



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,

A handwritten signature in black ink, appearing to read 'Dhika Dharmansyah'.

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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IMPACT OF HEALTH EDUCATION OF FOOT EXERCISE: ON KNOWLEDGE AND SKILL OF TYPE II DIABETES MELLITUS PATIENTS AT ELDERLY COMMUNITY HEALTH POST (POSBINDU), INDONESIA

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ABSTRACT

Background: Diabetic foot complications are common concerns associated with Diabetes Mellitus (DM) whereas education on appropriate self-care has the potential to play a key role in preventing foot complications resulting from diabetes. Previous research showed that providing effective education to diabetes patients and their family members could help decrease the incidence of ulcer formation. **Objective:** The purpose of this study was to determine the effect of health education of foot exercise on the knowledge and skill of people with type II DM Posbindu Lansia (Elderly Community health posts) in Bandung Indonesia. **Method:** This research used pre-experimental design with pre and post test design in one group (one group pre-post-test design) without controls. The Sampling technique was used was purposive sampling. The data were collected through questionnaires from knowledge and observation forms for the ability to perform foot exercises with a total of 46 respondents. Data analysis used Wilcoxon signed-rank test. **Result:** The results showed that before health education respondents with good knowledge was about (19,6%), Sufficient knowledge at (58.7%), and Deficient knowledge at (21.7%). Then for ability to perform foot exercises (8.7%) of respondents were capable and most respondents (91.3%) were unable to demonstrate proper foot exercises. After health education, the number of respondents with a good knowledge slightly increased to about (23.9%) add those with sufficient knowledge to (63%) and even a decrease was experienced in the group category for deficient knowledge were slightly decrease at (13%). Then, for the ability to perform foot exercises, more than half respondents were capable of demonstrating proper foot exercises about (54.3%) on the other hand about (45.7%) of patients still unable to demonstrate proper foot exercise. The differences before and after intervention show a significant increase in knowledge of the patients ($p = 0,000 < \alpha (0.05)$) and patient skill for foot exercise also rose significantly p -value = $0.000 < \alpha (0.05)$. **Conclusion :** there was a significant impact of Health Education Simulation of Foot exercise on Knowledge and skill of Diabetes mellitus type II patients.

Keyword : Diabetes mellitus, foot exercise, health, education, knowledge, elderly

INTRODUCTION

Diabetes has become a widespread epidemic, primarily because of the increasing prevalence and incidence of type 2 .(Colberg, 2010) Based on reports from the International Diabetes Federation in 2015, the number of Indonesians affected by diabetes reached 9.1 million and more than half of all diabetes cases (58.8%) were undiagnosed in 2012 (IDF, 2012). In 2014, Indonesia was ranked 5th for the highest number of diabetics in the world. Epidemiologically speaking, it is estimated that in 2030

the prevalence of DM will reach 21.3 million people. (www.depkes.go.id published on October, 30th 2013).

Diabetes Mellitus is a chronic metabolic disorder, thus individuals affected by diabetes must learn self-management skills and make life style adjustments to effectively manage diabetes in order to avoid or delay the complications associated with the disorder. For these reasons, self-management education is the cornerstone of treatment for all people living with diabetes. A quality diabetes self-management education program should provide comprehensive instruction in the content areas relevant to the target population and to the participants being served. The curriculum, instructional methods, and materials should be appropriate for the specified target population, considering the type and duration of diabetes, age, cultural influences, and individual learning abilities (Funnels MM, Brown TL, Childs BP, 2009).

Diabetic foot complications are common concerns in diabetes disease management. In Indonesia, the most frequent diabetic complications are neuropathy (13-78%) and also diabetic foot (7.3-24%) (Soewondo P, 2010). The lack of consistency in the education provided to diabetes patients regarding their foot health substantiated the need to empower patients with the knowledge necessary to prevent diabetic foot ulcers. People with diabetes-related foot problems use significantly more health services than individuals with diabetes without foot problems (Perrin et al., 2009). Diabetic peripheral neuropathy (DPN) is a common complication and is a quality-of-life damaging factor in diabetic patients (Boulton et al., 2004, Poncelet, 2003).

In Indonesia, diabetes care in the clinic focus on medications, diet regulation, and control of blood glucose levels without foot care education to prevent long-term complications such as diabetic foot ulcers. As a result, patients return to their homes without knowing how to manage their health and change their lifestyles, consequently, they will be re-hospitalized resulting from diabetic foot gangrene. Knowles believed that learning strategies should be less involved with theory, and more focused on putting into practice applications of knowledge relevant to the real world (Thompson & Deis, 2004) Educating and training diabetes patients and their family members increases their knowledge of diabetic foot care and helps to bridge the gap between knowledge and integration of such into daily activities. Previous research showed that providing effective education to diabetes patients and their family members could help decrease the incidence of ulcer formation (Morris, 2014).

Exercise positively influences other pathological factors related with DPN, by promoting microvascular function and fat oxidation, by reducing oxidative stress and increasing neurotropic factors (Colberg, 2010) Mild to moderate exercise may help prevent the onset of peripheral neuropathy. Widyawati (2010) conduct research with 56 Diabetes patients type 2 showed difference of score average complaints of polineuropathy $p = 0.031$ on intervention group after were given range of motion exercise. Therefore, Providing the appropriate evidence based foot care education for the patients in the clinic can help increase participants knowledge of foot ulcer prevention. (Morris, 2014)

RESEARCH METHODS

This research is quantitative using pre-experimental design with pre-post and one-group pre-post-test design. The population in this study is patients with DM in the area of Primary Health centre in Bandung who visit Community Health Service for elderly every one month in every Halmet. The patients have been joined the program for prevention non-communicable diseases both diabetes Mellitus and Hypertention. The sampling technique used non-Probability Sampling, and was selected through Purposive sampling. Sample used in this research was 46 respondents. During the visit, diabetes patients were confidentially approached and given the offer to participate in the project. Each consenting participant was asked to complete an informed consent, demographic sheet, and received an information sheet. Health education was given by researchers using stimulation technique, patient centre approach, the program lasted 60 minutes and one pre-test group and was evaluated after 2 two week.

A questionnaire was used to determine the level of foot exercise knowledge that consisted of 25 questions about the objectives, procedures, frequency, indications and contraindications of foot exercise. These questions demand a response whether respondents agreed (scored 1) or uncertain, while for the observation sheets, there were 18 questions in form of checklist done or not done. The

instrument was tested through a validity test and scored $0.648 - 0.954 > 0.632$ (r table), and the reliability value is 0.763 confirming that the instrument is reliable.

RESULT

Demografic characteristics

Descriptive data was collected from 46 respondents where ten (21.7%) of the participants were aged 20-44 years, nine (19,6%) of the participants were between 45- 54 years old, six (13%) of respondents aged 55 - 59 years followed by 60 - 69 years (30.4%), and more than 70 years (15.2%). It was found that a small number of participants (30.4%) were male and most of the 32 participants (69.6%) were female.

Each of the participants (50%) had a diagnosis of type 2 diabetes for more than 1-5 years whereas a small number of respondents (34.8%) suffered by Diabetes Mellitus for 6-10 years, very few or as many as 6 people (13 people) got Diabetes Mellitus in range of years for 11-15 followed by only 1 person suffer from Diabetes Mellitus for 16-20 years.

The education levels of the participants ranged from primary to higher education. Thirteen (28.3%) percent of the participants had educational level below grade at elementary school, 23.9% had graduated Junior High School, followed by seventeen (37%) percent was at high school educated, and very few or as many as 5 people (10.9%) educated Higher education.

It is found that very few respondents (6.5%) percent work as civil servants, eight of participant (17.4%) percent as self-employed, respondents who work as farmers only 1 person (2.2 %), working as private workers as many as 5 people (10.9%), and mostly as housewives about 29 people (63%). Based on the source of information in getting about foot exercise that most get information as many as 30 people (65.2%) and a small number do not get information as much as 16 people (34.8%).

Table 1

Table 2. Comparison of knowledge percentage before and after education on foot exercise in the intervention pre-test/post-test (n = 46)

Category	Knowledge		Change (%)
	Pre (%)	Post (%)	
Good	19,6	23,9	4,3
Sufficient	58,7	63	4,3
Poor	21,7	13	8,7
Z			-5.790 ^a
Asymp. Sig.			.000

Based on table 1, it was found that before the health education on the foot exercises, 9 of the respondents had good knowledge (19.6%), some had sufficient knowledge about 27 people (58,7%) and some of them, 10 to be exact had poor knowledge (21.7%).

After receiving health education on foot exercises, a small percentage of respondents who had good knowledge increased by 11 people (23,9%), those having sufficient knowledge increased by as many as 29 people (63%) and very few, 6 or 13%, with poor knowledge.

According to Vileikyte, L., Gonzalez, J. A., Leventhal, H., Peyrot, M. F., Rubin, P. R., Garrow, A., et al. (2006) states that the test for knowledge is spaced between 2 weeks as it is sufficient in measuring knowledge levels but is inadequate to obtain a positive improvement in foot care independently. After the data was processed there is influence between before and after health education about foot exercises, based on Wilcoxon signed-rank test obtained p-value 0,000 for knowledge means there is a significant influence indicates there was influence of simulation health education: foot exercise to the knowledge and ability of Type II DM patients

Table 2. Comparison of percentage of skill before and after education on foot exercise in the intervention pre-test/post-test (n = 46)

Category	Ability		Change (%)
	Pre (%)	Post (%)	
Able	8,7	54,3	45,6
Unable	91,3	45,7	45,6
Z			-5,266 ^a
Asymp. Sig.			.000

Based on table 2 it is shown that before undergoing health education about foot exercises very few respondents were able to do foot exercises and were as many as 4 people (8.7%) However, there were many respondents not able to do foot exercises and were as many as 42 people (91.3%). After undergoing health education on foot exercises some of the respondents were able to do foot exercises and were as many as 25 people (54.3%) and some who were unable to do foot exercises were as many as 21 people (45.7%).

Based on the above table after the data was processed from the results obtained data that there was influence between before and after health education on foot exercises, based on Wilcoxon signed-rank test obtained p value 0,000 for the ability means there was a significant influence indicating that there is influence of health education simulation: foot exercise on the ability of patients with Type II DM.

DISCUSSION

Based on study conducted on 46 respondents in Elderly Community health posts in Bandung, a small portion 9.6% have good knowledge, some have sufficient knowledge as much as 58.7% and a small portion has as much as 21.7%. After health education on foot exercise the data changed reflecting only a small percentage of respondents having good knowledge to 23.9%, most have enough knowledge to 63% and very few respondents have less knowledge level to 13%. Based on this research, data obtained about age above 55 years who have good knowledge, and is evident in the respondents performing leg exercises. According to Notoatmodjo (2011) then along with the increase of time, it will be more information obtained from can increase his knowledge. The results of research by research conducted by Diani (2013) indicating that the DM type II clients more than 55 years have good Knowledge for caring of Leg more than Patients DM type II under the age of 55 years.

It is summarized, most of the respondents were female (69,6%). The results of this study indicate there was a significant influence between the gender and the ability of foot caring in patients with DM type II. Sihombing (2012) showed that most of the female respondents performed foot care very well. Respondents had *ample* time to perform foot care because the average female is a housewife making it possible for good foot care practices (Diani,2013).

Based on the analysis between the incidence of DM and the prevalence of DM occurrence in women is higher than that of men. Women are more at risk of DM disease because physically women have a higher body mass index (Iraan, 2010). On level of the education, there was only a small percentage of respondents with high school education (37%). The results showed that the higher the education the more it influenced the knowledge process. According to Friedman, Bowden and Jones (2003) explain that education is an aspect of social status that is closely related to health status because education is important in shaping knowledge and behavior patterns of a person. This is in line with research conducted by Diani (2013) that clients with low education significantly have low knowledge of foot care.

It was found that most respondents were housewives was and was as many as 29 people (63%). According to research conducted by Soemardini et al. (2008) the work factor has no significant relationship with the understanding of foot care of Diabetes mellitus in patients. Work is an important determinant of health. Based on the research, the data obtained suggests that 30 people (65.2%)

gained valuable information. According to Basuki (2009), research results show that the type II DM respondents who have been given counseling have better foot care practices when compared with clients who never got counseling.

Counseling is required for people with type II Diabetes mellitus because the disease is related to a person's behavior to change. The counseling provided is a Diabetes mellitus education program about foot care which is health education and training on knowledge and ability for the sufferer. Adequate education will improve the ability of patients to perform self-care consistently so that it can achieve optimal control of blood sugar levels and complications can be minimized. This research is in line with research conducted by Diani (2013).

Based on research conducted on 46 respondents of Diabetes mellitus patients in the Elderly Community health posts in Bandung obtain the data stating that before health education, respondents who were able to do foot exercises was as many as 4 respondents (8.7%) and after health education, respondents who were able to perform leg exercises increased to 25 respondents (54.3%). The results of this study indicate that there is influence between foot exercise simulation and the ability of patients with type II DM. Before the health education on foot exercises, respondents acted as beginners where beginners usually have no experience are expected to be able to do so. Beginners are usually less confident in doing things and need constant practice for a sustained period of time resulting in improved ability (Benner, 2014).

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