2nd ICHMS & 2nd LSC

PROCEEDING

ISBN: 978-602-757-793-0

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

"Towards a Better Quality of Life through Interdisciplinary Research"

Yogyakarta, 9th-10th December 2016
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Chair person of The 2nd International Conference of Medical and Health Sciences and The 2nd Life Sciences Conference 2016

Welcome to Jogja, sugeng rawuh!
For the second time, the Faculty of Medicine and Health Sciences Universitas Muhammadiyah Yogyakarta is going to conduct the 2nd International Conference of Medical and Health Sciences (ICMHS) this December in vibrant Yogyakarta, Indonesia. This year we are going to collaborate with the Life Sciences Society of Pakistan for their 2nd Life Sciences Conference (LSC) with Dr. Zahid Iqbal as the general secretary.
This year's conference theme "Towards a better quality of life through interdisciplinary research" will be celebrating an era of seamless interdisciplinary integration and collaboration in scientific innovations with the involvement of more extensive topics and disciplines in the conference. We aim to exhibit the products of that kind of approach in solving challenges, improving the quality of life, and creating sustainable developments.
We are happy to announce that our conference is filled with Invited speakers from Pakistan, United States of America, Uni Emirates Arab, Malaysia and Indonesia. Presentations will be conducted in oral as well as poster that covers topics from medicine, public health, dentistry, pharmacy, biomedical to agriculture. To put more credibility to the conference we are collaborating with Isra Medical Journal and the Asian Journal of Agriculture and Biology to publish selected papers from the event. Other paper will be published in the ISBN Proceeding book.
The last but not least, enjoy the conference, start networking and sharing ideas, and let immerse yourself to the heritage cultural ambient of Jogja, sumonggo!

Yogyakarta, 1st December 2016

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

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

Assalamu'alaikum Wr. Wb.

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

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

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

Wassalamu'alaikum Wr. Wb.

Yogyakarta, 1st December 2016

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

Rector of Universitas Muhammadiyah Yogyakarta

Assalaamu'alaikum Wr. Wb.

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

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

Prof. Dr. Bambang Cipto, MA

Keynote Speech

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

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

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

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

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

Dear colleagues,
Here are some data that show several health problems in Indonesia:
1. Maternal mortility rate in 2015 is 4,809 cases, infant mortality rate in 2015 is 22,267 cases;
2. Regarding to children under the age of five, the national stunting rate is 37.2% which consists of 18% for very short dan 19.2% for short (Riskesdas 2013);

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

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

Wassalamu'alaikum Warahmatullahi Wabarakatuh,

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

Drg. Pembajun Setyaningastutie, M.Kes

SPEAKER OF INTERNATIONAL CONFERENCE

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

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

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

Tri Wahyuliati

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

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

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

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

REVIEWER

1. Dr. Zahid Iqbal, Ph.D (Isra University, Islamabad, Pakistan)
2. Prof. Dr. Abdul Khaliq (University of Agriculture, Faisalabad)
3. Dr. Mohammad Khalid Ashfaq, DVM, DTVM, MS, Ph.D (University of Mississippi, USA)
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18. Dr. dr. Sri Sundari, M.Ke (Universitas Muhammadiyah Yogyakarta, Indonesia)
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20. Drh. Tri Wulandari K, M.Kes (Universitas Muhammadiyah Yogyakarta, Indonesia)
21. Dr. dr. Wiwik Kusumawati, M.Kes (Universitas Muhammadiyah Yogyakarta, Indonesia)
22. Sabtanti Harimurti, S.Si., M.Sc., Ph.D., Apt. (Universitas Muhammadiyah Yogyakarta, Indonesia)

SPEAKER OF INTERNATIONAL CONFERENCE

ICMHS-P-1-28

Bed Side Teaching as Effort for decreasing needle stick and sharp injury in clinical practice students of PSIK FKIK UMY

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Abstract

Students are one of subjects who have high risk in needle stick and sharp injury at hospital. It can be caused by lack of clinical education assistaning. Directional Bed Side Teaching (BST) was one of effort to solve this problem. Purpose of this study was to analyse the effectiveness of BST toward needle stick and sharp injury prevalences in clinical practice students of PSIK FKIK UMY. This study was quasy experimental without control group. Sampel of this study were preceptors and 31 students with simple random sampling. Binary logistic was used as analysis data in this study. Based on binary logistic analisis with expectation B score (Exp B). It showed that implementing of BST variable Exp (B)= 3,429 toward needle stick and sharp injury in confident 95%.. The implementing of BST had positive correlation with neddle stick and injury sharp object. Preceptor suggested for assisting the students regarding to needle stick and sharp injury.

Keywords: Bedside teaching, preceptor, needle stick and sharp injury.

INTRODUCTION

Needle stick and sharps injury is an event of occupational accidents most frequently occur on the medical personnel in health service. Nursing students, including one that is particularly at risk of injury needles and sharps injury hospitals. Smith & Leggat (2005), in one study said 13.9% of 274 nursing students never injured needles and sharps for 12 months undergoing clinical practice. The same also stated by Taro (2005), that the survey that was conducted showed 71.1% (489/688) of nursing students in Iran injured syringes and sharps (Talas, 2009). Meanwhile a preliminary study showed 93% of students at this stage of the clinical practice injured syringes and sharps during the first 14 weeks of professional education.

Many causes of the high number of injuries needles and sharps in nursing students. The first, limited clinical experience possessed by nursing students. Second, the lack of guidance is done by precept of the clinic. Third, lack of awareness and knowledge of nursing students about injuries due to needle prick injuries and sharps (Sharma et al, 2009; Talas, 2009; Smith & Leggat, 2005).

Danger of injuries affected syringes and sharps various kinds. From the start of contracting HIV, hepatitis, and even infection. If nursing students are exposed to complications due to injuries syringes and sharps will result terkendalanya learning process so that students can not complete the study can even experience a lifetime of disability.

One way to reduce the incidence of needle puncture injuries and sharps is to create a learning environment that is safe for nursing students. Good guidance of precept will create a cozy atmosphere while learning and will be a good role model for nursing students. Efforts are being made with bed side teaching activities are directed.

Bedside teaching (BST) is a critical component in medical education, especially education in nursing. BST is a method of learning next to the patient. This method is the most effective way to improve student skills competency. In addition, in this study also provides an opportunity for students to learn about the history and physical assessment. This learning method puts the nurse as a role model of good role model skills and attitude.

The low quality of guidance clinics do make the preceptor of nursing students to experience various kinds of hazards during clinical practice. Therefore we propose whether guidance bed side teaching methods can reduce the incidence of needle stick and sharps injuries?

The aims of the research is to implementing the BST for clinical practice students and identifying of needle stick and sharp injury in clinical practice students.

MATERIALS AND METHODS

This study was quasy experimental without control group. Sampel of this study were precheptors and 31 professional students program XXII PSIK FKIK UMY with simple random sampling. Inclusion criteria was student who stay in hospital home base of PSIK UMY, PKU Muhammadiyah Yogyakarta, PKU Muhammadiyah Yogyakarta Unit II, RSUD Saras Husada Purworejo, RSUD Djojonegoro Temanggung, dan RSUD Kota Tidar Magelang. Exclusion critheria in this study was student who were not active in the period of research.

This research was conducted in five (5) RS Home Based Professional Education Program nurses PSIK FKIK UMY which includes RS PKU Muhammadiyah Yogyakarta, RS PKU Muhammadiyah Yogyakarta Unit II, Saras Husada Hospital Purworejo, Djojonegoro Waterford Regional Hospital and City Hospital Tidar Magelang.

The steps of this study: Study permit administration from PSIK FKIK UMY → Ethical clearance process from Ethicof al committee FKIK UMY → Study permit from Hospital Home Based → creating BST module → socialization of module → Examination of BST implementation by questioner → Evaluation of needle stick and sharp injury

Quantitative data were analysed by distribution frequency and binary logistic for analyzing influence of BST toward needle stick and sharp injury on students.

RESULTS

Implementation of BST in Ners Clinical Practice. BST in clinical education Ners PSIK FKIK UMY applied in every stage/department. BST of medication/drug were applied in early stage of basic nursing. The BST implement in small group 3-4 students and 1 prechepto or clinical instructure. The result of BST implementation show in table below:

Table 1. Bedside Teaching (BST) Implementation in Clinical Practice

No	Steps of BST	Always	ofthen	sometime	seldom	Never
		n (%)	n (%)	n (%)	n (%)	n (%)
	Pre BST					
1	Goals determination	13 (41,9)	14 (45,2)	4 (12,9)	0	0
2	Determination of patien and topic	20 (64,5)	8 (25,8)	3 (9,7)	0	0
3	Informed consent to patients	19 (61,3)	7 (22,6)	3 (9,7)	0	2 (6,5)
4	Evaluation student preparation regarding topic of BST	13 (41,9)	13 (41,9)	4 (12,9)	1 (3,2)	0

No	Steps of BST	Always	ofthen	sometime	seldom	Never
		n (%)	n (%)	n (%)	n (%)	n (%)
	Pelaksanaan BST					
4	Orientation of team	16 (51,6)	8 (25,8)	6 (19,4)	1 (3,2)	0
5	Explain the goals to patients	15 (48,4)	9 (29,0)	6 (19,4)	1 (3,2)	0
6	Demonstation of skill related topic of BST	14 (45,2)	12 (38,7)	4 (12,9)	1 (3,2)	0
7	Role model	4 (12,9)	17 (54,8)	6 (19,4)	4 (12,9)	0
8	Asking student to do demonstration	4 (12,9)	17 (54,8)	6 (19,4)	4 (12,9)	0
9	Communication with patients	17 (54,8)	12 (38,7)	2 (6,5)	0	0
10	Pay attention to client privision	14 (45,2)	11 (35,5)	6 (19,4)	0	0
11	Termination	15 (48,4)	12 (38,7)	4 (12,9)	0	0
	Post BST					
12	Student feeling exploration	6 (19,4)	12 (38,7)	7 (22,6)	4 (12,9)	2 (6,5)
13	Feed back	10 (32,3)	14 (45,2)	4 (12,9)	3 (9,7)	0
14	Reinforcement to students	8 (25,8)	16 (51,6)	4 (12,9)	3 (9,7)	0
15	Conclusion	9 (29,0)	14 (45,2)	6 (19,4)	2 (6,5)	0
16	Giving suggestion related to important point	8 (25,8)	17 (54,8)	3 (9,7)	3 (9,7)	0

Sumber: Data Primer, 2016

It can be seen from table 1, the stage of pre BST majority of items in the category “always” is the item on select patients according to the selected topic was 20 respondents (64.5%), while two respondents (6.5%) never done informed consent to patients , The implementation of communication with the patient in BST was 17, which more than half of respondents (54.8%) are always in, while one respondent or 3.2% on an item introduce personal and the team, explained the purpose of BST to the patient, and demonstrate skills related to the topic of BST. The earlier stage BST as much as 32.3% always provide feedback to students while 6.5% never explored the feelings of students.

Table 2. Bedside Teaching (BST) Implementation in Clinical Practice

BST Implementation	frequency (n)	Persentage (%)
Optimal	0	0
Non optimal	31	100
Total	31	100

Resource: primary data 2016

Based on Table 2, the implementation of BST was not optimally it less than 100%.

Table 3. Prevalence of Needle Stick Injury (NSI) in Clinical Practice Students

NSI event	f (n)	Percentage (%)
Ever	24	77,4
Never	7	22,6
Frequency of NSI		
Never	7	22,6
1 time	13	41,9
> 1 time	11	35,5
Vactionation		
Yes	31	100
No	0	0
Total	31	100

Resource: primary data, 2016

Tabel 4. Result of Logistic Regretion in Implementation of BST toward NSI Event

Variabel	B	P Wald	Exp (B)
Implementation of BST	1,232	0,004	3,429

Sumber: Primary data, 2016

Prevalence of Needle Stick dan Sharp Injury in Clinical Practice Students. Based on the results of the test binary logistic expectation value B (Exp B) indicates that the variable implementation of BST with Exp (B) = 3,429 to variable incidence of NSI. Then the implementation of BST has a positive correlation with incidence of needle stick injury and sharp injury.

According to the table variable in the equation above: the independent variables p value wald test (Sig) <0.05, meaning that the variable BST has a significant partial effect on the incidence of NSI. Thus reject H0 or means of functioning BST provides significant partial effect on the incidence of NSI.

DISCUSSION

Bedside Teaching Implementation. The Table 2. show that 100% of BST implementation was not optimaly. BST is an important component in nursing education and as effective method for improving students' competency. Learning process of BST could improve skill of students in assessment, personal ability and emphaty to patients' condition related to desease impact. Beside that BST also could help the students for improving confident in communication, skill in examinitioan. In short, BST could improve personal and clinical skill of students (Qureshi Z, 2014).

There is three points that need to consider in implementation of BST, preparing and patient participation.[7] The success key point in BST is preparing point. In this point, preparation included by team, patient and family. Beside that, we need to prepare the mind, good timing of learning, and nurses and health staff participation.[6] Ulandari A (2010) mentioned that student perception toward BST were not good (66,7%). The lack of optimally result from BST were depend on the process. The good process of BST could improve students' skill directly. It reagarding to process of seing preceptor in BST implementation. Based on Turner and Debra, (2008) BST preparation need to do 1 day before action for optimalising preceptor and student preparation before meeting with patients. In this stage the preceptor can help the student in determine the learning focus.

Non optimality of BST could influence by several inhabitions from both students and preceptor, varian of understanding related BST, implementation have not as good as standrat procedure, lack of supervision.[4] The factor from student could come from learning style which influence the implementation of BST, beside that number of students in hospital who practice in the same ward also have role related to effectiveness in learning process. The most important factor from students are their activeness in BST and preparation before BST. From preceptor side, they migh lack of preparation related to topic in BST and their activity related to position in hospital.

Based on Table 1, determining appropriate patients and topic always do in “pre-BST” step. However, informed consent never done in every BST.Determining the patientsand topic is important item have to consider in BST process. This item also need agreement from preceptor with log book as the guideline. Informed consent can be applied both oral or letter. In this study BST process was examined by students, and inform consent could be done by preceptor. Inform consent could be asked one day before BST. Mostly, preceptor who nurses in the ward, they could ask inform consent before BST. Based on Daviss (2016) there are 5 roles of nurse we can classify as active contribution relatedto inform consent, as supervisor in process of inform consent, advocator for patients, informer for several alternative in treatment, coordinator for maintain the discussion and facilitator of particular staff who include in inform consent.

The process of inform consent is knowledge transfer about the risk and benefit of some treatment and improving patient in medical decision making. Meanwhile, this procedure is rarely in implementation.

The step of BST for always do show in number 54,8% was communication to the patients. Communication is important poin has to do when BST. In post BST stage, students' feeling exploration was never done, it can be seen from percentage of it 6,5%. It can be caused by some factors, such as time limitation from preceptor side. Beside that, lack of understanding of parecheptor about benefit of feeling exploration in student had an influenced. The exploration should be done by preceptor which can give self evalutioan to the students, so that they can determine their own performance and know their improvement related to their feeling during the process of BST.

Needle Stick and Sharp Injury. Most of student have experience Needle stick and Sharp injury. Factors can cause this event sociodemographic, contact duration, knowledge level about pathogen spraid and universal precaution and their perception regarding patoghen contact (Norsayani & Hassim, 2003). In the world 14-20% are percentage of needle stick and sharp injury. It means this situation need to treat, because it is serious condition. One of the preventive way for student, they were hepatitis vactioned 2 times during the clinical practice.

The Influence of BST toward Needle Stick and Sharp Injury. In this study found that there was partial significant influence between BST and prevalence of needle stick and sharp injury. Good procedure of BSTcan impacted significantly for needle stick and sharp unjury prevalence.

CONCLUSION

The implementation of BST in Clinical Ners Professional Education FKIK UMY not optimally. Prevalence of needle stick and sharp object injury are very high. There was an influence of BST implementation to needle stick and sharp object injury. Need to consider about disturbing factorsa and number of sample.

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