

PEER LEARNING METODE EFFECTIVELY IMPROVE THE LOGICAL CLINICAL SKILLS AND STUDENT SATISFACTION AMONG MEDICAL STUDENT: A MIX METODE STUDY

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Abstract

Background: The logical clinical skill of the doctors can affect the patient's recovery. It was highly related with the quality of health care facilities which increase the community health status. The objective of this study was to analyze the effectiveness of peer learning metode in improving logical clinical skills and student satisfaction on medical student in University of Muhammadiyah Jakarta.

Methods: A mix-method study was conducted from April to June 2016. A quasi-experimental as a quantitative study was used to analyze the pre and post test score of logical clinical skills in 'respiration' block among the second year student of medical study program in University of Muhammadiyah Jakarta. As many as 30 student as control group and 30 student as intervention group (using peer learning method). An Independent t-test was used to analyzed statically. Student satisfaction was assessed with quantitative method and also a qualitative study. Both of control (3 groups) and intervention groups (3 groups) was probe with Focus Group Discussion (FGD) technique.

Results: There was significant difference in score between pre and post after intervention. Independent t-test analysis shows that peer learning method effectively improve the logical clinical skills (p-value 0.000). The intervention groups has higher post test mean score (60.0 ± 10.2 SD) than control groups (56.0 ± 10.9 SD). Peer learning method was significantly associated with student satisfaction (p value 0.048). FGD revealed that the intervention groups has more satisfaction than control groups.

Conclusion: Peer learning method should be apply in others block or system widely, not also in in medical study program but also in others health education program. The policy of application of this This method in academic system should be assigned to improve the logical clinical skills.

Keywords: peer learning method, student satisfaction, logical clinical skills

INTRODUCTION

The ASEAN Free Trade Association (AFTA) era is require the professionalism of doctors. One of the key competencies that an indicator of professionalism is the ability of doctor in clinical diagnosis. The doctor competencies are refers to the Standards of Indonesian Doctors Competency (Standar Kompetensi Dokter Indonesia). Especially for doctors graduation from the University of Muhammadiyah should meet The Standards of Character and Competency of Doctor of Muhammadiyah (Higher Education Council of Muhammadiyah, 2012). The most important skill that

is needed in doctor professionalism is the logical clinical skills competency. This competency significantly association with the health patients recovery.

The most effective methode to stimulate the thinking analysis of students used (PBL). This method is focussing on the student centred learning. It's learning process prioritizes medical student to be an active student. The learning process includes evaluation, research and comparison programme (Harsono, 2005). During the PBL process is not only rated an active role but also the role of the individual as social competence and personal fulfillment. Charles, et al (2011) and Reiter, et al (2002) observed a significant correlation between collaboration in teams during the tutorial and assessment of the group significantly associated with sustainability studies, empathy, personality and special interest of students towards science subjects.

Peer lerning method is a learning process that comes from peers so that students more flexibility in developing its potential to develop a logical clinical skills based on learning experiences with the peer (Harold, 2002). Students can perform simulations in groups to build clinic in accordance with the logic of the test form in Indonesian Doctor Competency Examination. The student can discuss to analyze and slove the problem in scenario, but also they can practice the logical clinical skill with their in a group. Peer learning method in the learning with PBL not only improve the science and knowledge of students, but also the ability of personal and social as the ability to communicate, work in teams, problem solving, learning abilities of individuals, sharing information, appreciate the idea, identify weaknesses and strengths every student in the group (Hayashi, 2013)

The clinical diagnosis of doctor in Indonesia is still lower than other developing countries. The percentage of graduation based on the results of The Indonesian Doctor Competency Examination (UKDI) that assess the knowledge, skills and attitude of a doctor shows that Indonesia has not reached the target of 100% (The Indonesian Doctor Competency Examination Committee, 2013). There are still many universities awarding medical study had an average graduation less than 90%. Especially for Medical Education Program in Faculty of Medicine and Health, University of Muhammadiyah Jakarta, recently reached an average graduation in UKDI only approximately 75% (PSPD FKK UMJU, 2015). This percentage is still far behind than other Muhammadiyah universities that already have an average graduation > 80%. This study was to analyze the effectiveness of peer learning methods towards logical clinical skills and student satisfaction among medical student.

LITERATURE REVIEW

Yu, et al (2011) explains that peer learning will have a positive impact to determine learning outcomes and clinical practice in the short term and long term medical students. Marian, et al (2006) observed that the tutorial groups are actively using peer learning shows perkembangan better understanding dibandingkan groups that do not use peer learning techniques. A similar study conducted by Sole, et al (2012) showed that the learning experience gained with peer learning improve their skills in clinical applications as well as learning the social environment.

METHOD

Design Study

A mix-method study was conducted from April to June 2016. A quasi-experimental as a quantitive study was used to analyze the pre and post test score of logical clinical skills in respiration block among the second year student of medical study program in University of Muhammadiyah Jakarta. Student satisfaction was assessed using quantitative and qualitative method.

Sample and Data Collecting

As many as 30 student as control group and 30 student as intervention group (using peer learning method). This study was observed in An Independent t-test was used to analyzed statically. Both of control (3 groups) and intervention groups (3 groups) was probe with Focus Group Discussion (FGD) technique.

RESULTS

Peer Learning Method and Logical Clinical Skills

Table 1. Effectiveness Peer Learning towards Logical Clinical Skills on Medical Student

Group	Score Pre Test	±SD	Score Post test	±SD	Independent t-test (p-value)
Control (n=30)	52.0	9.6	60.0	10.2	0.000
Intervention (n=30)	56.5	9.8	59.0	10.9	0.214

There was significant difference in score between pre and post after intervention. Independent t-test analysis shows that peer learning method effectively improve the logical clinical skills (p-value 0.000). The intervention groups has higher post test mean score (60.0 ±10.2 SD) than control groups (56.0 ±10.9 SD).

Peer Learning Method and Student Satisfaction

Table 2 shows that peer learning method was significantly associated with student satisfaction (p value 0.048). The students who learn using peer learning method has 2.24 times more likely to get satisfaction in their learning process.

Table 2. Effectiveness Peer Learning towards Student Satisfaction

Group	p-value	OR (95% CI)
Control (n=30)	0.048	2.24 (1.24 -5.82)
Intervention (n=30)		

The information based on Focuss Group Discussion (FGD), the student who get intervention (peer learning method) revealed that the intervention groups has more satisfaction than control groups. Some statements that revealed from FGD about student satisfaction are below:

"This method, hmmm peer learning method is very fun...but it can improve my analysis, especially to

diagnose the clinical signs of patients " (FGD, Informant1, intervention group, June 2016).
" peer learning method ... in my opinion, hmm...we can role play more relaxed but instead we so earnestly act out a scenario so the motivation of learning even further as the assessed also by friends ..." (FGD, Informant 4, intervention group, June 26, 2016)

Some statemnets that regarding from FGD about student satisfaction using tutorial method are below:

"Learning method...as usual, sometimes i felt saturated ... may need another method that more attractive, enjoyable,.....(FGD, Informant 2, control group, June 2016)
"Actually...whatever the method that we have to do, because it already needs and is also our duty to learn ... so, i have to learn....but if there any method that better than this method, i thought we have to try it. Hehehe..(informant 4, 2 control groups, FGD, June 28, 2016).

Based on the results of the FGD both control and intervention groups can be concluded that the learning method with the peer learning more rewarding to the students so that learning can help students to improve their logical clinical skills.

DISCUSSION

Peer learning is a method in learning in the learning process, Problem Based Learning (PBL). The student learning derived from peers both in small group tutorials. Baden and Major (2004) suggested that in PBL applied a new method that uses problem scenarios so that students are required to participate actively in the learning process and learning process both individually and in teams. The small group will explore the problems, identifying problems and analyze it to resolve the problem. Thinking ability Traffic analysis including clinical logic is formed during the learning process with PBL. Peer learning can be applied using a variety of techniques not only in the process of task completion but do simulation tutorial on solving scenarios dihadai by the tutorial groups. Thus not only critical thinking and analysis were honed, but their memories of the science learning will be more time and understanding of the science concepts being studied for the better.

In this study proved that peer learning method more effective than method which used before (only discuss the scenarion in tutorial). Marian, et al (2006) observed that the tutorial groups are actively using peer learning shows better development to understand the learning compared the groups that do not use the peer learning method. Erickson (2002) also explained that the retention of students to a science substance affected by integration between the process of thinking and understanding of the science. The peer learning method more effective than the other method to discuss the problem in scenario to develop the logical clinical skills on medical student.

Logic skills clinic or clinical reasoning is the ability of students in clinical diagnosis. This ability is related to the accuracy of doctors in providing treatment or therapy to the patient. Errors in diagnosis can lead to clinical recovery of patients not optimally can even be fatal in threaten patient safety. The ability to diagnose clinically highly influenced by the ability of logical clinical skill. It can not be easily obtained in a short time. Peer learning in the process of tutorial can hone logical clinical skills. Forms of learning in a peer learning is very diverse and can be tailored to the characteristics and dynamics of the group. Students act as a subject in the learning process and can perform simulation clinic guided by tutors (Harsono, 2005).

CONCLUSION AND RECOMMENDATION

Peer learning method is effective learning methods to develop the logical clinical skills on medical students especially in Medical Studies Program, Faculty of Medicine and Health, University of Muhammadiyah Jakarta. This method can be used on other blocks in the learning system. The improvement of these methods remains to be done to obtain the optimal method to improve logical clinical skill and other competencies that required in Indonesian Doctors Competency Standards.

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