



STIKep PPNI Jawa Barat, Bandung - INDONESIA
National Cheng Kung University Hospital - TAIWAN
Bandung, 16th – 17th July, 2018

Conference Book
International Conference on Health Care
and Management

“Evidence to inform action on supporting and implementation of
SDGs”

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This book published by:

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Welcome Message



Assalamualaikum Warahmatullahi Wabarakatuh

Dear honorable guests,
Sustainable Development Goals (SDGs) as an agreement of sustainable development objectives agreed by all countries at the 2015 UN sessions. Each country including Indonesia has an obligation to implement this joint development plan by applying universal, integration and inclusive principles by ensuring that no one missed or “No-one Left Behind” Indonesia has Nawa Cita or 9 priority agenda which should synergize with SDGs and can be used as health program application in Indonesia to also achieve SDGs.

On behalf of the organizing committee and the Nursing Society of Indonesia, I am glad to invite you to join ICHM 2018 (International Conference on Health Care and Management) in Bandung, Indonesia on July 16-17, 2018.

The conference is expected to reveal some solutions for evidence-based health care and scientific facts to be discussed by various viewpoints from diverse speakers from around the world with the title “Evidence to inform action on supporting and implementation of SDGs. Through the International Conference is expected to improve health services, especially in the field of nursing in Indonesia to improve the human development index.

We hope all participant could benefit from the exciting program and will surpass your expectation and that will be an inspiring event.

Warm regards,



Dhika Dharmansyah
Conference chair



Assalamu'alaykum Wr.Wrb
Good morning and best wishes for all of us.

Ladies and gentlemen, in such a great and happy day, let's praise and thank to Allah Swt who has given us grace and mercy to all of us to gather in this International Conference on Health Care Management event today.

First of all, we would like to gratitude and appreciate highly to national Cheng Kung University Hospital has given the opportunity and confidence to our institution STIKep PPNI Jabar for the second time in collaboration to organize International Conference on Health Care Management with theme: "Evidence to inform action on supporting and implementation of SDGs". This event is one of follow up The memorandum of Understanding between NCKUH with STIKep PPNI Jabar.

STIKep PPNI Jabar is as a nursing education institution carry out the mandate to create professional nurse, we must implement all TRIDHARMA University activities in academic atmosphere that aims to broaden and improve nursing and existence of nurse profession capacity in nation developing continually.

As we know the university academic quality is determined by its researches and graduates result quality. The research work results may be either a right against managing intellectual wealth equity as well as scientific work which is able to be publicized through scientific journals and scientific gathering forums of the same scientist background both in national and international level.

Nevertheless, the publishing of journal researches is published by its university. Nowadays, it is irregular because there are both financial and scientific manuscript availability drawbacks. Scientific regular manuscripts are very limited because manuscript contributor is only from its university as well.

The high education Research and technology ministry data in 2017, it stated that there were an increase of research work publishing done by practitioners, academicians and researchers of Indonesian. The amount of Indonesian research publishing on international journal certifiable indexed Scopus tended to increase. The high education Research and technology ministry data on December 1st 2017 noted that Indonesia scientific research publishing reached 14.100 journals. Meanwhile, on October 1st 2017 there were as many as 12.098 journals.

However, internally nurse profession scientific research journals are still less of publishing. It is alleged to the low of quantity and quality publishing about nursing. One of the drawbacks is rarely the interaction between nursing scientists and experts in scientific conferences. Some efforts are carried out by STIKep PPNI to encourage and to accelerate sharing knowledge amongst the nursing experts. Accordance to the goals, National Cheng Kung University Hospital Taiwan and STIKep PPNI have made MoU and held as this International conferences organizer. Hopefully, it is able to bridge all stakeholders, practitioners, and academicians in supporting the quality of the human resources especially, nurses and health workers as well.

The honourable ladies and gentlemen,
Nowadays, in the global era, the transformation runs rapidly and consequently it makes the knowledge based society. Information and communication technology development are very important in on its role in manifesting society development based on the knowledge. The higher education of society will be higher of health service quality demands specially nurse.

Accordance to the effort, this International conference aims to,

1. Facilitate the knowledge sharing between health experts and nurses to encourage the goal of health human resource quality.
2. Produce health scientific and nursing articles deserve to be published on international scopus indexed journal.
3. Make communication networking amongst Universities, research institution, nurse practitioners, and other stakeholders.

I truly believe that all participants through the 2 days in international conference, our goals above are able to be manifested well.

Finally, I would like to thank to all of participants diligently and with spirit of attending this international conference on health care management.

Wish the conference is able to be knowledge sharing event and delightful and successful as well, the conference will be enlightened and interchange will do great help for us after attending this conference, especially STIKep PPNI Jabar and generally for all profession nurses to provide health services to communities, aamiin ya robbal alamin.

Wassalamu'alaykum Wr.wb.

Kindest regards,



The Dean of STIKep PPNI Jabar



Excellencies, Distinguished Delegates, Ladies and Gentlemen,
Selamat Siang,

I'm ChyunYu Yang, the superintendent of National Cheng Kung University Hospital in Tainan, Taiwan.

On behalf of our hospital, it is my pleasure and privilege to welcome all of you to participate in the international conference on health care and management 2018.

To our eminent speakers and delegates who have come from UK, Netherland, Korea, Japan, Thailand, Singapore, Taiwan, and Indonesia, I bid you a very warm welcome to Bandung. We are indeed honoured to have you here with us. We have about 1.000 participants from different place in Indonesia and countries gathered here today, making our conference a truly meaningful one.

This is our second time collaborate with STIKEP PPNI Jawa Barat to hold an international conference. Last year, we have very successful conference with the theme focus on infection control and disaster management. And this year, our conference theme is "evidence to inform action on supporting and implementation of SDGs".

The Sustainable Development Goals (SDGs) known as the global goals, are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. Goal 3 addresses all major health priorities and calls for improving reproductive, maternal and child health; ending communicable diseases; reducing non-communicable diseases and other health hazards; and ensuring universal access to safe, effective, quality and affordable medicines and vaccines as well as health coverage.

However, the world seems still far from ending maternal mortality, with more than 303,000 deaths in pregnancy or childbirth occurring annually. NCDs are also a growing problem, causing 40 million deaths in 2015.

But, All in all, we can take comfort in the fact that SGD indicators are moving in the right direction. Yet we still have plenty of work to do.

I wish in the next two day and a half, we have the opportunity - and indeed the responsibility - to prepare and add knowledge related the current situation and progress reflection of SDGs.

In closing, I encourage delegates to participate actively in the interesting discussions over the next two days. I wish everyone a successful and fruitful conference.

Thank you.

Conference Committee

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THE ASSOCIATION BETWEEN MEDICATION ADHERENCE WITH CLINICAL OUTCOME AND QUALITY OF LIFE AMONG PATIENTS WITH MYASTHENIA GRAVIS

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ABSTRACT

Background: Medication adherence remains public health attention which may affect clinical outcomes and quality of life of patients with Myasthenia Gravis (MG). However, studies on medication adherence, and its association with clinical outcome and quality of life been poorly characterized among patients with MG. **Objectives:** The study aimed to explore the relationship between medication adherence with clinical outcome and quality of life of patients with MG. **Methods:** A cross-sectional study of patients with myasthenia gravis at 75 patients with MG was conducted at the foundation of MG in Indonesia. Data were collected from May to October 2016. A purposive sampling technique was used to select subject based on inclusion criteria. MG-PRO instrument was used to measure the quality of life and Barthel index to measure functional ability. Also, to evaluate the clinical outcome, Myasthenia Gravis Foundation of America (MGFA) classification was applied. All data were analyzed using a parametric test, namely independent t-test. **Results:** The results of this study showed a significant association between medication adherence with clinical outcome ($p=0.000$) and quality of life ($p=0.048$) among patients with MG. **Conclusions:** Medication adherence was associated with clinical outcome and quality of life of patients with MG. Nurse and other healthcare professionals need to design an intervention to improve the adherence to medication, not only during hospitalization but also in the rehabilitation phase to prevent from a myasthenia crisis.

Keywords: adherence, clinical outcome, myasthenia gravis, quality of life

INTRODUCTION

Myasthenia gravis (MG) is an autoimmune disease of the neuromuscular junction presenting as muscular weakness and fatigability. It also associated with antibodies attacked acetylcholine receptors (AChR), *Muscle-specific Kinase* (MuSK), and *Lipoprotein-Related Protein 4* (LRP4) (Gilhus & Verschuuren, 2015). Ropper et al (2014) defined MG as neuromuscular junction abnormalities characterized by decreased muscle ability for contraction and thus caused a muscle weakness. Due to the characteristics of the disease, myasthenia gravis considered as a deadly disease with a poor prognosis.

Globally, the incidence rate of MG ranged from 1.7 to 21.3 per one million populations with prevalence ranged from 15 to 179 per one million population depending on the country or region area (Berrih-aknin & Panse, 2014). Patients with MG were in all age groups with the majority of the onset time was at age 33 to 38 years old (Myasthenia Gravis Association of Western Pennsylvania, 2009). It's also can occur in all gender, with the ratio of male and female were 2:3 and the prevalence of MG were similar in male and female (Myasthenia Gravis Association of Western Pennsylvania, 2009; Guo, Dang, Li, & Li, 2014).

The significant adverse effects of MG were physical weakness, anxiety, limitations of social interaction and even death (Woodward & Mestecky, 2011). Those significant impact required a comprehensive treatment and management. The purpose of the overall therapy provided to patients with MG was to improve disease prognosis and their quality of life. The usual management of MG was acetylcholinesterase, immunosuppressant, plasmapheresis, or even operation, namely thymectomy (Chen, Chang, Chiu, & Yeh, 2011).

However, each has a different response to the treatment be given, including treatment period and returns to the daily routine. Hickey (2014) emphasized that the provision of medication and lifestyle changes intervention for patients with MG only aimed to reduce symptoms but not to cure the disease. As a consequence, optimal management is expected to improve disease prognosis, ability to carry out daily activity, quality of life, and survival rate (Steb, 2014). Agborsangaya et al. (2012) suggest that neurological disorders and length of treatment can affect various aspects of a person's life including quality of life. Sirgy et al. (2004) in Land & Michalos (2012) stated that quality of life assessment is used as an indicator to determine the effect of a disease through the experience of one's body and soul.

According to the interview of three patients with MG, we found that a higher cost for medication and limited availability of the drugs became one of the reasons for drop out although the significant impact of drop out is serious dangerous. Therefore, the study aimed to determine the relationship between medication adherence with clinical outcome and quality of life of a patient with MG.

METHODS

This study was conducted using a cross-sectional design with purposive sampling. The target population was all patients diagnosed with MG in Java Island. The total sample of this study was 75 which was selected according to inclusion and exclusion criteria and recommendation from Indonesian Myasthenia Gravis. Foundation. Selected samples were individuals with myasthenia gravis who could communicate with the researchers. Patients with MG who had unconsciousness and refused to become respondents were excluded in the study.

Medication adherence was measured for a specific drug, namely pyridostigmine by comparing the daily drug consumed in seven days with physician prescribed. Clinical outcome was measured using five classifications of myasthenia gravis based on MGFA and barthel index. Functional ability was measured using Barthel index which is consists of 10 items with a score ranged from 0 to 20. The lower score indicates, the higher dependence associated with the disability.

The instrument used to measure the quality of life is MG-PRO. This questionnaire adopted from initially WHO-QOL and developed by Li et al. (2012) and used as a self-reported measurement for patients with MG. It is consist of 53 question items with five answer choices. The higher score indicates a better quality of life. The validity in the current study was measured using a product moment correlation and showed good validity with r value was 0.514, and the Cronbach Alpha was 0.8.

Approval from the ethics committee of Universitas Indonesia was obtained prior data collection and permission from Indonesia MG foundation. The time required to fill out all questionnaire was about 20 minutes. This study was conducted from May to October 2016 in Java Island by face-to-face interview, phone call, or electronic mail.

RESULTS

The characteristics of respondents in this study based on gender showed that most of the respondents were (73.3%) females and based on the disease diagnosis showed that most of the respondents (36.0%) in classification I according to MGFA.

Table 1

The characteristics of Respondents by Gender and Classification of Myasthenia Gravis, Java, Indonesia

Characteristic of Respondent		n	%
Gender	Males	20	26.7
	Females	55	73.3
Classification According to MGFA	I	27	36.0
	II	21	28.0
	III	19	25.3
	IV/V	8	10.7
Total		75	100.0

Table 2 summarizes quality of life and clinical outcome by used Barthel Index in among 75 myasthenia gravis patients in Java, Indonesia. The mean score of functional status was 16.99 (SD: 5.158) with the lowest score was 0 and the highest score was 19.00. Higher score reflects better clinical outcome. Quality of life of patients with myasthenia gravis showed mean score 178.35 with the lowest score was 91 and the highest score was 179. Same with Barthel Index score, higher score reflects better quality life among patients with myasthenia gravis.

Table 2

The Distribution Score of Respondents by Quality of Life and Barthel Index Score, Java, Indonesia

Variable	Range	Mid-point	Mean Median	Min Max	SD
Barthel Index Score	0-24	12.00	16.99 19.00	0 24	5.158
Quality of Life	53-265	159.00	178.35 179.00	91 247	33.457

Note: SD: standard deviation

The bivariate analysis evaluated by Independent T test found a significant association between medical adherence with quality of life (p value 0.048) and clinical outcome used Barthel Index score (p value 0.000) (Table 3). Association between medical adherence with clinical outcome used MGFA classification evaluated by Chi Square showed no difference in MG classification between good adherence group and poor adherence group.

Table 3

The Association Between Medical Adherence and Quality of Life and Clinical Outcome in Patients With Myasthenia Gravis, Java, Indonesia

Variable	F	t	Mean Difference	95% CI	p value
Barthel Index	0.012	0.144	0.202	-2.596 – 3.000	0.000*
Quality of Life	3.704	1.993	17.673	35.349 – 39.492	0.048*

*significant with p value < 0.05

DISCUSSION

The WHO highlighted that poor medication adherence is public health problems worldwide (Conn, Enriquez, Ruppap, & Chan, 2016). Medication adherence is defined as the medication-taking behavior of patients by recommendations from authorized health care professionals. Among patients with diabetic mellitus, it was known that adherence to the therapy significantly improve the quality of life (Alcubierre et al., 2016). Study among patients with chronic obstructive pulmonary reported as a risk factor for the physical condition, mortality, morbidity, and increased hospitalization rates (Duncan, 2015).

Management of myasthenia gravis consists of the various type included pharmacotherapy such as acetylcholinesterase and corticosteroids, plasmapheresis, and operative procedure (thymectomy) (Twork et al., 2010). These treatments can cause side effects that can aggravate the patient's physical condition such as vasovagal reactions (nausea and vomiting), bradycardia, and even the cholinergic crisis (Toyka & Gold, 2007). The administration of acetylcholinesterase as an essential pharmacological therapy should be considered in the process of administration because patients should take medication regularly and continuously (Meyer & Levy, 2010). The previous study conducted by Beusterien et al. (2008) emphasized that drug's side effect was associated with adherence to taking medication. Based on the characteristics of the disease, patients with MG are required to be able to adhere to all the therapy recommended by healthcare professionals. If the patient forgot the schedule for taking medication especially Mestinon (acetylcholinesterase/pyridostigmine), the drug effect could cause muscle weakness according to pharmacodynamics of the drug. Muscle weakness can affect the physical function of patients such as diplopia, ptosis, even respiratory failure or critical situation (Hickey, 2014).

Myasthenic crisis (MC) is one of the complications caused by MG. Toyka and Gold (2007) stated that the myasthenic crisis is a condition of the inability of patients with MG to maintain respiratory function, swallowing, airway patency, and free from secretion buildup. The myasthenic crisis is one of the complications of myasthenia gravis which often requires intubation and mechanical ventilation for oxygenation (Godoy, Mello, Masotti, & Napoli, 2013). The myasthenic crisis is a critical, dangerous, and repetitive condition. This condition occurs in 20-30% of patients with myasthenia gravis. A previous study suggested that although patients with MG can control their clinical situation by taking acetylcholinesterase inhibitor, the status of MC still occurs in 15% -20% of patients even caused death up to 3% - 8% (Jani-Acsadi & Lisak, 2007).

Corwin (2008) stated that the myasthenic crisis often arises after stressful experienced such as illness, emotional disturbance, surgery, or during pregnancy. Infectious conditions also contribute to the incidence of MC about 40% to 70% (Jani-Acsadi & Lisak, 2007). It is further reinforces the importance of adherence to consume pyridostigmine in preventing and minimizing recurrence and critical events.

In addition to affecting the physical condition, muscle weakness may affect the quality of life of a patient with MG, especially in the physical domain. The physical symptoms experienced by patients with MG can be categorized into several classes based on MGFA classification (Myasthenia Gravis Foundation of America). MGFA divided myasthenia gravis into five levels: Class I, was a patient with weakness in the eye muscle, class II was a patient with mild general weakness, class III was a group of patients with moderate weakness, class IV were patients with severe muscle weakness, and class V is a patient with intubation.

The higher class in the MGFA classification indicated lower the physical condition reported in patients with MG. The physical weakness may also affect physiological condition (Woodward & Mestecky, 2011). One crucial aspect need to measure in patients with MG is physical aspect, higher adverse effects caused by MG will undoubtedly have an impact on the quality of life score. Maintaining physical condition is one of the primary indicators of treatment success in patients with MG.

CONCLUSION

There was a significant correlation between adherence to pyridostigmine with clinical outcome and quality of life. Nurses need to provide care not only focus on hospitalized patients with

MG but also offer health education related therapies and ensure design management to make sure patients adherence to medication to reduce the risk of critical event or re-occurrence.

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