

Influence of Video, Demonstration and Peer Education as SCL Learning Methods and Student Assessment in Midwifery Skills Subject Block 4.B (Midwifery Care at High Risk Pregnancy)

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Abstract. Basic Midwifery Skills (KKD) IV in Block 4.B (Midwifery Care in High Risk Pregnancy) is an important obstetric skill. Because by mastering this skill, it can provide provisions for students in providing high quality midwifery care. Based on the evaluation results of Block 4B assessment in the previous semester there were still students who received a C + (65-70) score of 1.9%. This is of course so far from expectations that the achievements of high quality midwifery care cannot be achieved properly. One planned solution is a learning method with a combination of video use, demonstration, and peer group education. The purpose of this study is to improve student learning outcomes in Block 4.B using video, demonstration, and peer group education methods. The type of research used is the Classroom Action Research (PTK) carried out by the researcher and the KKD IV instructor team in block 4.B. The research subjects were divided into intervention groups and control groups. In the intervention group the research subjects looked at videos, demonstrations, and peer group education. Assessment for the second group was carried out on each final topic with summative using a checklist sheet measurement tool. Based on the results of the study, obtained student learning outcomes have increased. More than half of the 2017 class year students have a brilliant category in the final learning outcomes of KK Block 4.B.

Keywords: The Video, Demonstration, Peer Education, Block 4.B

1. Introduction

Position of the Block in the Curriculum Structure

Block 4.B, entitled midwifery care in high-risk pregnancies, is a block that must be studied by fourth semester students in the Midwifery Study Program, Faculty of Medicine, Andalas University. Students who take lessons in this Course Block give students the opportunity to understand concepts, changes in high-risk pregnancies. By understanding this concept students are expected to be able to manage midwifery care in high risk pregnancies according to the needs of mothers and in accordance with the authority of midwives. Thus mastery of the material in Block 4B is important, because it will provide provisions for students in providing obstetric care in high-quality high-risk pregnancies [1].

Short Block Description

In this course, students practice the communication skills series (subtopics breaking bad news 1 and IEC 6: risky pregnancies), physical examination skills series (subtopic history taking 5: assessment of subjective data on abnormal and pregnant women 2: assessment of objective

data on abnormal pregnant women), procedural skills series (subtopics of client care 5: management of caesarean section preparation), initial treatment of abnormal pregnancies (subtopics do initial treatment of bleeding in young and advanced pregnancies, perform initial treatment of mothers with preeclampsia and eclampsia, carry out initial treatment of pregnancy with fetal distress), CPR 1: basics of adult CPR and premature infant massage. This KK Block 4B is important to learn because experience shows that when new students choose midwifery majors in Higher Education, they don't necessarily immediately understand how a midwife serves her clients. This is because when choosing majors after completing secondary school, they do not yet know that a midwife must have the ability as a care provider, community leader in maternal and child health, communicators, decision makers in midwifery care (decision maker) and managers in midwifery care (manager) in this case the focus on pregnancy as one of the scopes of the life cycle of women which is the approach used by midwives in providing care [1].

Learning Objectives or Achievements

After all the lecture and skills program activities are completed, students are expected to have the attitude and skills in performing midwifery skills Block 4.B, including aspects of attitude, general skills, special skills, and knowledge [1].

Block contribution to or learning outcomes in the study program curriculum.

Covering competency achievement areas 1-7 namely: legal ethics and patient safety, effective communication, personal development and professionalism, scientific foundation of midwifery practice, clinical skills in midwifery practice, health promotion and counseling and management and leadership [1].

2. Research Methods and Development of Learning Methods

This study uses a comparative study. Bivariate analysis in the form of categorical correlations using t-test, for hypothesis testing using Mc.Nemar [2].

The study population were all students of the 2017 batch of FK Unand Midwifery Bachelor Program who were in Block 4B (Semester IV). The sample is part or representative of the population studied. Based on a statistical approach, the sample size is determined by the statistical model that will be used to test the hypothesis. In this study the statistical test that will be used is the t-test for paired data using Mc.Nemar [3].

Development of problem-based Learning Methods (PBL)

Problem-based learning (PBL) is a learning strategy of students learning together in a small group through two main learning activities, namely small group discussions facilitated by a tutor and independent learning [4].

PBL is a form of student center learning (SCL) method that is more directed and structured. In contrast to pure SCL, students are given the discretion in determining the scope of material learned in accordance with their interests. In PBL learning the scope of learning is more focused and specific. The scope of learning in PBL is based on specific learning objectives detailed in the curriculum. The amount of time spent on the PBL process is also more limited than the amount of time spent on pure SCL. In pure SCL, students are given the discretion in determining the amount of time they need to complete their inquiry, while in PBL students must complete the achievement of their learning goals within the time frame determined by the educational institution. In pure SCL, students can work individually based on their respective interests, so they are not dependent on the learning outcomes of other students. Whereas in PBL, the

achievement of learning objectives by a student, can be influenced by the results of extracting their peer information in small groups because the information obtained by each student will be discussed to perfect the knowledge they have acquired [4].

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Planning [5]:

- a. The lecturer identifies, sets, and groups learning objectives that will be discussed at each PBL learning session.
- b. The lecturer arranges, chooses or looks for the right scenario to stimulate students to learn the learning objectives that have been set for each PBL session. Scenarios can be in the form of cases, fragments of films, images, news footage and others.
- c. The lecturer estimates the schedule for implementing the 1st PBL tutorial, the amount of independent learning time needed to achieve all the learning objectives that have been set for the PBL session and the schedule for the 2nd PBL tutorial.
- d. The lecturer prepares a rubric for evaluating student activities during the tutorial process which consists of attendance, creativity, relevance, attitudes and other assessment points that are deemed necessary.
- e. The lecturer divides students into small groups that can consist of 5-10 students per group, each group ideally being facilitated by a tutor.
- f. PBL tutors do not have to be lecturers in the related fields discussed in the scenario. PBL tutors may be anyone who can carry out the role, with the following roles:
 - 1) Help PBL group leaders maintain group dynamics.
 - 2) Ensuring the group is able to complete the learning objectives that have been set.
 - 3) Ensuring that all students have done their assignments correctly.
 - 4) Helps suggest a format for presentation of independent learning outcomes that is appropriate for group members.
 - 5) Encourage students to evaluate their understanding of the material by asking questions, explaining the material in their own words with pictures and schematics.
 - 6) Give feedback to students about their participation in the tutorial process and about achieving learning objectives.

Implementation [5]:

For Intervention group

1. Help PBL group leaders maintain group dynamics.
2. Ensuring the group is able to complete the learning objectives that have been set.
3. Ensuring that all students have done their assignments correctly.
4. Helps suggest a format for presentation of independent learning outcomes that is appropriate for group members.
5. Encourage students to evaluate their understanding of the material by asking questions, explaining the material in their own words with pictures and schematics.
6. Give feedback to students about their participation in the tutorial process and about achieving learning objectives

For control group

1. Student conducts room loan and equipment according to the determined lab skills schedule
2. Students enter the designated skills lab room
3. The lecturer takes the student's obsession
4. The lecturer explains the topic and learning objectives
5. The lecturer demonstrates their skills by only communicating with engineers.
6. The lecturer demonstrates again by explaining the rationalization of each step.
7. Students demonstrate as instructors demonstrate
8. The lecturer observes the procedures performed by students.

Student Assessment Development

Development of student assessment systems that include: Process assessment, Result assessment, Selection of assessment techniques according to competency level [5].

3. Results and Discussion

Sample Characteristics

The sample in this study was class of 2016 in total of 46 students who were classified as control group, and class of 2017 in total of 42 students who were classified as intervention group. Each group was divided into 5 small groups and guided by 5 clinical skills instructors (KK).

Control group means the group was not given an intervention in the form of video use, demonstration and the implementation of peer group discussions related to client skills (KK) Block 4.B. Intervention group means the group was given the intervention in the form of video use, demonstration and implementation of peer group discussions related to client skills (KK) Block 4.B.

Videos used as reference by groups can be used by other groups thus they can expand the discussion between them. This was done for each action. The KK actions were guided by the instructor there were 3 meetings each week and after that the students will have 2 independent meetings and 1 meeting for the test every week for each action. An assessment of an action was summative with details of its viewpoints and scored as 0, if no action was taken at all, a value of 1 if done but not perfect and a value of 2 if done perfectly.

This KK activity not only evaluates knowledge, but also attitudes. Systematic actions by estimating the actions taken were effective, efficient, and appropriate according to the case given by the instructor.

Table 1. Comparison of Final Score of KK Block 4.B 2016 Class of 2016 and 2017

Score Range	Class of 2016		Class of 2017	
	F	%	f	%
80 – 100	1	2.17	23	54.8
75 – 79	9	19.6	9	21.4
70 – 74	20	43.5	6	14.3
65 – 69	13	28.3	4	9.5
60 – 64	3	6.5	0	0
TOTAL	46	100	42	100

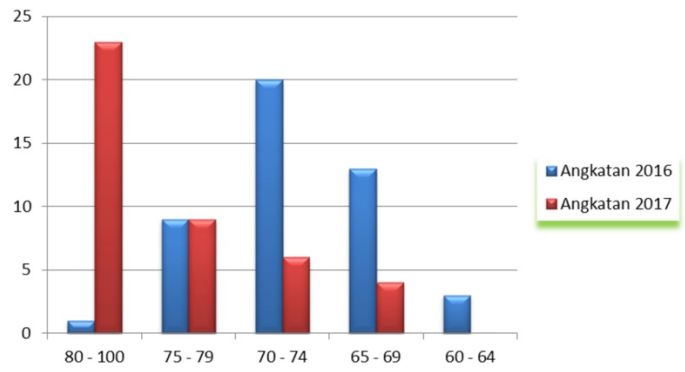


Figure 1. Comparison of the Final Score of KK Block 4.B Class of 2016 and 2017

Students in 2016, 2017 were provided with KK with knowledge, general skills and special skills. After debriefing and evaluation, the results obtained 43.5% of students have a range of values between 70-74 (good category). Then the same research was conducted on students class of 2017, but equipped with the role of attitude (soft skills) in conducting skills as well as videos, demonstrations, and peer group discussions. After being evaluated, it was found that the majority (32.6%) of students had a range of grades 80-100, 54.8% (brilliant category).

This study is in accordance with the theory of the learning pyramid by Edgar Dale (1946) states that 90% of people learn from the real things they do. Videos, demonstrations which are audiovisual media, and peer group discussions, will help students better understand the actions taken [6].



Figure 2. Edgar Dale's Learning Pyramid (1946)

The attitude (role of soft skills) applied to clinical skills includes intrapersonal soft skills and interpersonal soft skills. Intrapersonal soft skills consist of creative thinking, critical thinking,

analytical thinking, innovative thinking, being able to manage time, having logical arguments, being independent, being able to deal with stress, understanding self-limitations. Interpersonal soft skills include leadership, teamwork, oral communication, self-marketing, synergy, negotiation, flexibility, adaptation, responsibility, public speaking, partnership with women, respecting women's autonomy, advocating women for self-empowerment, having cultural sensitivity [6].

Intrapersonal and interpersonal soft skills give a picture to the student that the student is able to measure his own abilities by using thinking and more creative analysis. Students who are able to do this soft skill well in their field of science have a positive impact on their learning outcomes, and this has been proven to be an increase in KK learning outcomes for students in 2017. This is in line with research conducted by Sutiman et al. (2014) which states that the magnitude of the influence of cooperative learning methods in the development of student soft skills [7]. The research conducted by Sutrisno and Adjib Karjanto also concluded the same thing, namely the learning community model in the Research Methodology Course could increase student activity, learning achievement, and soft skills [8].

Therefore it is expected that each course not only pays attention to the level of knowledge, general skills, and special skills, but involves the role of soft skills both intrapersonal and interpersonal soft skills.

4. Conclusion

- a. More than half of students from the class of 2017 have a brilliant category in the final learning outcomes of KK Block 4.B
- b. There is an influence of the video method, demonstration and peer group discussion in the SCL learning method in Block 4.B

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