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Application of Evaluation and Feedback Methods to the Achievement of Lactation Massage Skills of Midwifery DIII Students

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ABSTRACT

This study aims to analyze the effect of the application of evaluation and feedback methods on the achievement of knowledge and skills of lactation massage in the intervention group and control group. This study used Quasi experimental design with pretest-posttest control group design. The sampling technique was quota sampling with a total of 44 second semester DIII midwifery students divided into two institutions, namely 22 students from Batari Toja Watampone Midwifery Academy as the intervention group and 22 students from Lapatau Midwifery Academy as the control group. The study was conducted during February-April 2023. Data were analyzed using Wilcoxon, Mann-witney, Chi-Squard and Kruskal wallis tests. The results of the study in the intervention group on knowledge achievement showed that 81.8% were lacking, 18.2% were sufficient and after the posttest assessment as many as 36.4% were sufficient and 63.3% were good with a value of P = 0.000, while for skill achievement in the pretest assessment 90.9% were sufficient, 9.1% were good then there was a change in the posttest assessment to 13.6% good and 86.4% very good with a value of p = 0.000. While the control group for knowledge achievement was 95.5% insufficient and 4.5% sufficient in the pretest and posttest assessments showing 54.5% insufficient, 27.3% sufficient and 18.2% good with a value of P = 0.008. Then for skill achievement as much as 100% was sufficient in the pretest assessment and increased to 40.9% good, 59.1% very good after the posttest with a value of P = 0.000. Based on the results obtained, it can be stated that the application of the evaluation and feedback method has a better effect on the learning outcomes of lactation massage.

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Kata kunci:

Metode Asuhan Kebidanan Capaian Pembelajaran

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ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengaruh penerapan metode evaluasi dan feedback terhadap capaian pengetahuan dan keterampilan pijat laktasi pada kelompok intervensi dan kelompok kontrol. Penelitian ini menggunakan desain Quasi eksperimen dengan rancangan pretest-posttest control group design. Teknik pengambilan sampel adalah quota sampling dengan jumlah 44 mahasiswa DIII kebidanan semester II yang terbagi atas dua institusi yaitu 22 mahasiswa dari Akademi kebidanan Batari Toja Watampone sebagai kelompok intervensi dan 22 mahasiswa Akademi Kebidanan Lapatau sebagai kelompok kontrol. Penelitian dilaksanakan selama bulan februari- April 2023. Data dianalisis menggunakan uji Wilcoxon, Mann-witney, Chi-Squard dan kruskal wallis. Hasil penelitian

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DOI: 10.30604/jika.v8i2.2078 Copyright 2023 @author(s) pada kelompok intervensi terhadap capaian pengetahuan menunjukkan sebanyak 81,8% kurang, 18,2% cukup dan setelah penilaian posttest sebanyak 36,4% cukup dan 63,3% baik dengan nilai P=0,000, sedangkan untuk capaian keterampilan pada penilaian pretest 90,9% cukup, 9,1% baik kemudian terjadi perubahan pada penilaian posttest menjadi 13,6% baik dan 86,4% sangat baik dengan nilai p=0,000. Sementara kelompok kontrol untuk capaian pengetahuan sebanyak 95,5% kurang dan 4,5% cukup pada penilaian pretest dan posttest menunjukkan 54,5% kurang, 27,3% cukup dan 18,2% baik dengan nilai P=0,008. Kemudian untuk capaian keterampilan sebanyak 100% cukup pada penilaian pretest dan meningkat menjadi 40,9% baik, 59,1% sangat baik setelah posttest dengan nilai P=0,000. Berdasarkan hasil yang diperoleh dapat dinyatakan bahwa penerapan metode evaluasi dan feedback memiliki pengaruh yang lebih baik dalam capaian pembelajaran pijat laktasi.

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INTRODUCTION

The postpartum period is one of the scopes of midwifery care with a list of problems that can be handled is breast milk is not smooth. One of the important things to consider in the postpartum period is breastfeeding. Breastfeeding is the provision of breast milk to the baby directly from the mother's breast (Rahmawati, 2022). Breast milk is very beneficial for the growth and development of babies so that the process of breastfeeding babies is important to do well so that babies get optimal breast milk intake (Ningsih DA et al, 2021). The world health organization (WHO) and child health organizations recommend breastfeeding, especially exclusive breastfeeding, because breastfeeding as the main nutrition of infants is very suitable for optimal growth and development of infants. Various problems that can occur in infants and children due to not getting exclusive breastfeeding and even chronic malnutrition, such as pneumonia, diarrhea, bronchial acid and obesity (Fajri et al., 2020).

Success in breastfeeding is certainly not separated from other supporting factors, there are many factors that affect the low exclusive breastfeeding coverage rate, one of which is problems in lactation (Suciati and Wulandari, 2020). Problems in the lactation process are often caused by the emergence of several problems both in the mother and in the baby which have an impact on failure in the lactation process. Mothers often complain that the baby often cries or refuses to suckle, which often means that the milk is not enough, the milk is not good so the mother makes the decision to stop breastfeeding (Pamuji, 2020). Milk that is not released will develop into a breast milk dam where the breast is filled very full of breast milk, the flow of milk becomes obstructed, causing breast swelling (Oriza, 2019).

A new method introduced to prevent and overcome breast milk problems is lactation massage. Lactation massage is a massage technique performed on the head or neck, back, spine, and breast area that aims to stimulate prolactin and oxytocin hormones. Prolactin and oxytocin hormones are hormones that play a role in the production of breast milk where there is stimulation of alveoli cells in the breast glands to contract, with contractions causing milk to come out and flow into the small ducts of the breast so that milk droplets come out of the nipple and enter the baby's mouth (Siti Muawanah and Desi Sariyani, 2021). When lactation

massage is performed on the spinal area, a neurogenic reflex occurs that accelerates the work of the parasympathetic nerves to convey commands to the back of the brain. As a result of the stimulation signal, the oxytocin response is released into the systemic blood from the posterior pituitary. Oxytocin blood flow is directed to myoepithelial cells around the alveoli, oxytocin stimulates these cells so that the alveolar sacs are compressed, pressure increases, the ducts shorten and dilate. Then when the nipple is sucked, breast milk comes out faster (Katmini and Sholichah, 2020).

Lactation massage will make the mother's breasts feel cleaner, softer, and more elastic so that it will be easier for the baby to suckle, and avoid the mother experiencing injuries / abrasions to her breasts when the baby is breastfeeding (Helina, Roito Hrp and Indah Permata Sari, 2021). If the more often the baby to suckle, the more the production of breast milk that will be produced by the mother when the baby suckles (Nani jahriani, 2019).

Lactation massage in postpartum mothers is an easy and safe intervention. This intervention can also be done by the patient's husband or family after being trained by midwives/health workers (Katmini and Sholichah, 2020). Midwives have a very special role in supporting breastfeeding. Skill is one of the factors to achieve midwife competence in providing support. Midwives are responsible for providing up-to-date information and conveying it in simple language and clear ways (Sari, 2019). Midwife competence can be obtained through midwifery education. Mastery of knowledge, skills, attitudes and behavior as competencies obtained during education will be the basis for midwives in providing midwifery care (Ariani et al., 2018).

In midwifery education through laboratory practice. Laboratory skills practice is an application of learning obtained in the classroom in theory, this emphasizes that laboratory learning plays a very important role. Learning in the clinical skills laboratory is learning that provides opportunities for students to practice skills until competent (Nurmala 2018 and Nurhasanah 2019).

Learning skills in the laboratory requires an assessment to see whether students are competent or incompetent, so an evaluation method is needed. Evaluation is a planned activity to determine the state of an object using an instrument and the results are compared with benchmarks to obtain conclusions. Evaluation serves to help the process, progress and development of student learning outcomes on

an ongoing basis, and at the same time can determine the abilities and weaknesses of students in certain fields of study (L, 2019). Evaluation is an activity of measuring and assessing, measuring is more quantitative so that teacher feedback or feedback is needed to students. Feedback is an action or information provided by the teacher to provide information about aspects of student performance or understanding.

In learning, the application of feedback is a learning process that can increase student motivation, ability and learning outcomes either by oral, written or using video media (Muhammad Hafiz Muflih). The main purpose of providing feedback is to improve students' knowledge, skills and understanding of general skills or specific fields (eg problem solving) (SUMARNO, 2016). The results of the study showed that there was an effect of providing feedback on Objective Structured Clinical Examination (OSCE) training on student clinical skills, with the use of review methods and self-reflection in evaluating OSCE training training students' ability to recognize their strengths and weaknesses, identify learning problems and skills that they must master (Izza and Andina, 2019).

An initial survey conducted by researchers at the Batari Toja Watampone Midwifery Academy campus and the Lapatau Bone Midwifery Academy campus on October 10, 2022 in Bone Regency, South Sulawesi Province showed that in the postpartum care course the average acquisition of student skills was 80 with the methods applied, namely contextual learning, simulation at Lapatau Midwifery Academy and interactive lecture methods, questions and answers, problem-based learning, practicum and simulation at Bataritoja Midwifery Academy. The average acquisition of student skill scores is good, but it needs to be improved in order to get even better scores. One of the skills that need to be mastered in postpartum care is lactation massage.

The Batari Toja Watampone Midwifery Academy campus and the Lapatau Bone Midwifery Academy campus have learned the theory of lactation massage but have never been taught the practice of doing lactation massage, or demonstrating lactation massage actions in the laboratory during skill labs, while lactation massage itself is one method that is very important for midwifery students to know because by applying lactation massage can help deal with breast milk problems in breastfeeding mothers. In order for students to master lactation massage skills well, so that in the learning process, evaluation and feedback are carried out on Batari Toja Watapone midwifery students and Lapatau midwifery students, because evaluation and feedback can provide information about whether or not the answers and actions taken by students are correct and additional

explanations are given from lecturers. If learning related to lactation massage has been carried out at the lecture stage, it will certainly be very helpful for students when they graduate and become midwives and are able to open a job opportunity for themselves as interpreters.

With the application of evaluation and feedback methods in learning, it is expected that students can get better skill scores compared to the acquisition of previous scores. Based on these reasons, the authors are interested in conducting research on "The effect of providing evaluation and feedback methods on the achievement of lactation massage skills of Midwifery Dlll students at Batari Toja Midwifery Academy Watampone and Lapatau Bone Midwifery Academy in 2022.

METHODS

This study was conducted at Batari Toja Midwifery Academy and Lapatau Midwifery Academy in February - April 2023. the sample in this study were Level II students who had studied midwifery care as many as 22 people at Batari Toja Midwifery Academy and 22 people at Lapatau Midwifery Academy. This research design uses a quasi-experimental design with a pretest-posttest control group design, namely the research group is divided into two then an initial assessment (pretest) is carried out then given an intervention and a final assessment (posttest) is carried out.

RESULTS AND DISCUSSION

Table 1
Distribution of Respondent Characteristics by Age

	Group								
Age	Interve	ntion	Control						
	n (22)	%	n (22)	%					
11-14 Years	0	0	0	0					
15-17 Years	0	0	0	0					
18-21 Years	22	100	22	100					
Total	22	100	22	100					

*Primary Data 2023

Based on Table 1, the average age of respondents in both the control and intervention groups was 18-21 years old in the late adolescent category with a percentage of 100%.

Table 2
Analysis of Student Knowledge Outcomes Before and After the Application of Evaluation Methods in the Intervention Group and Control Group

Research Group		Knowledge Outcomes							
kesearch Group	Less	En	ough	Good					
Intervention Creen	Pre-Test	18 (81,8)	4 (18,2)	0	22(100)	0.000			
Intervention Group	Post-Test	0	8 (36,4)	14 (63,3)	22(100)	0,000			
Control Cross	Pre-Test	21 (95,5)	1 (4,5)	0	22/100)	0.000			
Control Group	Post-Test	12 (54,5)	6 (27,3)	4 (18,2)	22(100)	0,008			

*Wilcoxon test

Based on Table 2, the analysis of the results of the assessment of knowledge achievement shows that there is an effect of evaluation methods on student skill achievement

in both the intervention group and the control group with a value of P < 0.05.

Table 3 analysis results using the Kruskal Wallis test show that there is a significant effect of the feedback method on student knowledge attainment P=0.024.

Table 4 analysis using the Wilcoxon test shows there is a significant effect of evaluation methods on student skill achievement in the intervention group and control group with a value of P = 0.000.

Table 5 shows that there is an effect of the application of feedback on student skill achievement with a significance value of P = 0.00.

Table 6 illustrates that in the intervention group, 63.6% of students who obtained knowledge scores in the good category while in the control group 18.2% with a P-value of 0.000.

Table 7 shows that all students who were respondents in the intervention group obtained very good skill scores with a percentage of 86.4% while in the control group students who obtained skill scores in the very good category were 59.1%.

Table 8 The results of the analysis of confounding variables in learning lactation massage showed no relationship between the skill lab environment, facilities and student activeness on knowledge achievement in the intervention group with a P>0.05 value

Table 9 shows that there is no relationship between the skill lab environment, facilities and student engagement on skill attainment in the intervention group with a P>0.05 value.

Table 10 The results of the analysis of confounding variables in learning lactation massage showed no relationship between the skill lab environment, facilities and student activeness on knowledge achievement in the Control group with a P>0.05 value.

Table 11 shows that there is no relationship between the skill lab environment, facilities and student engagement on skill attainment in the control group with a P>0.05 value.

Table 3
Analysis of Student Knowledge Outcomes after the application of feedback in the intervention group

Canada	Rate Feedback -	K	nowledge Outco	Total	P-value		
Group	Kate reeuback	Less	Less Enough		TOTAL	P-value	
	Fair	0	0	0	0		
Intervention Group	Good	0	4 (18,2)	1 (4,5)	5 (22,7)	0,024	
•	Excellent	0	4 (18,2)	13 (59,1)	17 (77,3)		

*Kruskal Wallis Test

Table 4
Analysis of Students' Skill Achievement Before and After Implementation of Evaluation Method

Research Group		Skill Outcomes							
Research Group	Fair	G	ood	Excellent					
Intervention Cross	Pre-Test	20 (90,9)	2 (9,1)	0	22(100)	0.000			
Intervention Group	Post-Test	0	3 (13,6)	19 (86,4)	22(100)	0,000			
Control Croup	Pre-Test	22 (100)	0	0	22(100)	0,000			
Control Group	Post-Test	0	9 (40,9)	13 (59,1)	22(100)				

*Wilcoxon test

Table 5
Analysis of Student Skill Outcomes after the application of feedback in the intervention group

Caoun	Rate Feedback -	K	nowledge Outco	Total	P-value	
Group	Kate reeuback -	Less	Enough	Good	TOTAL	P-value
	Fair	0	0	0	0	
Intervention Group	Good	0	3 (13,6)	2 (9,1)	5 (22,7)	0,001
_	Excellent	0	0	17 (77,3)	17 (77,3)	

*Kruskal Wallis Test

Table 6
Analysis of Differences in Knowledge Outcomes

		Knowledge Outcomes									
Group	L	Less		Enough		Good		Total			
	n	%	n	%	n	%	n	%			
Intervention	0	0	8	36,4	14	63,6	22	100	0.000		
Control	12	54,5	6	27,3	4	18,2	22	100	- 0,000		

Table 7
Analysis of Differences in Skill Outcomes in the Intervention Group and Control Group

Group		Knowledge Outcomes Total									
	Fa	Fair		Good		ellent			P-value		
	n	%	n	%	n	%	n	%			
Intervention	0	0	3	13,3	19	86,4	22	100	0.045		
Control	0	0	9	40,9	13	59,1	22	100	0,045		

*Mann-Whitney test

Table 8
Relationship between the skill lab environment, facilities and student activeness on knowledge attainment in the intervention group.

			Kno	Total (%)	P-value					
Group Intervention	Criteria	G	ood	Enough		Les	s			
	•	n	%	n	%	n	%			
Environment	Good	14	63,4	8	36,4	0	0	100	- *a	
Environment	Less Good	0	0	0	0	0	0	0	d	
Facilities	Complete	5	22,7	4	18,2	0	0	40,9	0.6018	
racilities	Incomplete	9	40,9	4	18,2	0	0	59,1	- 0,601ª	
	Very Active	2	9,1	1	4,5	0	0	13,3		
Student Activity	Active	2	9,1	0	0	0	0	9,1	0,158 ^b	
	Moderately Active	12	54,5	5	22,7	0	0	77,3	_	

^aMann-Whitney test

Table 9
Relationship between the Skill Lab Environment, Facilities and Student Activity on Skill Achievement in the Intervention Group

			Kı	Total (%)	P-value				
Cross Intervention	Criteria	Excellent		Good		Fair			
Group Intervention	Criteria	n	%	n	%	n	%	_	
Environment	Good	19	86,4	3	13,6	0	0	100	*a
Environment	Less Good	0	0	0	0	0	0	0	d
Facilities	Complete	8	36,4	1	4,5	0	0	40,9	0,896ª
racilities	Incomplete	11	50	0	2 9,1	0	0	59,1	0,896
	Very Active	3	13,6	0	0	0	0	13,6	
Student Activity	Active	2	9,1	0	0	0	0	9,1	$0,614^{b}$
	Moderately Active	14	63,6	3	13,3	0	0	77,3	

^aMann-Whitney test ^bKruskal Wallis test

Table 10
Relationship between the Skill Lab Environment, Facilities and Student Activity on Knowledge Achievement in the Control Group

		Knowledge Outcomes							
Croup Control	Criteria	Good		Enough		Less			
Group Control	•	n	%	n	%	n	%		
Environment	Good	4	18,2	6	27,3	12	54,5	100	*2
Environment	Less Good	0	0	0	0	0	0	0	d
Facilities	Complete	2	9,1	0	0	3	13,3	22,7	0.0204
racilities	Incomplete	2	9,1	6	27,3	9	40,9	77,3	0,820ª
	Very Active	0	0	0	0	0	0	0	
Student Activity	Active	1	4,5	0	0	1	4,5	9,1	$0,612^{b}$
	Moderately Active	3	13,6	6	27,3	11	50	90,9	

^aMann-Whitney test ^bKruskal Wallis test

Table 11
Relationship between the Skill Lab Environment, Facilities and Student Activity on Skill Achievement in the Control Group

			Kno	Total (%)	P-value				
Croup Control	Criteria	Good		Enough		Less			
Group Control	•	n	%	n	%	n	n	%	n
Environment	Good	13	59,1	9	40,9	0	0	100	*a
Environment	Less Good	0	0	0	0	0	0	0	d
Facilities	Complete	3	13,6	2	9,1	0	0	22,7	1 0003
racilities	Incomplete	10	45,5	7	31,8	0	0	77,3	1,000 ^a
	Very Active	0	0	0	0	0	0	0	
Student Activity	Active	1	4,5	1	4,5	0	0	9,1	$0,789^{b}$
	Moderately Active	12	54,5	8	36,4	0	0	90,9	

^aMann-Whitney test

bKruskal Wallis test

bKruskal Wallis test

DISCUSSION

The achievement of students' knowledge and skills can be known through an assessment process called evaluation. Evaluation in the learning process is a process for collecting, analyzing and interpreting information to determine the level of achievement of learning objectives by students. Evaluation is a process of assessing the growth of students in the teaching and learning process (Magdalena, Fauzi, et al., 2020)

Analysis using the Wilcoxon test on student knowledge achievement showed significant results with a value of P <0.05 in both the intervention group and the control group, which means that the evaluation method affects student knowledge achievement. The knowledge presentation of intervention group students in the pretest assessment out of a total of 100% was 81.8% in the poor category, 18.2% were sufficient and no one scored in the good category, then changed in the posttest assessment where no one scored in the poor category, 36.4% were sufficient and 63.3% scored well. Likewise, in the control group in the pre-test assessment as many as 95.5% of students scored less and only 4.5% with sufficient scores and none of the students scored in the good category then there was an improvement to 54.5% less, 27.3% enough and as many as 18.2 with good categories.

In addition to knowledge achievement, evaluation was also carried out on skill achievement so that the results obtained in the intervention group in the initial pre-test assessment of a total of 100% obtained as many as 90.9% of students with sufficient skill achievement, 9.1% good and an increase in the final assessment (posttest) where no students scored moderately, 13.6% good and 86.4% with excellent scores. Whereas in the control group, a total of 22 students scored moderately on the initial evaluation (pretest) and experienced improvements in the final evaluation, namely 59.1% very good, 40.9% good and no students scored moderately. The results of the analysis in the intervention and control groups showed that there was a significant relationship between the application of the evaluation method and student knowledge achievement with a value of P=0.000.

The increase in the percentage of knowledge and skill achievements in the intervention and control groups certainly cannot be separated from the influence of the application of evaluation methods. This finding is in line with the results of research conducted by Trisnowati et al., (2020) on evaluating the level of knowledge of covid-19 prevention practices. The assessment was carried out using a questionnaire and obtained results from a total of 336 students as many as 86.9% (n = 292) with a good level of knowledge. In addition, the results of research on the effect of the pre-test on the level of student understanding also showed an increase in the scores obtained, where in the pretest assessment for the intervention group (evaluation with a pretest) the average student score was 48.2 and increased to 78.1 while in the control group the posttest score obtained was lower at 67.3 (Adri, 2020).

The evaluation method is the process of assessing students in the teaching and learning process. The achievement of learner development needs to be measured. Evaluation is done by measuring and assessing. Measuring is comparing something with a measure such as the results of the initial measurement compared to the final measurement while assessing is making a decision on something with a measure of good and bad (Magdalena, Fauzi, et al., 2020).

Giving the method of initial evaluation (pretest) and final evaluation (posttest) to students will lead participants to the stages of cognitive development in understanding the material or subject matter well in the learning process (Ilham Efendy, 2016). The initial evaluation or pretest conducted can provide encouragement or motivation for students to prepare themselves before learning, so that students are more active in learning. The initial evaluation treatment given causes students to be motivated to better understand the material, so that the final results are better. With the motivation that arises in students after getting the Pre-Test, student activeness also increases, deeper curiosity in the material being taught and the urge to get better grades makes students actively learn, so that the level of student understanding increases which is indicated by better Post-Test scores (Adri, 2020).

In addition to the method applied, the attitude of acceptance from students will certainly affect learning outcomes. The critical attitude that students have is certainly related to the developmental tasks that must be achieved according to age. In this study, the age of a total of 44 students who were sampled and divided into two groups, namely intervention and control, showed that all students were in the age range of 18-21 years with the category of late adolescence.

Development in late adolescence is a time when a person's emotions can be controlled by himself, a critical attitude has begun to appear that begins to be active and objects in taking a step that involves himself in an activity in the outside world, a person has begun to be able to organize and educate himself through the experiences he receives as a form of influence he gets. Late adolescence is an increase in the ability to make a decision because older adolescents are certainly more competent in making decisions than adolescents of easy age so that if this intellectual development is carried out and develops well, it will have a very positive impact on the ability of these adolescents to their education (Suryana et al., 2022).

The results of research conducted by Baginda et al., (2021) show that there is a relationship between age and knowledge with a value of P = 0.038. of a total of 250 students with an average age of 18-22 years. A person's age affects a person's cognition, which means that a person's understanding and thinking about knowledge is also influenced by increasing age. The increase in individual age will affect the development of the individual's concept of thought. There is a development in the psychic of an individual where the progress of his thinking develops gradually towards a more perfect direction (Baginda, Rumi and Yuliet, 2021).

In addition to the age of students, this study also assessed the relationship of the skill lab environment, facilities and student activeness to knowledge attainment. The results of the analysis obtained that the facilities and student activeness did not have a significant relationship to knowledge attainment in both the control group and the intervention group with a P>0.05 value. While for the skill lab environment in the intervention group on knowledge attainment obtained good results with good knowledge as much as 63.3% and for skills obtained good results as much as 86.4%. This shows that a good environment will help students get good knowledge and skill scores as well. This finding is in line with the results of the study which showed there was a significant positive relationship between the learning environment and learning achievement P=0.000. A supportive learning environment will create a conducive atmosphere that supports students to learn well so that it is

expected to make it easier for students to achieve learning success (Rahmawati, 2013).

In this study statistically showed there was a significant effect, but when viewed from the data in the intervention group of a total of 22 students who became respondents as many as 36.4% (n = 8) obtained knowledge achievements in the sufficient category and in the achievement of skills as many as 13.6% (n = 3) obtained scores in the good category in the posttest assessment. While in the control group, although statistically the average has increased, but in the achievement of knowledge in the posttest assessment as many as 54.5% (n = 12) of students obtained insufficient scores and 27.3% (n = 6) were in the sufficient category, compared to the pretest assessment, of course this figure shows improvement but when viewed the results obtained are not optimal. This is likely due to the level of anxiety felt by students when practicing, especially in the posttest assessment students perform lactation massage on clients directly not on phantoms and fill out questionnaires at the practice site.

In line with the results of research conducted by Iswanti et al.., (2012) that there is a relationship between the clinical learning environment and the level of anxiety in clinical practice. the feeling of anxiety experienced by students is a long-standing feeling of fear of something that is unclear and associated with feelings of uncertainty and helplessness. the impact of anxiety on physiological responses is orchestrated by the brain through the autonomic nervous system which has two types of responses, namely a person's parasympathetic response will become quiet or reduce activity a lot and a person's sympathetic response will become more active or what is called hyperactivity. Both conditions are not beneficial to the body, this can be seen clearly in someone with anxiety, it can cause a form of disturbance both cognitively, affective and psychomotor. if someone cannot concentrate properly and occurs when facing an exam or test then surely the results of the achievement of a test will not get the maximum score (Untari, 2014).

Based on the findings, the researcher assumes that there is an increase in knowledge achievement in the pre-test and posttest assessments due to the evaluation method applied so that students are more motivated to learn in order to get better results. Not only because of the evaluation method but also because of the age maturity of students so that it is easier to learn and develop congnitive and supported by a conducive environment in the learning process.

The results of the analysis using the Kruskal Wallis test showed that there was a significant effect between the application of the feedback method with the achievement of student knowledge and skills with a value of p <0.05. In the assessment of knowledge achievement, the results showed that the feedback value was in the good category with the acquisition of good knowledge scores as much as 4.5% (n = 1) and the feedback value was in the excellent category with the acquisition of good skills as much as 59.1% (n = 13), from these statistical results it can be seen that as many as n = 14students can obtain knowledge achievements in the good category after applying feedback. While in skill achievement as many as 77.3% (n=17) students with very good feedback scores obtained very good skill achievements. This good score is certainly inseparable from the application of feedback.

Feedback is the provision of information obtained from tests or other measuring instruments to students to improve or increase the achievement of learning outcomes. Feedback is the behavior of educators to help each learner who has difficulty learning individually by responding to the work of students so that they better master the material presented (Wening, 2012).

Research on feedback in improving learning outcomes and student interest in learning shows that the average score of students given immediate feedback is 70.23 while the score of students given delayed feedback is 56.07. Providing immediate feedback where the lecturer gives a right or wrong mark and instructions for justifying the student's test results on the answer sheet has provided reinforcement and encouragement for students to correct mistakes on their tests. This treatment has helped students get out of difficulties in the course / material studied (Seruni and Hikmah, 2014). This finding is in line with research conducted by Izza & Andina, (2019) entitled the effect of providing OSCE practice feedback on student clinical skills showing that there is a significant difference in value between the average pretest clinical skill of 46 and the average posttest of 83 with a P-Value < 0.05.

Feedback can have an effect on performance or improve the skills of OSCE students. Feedback is provided in the form of review, reflection and self-assessment methods. The use of review and self-reflection methods in OSCE exercise evaluation trains students' ability to recognize their strengths and weaknesses, identify learning problems and skills that they need to master more deeply and create a specific, systematic and workable learning especially in mastering a clinical skill, while self-reflection improves learning and performance in important competencies. It is also specifically mentioned that reflective learning can improve professionalism and clinical reasoning (Izza and Andina, 2019).

The application of feedback by educators aims to stimulate students to actively learn. with the application of feedback by educators to students will increase learning activities, this is because feedback activities are one of the activities in learning that can provide reinforcement, motivation and stimulate the activeness of students where educators seek information until students understand the learning material that has been taught and see how students respond to the process and students' attitudes towards ongoing learning material (Adjulani et al., 2022).

In addition to the feedback method applied, of course there are also other factors that affect success in the learning process such as age. In this study, the average age range of students was 18-21 years with the category of late adolescence. The results of research on 100 adolescents with the highest percentage of age range is 19-21 years, 52%, indicating that there is a significant relationship between age and self-control. Late adolescence is a period of consolidation towards adulthood, one of which is characterized by an interest in showing maturity towards intellectual functions. Having a higher thought process and with regard to knowledge, so that at that age, adolescents are able to control behavior and stimuli, anticipate an event or event, interpret events or events, and make decisions. With good self-control from adolescents, the higher the learning motivation (Afifatussiyami et al., 2021).

According to the observations of researchers with an age range of 18-21 years in the late adolescence category, it will be easier for students to participate in the learning process. In accordance with the stages of development where a critical attitude has emerged in individuals, besides that, they also have thoughts regarding knowledge so that they can control themselves which has an impact on learning motivation.

The findings in the research are in line with previous studies which show that there is an effect of feedback in learning outcomes. However, although statistically significant, in the knowledge achievement of a total of 22 students as many as 18.2% (n = 4) with good feedback obtained insufficient knowledge achievement, as well as feedback scores with very good categories but obtained sufficient knowledge achievement as many as 18.2% (n = 4). Meanwhile, in the assessment of skill achievement, 13.6% (n=3) of students with good feedback obtained good grades (68-78). The lack of maximum knowledge and skill achievements obtained by students may be due to the learning motivation of each individual.

Research conducted by Indah & Sari, (2014) on the relationship between learning motivation and learning outcomes shows a significant value that learning motivation contributes to student learning outcomes. Learning motivation is a psychological condition that encourages someone to learn. Motivation to learn can arise due to intrinsic factors, in the form of desire and desire to succeed and drive learning needs, hopes for ideals. While the extrinsic factors are appreciation, a conducive learning environment, and interesting learning activities (magdalena, fauziah, et al., 2020).

Based on the findings of the researchers, it is assumed that feedback has an effect on student learning outcomes because the presence of feedback or feedback by educators will motivate students to improve the results obtained, which is why excellent feedback will result in excellent knowledge and skill achievements as well. Although it cannot be denied that not all students have maximum results, but on average they have increased, this cannot be separated from the state of the learning environment which can affect the student's learning motivation itself.

The results of the analysis showed that there was a significant difference in the achievement of knowledge and skills for the intervention group (evaluation and feedback) with the control group with a value of P <0.05. Statistical results using the chi-square test in the intervention group obtained most students with a level of knowledge in the good category as much as 63.6% and a sufficient category of 36.4% and there were no students who obtained knowledge scores in the less category. While in the control group, the value of knowledge in the good category was 18.2%, 27.3% and 54.4%. While the results of the analysis using the mannwhitney test on the acquisition of scores in skill achievement in the intervention group showed as many as 86.4% of students obtained skill scores in the very good category, 13.3% were good, while in the control group as many as 59.1% of students obtained scores in the very good category and 40.9% were good.

The difference in the acquisition of knowledge and skills achievements between the intervention group and the control group was due to the application of the positive feedback method in the intervention group. This finding is in line with the results of research conducted by Eka et al. (2018) by dividing two groups, namely experimental classes with positive feedback and control classes with conventional models. The results showed that there was a difference in learning outcomes between the intervention group and the control group with an average posttest score of 76.37 while the control group was 61.51 and a significance value of P=0.000. Another study entitled "The Effectiveness of Providing Positive Feedback in Improving Student Mathematics Learning Outcomes" showed that there was a significant difference between the average value of the

experimental class learning outcomes, namely 74.96 and the control class 67.17 (Heriyati, 2021).

Giving positive feedback is better than neutral and negative feedback in increasing learner confidence, when given positive feedback such as good, good, ayoo, great interesting and fun learners increasingly show confidence in every activity in learning (Fernando, Jatra and Reski, 2017). As well as confidence, the application of positive feedback will generate learning motivation because educators in the learning process provide rewards for students such as additional points, prizes, praise in the form of applause, thumbs up and also pleasant words. Well motivated in learning to do more activities and faster than students who are less motivated in learning, the achievement will be better if they have high motivation. Motivation will always determine the intensity of learning efforts for students. The more appropriate the motivation given, the more successful the lesson will be (Eka, Ariana and Hadi, 2018).

Based on the results of the analysis, the researcher assumes that the difference in the achievement of knowledge and skills in the intervention group and control group is due to the application of positive feedback. The positive feedback given to the intervention group during the learning process made students more motivated and confident in performing lactation massage so that the results obtained were better than the control group.

LIMITATION OF THE STUDY

This research was conducted in two midwifery education institutions, namely Batari Toja Watampone Midwifery Academy and Lapatau Midwifery Academy. The results of this study may have geographical specificity to the context and characteristics of these institutions.

CONCLUSIONS AND SUGGESTIONS

Based on the results of the research that has been conducted on the application of evaluation and feedback methods to the achievement of lactation massage skills of DIII midwifery students, it can be concluded as follows:

- 1. There is an effect of the application of evaluation and feedback methods on the achievement of lactation massage knowledge in Batari Toja Midwifery Diploma students before and after the intervention group.
- 2. There is an effect of the application of the evaluation and feedback method on the achievement of lactation massage skills in Batari Toja Midwifery Diploma students before and after the intervention group.
- 3. There is an effect of the application of the evaluation and feedback method on the achievement of lactation massage knowledge in Lapatau Bone Midwifery College students before and after in the control group.
- 4. There is an effect of the application of the evaluation and feedback method on the achievement of lactation massage skills in Lapatau Bone midwifery institute students before and after in the control group.
- 5. There is a difference in the effect of the application of the evaluation and feedback method on knowledge attainment and lactation massage skill attainment in midwifery students in the intervention and control group.

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Conflict of Interest Statement

The authors declare no conflict of interest..

REFERENCES

- Adjulani, S., Moonti, U., Mahmud, M., & Bahsoan, A. (2022). Pengaruh Feedback Guru Terhadap Aktivitas Belajar Siswa Pada Mata Pelajaran IPS Terpadu Kelas VII Di MTS Negeri 1 Bone Bolango Kabupaten Bone Bolango Sabrina. 08(September), 1597–1602.
- Afifatussiyami, S., Widiastuti, M., Safitri, M., Psikologi, F., & Esa, U. (2021). Hubungan antara kontrol diri dengan motivasi belajar pada remaja yang bermain game online. 2, 10–18.
- Ardi, M., Muis, A., & Yuanita. (2018). pengaruh pengetahuan keteknikan dan motivasi belajar terhadap keterampilan peserta didik di SMK Negeri 1 Enrekang Muh.
- Ariani, D., Windari, E. N., Sariati, Y., Fatmawati, Ulfah, M., & Dewi, M. (2018). Buku Pedoman Pendidikan Profesi Bidan. 1–51.
- Baginda, T. R. K., Rumi, A., & Yuliet. (2021). evaluasi tingkat pengetahuan mahasiswa farmasi Universitas Tadulako palu mengenai obat golongan kortikosteroid. Jurnal Health Sains, 2(5).
- Eka, P., Ariana, P., & Hadi, L. (2018). Pengaruh umpan balik positif terhadap motivasi dan hasil belajar pada materi ksp kelas xi sma. Pendidikan Dan Pembelajaran, 7 no 3.
- Fajri, N., Rahayuningsih, S. I., Nizami, N. H., & Rizkia, M. (2020). Kebutuhan Dan Kendala Kader Kesehatan Dalam Membantu Keberhasilan Ibu Menyusui. Sel Jurnal Penelitian Kesehatan, 7(2), 89–97. https://doi.org/10.22435/sel.v7i2.4389
- Fernando, R., Jatra, R., & Reski. (2017). Upaya Pengembangan Self-Esteem Siswa Smp Melalui Pemberian Umpan Balik. Journal Sport Area, 2 no 2(2), 96–104.
- Helina, Siska and Harahap, Juraida Raito and Sari, S. I. P. (2020). Buku panduan pijat laktasi bagi bidan.
- Helina, S., Roito Hrp, J., & Indah Permata Sari, S. (2021). Pelatihan Pijat Laktasi Bagi Bidan Di Kota Pekanbaru Tahun 2020. Jurnal Abdikemas, 3(1), 75–80.
- Heriyati. (2021). Efektivitas Pemberian Umpan Balik Positif dalam Meningkatkan Hasil Belajar Matematika Mahasiswa. Prosiding Seminar Nasional Sains, 2(1), 291–296.
- Ilham Efendy. (2016). Pengaruh pemberian pre-test dan posttest terhadap hasil belajar mata diklat hdw.dev.100.2.a pada siswa smk negeri 2 lubuk basung. Jurnal Ilmiah Pendidikan Teknik Elektro, 1(2).

- Indah, R., & Sari, P. (2014). Hubungan motivasi belajar dengan hasil belajar siswa pada mata pelajaran IPS Kelas IV di SDN 11 Petang Jakarta Timur. Pedagogik, II(I), 26–32.
- Iswanti, D. I., Suranti, K., & Winasti, W. (2012). Mahasiswa keperawatan sering mengalami kecemasan selama menempuh pendidikan keperawatan termasuk saat praktik klinik . Pembelajaran klinik di Rumah Sakit me- mahasiswa cemas apalagi ketika praktik klinik di Rumah Sakit tersebut me- lain mahasiswa di klini. Jurnal Keperawatan Jiwa, 3(2), 107–113.
- Izza, F. Al, & Andina, M. (2019). Pengaruh Pemberian Umpan Balik Latihan OSCE terhadap Keterampilan Klinis Mahasiswa Abstrak harus Proses pembelajaran keterampilan klinis dasar Fakultas Kedokteran Universitas Muhammadiyah Sumatera Utara mencakup role-play dan learning using mannequins. 6(3), 63–71.
- Katmini, K., & Sholichah, N. M. (2020). Lactation Massage for Increasing Breast Milk Production in Postpartum Mothers. Journal for Quality in Public Health, 4(1), 104–113. https://doi.org/10.30994/jqph.v4i1.168
- L, I. (2019). evaluasi dalam proses pembelajaran. Idrus L 1. Evaluasi Dalam Proses Pembelajaran, 2, 920–935.
- Magdalena, I., Fauzi, H. N., Putri, R., & Tangerang, U. M. (2020). DAN AKIBAT MEMANIPULASINYA. 2, 244–257.
- Magdalena, I., Fauziah, S., Sari, P. W., Berliana, N., & Tangerang, U. M. (2020). MEMPERHATIKAN PENJELASAN GURU. Jurnal Pendidikan Dan Ilmu Sosial, 2(2), 283–295.
- Nani jahriani. (2019). Pengaruh Pijat Laktasi terhadap Produksi ASI pada Ibu di Kelurahan Sendang Sari Kabupaten Asahan Tahun 2019. Excellent Midwifery Journal, 2(2), 14–20. file:///C:/Users/Administrator/Documents/jurnal proposal/Pengaruh Pijat Laktasi Terhadap Produksi ASI Pada Ibu menyusui.pdf
- Ningsih DA dkk. (2021). Pengaruh demontrasi pijat laktasi terhadap kelancaran asi. The 4th Conference on Innovation and Application of Science and Technology (CIASTECH 2021), Ciastech, 615–620.
- Oriza, N. (2019). Faktor Yang Mempengaruhi Bendungan Asi Pada Ibu Nifas. Nursing Arts, 13(1), 29–40. https://doi.org/10.36741/jna.v13i1.86
- Pamuji, S. E. B. (2020). hypnolactation meningkatkan keberhasilan laktasi dan pemberian ASI esklusif (Pertama). Pustaka Rumah Cinta.
- Rahmawati. (2022). Pemberian edukasi tentang pijat laktasi dan pemijatan laktasi pada ibu nifas di PMB bidan D kota Bandung. Jurnal Abdi Masada, 1, 45–51.
- Rahmawati, R. R. (2013). Hubungan fasilitas belajar dan lingkungan belajar dengan prestasi belajar mata pelajaran sosiologi siswa kelas XI IPS SMA Negeri 3 Sukoharjo Tahun Ajaran 2012/2013. Jurnal Ilmiah Pendidikan, 3(1).
- Sari, I. W. (2019). Gambaran Peran Bidan dalam Mendukung Capaian ASI Eksklusif di Puskesmas Padang Bulan Kota Medan. MENARA Ilmu, XIII(8), 30–38.
- Sari, S. I. P., Harahap, J. R., & Helina, S. (2021). Pelatihan Pijat Laktasi Untuk Kader Kesehatan.
- Seruni, & Hikmah, N. (2014). pemberian umpan balik dalam meningkatkan hasil. 4(3), 227–236.
- Siti Muawanah, & Desi Sariyani. (2021). Pengaruh Pijat Laktasi Terhadap Kelancaran Produksi Asi Pada Ibu Menyusui Baby Spa Pati. Jurnal Ilmu Kebidanan Dan Kesehatan (Journal of

- Midwifery Science and Health), 12(1), 7–15. https://doi.org/10.52299/jks.v12i1.77
- Suciati, S., & Wulandari, S. (2020). Faktor-Faktor yang Mempengaruhi Pemberian ASI Eksklusif: Literature Review. Jurnal Ilmiah Ilmu Kebidanan, 10(2), 1–6.
- Trisnowati, V., Ansyori, A. K., Simbolon, O. M., Tinggi, S., Kesehatan, I., Tinggi, S., & Kesehatan, I. (2020). mahasiswa program studi farmasi di samarinda terhadap praktek pencegahan covid-19. 1.
- Untari, I. (2014). pada mahasiswa akper pku muhammadiyah surakarta Ida Untari. VI(01).
- Wening, S. (2012). Prosiding Seminar Nasional Pendidikan Teknik Mesin FT UNY, Sabtu 2 Juni 2012 ISSN: 2086-8987. 350-358.