

The Effect of UMP Phantom Antenatal Care (ANC) Innovation on Leopold Examination Knowledge and Skills in Students at SMK Muhammadiyah 3 Purwokerto

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ABSTRACT

Background: Knowledge and skills are competencies that Nursing Assistant Vocational High School students must possess to create competent graduates. One of those knowledge and skills is the Antenatal Care (ANC) examination. The inadequate facilities and infrastructure at SMK can disrupt the learning process. The application of learning media can influence the learning process. The limited number of teaching aids can be an inhibiting factor in practical learning. The phantom innovation of antenatal care is a visual aid that resembles the body shape of pregnant women used for Leopold examinations. Method: The research method used Quasi Experiment using a posttest-only control group design approach. The population in this study were students of nursing assistants in XI and XII Grades at SMK Muhammadiyah 3 Purwokerto. The sample in this study amounted to 52 people. The sampling technique used was the total sampling technique. The data analysis used was univariate and bivariate analysis with the Mann-Whitney test. Results: The results showed that there is an influence of the Phantom ANC UMP innovation on the respondents Leopold examination knowledge and skills obtained from statistical test result the asymp sig value. (2-tailed) knowledge 0.00 and asymp value sig. (2-tailed) skill 0.01 which means the p value <0.05. Conclusion: The student's knowledge and skills regarding Leopold's examination were higher in the group using Phantom ANC UMP media than in the group using powerpoint media.

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1. INTRODUCTION

Nursing Assistant is one type of health worker assistant who is committed and dedicated to the health sector with the knowledge and skills possessed through education under the Diploma III level [1].

The competence of students majoring in nursing assistant is very important to help success in the next step. This supports the level of professionalism of students in the industrial world. In addition, this competency will provide more value to the profession. Knowledge and skills are competencies that need to be possessed by Nursing Assistant Vocational School students, so that they can create competent graduates, and can be used as capital to increase competitiveness in the present or future in the competitive advantage in the nursing field [2].

One of the knowledge and skills that need to be possessed by SMK Assistant Nursing students is Antenatal Care (ANC) examination. Antenatal Care (ANC) is a pregnancy examination that is carried out continuously and

thoroughly so as to increase the mother's knowledge about her pregnancy, prepare and optimize the mental and physical health of pregnant women so that they are able to face childbirth, postpartum period, breastfeeding preparation, restoration of reproductive health appropriately, and detect high risk factors for pregnancy, complications and their handling so as to save mothers and children [3].

The standard of antenatal care services has been gradually updated from 7T to 14T. One of the important pregnancy examinations performed is the Leopold examination. Leopold examination is an antenatal care examination to detect early pregnancy abnormalities or risks in mothers and babies. Leopold examination consists of Leopold I to Leopold IV which is performed by palpating or palpating carefully on the abdomen of pregnant women to determine the position of the fetus, determine the bottom of the fetus and whether or not the fetal head has entered the pelvic cavity (PAP), and detect pregnancy abnormalities such as breech pregnancy [4].

Leopold examination must be equipped with optimal learning. One of the factors supporting the success of the learning process for students' knowledge and skills is the facilities and infrastructure of Vocational High Schools (SMK) which must receive more attention. SMK as a level of education whose purpose is to produce quality and competitive graduates for the labor market certainly requires schools that meet the standards of industry needs not only in theory, but also in practice [5].

The lack of facilities and infrastructure in vocational schools can interfere with the learning process. Students are also unable to practice or practice the material they receive from educators due to incomplete facilities at school. When schools do not have or lack practical facilities, there will be a gap between theoretical and practical understanding which in turn can produce substandard graduates [5].

The results of interviews with 10 students of SMK Muhammadiyah 3 Purwokerto majoring in nursing assistants when asked about practicum learning without props stated that students were less than optimal in applying the theory that had been given because students were not free to practice these skills.

Efforts to obtain ease of learning for students there are several elements that need to be considered. One of them is media. Kustandi & Sutjipto state that learning media can be used as a tool that can support the teaching and learning process and can help explain the learning material provided by the teacher until the learning objectives are achieved correctly and completely [6]. Phantom is one of the learning media in the form of props that is very effective in facilitating and helping students improve knowledge and skills through practice [7].

Phantom ANC innovation is a props in the form of body parts of pregnant women which is useful as a learning medium to assist students in practicing the theory of Antenatal Care (ANC) examination. In accordance with development research conducted by Fadilah et al stated that the UMP ANC phantom innovation is included in the category very feasible for use in the learning process and can function properly [8]. This ANC UMP phantom innovation can be used as a medium that can facilitate students in conducting laboratory practices to apply the theory that has been obtained, as well as train students' skills in conducting Leopold examinations, measuring the height of the fundus uteri and determining the presentation of the fetal heartbeat. In addition, the innovation of phantom antenatal care is relatively cheaper and affordable, so it can be used as a means to increase students' knowledge and skills.

The learning process can be influenced by the application of media learning. So, efforts are needed to increase knowledge and students' skills in using learning media effectively. There is a limited number of props and expensive prices can be an inhibiting factor in practical learning. From the description above, the problem studied is "The Effect of UMP Antenatal Care (ANC) Phantom Innovation on Knowledge and Skills of Leopold Examination in Students at SMK Muhammadiyah 3 Purwokerto.

2. RESEARCH METHOD

This study used a Quasi Experimental design using a posttest-only control group design approach. In this study, the experimental group was given an intervention on Leopold examination with a demonstration using UMP ANC Phantom Innovation and the control group received an intervention with a lecture using PowerPoint media. The population in this study were students majoring in nursing assistant class XI and XII SMK Muhammadiyah 3 Purwokerto. The sample in this study amounted to 52 people each, group consisted of 26 people. The sampling technique used a total sampling technique.

3. RESULT AND DISCUSSIONS

3.1. Univariate

Table 1. Frequency Distribution of the Students at SMK Muhammadiyah 3 Purwokerto (n=52)

No.	Characteristics Of Respondent	Experiment		Control	
		N	(%)	N	(%)
1.	Old (Years)				
	16	6	23.1	0	0
	17	11	42.3	9	34.6
	18	9	34.6	13	50.0
	19	0	0	4	15.4
2.	Gender				
	Male	2	7.7	2	7.7
	Female	24	92.3	24	92.3

Based on table 1 above, showed that the majority of experimental group respondents were 17 years old (42.3%) and the majority of control group respondents were 18 years old (50.0%). And it is known that most of the respondents in the experimental and the control group are female, namely 24 (92.3%) respondents.

Table 2. Knowledge and Skills Category of Leopold Examination of Students at SMK Muhammadiyah 3 Purwokerto

Category	Knowledge				Skills			
	Experiment		Control		Experiment		Control	
	n	%	n	%	n	%	n	%
Good	17	65.3%	3	11.5%	21	80.7%	11	42,3%
Eaough	9	34.7%	20	77%	5	19.3%	15	57.7%
Not Enough	-	-	3	11.5%	-	-	-	-
Amount	26	100%	26	100%	26	100%	26	100%

Based on the frequency distribution data, the majority of the experimental group's knowledge after treatment was in the good category, namely 17 respondents (65.3%), while in the control group after treatment the majority was in the sufficient category, namely 20 respondents (77%). In the skill indicator, the frequency distribution data of the experimental group after treatment was mostly in the good category, namely 21 respondents (80.7%), while in the control group after treatment the majority were in the sufficient category, namely 15 respondents (57.7%).

Skills and knowledge are related. That is because skills are the application of knowledge. In accordance with Estiani's theory that the main factor of skill is the process of knowledge gained from learning and practiced repeatedly so that changes occur [9].

The results of knowledge and skills scores obtained by students are closely related to students' understanding of teaching materials after participating in learning. In line with Aunurrahman (2009) in Suwardi et al (2016) the level of mastery of science can be measured by how far students understand. Skills can be improved by using media. Media or tools are proven to be able to optimize students' skills and competencies from simple to complex skills. So, the better the learning process and student activeness when participating in the learning process, the more knowledge students gain [10].

3.2. Bivariat

Table 3. The Effect of UMP Antenatal Care (ANC) Phantom Innovation on Knowledge and Skills of Leopold Examination

Variabel	Mean Control	Mean Experiment	Mann-Whitney	Z	Assymp. Sig. (2-tailed)
Knowledge	18.81	34.19	138.000	-3.738	0.00
Skills	18.17	34.83	121.500	-3.974	0.00

Based on the results of the Mann-Whitney statistical test, the p value of knowledge is $0.00 < 0.05$ and the p value of skills is $0.00 < 0.05$. Statistically there is a significant difference and it can be concluded that the UMP ANC phantom affects the knowledge and skills of leopold examination in students.

According to Notoatmodjo, several factors are very influential the success of a lesson so that the learning objectives will be achieved, among others educational factors, materials, teaching aids, and methods used [11].

Learning infrastructure is important for noticed. One of the learning infra structure what is needed is learning media. Learning media can it is defined as anything that can be utilized by a teacher to complement and improve learning student learning outcomes, including learning aids. Learning media is useful for helping students assume directly the knowledge you already have in order getting sharper. Skills and knowledge possessed linkages. This is because skills are applications from knowledge. In accordance with Estiani's theory that factors the main part of skills is the process of knowledge acquired from learning and practiced repeatedly so that it occurs change.

Skills can be improved by using media. Media or tools have been proven to be able to optimize skills and student competency from simple skills to complex [12]. According to Rahmah and Dwi, the choice of learning media such as phantom is a good alternative because this media can be used as a tool manner and can provide information that is appropriate to the target. Strengthened through Rijanto's research and Tatarini who concluded that there is an influence learning using a simple phantom model on ANC practice ability [13].

This research is in line with Jayanti's research in Nurrizka & Wenny, the type of media that is suitable for use in training is media that can convey information tailored to the intended target. Phantom media can be used as the main choice for health teaching because it is more effective rather than lectures in conveying knowledge [14].

In this case, it can be seen during the Leopold examination practice directly using a phantom, from the results of observations made students are more enthusiastic and active in practicing using Leopold's examination phantom media. In accordance with Pringadi's theory, phantoms are artificial objects that can be brought into the classroom and used as learning tools. In addition, students in the classroom are placed directly into the real world where the original object is located, which means that phantoms can serve as an effective learning medium. With the media interesting things can influence the success of learning during the process knowledge transfer [15].

This research strengthens this research, that the phantom of antenatal innovation care can be a learning medium that can transfer knowledge to the brain because phantom antenatal care innovation is included in the media classification hearing and seeing aids education. So, this phantom innovation in antenatal care can be achieved useful and facilitates very well as a medium for applying skills leopold's physical examination.

4. CONCLUSION AND RECOMMENDATION

Learning media that is interesting, easy to make, and easy to apply will improve student learning outcomes. Innovation Phantom ANC UMP can be used as an educational media and increases the knowledge and skills of students in conducting Leopold examinations.

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