysis Of Support Group Holistic Needs Among Patient With Chronic Kidney Disease And Family At Hemodialysis Unit In Semarang Central Java

Henni Kusuma^{1,}, Susana Widyaningsih¹, Yuni Dwi Hastuti¹, Wahyu Hidayati¹, Chandra Bagus Ropyanto¹*

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ABSTRACT

Introduction: The End Stage of Renal Disease (ESRD) or Chronic Kidney Disease (CKD) will affect to changes sufferers' life. The changes experienced will alter their physical, psychological, social, and spiritual aspects. In addition, hemodialysis therapy that is given to patients in their long life will affect to their quality of lives. Social support is very essential for CKD patients undergoing hemodialysis (support from group and family). Social support can be given as an emotional support, esteem support, informational support, instrumental support, and companionship support. This support can be facilitated through Support Groups Holistic Therapy for patients and their families. The purpose of this research is to identify needs of Support Group Holistic Therapy among hemodialysis patients and families.

Methods: This study using phenomenology study design and recruited a sample of 12 participants with purposive sampling technique. Participants include of patients, family members, and health care team (nurse and doctor). Interview transcripts were analysis using Colaizzi methods.

Results: As a results, this study produce 7 themes : general patients conditions, patients' needs of support group holistic, family needs of support group holistic, constraints of families for caring hemodialysis patients, family support that given to patients with hemodialysis, health care services support to hemodialysis patients and families, and need for support group holistic therapy on perspective among health care teams.

Conclusion: Patients with hemodialysis and their family had an urgent need of holistic support group therapy because they had a complex problems (consist of physical, social, economy, and emotional problems). This support group therapy is able to empower the patients and their families. We recommend that the therapy be conducted in the hospital, facilitated by health care providers. The time and materials for discussion should be adjusted to the patients' hemodialysis schedule and their needs (patients and family).

Keywords: *Hemodialysis, Family, Support Groups Holistic, Chronic Kidney Disease*

Phenomenology Study : Analysis of Support Group Holistic Needs among Patient with Chronic Kidney Disease and Family at Haemodialysis Unit in Semarang Central Java

Henni Kusuma¹, Susana Widyaningsih², Yuni Dwi Hastuti³, Wahyu Hidayati⁴,
Chandra Bagus Ropyanto⁵

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Corresponding author: Henni Kusuma (hen_hen8@yahoo.com)

ABSTRACT

Background: The End Stage of Renal Disease (ESRD) or last stage of Chronic Kidney Disease (CKD) will affect to changes sufferers' life. The changes experienced will alter their physical, psychological, social, and spiritual aspects. In addition, haemodialysis therapy that has been given to patients in their long life will affect to their quality of life. Social support is very essential for CKD patients undergoing haemodialysis. Social support can be given as an emotional support, esteem support, informational support, instrumental support, and companionship support. This support can be facilitated by health care team through Support Groups Holistic Therapy for patients and their family's.

Purpose: This study aims to identify needs of Support Group Holistic Therapy among haemodialysis patients, families, and health care team.

Methods: This study was a phenomenology study design and recruited a sample of 12 participants with purposive sampling technique. Participants include of patients, family members, and health care team (nurse and doctor). Interview transcripts were analysis using Colaizzi methods.

Result: As a results, this study has produced 7 themes : general patients conditions, patients need's of support group holistic, family need's of support group holistic, constraints of families for caring haemodialysis patients, family support that given to patients with haemodialysis, health care services support to haemodialysis patients and families, and need for support group holistic therapy on perspective among health care teams.

Conclusion: Patients with haemodialysis and their family had an urgent need of holistic support group therapy because they had a complex problems (consist of physical, social, economy, and emotional problems). Health care team also want to develop this therapy because it will be very helpful for patients and families. This support group therapy is able to empower the patients and their families to have higher quality of life. We recommend that this therapy can conduct in the hospital, facilitated by health care providers. The time and materials for discussion should be adjusted to the patients' haemodialysis schedule and their needs.

Keywords: Haemodialysis, Family, Support Groups Holistic, Chronic Kidney Disease

BACKGROUND

The number of patients with End-Stage Renal Disease (ESRD) from year to year continues to increase, both in the world and in Indonesia. As a supporting data, the number of ESRD patients in the United States at the end of 2007 had reached 527.283 people (National Kidney Foundation, 2009). Whereas in developing countries, the number of people with ESRD has

reached 350.000 people and is the largest disease in third world countries (Lestariningsih, 2015). Every year in Indonesia it is estimated that nearly 150.000 patients with late stage renal failure are found (Indonesia Nephrology Association, 2013).

Patients with ESRD will experience a loss of renal function to 85% or more, so that the body's ability to maintain fluid and electrolyte balance is impaired, inadequate excretion function, impaired hormonal function, and the occurrence of uremia or azotemia conditions (Price & Wilson, 2006). In further treatment, patients with ESRD require renal replacement therapy that is dialysis to support kidney function (National Kidney Foundation, 2002; Black & Hawks, 2009). Although there are other options of kidney transplantation, dialysis therapy still becomes the most common choice because the risk of failure of kidney transplant is still quite high. Therefore, the need for dialysis therapy is increasing. The haemodialysis therapy is also still used by the majority of Indonesian patients.

Haemodialysis (HD) is the process of filtering metabolic waste by using a semi permeable membrane that serves as an artificial kidney or called a dialyzer (Thomas, 2002). The action aims to correct disruption of fluid and electrolyte balance, as well as to eliminate the remaining protein metabolism products (Kallenbach, 2005; Suharyanto & Madjid, 2009). However, haemodialysis can not cure or recover kidney's function and is unable to offset the loss of metabolic or endocrine activity performed by kidneys, thus the patient will continue to experience various complications from both his illness and his therapy (Thomas, 2002).

Most patients take 12-15 hours of haemodialysis each week divided into two or three sessions where each session lasts 4-5 hours. According to Thomas (2002), each time for haemodialysis process takes 4 to 5 hours. During or after the process, generally will cause side effects such as physical stress, fatigue, headaches, cramps, and diaphoresis due to blood pressure, and decreased sugar levels. In addition, patients also have to restrain the consumption of liquids as well as foods high in salt, protein, and fat. This activity will last forever in his life (Kazmi & Danial, 2012).

Physical disorders in patients undergoing haemodialysis may lead to a decrease in the ability of social interaction and the vulnerability of mental disorders and spiritual crises (Pratiwi & 'Aisyiyah, 2014). All these conditions will lead to a decline in the quality of life of patients who undergoing haemodialysis (Taylor, 2010). In the research by Zurmeli, Bayhakki, and

Utami (2013) it is found that 51.4% of patients with ESRD undergoing haemodialysis at RSUD Achmad Arifin Pekanbaru have poor quality of life. While based on the research by Kusumastuti & Kusuma (2016), it is known that almost half (46%) haemodialysis patients at Tugurejo hospitals have poor quality of life. The sociodemographic factors that are also proven in affecting their quality of life are age, sex, education, occupation, marriage, income, financing, duration of HD, and comorbidities (Taylor, 2010; Zurmeli, Bayhakki, and Utami, 2013; Sandra, Dewi, & Dewi, 2012; Theofilou, 2011; Relawati, Hakimi, & Huriah, 2015).

The Quality of Life (QoL) among ESRD patients undergoing haemodialysis therapy is still a problem that attracts the attention of health professionals. Optimal patient's life quality becomes an important issue to be considered in comprehensive nursing services. Patients can survive with the help of haemodialysis machines, but still leave a number of important issues as the impact of haemodialysis therapy (Mollaoglu, 2009). The family support is closely related in supporting the quality of one's life. This is because QoL is a perception that presents in the ability, limitations, symptoms, as well as the psychosocial nature of the individual. QoL of individual is needed both in the context of the cultural environment and its value in performing its roles and functions as appropriate (Relawati, Hakimi, & Huriah, 2015).

The family is the main source of coping for patients who can provide optimal support during haemodialysis. This is supported by the research of Zurmeli, Bayhakki, and Utami (2013) which shows that family support is significantly related to quality of life. In addition, support from peers, such as sharing feelings and experiences, is also important. Social support from peer group friends is a powerful source of coping from someone who is also experiencing the same things (Relawati, Hakimi, & Huriah, 2015). Social support can be provided in the form of emotional support, esteem support, informational support, instrumental support, and companionship support (Arlija, 2006).

Support group therapy is one part of palliative care which is an independent therapy of a group of patients and families facilitated by a health care team. Support groups have many benefits to overcome the signs of physical, psychological / mental, social, and spiritual symptoms. In support group activities patients and families share feelings, information, experience during illness, including taking care of the signs of symptoms that accompany it. Support group is also a therapy for patients to get friends and socialize so that the quality of

life among patients can be improved (Relawati, Hakimi, & Huriah, 2015). Support group therapy is expected to be an effective method for helping patients and facilitating them to become independent and assist each others in health care. Furthermore, in a study conducted by Shahriari, Ahmadi, Babae, Mehrabi, & Sadeghi (2013), it was found that the involvement of families in the family support program could improve self-care behavior in CHF patients. Meanwhile, Wahyuni and Kurnia (2014) showed that self care and good motivation in CHF patients can improve the quality of life of the patients.

In general, patients diagnosed with ESRD will seek help both medically and non-medically (alternatively). They will use their capacity and knowledge to treat signs and symptoms of kidney failure, for instance taking anti-hypertensive medications, massage, praying, and resting to reduce fatigue (physical aspect). Many patients reported that they shared stories, feelings and complaints to their close family members or friends. They also shared to their significant others when they felt sad and depressed during illness therapy (psychological, emotional, and social aspects). Many patients turned to acceptance towards God with the help from prayers in their daily life (spiritual aspect). All of these strategies or ways are done individually by the patients because they need them. The important things that health care team need to realize is that patients have the potential to care for themselves but they need adequate support or support systems (Zurmeli, Bayhakki, and Utami, 2013).

Indonesian society in general has the potential to support the creation of social and emotional support through the holding of holistic support groups. A holistic support group is a group of people who come together to help each others. This group can consist of some patients only, the family (caregivers) only, or a mixture of patients and families.

Some activities within the support group include information sharing regarding the knowledge, feeling, and experience of each member, experts sharing, and discussion to find problem solving (Munsell, Kilmer, Cook, and Reeve, 2012). Support group is one of palliative care activities. It allows patients and their families playing an active role in taking care of themselves and also to fulfill their emotional, social, and spiritual needs. Moreover, this activity is very beneficial to increase patients' inner satisfaction and self-efficacy because it provides an opportunity for them to help others (Kessler, Egan, & Kubina, 2014).

Haemodialysis Unit at District General Hospital of Semarang City has started to support palliative care for patients with ESRD. However, the care related to psychological, emotional, social, and spiritual aspects are still far from being expected. Healthcare providers; nurses and doctors/physicians, teach and support the patients and families during therapy but they admitted that they were unable to do so for the patients individually every time. The treatment of haemodialysis patients still focused on the physical aspects of haemodialysis therapy (management/treatment of physical symptoms). As for family support, some patients also said that was not optimal yet. This holistic support group which was proposed by the researchers is line with the purpose of palliative services. Holistic support group activities for hemodialysis patients and families should be conducted alongside the conventional treatments that had been given so far.

When holistic support group therapy becomes part of the palliative nursing service then the quality of eservice will be more improved and plenary. There are many benefits of support groups that have been proven in many countries for people with chronic diseases, especially patients with ESRD. However, the patients' characteristics, health care facilities, community culture, and socio-economic aspects of the society in Indonesia are very specific. The process of the therapy needs to be adjusted with these demographic characteristics of Indonesian patients. From other research, we know that there was a significant influence of holistic support group based on family empowerment on patients' self-efficacy, self-care, and QoL. This therapy is very imperative to be conducted in the health care settings.

Prior to doing this holistic support group therapy, researchers need to analyze indication and demands of this therapy based on the perspective of patients, families, and health care team at RSUD Kota Semarang (General District Hospital of Semarang City). This will be a preliminary study to develop a qualified holistic support group therapy program in the haemodialysis unit of RSUD Kota Semarang (General District Hospital of Semarang City).

METHOD

This research is a qualitative research with phenomenology study approach. The study was conducted at RSUD Kota Semarang (General District Hospital of Semarang City) on January-February 2017 with 12 participants who met the criteria consisting of 4 haemodialysis patients, 4 family members, and 4 health care teams. In this study, purposive sampling was used. Data collection tool was interview form (for in-depth interview and semi

structured interview among patients and family members) and Focus Group Discussion/FGD form (for semi structured interview among health care teams). Interview transcripts were analyzed using the Colaizzi method. Each interview was held from 45 until 90 minutes. While the FGD was conducted for 60 minutes.

All of the interviews were completely recorded on the tape and a code has been given to any participant based on chronological order of interviewing. Each interview was analyzed according to the following manner and then the next one was performed and every interview was analyzed after performing. Seven stage Colaizzi analyses were used in this study for data analyzing which including the following steps: First, a description of all participants is read in order to sympathy with them. Second, each protocol is referred and the important expressions get extracted. Third, the meaning of each important term or concept which is introduced as the designed concepts is formed by the researcher. Fourth, the designed concepts get organized in thematic categories. Fifth; the findings get combined in a comprehensive description of the desired phenomena. Comprehensive description of the studied phenomena is organized in the form of an explicit statement. In the final stage the results are returned to the participants and they are asked questions about the findings. Process of validity and accuracy determination in qualitative research is different from quantitative research. Truth worthiness is defined as the strength and adequacy of research methodology. In this study, using of four criteria of "reliability" of qualitative research, namely the credibility, dependability, conformability, and transferability has been tried.

After analyzing of each interview, the researcher again refereed to the participants and confirmed the accuracy of materials and applied the necessary changes. For determining the conformability, the researcher tried to dose not interfere her/his proposals in the process of collecting and analyzing data as possible. For achieving the dependability which is defined as the adequacy of data analyzing trend and decision making processes, the researcher has used the guidance and supervision of the faculty researcher. Ethical considerations of this study include written informed consent from the participants for participating in the study and recording their interview, not insert of names of those interviewed on the tapes and texts were implemented, respecting the principle of secrecy, and confidentiality of data through preserving the right of withdrawing at any stage of research. This study was approved by the ERB (Ethical Review Board) of our institution (Komite Etik Penelitian Kesehatan / Health

Research Ethical Committee, Medicine Faculty, Diponegoro University). Number of Ethical Clearance is No.612/EC/FK-RSDK/2016.

RESULT

In total 12 participants, there are any 4 patients who had been threated by haemodialysis unit for more than 3 months and were interested to interview with the researcher, were interviewed (consist of 3 marriage and 1 divorce, 2 females and 2 males). Beside that, there are also 4 family members (consist of 1 as a husband, 2 as a wife, and 1 as a child) with adult age, was accompanied and support patients with haemodialysis therapy for more than 3 months, were interested to interview with the researcher, were interviewed. And, others participants were health care teams who had been worked at haemodialysis unit for more than 5 years, were interested to interview with the researcher, were interviewed (consist of 1 head nurse, 2 nurses, and 1 doctor/physician). The age range of the participants was 20 to 58 years old.

Seven themes were identified as the result of this research. An overview of changes in living conditions among patients undergoing haemodialysis was illustrated in theme 1 (general condition of patient); A description of patient's need for support from fellow haemodialysis patients (self-help group/support group holistic) was illustrated in theme 2; A description of family's need for group support (support group holistic) was illustrated in theme 3; A description of family's constraint in treating haemodialysis patients was illustrated in theme 4; A description of family support that has been given to haemodialysis patients was illustrated in theme 5; A description of health care team support that has been given to haemodialysis patients and their families was illustrated in theme 6; and An overview of health care team need's at haemodialysis unit for support holistic group therapy was illustrated in theme 7.

As a results, this study produce 7 themes, there are : 1) General patients conditions (consist of fatigue, heavy breathing, pruritus, edema, anxiety, spiritual, self care, and social activity) i.e data "*I think my condition is not as strong as before (P2)*", 2) Patients need's of support group holistic (social support from others, sharing information for improving self care to manage symptoms; pruritus, edema, fatigue, stress, and therapy, times twice a week suitable with haemodialysis schedule) i.e data "*I am happy if can get advice from others, can get benefits as feeling comfort when meet my friends at haemodialysis unit (P4)*", 3) Family

need's of support group holistic (social support from others) i.e data *"Sometimes I need to meet with my friends and share our experience (P6)"*, 4) Constraints of families for caring haemodialysis patients (changes of family role, lack of knowledge, economic burden) i.e data *"now because my husband was not working as before then I help open the shop at home too (P10)"*, 5) Family support that given to patients with haemodialysis (emotional support, economic support, informational support, and direct care support) i.e data *"when I look my mother sad, I am try to give motivation to her (P9)"*, 6) Health services support to haemodialysis patients and families (emotional support, informational support, and direct care support) i.e data *"we usually give an advice to patients about limited drink, adjusted diet, and taking meditation regularly (P4)"*, and 7) Need for support group holistic therapy on perspective of health care teams (increasing quality of care for patient and family) i.e data *"we have never done support group therapy, even we also never do gathering with patient and family. Actually it is a very good program for support group therapy because it can be a means of mutual increase of patient and family knowledge for health care. We hope we can develop this program (P1)"*.

DISCUSSION

According to Black & Hawks (2009) on chronic kidney disease, patients have progressive and irreversible renal dysfunction (nephron unit) in which the body's ability fails to maintain metabolism and fluid and electrolyte balance. This condition causes uremia (urea) retention and other nitrogenous waste in the blood. The buildup of uremia in gastrointestinal system triggers nausea stimulus that decreases the appetite of the patient. Therefore, patients begin to adapt to consume low levels of nutrients in ureum and potassium that can also lead to conditions that endanger their health. It is found in participants who reduce the consumption of high potassium fruits and high protein foods such as meat and nuts so that the rest of the metabolism of ureum is minimal.

Price & Wilson (2006) also revealed that in chronic kidney disease, which causes disturbed fluid balance is the result of kidney damage that causes blood flow to the kidney to decrease, thus activating the juxtaglomerular apparatus to produce renin enzymes that stimulate angiotensin I and II and cause vasoconstriction Peripheral. Angiotensin II stimulates the production of aldosterone from the adrenal cortex. improves the reabsorption of sodium and fluid in the kidney, thereby increasing sodium in the blood and accumulation of fluid in the

body. In addition, the condition of proteinuria (leakage of protein) also causes blood albumin levels to decrease (hypoalbuminemia). Hypoalbuminemia will cause plasma oncotic pressure to decrease, allowing transudation of fluid from intravascular space to interstitial space. Furthermore, it will trigger complaints experienced by patients such as swelling in the feet, tightness, and hypertension. Therefore, the patient needs adaptation with sufficient fluid restriction according to the amount of IWL (Invisible Water Loss) with anuria condition. In addition, patients also adapt to avoid salty foods because they can bind fluids in the body (Thomas, 2002).

Changes in physical conditions experienced by all participants during undergoing haemodialysis were named under physical weakness. Physical weakness that occurs in haemodialysis patients can be caused by the condition of decreased nutritional intake due to nausea and anemia caused by decreased production of erythropoietin due to kidney damage. Anemia is a condition of decreased levels of erythrocytes in the body that typically cause weakness and lethargy (Thomas, 2002). The results of this study in accordance with the results of research Adiatma & Tobing (2014) is that more than 91% of haemodialysis patients experience weakness. The results explain that the impact of haemodialysis on the physical condition is that it can lead to weak and lethargic patients especially after undergoing haemodialysis. This causes the patient to tend to decrease activity and social interaction.

Increased levels of urea will also have an impact on the onset of pruritus in CKD patients because of the buildup of ureum under the skin (Black & Hawks, 2009). Pruritus is the most common skin disorder condition experienced by patients ie 58-90% in patients undergoing haemodialysis (Tsay & Healstead, 2002). Another thing is the disorder of the oil glands located in the dermis layer of the skin that causes the skin tends to dry. It is based on data that 1 person participated in pruritus, although always maintain the cleanliness of the skin, but it is not enough to prevent the occurrence of problems of skin integrity damage. Therefore, patients and families need knowledge and skills in performing maintenance management to maintain skin integrity independently.

In addition, one participant also complained of repeated access stabbing pain. The stabbing of haemodialysis access is a standard procedure undertaken to facilitate the patient's blood flow can flow through the dialysers on the haemodialysis machine. The pain response on this invasive technique caused by physical stressors that trigger the production of quinine &

histamine that stimulates the emergence of the pain response (Black & Hawks, 2009). Therefore, pain management techniques are required in the act of stabbing haemodialysis access.

Anxiety is a feeling of discomfort accompanied by an autonomic response. Sources are often not specific or unknown to the individual. Feelings of worry caused by anticipation of danger. This is reflected in participants where the patient also experiences negative feelings because of the condition of his illness and the impact on his life. According to research conducted by Farida (2010) on the experience of haemodialysis clients on the quality of life in the context of nursing care in Fatmawati Hospital Jakarta stated that patients who perform haemodialysis experience emotional reactions such as helplessness, sadness, fear, anger, guilt, even when the client first Expressed kidney failure, clients feel confused about what to do, often crying and isolated.

The impact of renal failure and haemodialysis therapy is one of depression which according to research conducted by Pratiwi & Aisyiyah (2014) about depression level depiction in chronic renal failure patients undergoing haemodialysis at RS PKU Muhammadiyah Yogyakarta stated that from 67 patients depressed were 24 people Or about 35.82%. According to Heinrichs, Baumgartner, Kirschbaum, and Ehlert (2003) said that depression is a mood disorder characterized by depth and sadness so deep and sustainable that the loss of excitement of life, does not experience interference in assessing reality, the personality remains intact (not experiencing the fracture of personality / splitting of personality) Behavior can be disrupted but within normal limits. This process of change requires a good spiritual condition to be able to accept the illness experienced, especially if the disease requires a long process of healing with uncertain results.

A person with chronic illness often suffers from crippling symptoms and interferes with the ability to continue a normal lifestyle. Independence can be very threatened, causing fear, anxiety, sadness that can be even very stressful. Reliance on others in routine self-care can lead to feelings of helplessness and decrease in inner power. A person may feel the loss of a life goal to deal with the changes caused by chronic illness. A person who is spiritually strong will reshape his identity and live in his potential (Fitria, 2010). This is also shown in participants who show resignation and sincerity in accepting the condition of the illness. Physical weakness that occurs in haemodialysis patients causes patients tend to decrease

activity and social interaction. Before undergoing haemodialysis, patients are generally active in activities such as working outdoors but after undergoing haemodialysis, the patient's activities become limited and more at home. This causes the pattern of social interaction to change. To undergo much social interaction tends to be limited, but can still follow the activities around the house. Participants also said that by undergoing haemodialysis felt to have a new social interaction of fellow patients undergoing haemodialysis.

Changes in economic status are also felt by participants. Participants felt the need for finance increased by undergoing haemodialysis. All participants received health financing assistance with BPJS. Participants say although haemodialysis does not pay but there are additional costs to be incurred each month such as drugs that are not guaranteed BPJS, certain laboratory examinations, and transportation costs from home to hospital large enough. Participants also said without the help of BPJS felt unable to pay for haemodialysis. Participants also said that with the current conditions participants cannot do the job as before so that it affects their daily life. Farida (2010) said that patients and families generally cost a lot to extend their lives.

In tackling the economic problems resulting from the costs incurred for the treatment, some participants felt a lot of support. The support received comes from couples who help earn a living, children or close family, so it is not too burdensome and can be overcome. This is in accordance with previous studies that generally for economic problems, patients get support from their families and try to reduce their need for sufficient cost (Munsell, Kilmer, Cook, and Reeve, 2012).

Social support is the support of participants in this study. Social support is the availability of resources that can provide physical and psychological comfort in which the individual feels loved, cared for, and respected by others and he also belongs to a group with similar interests. The form of social support is needed in 5 forms of emotional support, informational, instrumental, self-esteem, and companionship support (Arlija, 2006).

Social support required by participants in this study is one of them is emotional support. The form of emotional support required by the patient is how the patient can be with other patients facilitated by health workers to discuss stress management and pour out the joys and

comfort each other. This is considered very necessary, where the hemodialysis patients sometimes experience psychological problems associated with health conditions.

In an effort to meet informational support in order to improve their health, in addition to getting information from health workers, participants also seek information from peer experiences of haemodialysis patients. Participants feel it is necessary to know the condition and the handling of the disease. The information needed by the patient includes chronic kidney disease and haemodialysis, fluid restriction management, nutritional management as needed, symptom and activity management (weakness and pruritus), and stress management.

The instrumental support that patients get during this time from their fellow patients is in the form of sharing healthy snacks, lending wheelchairs, and social funds. The participants feel the facilities in the hospital still need to be improved i.e giving a wheelchair for patients. Fellow haemodialysis patients also feel still need for support of material like donations of grief for his fellow haemodialysis patients who died.

In general, it can be concluded in patients undergoing haemodialysis there are two forms of self-esteem support is needed that includes motivation from the survivors and share advice to remain productive and spirit. Patients also need help in overcoming the problem to be able to adapt and accept his condition. A form of motivation support from participants in solving the problem is necessary. Motivation is defined as a driving factor that can affect the way people act (Pratiwi & 'Aisyiyah, 2014). This will also have an impact on improving the patient's self-esteem derived from the support of a fellow group of haemodialysis patients.

In patients undergoing haemodialysis, that is a required form of companionship support which includes feeling there. There are a common destiny, sharing feelings of joy, and sorrow, as well as familial bonds among patients. The patient feels more optimistic and resilient with a fellow sufferer of chronic kidney disease who takes haemodialysis therapy and has the same condition with himself so they does not feel alone. Patients will connected to other members who have the same or different experiences to help each other. Participants are looking forward to a group discussion forum as a tool for sharing experiences, listening to stories in self-care, hope, fear, obstacles, fun / good things, also for the emergence of satisfaction and pleasure to help others who have the same fate.

In patients undergoing haemodialysis, there are two components need of self help group holistic. There are includes implementation time and discussion materials. For the execution time, the participants mentioned once a week (1 hour) before haemodialysis process started. The materials required by participants to be discussed together in this activity includes chronic kidney disease and haemodialysis, how to care for HD access, how to deal with pruritus symptoms, activity adaptation, stress management, diet management, medication, and fluid restriction management.

CONCLUSION

Patients with chronic kidney disease are usually accompanied by changes in their physical condition. Among the physical changes experienced by the study subjects were limitations of physical activity, accumulation of body fluids, respiratory problems, pruritus, pain in the area of HD access stings, nausea and vomiting, and hypertension. Some patients also have to adapt to nutrients according to their condition and needs of patients after experiencing chronic kidney pain. The physical changes experienced by these patients are a result of the failure of the kidney to function normally due to the irreversible damage that has occurred. Chronic renal disease is a progressive and irreversible renal function disorder in which the body's ability fails to maintain metabolism and fluid and electrolyte balance, which causes uremia; urea retention and other nitrogenous waste in the blood (Thomas, 2002).

Physical changes experienced by patients with chronic kidney disease can also have an impact on their psychological condition. Psychological conditions experienced by the subjects of this study are negative feelings such as anxiety, fear, stress, and depression. This can have an impact on self efficacy in the care and quality of life of the patient.

Patients and families try to overcome the psychological problems they face by adaptation psychologically. Another impact that occurs on patients and families is the change in socio-economic conditions, thus making them have to adapt to economic conditions due to the condition of the illness.

Therefore, as a further step the need to conduct an assessment of self-efficacy, quality of life, family support for patients. Furthermore, nurses may counsel families who do not provide support effectively. Through this, we can examine what causes the family to give less support to the patient. Furthermore, interventions may be appropriate, for example, due to a lack of

family knowledge about the disease, the nurse may provide a complete explanation of what the family should know about diseases such as the course of the disease, mode of transmission, home care, Patients, as well as the support needed by the patient. Can be delivered to the family about the impact that will arise if support from the family is less supportive and also delivered the benefits. For continuous treatment, hospital nurses can work with community nurses for further intervention in family empowerment efforts.

Related to the support that can be provided to haemodialysis patients and their families, the culture in Indonesian society in general has the potential to support the creation of social and emotional support through the holding of holistic support groups. A holistic support group is a group of people who come together to help each other. This group can be composed solely for the patient alone, the family (caregiver) or a mixture of patients and families.

In addition, it is necessary to involve families in the management of patient care and care so that families are motivated to continue to provide support for patient care. In this case, the closest member of the family can be involved as an individual who helps the patient to maintain his health such as: taking regular medication, choosing the appropriate food menu for the patient's condition, assisting the patient in doing complementary therapies for stress prevention, etc. . With so expected quality of life of patient will increase.

The family is the main source of coping for patients who can provide optimal support during haemodialysis. This is supported by the research of Zurmeli, Bayhakki, & Utami (2013) which shows that family support is significantly related to quality of life. In addition, support from peers is also important for sharing feelings and experiences. Social support from peer group friends is a powerful source of coping from someone who is also experiencing the same thing (Relawati, Hakimi, Huriah, 2015). Social support can be provided in the form of emotional support, esteem support, informational support, instrumental support, and companionship support (Arlia, 2006).

Support group therapy is one part of palliative care which is an independent therapy of a group of patients and families facilitated by a health team (Fitria, 2010). Support groups have many benefits to overcome the signs of physical, psychological / mental, social, and spiritual symptoms. In support group activities patients and families share feelings, information, experience during illness, including taking care of the signs of symptoms that accompany it.

Support group is also a therapy for patients to get friends and socialize so that the quality of life of patients can be improved (Taylor, 2010; Relawati, Hakimi, Huriah, 2015). With therapy group support is expected to be able to help patients independently and assist each other in its care. In addition, in a study conducted by Shahriari, Ahmadi, Babaee, Mehrabi, & Sadeghi (2013) showed that families involved in the family support program could improve self-care behavior in CHF patients. Meanwhile, Wahyuni and Kurnia (2014) showed that self care and good motivation in CHF patients can improve the quality of life of patients.

In general, patients diagnosed with late stage chronic kidney disease will seek help both medically and non-medically (alternatively). They will use their capacity and knowledge to treat signs of symptoms. For example taking anti-hypertensive medications, massage, pray, or rest to reduce fatigue (physical aspect). Many patients report that they share stories, feelings and complaints to their immediate family or friends when they feel the burden of the mind is too heavy and sad during illness (psychological, emotional and social aspects). Many patients switch with acceptance, surrender, and prayer in their daily life during treatment or haemodialysis therapy (spiritual aspect). All of these strategies or ways are done individually by the patient because they need them. The important thing that health workers need to realize is that patients have the potential to care for themselves but they need adequate support or support systems that can be facilitated through holistic support group therapy.

REFERENCES

- Adiatma, D. C., & Tobing, M. L. (2014). Prevalensi dan jenis anemia pada pasien penyakit ginjal kronik yang menjalani hemodialisis reguler (Prevalence and type of anemia on chronic kidney disease patients with regular haemodialysis). *Jurnal Media Medika Muda (Young Medica Media Journal)*, 3(1).
- Arlija, L. (2006). *Dukungan sosial pada pasien gagal ginjal terminal yang melakukan terapi hemodialisa (Social support among end stage renal disease patients undergoing haemodialysis)*. Accessed from <http://library.usu.ac.id/download/fk/06010311>.
- Black, J. M., & Hawks, J. H. (2009). *Medical surgical nursing: clinical management for positive outcomes*, (8th ed.). St. Louis, MO: Saunders Elsevier.
- Farida, A. (2010). *Pengalaman klien hemodialisa terhadap kualitas hidup dalam konteks asuhan keperawatan di RSUP Fatmawati Jakarta (Experience of haemodialysis patients to quality of life in nursing context at Fatmawati Hospital Jakarta)*. Thesis. Universitas Indonesia : Jakarta.
- Fitria, C. N. (2010). Palliative care pada penderita penyakit terminal (Palliative care among patients with chronic disease). *Jurnal Ilmu Kesehatan (Health Science Journal)*, 7(1), 527-537. www.jurnal.stikes-aisyiyah.ac.id.
- Heinrichs, M., Baumgartner, T., Kirschbaum, C., Ehlert, U. (2003). *Social support and oxytocin interact to suppress cortisol and subjective responses to psychosocial stress*.

- Kallenbach, J.Z. (2012). *Review of haemodialysis for nursing and dialysis personnel*. 8th Edition. Elsevier Saunders. St Louis Missouri.
<https://evolve.elsevier.com/cs/product/9780323086127?role=student>.
- Kazmi, W. H., & Danial, K. (2012). *Chronic kidney disease update*. INTECH Open Access Publisher. <https://www.intechopen.com/download/pdf/34951>.
- Kessler, D., Egan, M., & Kubina, L. A. (2014). Peer support for stroke survivors: a case study. *BMC Health Services Research*, 14(1), 256.
- Kusumastuti, H., & Kusuma, H. (2016). *Hubungan antara efikasi diri dengan kualitas hidup pasien penyakit ginjal kronik yang menjalani hemodialisa (Correlation between self efficacy with quality of life among chronic kidney patients undergoing haemodialysis)*. Undergraduated Thesis. Semarang: Universitas Diponegoro.
- Lestariningsih. (2015). *Nefrology Update 2015: Emergency in nephrology and hypertension*. Semarang : Universitas Diponegoro Press.
- Mollaoglu, M. (2009). *Perceived social support, anxiety, and self-care among patients receiving haemodialysis*. Clinical Perspective: Dyalysis & Transplantation. <http://www3.interscience.wiley.com>.
- Morad, Z., Choong, H. L., & Tungsanga, K. (2015). Funding renal replacement therapy in Southeast Asia: Building Public-Private Partnerships in Singapore, Malaysia, Thailand, and Indonesia. *American Journal of Kidney Diseases*, 65(5), 799-805. <https://www.ncbi.nlm.nih.gov/pubmed/25736214>.
- Munsell, E.P., Kilmer, R.P., Cook, J.R., and Reeve, C.L. (2012). The effects of caregiver social connections on caregiver, child, and family well-being. *Am J Orthopsychiatri*. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3345204/>.
- National Kidney Foundation. (2009). *Benefit peer support*. National Kidney Foundation @ 2009 Inc. All rights reserved. 02-10-0204_CBB. New York, NY 10016 212.889.2210. www.kidney.org.
- National Kidney Foundation. (2002). *K/DOQI Clinical practice guideline for chronic kidney disease: evaluations, classification, and stratification*. http://www.kidneyorg/professionals/kdoqi/guideline_ckd/htm.
- Perhimpunan Nefrologi Indonesia (Indonesia Nephrology Association). (2013). *Konsensus dialisis perhimpunan nefrologi Indonesia (Consensus of dialysis Indonesia nephrology association)*. Jakarta.
- Pratiwi, D. A., & 'Aisyiyah, S. T. I. (2014). *Hubungan dukungan keluarga dengan tingkat depresi pasien gagal ginjal kronik dengan hemodialisa di RS PKU Muhammadiyah Yogyakarta (Correlation between family support with depression level among end stage renal disease patients undergoing haemodialysis at PKU Muhammadiyah Hospital Yogyakarta)*. Thesis : UGM.
- Price, S., & Wilson, L. M. (2006). *Pathofysiology: clinical concepts of disease processes*. (6th Ed.). St. Louis: Mosby Year Book. Inc.
- Relawati, A., Hakimi, M., Huriah, T. (2015). *Pengaruh self help group terhadap kualitas hidup pasien hemodialisa di Rumah Sakit Pusat Kesehatan Umum Muhammadiyah Yogyakarta (Effect of self help group to quality of life patients with haemodialysis at General Health Muhammadiyah Central Hospital)*. <http://ejournal.stikesgombong.ac.id/index.php/JIKK/article/view/112/106>.
- Sandra, Dewi W.N., & Dewi Y.I. (2012). Gambaran stres pada pasien gagal ginjal terminal (*Stress among end stage renal disease patients*). *Jurnal Ners Indonesia*; 2(2): 99–108.

- Shahriari, M., Ahmadi, M., Babae, S., Mehrabi, T., & Sadeghi, M. (2013). Effect of a family support program on self-care behaviors in patients with congestive heart failure. *Iranian Journal of Nursing and Midwifery Research*. Vo.18. Issue : 2. p152-157.
- Suharyanto, T., & Madjid, A. (2009). *Asuhan keperawatan pada klien dengan gangguan sistem perkemihan (Nursing care to client with urology system disorder)*. Jakarta: Tim.
- Taylor, C. I. (2010). *Quality of life in haemodialysis patients*. scholar.utc.edu/cgi/viewcontent.cgi?article=1546&context=theses.
- Theofilou, P. (2011). Quality of life in patients undergoing haemodialysis or peritoneal dialysis treatment. *J Clin Med Res.*; 3: 132–8.
- Thomas, N. (2002). *Renal nursing. (2nd edition)*. London United Kingdom: Elsevier Science.
- Tsay, S. L., & Healstead, M. (2002). Self-care, self-efficacy, depression, and quality of life among patients receiving haemodialysis in Taiwan. *International Journal of Nursing Studies* 39(3), 245–251.
- Wahyuni, A. & Kurnia O. S. (2014). *Hubungan self care dan motivasi dengan kualitas hidup pasien gagal jantung (Correlation between self care and motivation with quality of life among congestive heart failure patients)*. <http://jom.unri.ac.id/index.php/JOMPSIK/article/download/5172/5052>.
- Zurmeli, Bayhakki, Utami, G.T. (2013). *Hubungan dukungan keluarga dengan kualitas hidup pasien gagal ginjal kronik yang menjalani terapi hemodialisis di RSUD Arifin Achmad Pekanbaru (Correlation between family support and quality of life among chronic kidney disease patients who taking haemodialysis therapy in Arifin Achmad General District Hospital Pekanbaru)*. <http://jom.unri.ac.id/index.php/JOMPSIK/article/download/5172/5052>.

The background features a dark teal color with several overlapping geometric shapes. A prominent shape is a large, light brown parallelogram that is tilted. To its right, there are several nested, teal-colored shapes that resemble stylized chevrons or zig-zags. The overall aesthetic is modern and scientific.

“To bring scientific knowledge from bench to bedside”