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Analysis of factors affecting laboratory skills physical examination of pregnant women in diii midwifery students

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Abstract---Laboratory skills are important skills that must be possessed by midwifery students. Skill Laboratory is a learning model that aims to teach clinical skills as early as possible. This model helps students achieve competency in mastering the clinical skills needed as a provision before doing direct practice with real patients⁹. Objective: The purpose of this study was to analyze the factors that influence the physical examination skills of pregnant women in DIII Midwifery students. Method: analytic observational with cross sectional design. The population in this study was DIII Midwifery students, Stikes Salewangang Maros, the sample in this study was DIII Midwifery students in the fourth semester using total sampling technique (42 respondents). Students were asked to do a laboratory practice of physical examination of pregnant women on Phantom in the laboratory 2 times a week for one month (8 times), then a test was carried out to determine the physical examination skills of pregnant women using a checklist. Data analysis used the chi square test to determine the relationship between variables and multiple logistic regression test to determine the most influential variable. Results: there are several factors that affect the skills of students in carrying out physical examinations of pregnant women, one of the most

influencing factors is interest of 78.6% and learning environment of 71.9%, with a significance value of 0.001 and $0.005 < p=0.05$. Conclusion: interest and learning environment affect the physical examination skills of pregnant women in DIII Midwifery students.

Keywords---physical examination, skills, pregnant women, interests, environment.

Introduction

The clinical skills of a midwife are an absolute necessity. This skill is a motor skill that is based on knowledge and also a good affective attitude. This is the basis for good midwifery services. 7. Thus, the Skill Laboratory is a simulation program in which midwifery students are given material and also methods and actions in various medical cases. In it, students are guided by a facilitator or instructor¹⁰ The competencies contained in this Laboratory skill include history taking, physical examination, clinical examination, use of diagnostic reasoning, procedural perfection, effective communication, team work and professionalism.¹⁷ This is done because to become a professional health worker, a comprehensive ability is needed which includes three domains, namely cognitive, affective and psychomotor. The clinical skills of a midwife are an absolute necessity. This skill is a motor skill that is based on knowledge and also a good affective attitude. This is the basis of good midwifery services²¹. Thus, the Skill Laboratory is a simulation program in which midwifery students are given materials and procedures and actions in various medical cases. In it, students are guided by a facilitator or instructor. ¹⁸

The purpose of the core competency of this clinical skill is to be able to perform a clinical procedure that is considered related to health problems by applying the principles of safety for patients, themselves and the safety of others¹¹. From the application of this learning method, midwife graduates are expected to be able to carry out diagnostic procedures through the interpretation of the results of the history, general and specific physical examinations according to the problems experienced by the patient²¹. And is also able to interpret basic supporting examinations and make suggestions for other rational examinations and is also expected to be able to carry out management procedures in dealing with problems holistically and comprehensively⁵.

Methods

This type of research is analytic observational with a cross-sectional design. Observational analytic study is a technique used to analyze the relationship between independent and dependent variables¹³. *Analitik observasional* is a study to study the correlation between risk factors without manipulating or intervening the subject under study by approach or data collection at once at a certain time, where the independent variable and the dependent variable are observed simultaneously at the same time⁷. The design of this research studies the factors that influence the skill level of the Head To Toe Physical Examination Lab for Pregnant Women in DIII Midwifery Students

Population and Sample

The population in this study were DIII Midwifery students at the Salewangang Maros Health Sciences College. The sample in this study was second-semester IV students using the total sampling technique (42 respondents).

Research Stages

Students were asked to do a laboratory practice of physical examination of pregnant women on Phantom in the laboratory 2 times a week for one month (8 times), then a test was carried out to determine the physical examination skills of pregnant women using a checklist and conducted interviews and filling out questionnaires. Data analysis used the chi square test. to determine the relationship between variables and multiple logistic regression test to determine the most influential variable.

Results

Data from this study were obtained from the results of the physical examination of pregnant women on students and filling out questionnaires.

Univariate Analysis

Table 4.1 Student Perceptions of the Factors Affecting Physical Examination Skills in Pregnant Women

Table 4. 1
Frequency distribution

Variable	criteria	n	%
Maternity Care Skills	Unskilled	17	40.5
	Skilled	25	59.5
Motivation	Currently	16	38.1
	High	26	61.9
Interest	adequate	14	33.3
	Well	28	66.7
Learning Environment	adequate	10	23.8
	Well	32	76.2
Duration and Frequency	deficient	12	28,6
	adequate	30	71,4

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Table 4.2 Effect of Motivation on Student Skills on Physical Examination of Pregnant Women (n=42)

Table 4. 2
Chi-Square Test

group	criteria	Physical examination		Total	p-value
		unskilled	skilled		
Motivation	Currentl y	6 37.5%	10 62.5%	16 100%	0,001
	High	11 42.3%	15 57.7%	25 100%	
Total		17 40.5%	25 59.5%	42 100%	

Table 4.3 Effect of Interest on Student Skills on Physical Examination of Pregnant Women (n=42)

Table 4. 3
Crosstab Chi- Square Test

kelompok	criteria	Physical examination		Total	p-value
		unskilled	unskilled		
Interest	Currentl y	11 78.6%	3 21.4%	14 100%	0,001
	High	6 21.4%	22 78.6%	28 100%	
Total		17 40.5%	25 59.5%	42 100%	

Table 4.4 Effect of Learning Environment on Student Skills on Physical Examination of Pregnant Women (n=42)

Table 4. 4
Crosstab Chi-Square test

group	criteria	Physical examination		Total	p-value
		unskilled	unskilled		
Learning Environment	adequat e	8 80.0%	2 20.0%	10 100%	0,011
	well	9 28.1%	23 71.9%	32 100%	
Total		17 40.5%	25 59.5%	42 100%	

Table 4.5 Effect of Duration and Frequency on Student Skills on Physical Examination of Pregnant Women (n=42)

Table 4. 5
Crosstab Chi-Square test

group	criteria	Physical examination		Total	p-value
		unskilled	skilled		
Duration and Frequency	deficient	4	8	12	0,804
		33.3%	66.7%	100%	
	adequat e	13	17	30	
		43.3%	56.7%	100%	
Total		17	25	42	
		40.5%	59.5%	100%	

Multivariate Analysis

Table 4.6 Affecting factors of student skills in physical examination of pregnant women

Variable	β	CI	<i>p-value</i>
Interest	3.329	3.770±206.598	0,001
Motivation	-.719	.077±3.068	.444
Learning Environment	3.143	2.572±208.582	.005

*Table 4. 6 Regression Test
Logistics*

Discussion

According to the results of student perceptions, it showed that from 42 respondents there were 40.5% (n=17) unskilled students and 59.5% (n=25) skilled students with a score of 100 on the physical examination of pregnant women. The motivation variable was 38.1% (n=16) with moderate motivation and 61.9% (n=26) students with high motivation. The interest variable was 33.3% (n=14) students with moderate interest and 66.7% (n=28) students with good interest. Variable Learning environment, 23.8% (n=10) students felt that their learning environment was adequate and 76.2% (n=32) students felt that their learning environment was good in supporting the learning process. The variables of duration and frequency were 28.6% (n=12) students felt that the duration and frequency of studying in the laboratory were still lacking, while 71.4% (n=30) felt it was enough.

Analysis of motivational variables showed that of the 42 students in the moderately motivated group, 37.5% (n=10) were unskilled students and 62.5% (n=10) were skilled. Meanwhile, in the high motivation group, there were 42.3% (n=11) unskilled and 57.7% (n=15) skilled students. Interest variable analysis shows the effect of interest on student skills where in the interest group there are enough 78.6% (n=11) unskilled students and 21.4% (n=3) skilled students. Meanwhile in the good interest group there were 21.4% (n=6) unskilled students and 78.6% (n=22) skilled students. Analysis of learning environment variables shows the influence of the learning environment on student skills in carrying out

physical examinations of pregnant women. In the group who felt that the learning environment was adequate, there were 80.0% (n=8) unskilled students and 20.0% (n=2) skilled students. In the group of students who felt that the learning environment was good enough, 28.1% (n=9) were unskilled students and 71.9% (n=23) were skilled students.

The analysis of the duration and frequency variables shows the effect of duration and frequency on student skills in the physical examination of pregnant women. In the group of students with less duration and frequency answers there were 33.3% (n=40) unskilled students and 66.7% (n=8) skilled students. In the sufficient duration and frequency group, there were 43.3% (n=13) unskilled students and 56.7% (n=17) skilled students. The motivation variable obtained a p-value > 0.05 while the interest variable obtained a p-value = 0.001 and the learning environment variable obtained a p-value of 0.005. From the results of the multivariate analysis above, it can be concluded that the factors that most influence students' skills in carrying out physical examinations for pregnant women are interest and learning environment

The researcher argues that motivation does not guarantee the acquisition of good skill score results for students as evidenced by high motivation but has not been able to achieve better skill scores so of course apart from motivation there are other factors that also influence, especially the Covid-19 situation which requires learning to be online class. In addition to motivation, the variables of interest and learning environment showed a significance gain of <0.05, which means that interest and learning environment had an influence on the results of physical examination skills of pregnant women in D3 Midwifery students with determinant coefficients of 0.001 and 0.04. Interest in the learning process has a function as a motivating force, namely a strength to study harder. Interest has a great influence on the learning process, if the subject matter is not appropriate, students will not study as well as possible⁴. A comfortable room and study environment can make it easier for students to focus more on learning¹⁹. By preparing the right environment, students will get better results and can feel the learning process carried out by students. Environment in a general sense are things or something that can affect human development. Influential in a meaningful sense, and play a role in the growth and development of students¹⁵

Conclusion

From this study it can be concluded that the interest and learning environment factors affect the physical examination skills of pregnant women in DIII Midwifery students

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