

Effectiveness Learning Model Mind Mapping, Discussion, and Role Playing in Learning Outcomes Nursing Student in Community Nursing

Sismulyanto^{1*} Made Mahaguna Putra²

¹Universitas Qamarul Huda

²Sekolah Tinggi Ilmu Kesehatan Buleleng

Email*: sis_mulyanto@yahoo.com

ABSTRACT

Introduction: Low graduation rates UKNI (Indonesian nurses Competency Test) encourages nursing students for their innovative teaching model. MDR learning methods (Mind mapping, discussion and role play) is a new teaching method and innovative that can improve student understanding. The purpose of this study was to determine the effect of learning the MDR model towards the understanding of the students in the subject of community nursing. **Methods:** This study uses a pre-experiment approach pre-post test. Sample of this study was 50 7th-semester student. All students who followed the MDR learning model were given practice questions then followed this learning model and measured again using practice questions. **Results:** Analysis of data using statistical test paired t-test. Distribution of respondents by sex is 15 people (30 %) men and 35 (70%) of women. Average male student GPA was 3.1, average female student GPA was 3.3. **Conclusions:** The results show that there are differences in the pre and post (mean = 35.46). Learning MDR Model improves critical thinking, motivation and makes learning fun.

Keywords : Mind Mapping, Nursing, Education, Discussion, Role Playing

INTRODUCTION

In this era of globalization is very much an institution Indonesia's nursing education, nursing education process running Very variation and quality control system in the process of education has not run fully so that the quality or competence of graduates is very diverse. Large variations in the quality of nursing and health education are very visible the implementation of a national competency test conducted by KNUKP PPNI 2008 (Abdillah, 2016).

Data graduation UKNI in July 2014 reached 57, 81%, while in November 2014 the

percentage of students who graduate decreased to 46.2%. 2015 fourth period UKNI participant passing rate reached 56% (Kholifah & Kusumawati, 2016). The development of education in Indonesia requires an increase in the professionalism of teachers and lecturers as one of the main protagonists in the learning process. Among the various methods of activities are recommended to improve the quality of learning and professionalism of teachers and lecturers are doing action research the research done by the teacher or lecturer in the classroom or in the school / institution where he taught with emphasis on improvement or

enhancement processes and practices of learning (Musiana, 2013).

Flexible less conventional learning system to accommodate the development of course materials for lecturers should be intensified to adjust the material to the latest technological developments. Unwise if technological development is much faster than the ability of lecturers to adjust the lecture material with these developments, as can be ascertained graduates will have less competence (mastery of knowledge / latest technology). Mind mapping, an active learning strategy not commonly used in nursing education, facilitates the learning process and promotes the mind's natural ability to think (Rosciano, 2015). This learning strategy provides faculty members who are responsible for organizing learning activities the tools to enhance the classroom environment to facilitate student learning. Mind mapping has been found to be an effective strategy for adult learners (Davies, 2011; Noonan, 2013). Role-playing is a versatile activity that allows students to learn in a realistic situation. It is an appealing and potentially powerful teaching methodology widely used for learning communication skills in medical education (Mumtaz & Zahra, 2016).

Based on this background, the conventional learning pattern or the faculty teaching paradigm into the MDR Learning Model (Mind Mapping, Discussion, Role Playing) is very appropriate to be implemented in the learning process. MDR learning model is a combination of mind mapping

learning methods, discussion and roleplay. However, the effectiveness of MDR learning model has not yet been established in Indonesia. This study aims to see the effect of MDR learning models on the level of student understanding in community courses.

METHODS

Design in this research was pre-experimental design with a pre-post test in one group (one-group pre-post test design). The sampling technique in this research was total sampling with 50 7th-semester student. The independent variable in this study is the provision of treatment through Learning Model "MDR" (Mind Mapping, Discussion, Role Playing). The dependent variable in this study is a community value of the test subjects. The instrument used in this study was a community nursing practice question. Data were analyzed using Paired t test. This study has been approved by the Commission on Health Research Ethics Faculty of Nursing Universitas Airlangga No: 448-KEPK.

RESULT

Studies conducted in STIKES Qamarul Huda Lombok. The number of samples in this study was 50 students. The study began by giving a consent form to participate in the study. The learning process in this study was made as if it were regular lectures. The first students are given instructions to make mind mapping further

Table 1 Distribution of respondents by sex and GPA on students in STIKES Qamarul Huda Lombok, 25-31 July 2017

Characteristics of gender	n = 50 (100%)		
			f%
Male	15		30%
Female	35		70%
GPA Characteristics			
Gender	Mean	Max	Min
Men	3.1	3.4	2.9
Women	3.3	3.7	2.9

Table 2 Analysis of the learning achievement students in STIKES Qamarul Huda Lombok, 25-31 July 2017

Group	Pre Mean value	Mean value post	Value Max pre	Post Max value	Min value pre	Min value post
Intervention	31	35	47	57	17	17

Table 3 Analysis of the influence MDR towards the learning achievement students in STIKES Qamarul Huda Lombok, 25-31 July 2017

Value of learning outcomes	Mean	Std Deviation	P Value
Pre	31.04	7.61	0.00
Post	35.46	1.08	

discussed. In the final stage of the topics in the role play.

Distribution of respondents by sex is 15 people (30 %) men and 35 (70%) of women. Table 1 describes the characteristics based on GPA. Average male student GPA is 3.1. The highest GPA in male students was 3.4 and the lowest 2.9. Average female student GPA is 3.3. The highest GPA in female students was 3.7 and the lowest 2.9.

Table 2 explains value of student learning outcomes STIKES Qamarul Huda. The mean value of the pre-test and post-test by 31 by

35. The maximum value of the pre-test is 47 and the minimum value of post-test is 17.

Based on table 3 p value is 0.00, meaning that there is MDR influence on student learning outcomes. Based on the value, H0 is rejected.

DISCUSSION

This study found the students' scores changed before and after a given learning model MDR. Teaching methods mind mapping, discussions, role-playing or abbreviated as TB is new teaching methods and innovative that can be used for students. This learning method is the incorporation of mind mapping learning method, discussion, and role-playing. Stages of this

method are: 1) To provide the material to the students that will be created mind mapping 2) At its next meeting in mind mapping discussed with facilitators to solve problems in case of confusion 3) Once the material discussed in the role play at the end of the meeting.

A Mind map is the easiest way to put the information into the brain and take information out of the brain. A Mind map is a way of noting that creative, effective, and literally will map our thoughts. Note that made it formed the idea of inter-related, with the main topic in the middle and subtopics and details into its branches (Imaduddin & Utomo, 2012). Concept mapping is a representation of the ideas held by individuals, which is interpreted in the diagram, it can also improve critical thinking skills. Concept mapping is a learning strategy that can be used to evaluate the ability of nursing students to think critically in the clinic (George, Geethakrishnan, & D'Souza, 2014).

The method of discussion is the students in the group to share their thoughts. The steps in performing the method of discussion: 1) Establish the issues to be discussed. 2) Check all the preparations to support the discussion. 3) Provide a briefing before being implemented discussion. 4) Conducting discussions on main predefined rules. 5) Provide equal opportunity to all participants to bring ideas and ideas. 6) The control subject to issues that are being discussed. Discussion method is a method that is usually used in adult learning, as they can participate

actively to contribute your thoughts, ideas in the discussion (Suryaman, 2013).

The learning method of role-playing an instructional activities planned are designed to achieve the objectives of specific education and is one form of educational games used to describe the roles, attitudes, behaviors, values with the aim to live feeling, viewpoints and ways of thinking of others (Ariwitari, Kristiantari, & Putra, 2014).

Research (Imaduddin & Utomo, 2012) and (Purnamiati, Lasmawan, & Arnyana, 2017) explains that students who take mind mapping teaching methods better than Shiva who follow learning conventional methods. In the process of teaching and learning activities, the use of mind mapping methods involve both hemispheres, thus involving the limbic system (emotional positive), which can make the students happy while learning because it involves the right hemisphere. Pleasure is one of the important elements in the learning process, when someone involves the limbic system in the process of learning or teaching, then the one it will use the great power that makes the learning process much more effective and can create a strong memory, students can more easily enter, store and pull out the data from the brain, so that the learning performance can be optimally achieved.

Mind mapping method is used to assist nursing students in the clinical assessment of patient care and to meet the standards of quality care in nursing practice (for example, the issue

of case management, clinical pathways, discharge planning and patient safety) (George et al., 2014). The study explains that mind mapping can show the critical thinking skills of nurses when planning patient care (Kotcherlakota, Zimmerman, & Berger, 2013).

Discussion method is a method that is usually used in adult learning, as they can participate actively to contribute your thoughts, ideas in the discussion (Suryaman, 2013). In the discussion of research methods used when discussing mind mapping. Discussion method on teaching model MDR help students to enhance their learning motivation and interest in learning and the student's ability to absorb the lessons.

Research (Yu & Kang, 2017), (Ariwitari et al., 2014) and (Mumtaz & Zahra, 2016) explains that the learning method with role play or simulation can enhance the understanding and student achievement. The learning method is very effective role play to acquire knowledge through visual learning and enhance communication skills. This method can be used as a reinforcement and follow-up on the concepts covered in the learning module (Mumtaz & Zahra, 2016). All students can understand each topic given. The sample was not randomized; therefore this process is not without bias. The inherent bias limits the generalizability of this study which merits further investigation among the associate degree nursing population. The majority of the participants in the self-selected groups for this

project were students who were friends; making these groups homogenous. Future research using random sampling could yield different outcomes.

CONCLUSIONS

MDR learning methods affect the value of learning achievement in the subject of community nursing. Future is necessary the implementation of this learning method on other subjects. This learning method should also be tested when the actual lectures take place in educational institutions nurses. Subsequent researchers to consider the value of the achievements of the students in order to conform to the applicable standards.

REFERENCES

- Abdillah, A. (2016). Analisis Faktor-Faktor Yang Mempengaruhi Kelulusan Uji Kompetensi Ners Indonesia. *Jurnal Penelitian Administrasi Publik*, 2(2), 373–380.
- Ariwitari, N. R., Kristiantari, M. G. R., & Putra, M. (2014). Pengaruh Metode Pembelajaran Role Playing Berbantuan Media Audio Visual Terhadap Hasil Belajar PKN Kelas V SD Gugus 1 Tampaksiring. *Jurnal Mimbar PGSD Undiksha*, 2.
- Davies, M. (2011). Concept mapping, mind mapping and argument mapping: what are the differences and do they matter? *Higher Education*. Springer. <https://doi.org/10.2307/41477852>
- George, A., Geethakrishnan, R., & D'Souza, P. (2014). Concept Mapping. *Holistic Nursing Practice*, 28, 43–47. <https://doi.org/10.1097/HNP.0000000000000001>
- Imaduddin, M. C., & Utomo, U. H. N. (2012).

- Efektifitas Metode Mind Mapping Untuk Meningkatkan Prestasi Belajar Fisika Pada Siswa Kelas VIII. *Humanitas (Jurnal Psikologi Indonesia)*, IX.
- Kholifah, S., & Kusumawati, W. (2016). Hambatan Lulusan Ners Dalam Menghadapi Uji Kompetensi Ners Indonesia. *The Indonesian Journal Of Health Science*, 7(1), 40–47.
- Kotcherlakota, S., Zimmerman, L., & Berger, A. M. (2013). Developing Scholarly Thinking Using Mind Maps in Graduate Nursing Education. *Nurse Educator*, 38(6), 252–255.
<https://doi.org/10.1097/01.NNE.0000435264.15495.51>
- Mumtaz, S., & Zahra, T. (2016). Role- play as a learning modality in Pakistan. *The Clinical Teacher*, 13, 124–129.
- Musiana. (2013). Problem Based Learning (PBL) Dalam Upaya Meningkatkan Hasil Belajar Dan Pemahaman Mahasiswa Keperawatan Terhadap Asuhan Keperawatan Medikal Bedah. *Jurnal Keperawatan*, IX(1), 43–48.
- Noonan, M. (2013). Mind maps: Enhancing midwifery education. *Nurse Education Today*, 33(8), 847–852.
<https://doi.org/10.1016/J.NEDT.2012.02.003>
- Purnamiati, G. A. K. D., Lasmawan, I. W., & Arnyana, I. B. P. (2017). Pengaruh Penerapan Model Pembelajaran Kooperatif Tipe Mind Mapping Terhadap Kreativitas dan Prestasi Belajar IPA Siswa Kelas VI SD No. 3 Benoa Kabupaten Badung. *Jurnal Program Pascasarjana Universitas Pendidikan Ganesha*, 7(1).
- Rosciano, A. (2015). The effectiveness of mind mapping as an active learning strategy among associate degree nursing students. *Teaching and Learning in Nursing*, 10(2), 93–99.
<https://doi.org/10.1016/J.TELN.2015.01.003>
- Suryaman, M. (2013). *Pengaruh Metode Diskusi Terhadap Kemampuan Mengidentifikasi Jenis Karangan Siswa Kelas XI SMK AL Kautsar Jakarta Tahun Ajaran 2011/2012*. UIN Syarif Hidayatullah Jakarta.
- Yu, M., & Kang, K. ja. (2017). Nurse Education Today E ff ectiveness of a role-play simulation program involving the sbar technique : A quasi-experimental study. *Nurse Education Today*, 53(February), 41–47.
<https://doi.org/10.1016/j.nedt.2017.04.002>