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Improving the Learning Ability of INC Practicum for Midwifery Students through Simple Phantom Learning Media

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ABSTRACT

The role of the laboratory is very important in the development of science that is growing rapidly in universities today. Laboratories are also very much needed in order to meet the achievements of the vocational college curriculum which holds more practicum classes, one of which is Midwifery Education where 60% of the education curriculum is Practice. Practicum class is an important part of the curriculum because it can assess 3 (three) aspects, namely the psychomotor (skills), cognitive (knowledge), and affective (attitude) aspects of students. Practical learning aims to provide students with learning experience in applying theory as training material and preparation for clinical practice application, bringing students to the formation of attitudes, skills, ability to work together, and creativity in receiving knowledge. To support practicum learning in the laboratory, learning media in the form of phantoms are needed. It's just that the number of phantoms available in the laboratory is currently very limited and not in balance with the number of students, so that in carrying out practicum learning students are divided into several large groups and study alternately according to a predetermined schedule. Students can only do practicum learning in the laboratory because the phantom size does not allow it to be taken out of the laboratory room. Limited access of students to maximize practicum learning using these phantoms which is likely to result in not being optimal or students not mastering practicum skills.

Keywords: INC practicum; simple phantoms; learning media

INTRODUCTION

Competent midwifery student graduates will be formed if during the learning process in college, in addition to gaining knowledge, they also gain experience of qualified hard skills and soft skills. Learning in the classroom provides a theoretical basis for science as a core science in midwifery care, while the experience given is in the form of laboratory lab work as a skill to strengthen the basic knowledge gained. The main problem in learning in tertiary institutions, especially in midwifery education, is how the lecturers plan and readiness to manage learning in order to achieve the desired competencies in students. One of the competencies that a midwife must have is care during childbirth and delivery. These competencies must be prepared since midwives are still studying. Good mastery of learning materials will greatly help students achieve the expected competencies. The midwifery education curriculum consists of 40% theory in the classroom and 60% for clinical practice in the laboratory and in the field. Before being applied directly to clients, students practice skills in the laboratory. Clinical practice in the laboratory is carried out by the simulation method. In the teaching and learning process at the Midwifery Education Institute, student laboratory practices are carried out after students gain a theoretical understanding of Midwifery Care. The simulation method is a teaching method to mimic actual conditions into artificial situations. In order to improve the knowledge and skills of midwifery students, each subject will carry out practicum activities in the laboratory. This practicum activity is carried out in courses that contain practicum and clinical, one of which is the Intranatal Care (INC) course. The simulation method is a teaching method to mimic actual conditions into artificial situations. In order to improve the knowledge and skills of midwifery students, each subject will carry out practicum activities in the laboratory. This practicum activity is carried out in courses that have practicum and clinical, one of which is the Intranatal Care (INC) course. The simulation method is a teaching method to mimic actual conditions into artificial situations. In order to improve the knowledge and skills of midwifery students, each subject will carry out practicum activities in the laboratory. This practicum activity is carried out in courses that have practicum and clinical, one of which is the Intranatal Care (INC) course.

The role of the laboratory is very important in the development of science that is growing rapidly in universities today. Laboratories are also very much needed in order to meet the achievements of the vocational college curriculum which holds more practical classes. Practicum class is an important part of the curriculum because it can assess 3 (three) aspects, namely the psychomotor (skills), cognitive (knowledge), and affective (attitude) aspects of students.⁽¹⁾ Practical learning aims to provide students with learning experience in applying

theory as training material and preparation for clinical practice application, bringing students to the formation of attitudes, skills, ability to work together, and creativity in receiving knowledge.⁽²⁾ Laboratory conditions at each educational institution are different. Certain institutions already have complete laboratory equipment, but on the other hand there are institutions with very minimal laboratory conditions. This condition affects the quality of the learning process, especially practical learning in the laboratory. This will have an impact on the quality of graduates with a very large variety.⁽³⁾

To support practicum learning in the laboratory, learning media in the form of phantoms are needed. Phantom in obstetric courses is often adapted and interpreted as a labor simulation. Phantom INC or phantom childbirth is specially created to assist midwifery, nursing and medical students in treating patients who are about to give birth. Through silicon material that makes the practice more real from the process of removing the baby to cutting the baby's placenta (placenta). Phantom INC is equipped with a baby and a placenta so it can also be used for baby care such as bathing a baby, caring for the placenta, cutting the baby's placenta. Phantom INC makes it very easy for prospective nurses, midwives and doctors to understand the birthing process.⁽⁴⁾ It's just that the number of phantoms available in the laboratory is currently very limited and not in balance with the number of students, so that in carrying out practicum learning students are divided into several large groups and study alternately according to a predetermined schedule. Students can only do practicum learning in the laboratory because the phantom size does not allow it to be taken out of the laboratory room. The limited access of students to maximize practicum learning using the phantom may result in not being optimal or students lacking in mastering practicum skills, especially in the course of Maternity Care and Newborns or Intranatal Care (INC).⁽⁵⁾

Based on this phenomenon, a study was conducted to identify an increase in the learning ability of INC in Midwifery students through simple phantom learning media.

METHODS

This type of study was research and development which seeks to create a new product in the learning model through the pre and post test approach. This research was conducted from June to September 2019 at 2 different locations, namely Sutomo Midwifery Study Program and Bangkalan Midwifery Study Program, Poltekkes Kemenkes Surabaya, Indonesia. The population were all students of Sutomo Midwifery Study Program and Bangkalan Midwifery Study Program, Poltekkes Kemenkes Surabaya, Indonesia who have received materials and practicals about INC. Determination of the sample in this study was divided into 2, namely at stage 1: all students of D4 and D3 Midwifery Sutomo who had received materials and practices on INC totaling 108 who met the inclusion criteria. At stage 2: All students of D4 and D3 Midwifery Sutomo and Bangkalan who have received materials and practicum on INC totaling 149 students. The data were divided into 2 classes (1 Sutomo class with 106 and 1 Bangkalan class with 43) that meet the inclusion criteria. The sampling technique used was purposive sampling.

The data collection technique was carried out in 2 ways, namely giving simple phantoms and teaching the steps, then conducting observations and interviews using a questionnaire. In-depth interview guidelines in the form of questions, tape recorder and field notes, while for practical evaluation using the INC SOP. Data analysis used the Wilcoxon test, where previously the data normality test was carried out and it was found that the data were normally distributed. The sampling technique used was purposive sampling. The data collection technique was carried out in 2 ways, namely giving simple phantoms and teaching the steps, then conducting observations and interviews using a questionnaire. In-depth interview guidelines in the form of questions, tape recorder and field notes, while for practical evaluation using the INC SOP.

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RESULTS

Based on the results of data analysis in Table 1, it can be seen that there was a difference in the pre and post test values for the practicum using simple phantom where the p-value was <0.05.

Table 1. Results of the pre and post practicum test for midwifery students Sutomo and Bangkalan

| Practice | n | Mean | p-value |
|-----------|-----|-------|---------|
| Pre test | 149 | 80.31 | 0.043 |
| Post Test | 149 | 79.13 | |

Table 2 Results of simple phantom pre and post test

| Phantom test | n | Mean | p-value |
|--------------|-----|---------|---------|
| Pre | 225 | 65.7200 | 0.000 |
| Post | 225 | 76.7511 | |

Based on the results of data analysis in Table 2, it can be seen that there is a difference between the pre and post test in phantom learning for all students with a p value <0.05. This means that there is a significant difference in learning simple phantom.

DISCUSSION

Based on the results of the tests that have been carried out on practicum learning with the INC simple phantom model, it can be seen that there are differences in the pre and post test results for midwifery students Sutomo and Bangkalan. There is an effect of the pre-post test phantom value on student skills in practicum using simple phantoms. So it can be said that there is an increase in the learning ability of the INC for midwifery students through simple phantom learning media. It is hoped that in the future this simple phantom model can be used as a reference in practicum learning to improve student skills in the field of Midwifery Care, especially Childbirth or INC. The advantages of learning using the simple phantom model are that the student's skills in doing INC practicum increase due to the ease of using the simple phantom model for student learning activities, where the model of this simple phantom is designed in the form of a doll, is relatively light and can be carried everywhere. so that at any time it can be used for learning.

In practicum learning, students are more patterned with the existence of this learning practice, especially in the Maternity Midwifery Care course or INC. By obtaining research results that show a significant difference at the time of the pre post test, learning using the practicum method is better than theoretical learning. In line with the research conducted by Emi Kusumawardani in 2011, it shows that there are differences in learning demonstration models and self-directed learning with video media on the competence of Normal Childbirth Care for Semester 3 students of the Midwifery Diploma Study Program, where the self-directed learning method is better than video media in improving competence of Normal Delivery Care.⁽⁶⁾

The practicum learning process goes through the following stages: Preparation of learning designs in order to help students carry out learning tasks. At this stage the emphasis is on learning planning that meets the learning needs of students, including resources that are in accordance with the number of students and teachers, trying out the equipment to be used for demonstrations / redemonstrations, designing a "lay out", planning a practicum room, making papers, setting the place. sit. Application of various learning methods that allow students to complete learning tasks according to the desired goals. Evaluation of the results of achieving the learning objectives of practicum that have been carried out, and evaluation of the abilities of students. Lecturers' duties in the context of learning laboratory practices are: Designing and managing a practicum activity so that the instructional objectives are clear, the content and sequence of activities are well directed, relevant to the demands of the graduate's professional assignment and designed in such a way as to be an interesting and enjoyable learning experience for students. Planning, implementing and evaluating a practicum. This step is complex and complex. Practicum is very expensive and is a very important part of the curriculum, so it must be managed (planned, implemented and evaluated by experienced senior lecturers. The educator's next step is to determine the tools and materials needed both in type and quantity for the implementation of practicum activities (in accordance with Laboratory Standards).⁽⁷⁾ The next step is to develop a laboratory practice assessment instrument which is arranged in the form of a checklist / observation sheet that refers to the lesson plan and Standard Operating Procedure (SOP).⁽⁸⁾

Practical learning in the midwifery laboratory is also part of the midwifery education process which functions to guide students in a systematic and directed manner to be able to perform a skill. Practical learning is a student learning process that prioritizes skills, namely the application of theory in the actual form of practice. Lectures are carried out in theory and practice, both in laboratory and field practice (clinic). Laboratory practice

is a learning strategy or form of learning that is used to jointly teach psychomotor skills (skills), understanding (knowledge), and affective (attitudes) using laboratory facilities.⁽⁹⁾

Based on the results of research conducted by Haswita and Agistiana, there is a positive relationship between laboratory infrastructure and the achievement of competency in fulfilling oxygenation measures. The provision of complete infrastructure can support the course of the educational process to achieve goals in education itself, the size of the provision of infrastructure used by students can determine the results of competency in fulfilling oxygenation measures.⁽¹⁰⁾ PResearch conducted by Ardiyanti in 2016 stated that the optimization of skills learning affects the competency level of student in terms of skills.⁽¹¹⁾

The demonstration method using phantoms has long been used, this method is to demonstrate to students an action, work procedure, or situation to be studied. In this demonstration method, students can directly see the lecturer practicing the activity, besides the equipment and everything that requires accuracy can be seen immediately without having to guess.⁽¹²⁾ The learning process through direct experience or practice provides satisfactory learning outcomes for students when compared to learning in the classroom. This process focuses on the same learning experience as what a medical professional would have. The learning process is carried out in a holistic manner which requires transfer, organization, application, and synthesis that has been studied previously.⁽¹³⁾ The demonstration method is a very effective teaching method, because it helps students to find answers on their own based on correct facts. Teaching using simulations needs to occur in a realistic environment so that when students return to the workplace, they can easily apply what they have learned. For a simulation to be successful, learners must suspend reality and interact with the simulator as if it were a real patient.⁽¹⁴⁾

The learning strategy through demonstration or practicum methods is a learning concept that can help lecturers connect the material being taught with the real world realities of students and encourage students to make interactions between the knowledge they have. The practicum method is a teaching method that invites students to do experimental activities to prove or to test the theory that has been learned has the truth. This is in line with Sagala's opinion, which explains the teaching and learning process using the practicum method which means that students are given the opportunity to experience themselves, follow the process, observe an object, analyze, prove, and draw their own conclusions about an object, state or process of something.⁽¹⁵⁾

CONCLUSION

The evaluation that has been carried out on the practicum test using simple phantoms obtained significant results, namely that there is a significant effect in the implementation of learning using practical using simple phantoms. So it can be concluded that there is an increase in the learning ability of midwifery Students INC practicum through simple phantom learning media.

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