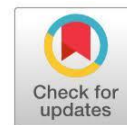


The efficacy of virtual counseling on the mothers' knowledge about baby massage during COVID-19 pandemic



Neny Octavia Hidayat¹, Dyah Noviawati Setya Arum², Nur Djanah³

¹Yulianah's Midwifery Independent Practice, Sleman, Indonesia

nenyoctaviahidayat@gmail.com

²Department of Midwifery, Poltekkes Kemenkes Yogyakarta, Indonesia

aa_dyahnsarum@yahoo.com

³Department of Midwifery, Poltekkes Kemenkes Yogyakarta, Indonesia

nur.djanah@poltekkesjogja.ac.id

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ABSTRACT

Early stimulation in form of massage for babies for 0-6 months old can strong then the bond and develop the sense of secure between babies and their mothers. Covid-19 pandemic forces for learning and education to be done through online classes including health promotion, in this case baby massage. The aim of study was to find out the average difference on mothers' increase of knowledge about baby massage before and after virtual counseling during Covid 19 pandemic. This was experimental research using quasi experiment design with non-randomized pre and posttest with control group design approach that was conducted on November 2021 in Sleman, Yogyakarta. The population of this research are mothers who have babies in the age of 0-6 months. The sampling technique used simple random sampling on 126 respondents, 63 respondents as the control group and 63 respondents as the experiment group. The experiment group was given virtual counseling through zoom cloud meeting, while the control group was given counseling using power point presentation through WhatsApp group. The data analysis used Wilcoxon and Mann Whitney test. The tool that was used was questionnaire through google form. There was an increase on the knowledge between the two groups with p-value=0.001. Virtual counseling was effective on the increase of mothers' knowledge on baby massage during the covid-19 pandemic.

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Corresponding Author:

Neny Octavia Hidayat

Yulianah's Midwifery Independent Practice, Sleman, Yogyakarta, Indonesia

Tirta Buana Street, Cepor, Sendangtirta, Berbah, Sleman, Yogyakarta, Indonesia. 55573

Email: nenyoctaviahidayat@gmail.com

INTRODUCTION

An easy early stimulation that can be done by all mothers is by touch in the form of baby massage. Baby massage can be done as early as after the baby is born. this early massage can give great benefits, especially when it is done every day since the baby is born up until it is 6-7 months old.(1) It is also called touch therapy because it involves massage and good comfortable communication between the mother and her baby. The light massage makes the baby feel safe and comfortable.(2)

Baby massage can stimulate oxytocin hormone that makes a baby feel happy and loved. Additionally, the skin-to-skin contact can strengthen the bond between the mother

and her baby as a demotion of love. This can also be used a therapy for mothers who suffer from baby blues syndrome to feel closer with their babies.(3)

In Indonesia however, many people are hesitant to massage their own baby and instead hire *dukun bayi* or traditional masseuse to do so. Some of them think it can heal their babies. They don't understand that baby massage can be done by their own. Massage from a mother, father, or other family members is the best one because it is the show of love from them for the baby. (2) A research by Dian, 2013, shows that 54,8% of mothers in Tamantirta Bantul choose to hire *dukun* to massage their babies.(4)

In Bantul district, it is shown that massage by *dukun* is mostly improperly done (66,7%), and with no stretching (100%) compared to the baby massage handbook.(5) Complications due to improper massage by *dukun* that have been reported are intracranial hemorrhage and obstructive ileus. Massage by *dukun* has several differences to the baby massage handbook. In the handbook, there is no massage in the head both in the parietal and occipital area, only light touch on the face and in the abdomen, there is only light massage according to the anatomy of the colon that is called "I LOVE YOU" massage. In the other hand, from the massage by *dukun* that is documented, there is massage in the head and abdomen that can possibly lead to several complications.(6)

In addition, a survey on July 16th 2021 from 25 women who gave birth in several hospitals and midwifery independent practice (MIP) in Yogyakarta found that only 20% of them were informed about baby massage, its benefits and how to do it during discharge while 80% of them were not. 60% of them claimed that their babies were given massage by *dukun* and cried during massage that made them hard to watch, and 12% claimed suffer from baby blues syndrome. That is because their knowledge about baby massage were very limited. It is a pity that many women do not realize these problems because the lack of knowledge about baby massage.(7)

The problem that we face during Covid-19 pandemic is the limited access of direct counseling about baby massage to women at the discharge from hospital or MIP. Based on that, it is important for midwives to find alternative methods that support midwifery care counseling without risking themselves and the mothers to harm during the Covid-19 pandemic. One of them is e-learning method or electronic learning based on daring. Scholars define e-learning as a learning process from distance that combine learning principles and technology.(8)

One of e-learning methods that support health promotion for the public is through online meeting, and the most widely used online meeting application is Zoom Cloud Meeting. This application does not only provide video conference feature, but also other features such as video recording, live chat, share screen, audio conference and webinar. The users can set the schedule easily according to the meeting schedule. Zoom meeting application company recorded within the last 12 months, users who contribute to the application increased up to 160%.(9)

Several previous studies gathered do not directly address the research issue about the effectiveness of virtual counseling on mothers' knowledge of baby massage during COVID-19. The articles address a variety of topics related to baby massage, such as the use of videos to improve postpartum mothers' knowledge, motivation, and behavior (10), the connection between mothers' attitudes and knowledge about baby massage(11), mothers' experiences learning and using infant massage(12), and the impact of health education on mothers' attitudes and knowledge about baby massage.(13) The effectiveness of virtual counseling during COVID-19 is not particularly examined in any of the publications. Based on this argument, the researchers were interested to conduct research on the efficacy of virtual counseling on the mothers' knowledge on baby massage during the Covid-19 pandemic in Sleman.

The objective of this research is to find out the difference of mothers' knowledge about baby massage before and after virtual counseling during the Covid-19 pandemic in Sleman.

METHOD

This is experimental research which used quasi experiment design with non-randomized pre and posttest with control group design approach that was done in November 2021. It used simple random sampling technique. The sample 126 respondents, 63 of them are control group and the other 63 are experiment group. To analyze the data, it used *Wilcoxon dan Mann Whitney* test. The tool that was used was questionnaire through google form.

RESULT

Analysis Result of the Distribution of Respondents' Characteristic Distribution Frequency

The table below shows the respondents' characteristic distribution frequency.

Tabel 1. Respondents' Characteristic Distribution Frequency

Characteristic	Group				p-value
	Experiment		Control		
	n = 63		n= 63		
	f	%	f	%	
1. Age					
< 20 years	1	1.6	0	0	0.051
20-35 years	55	87.3	17	27.0	
>35 years	7	11.1	46	73.0	
Total	63	100,0	63	100,0	
2. Education					
High school graduate	41	65.1	33	52.4	0.148
University graduate	22	34.9	30	47.6	
Total	63	100.0	63	100.0	
3. Occupation					
Unemployed	53	84.1	46	73.0	0.129
Employed	10	15,9	17	27,0	
Total	63	100,0	63	100,0	
4. Information					
Not given	29	46.0	28	44.4	0.858
Given	34	54.0	35	55.6	
Total	63	100.0	63	100.0	

Based on table 1 above, most of the respondents on the experiment group which given virtual counseling are high school graduates 41 respondents (65.1%), unemployed 53 respondents (84.1%). Respondents that had been given information about baby massage are 34 respondents (54.0%) most of them that are between 20-35 years old are 55 respondents (87.3%). Most of the respondents' characteristic on the control group are

high school graduates 33 respondents (52.4%), unemployed 46 respondents (73.0%). Respondents that had been given the information about baby massage are 35 respondents (55.6%) most of them that are >35 years are 46 respondents (73%).

The result of Chi Square test from the two subject groups consisting of 126 mothers with known characteristics which are age, education level, employment status, and information given to both groups is equal (homogeneous) since the p -value >0.05.

The Average Different of Knowledge Before and After Virtual Counseling of the Experiment Group and The Control Group During The Covid-19 Pandemic In Sleman

Tabel 2. The average different of knowledge of the experiment group and the control group

Variable	Groups									
	Experiment					Control				
	N	Mean	Δ	Z	p -value	Mean	Δ	Z	p -value	
Knowledge <i>pretest</i>	63	20.7460	6.0794	-6.598	0.001	20.6667	5.2063	-6.120	0.001	
Knowledge <i>posttest</i>	63	26.8254				25.8730				

Based on 2, it is known that the average score of knowledge for experiment group is 6.07994 and for control group is 5.2063. The p -value of both groups $< \alpha$ is 0,001 (0,001<0,05) so H_0 is dismissed, and H_a is accepted. Therefore, there is an average difference in the knowledge of baby massage of the experiment group and the control group before and after the virtual counseling in Sleman.

The Average Deviation of Mothers' Knowledge Before and After Virtual Counseling on the Experiment Group and the Control Group

Tabel 3. The average deviation of mothers' knowledge on the experiment group and the control group

Variable	Experiment group n=63		Control Group n=63		Deviation Mean	Z	p -value
	Mean	SD	Mean	SD			
Knowledge	26.8254	0.77334	25.8730	1.67035	0.9524	-3.860	0.001

Result of the hypothesis shows the p -value of 0.000 that means the p -value is less than 5% (0.001<0.05) so there is an average deviation of mothers' knowledge about baby massage on both the experiment group and the control group during the Covid-19 pandemic in Sleman.

DISCUSSION

Based on several previous studies, baby massage has proven to be beneficial for both mothers and for babies. Benefits for babies, among others, to relieve pain, increase jaundice and increase weight gain.(14,15) Benefits for mothers include increasing self -esteem and self -confidence in their role as a mother. The mothers said they felt they were reluctant when they could calm the baby without breastfeeding, but by using what they learned in massage.(16) They also explain how they appreciate the baby's response to

massage and feel an increase in energy. Mothers can make eye contact with infants when they conduct the massage. During the Process, Mothers and Infants are Together and they have intensive skin to skin contact which could establish a bond between mothers and her newborn. Mothers are stated that they learned new skills and knowledge related to infant massage during Covid-19 Pandemic Using Virtual Counseling in this study.(17)

The data analysis that has been explained above shows that there is an average deviation before and after the virtual counseling on the experiment group and the control group. Health counseling is one of the activities that cannot be ignored to solve health problems involving the public behavior pattern. Someone's behavior is based on his or her knowledge and manner. Therefore, changing someone's behavior needs to be started from his or her knowledge. Other than that, behavior is a predisposition factor from a person's determinant.(18)

Previous study state that there is an efficacy on virtual counseling during the Covid-19 pandemic on the youths' knowledge about leucorrhea prevention. In line with that, this research also shows that virtual counseling is effective to inform mothers about baby massage during the Covid-19 pandemic in Sleman.(19) It is shown from the higher score of the experimental group compared to the control group. The advancement in technology makes it easier to acquire knowledges and the pandemic makes many activities are done virtually than directly.

Increase of knowledge is influenced by age, intelligence, environment, education, information, and experience. The data analysis shows that the respondents on both groups are mostly high school graduates. Education level is closely linked to the knowledge that someone has. Knowledge that he or she has can be used for his or her future. It means that knowledge can ably people to differentiate between right and wrong. Increase of knowledge can also be influenced by age. The data shows that most of the respondents are between 20-35 years old. The older someone gets, the better his or her mental development is. However, at a certain age, the mental development is not as good as a teenager for example. Someone's memory is affected by age.(18) The older someone gets, the better his or her choice and use of health service.

If health education is done properly, it will show good result, in this case, for mothers. Their knowledge affects their actions. The respondents' knowledge about baby massage increases after the virtual counseling. This research supports the result of the previous research that concludes that there is a difference on the knowledge about baby massage before and after counseling.(20)

In this research, the control group is given information about baby massage in the form of PPT through WhatsApp group. People use internet to find much information. In this research people use internet to find information about baby massage technique. This habit of using the internet to find information is an opportunity that can be used by health professionals to provide information more easily and effectively. This research also supports the result of the previous research which finds that there is an average deviation on the mothers' manner before and after getting an education through WhatsApp group.(21) It can be seen in this research that there is 28.6% of the sample that have limited knowledge. After given a PPT material however, the knowledge increases. Based on the research by Darmalaksana, it can be concluded that WhatsApp is proven to be effective in several cases for mobile courses. This research recommends that there is a proper evaluation on the use of WhatsApp.(22)

Virtual counseling using Zoom Cloud Meeting is more effective than given PPT material because Zoom Cloud Meeting has several advantages. Many people choose this application because not only it provides video conference feature, but it also provides other features such as recording, live chat, share screen, audio conference, and webinar. It is also easy to set the schedule to match the existing schedule.(9) This research supports previous research that proof one of the factor that affected knowledge is counseling history.

The research shows respondents that was given counseling, the majority of them have better knowledge which is 44%.(23)

CONCLUSION

The characteristic of the respondent is most of them are between 20-35 years old, high school graduates, unemployed (housewives) and never given previous knowledge about baby massage. There is an average deviation of mothers' knowledge about baby massage between before and after virtual counseling on the experiment group during Covid-19 pandemi. There is an average deviation of mothers' knowledge about baby massage between before and after virtual counseling on the control group during Covid-19 pandemic. There is an average different deviation of mothers' knowledge about baby massage between the experiment and control group during Covid-19 pandemic.

This research can be used as a description for health care providers to keep giving education to the public during Covid-19 pandemic. Online media can be used as an alternative mean to health promotion during the pandemic.

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