The Effect of Education on Fetal Stimulation in Pregnant Women with Video on Knowledge and the Attitudes in the Cipayung District Health Center.

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Abstract: Stimulation during prenatal is a good sign for healthy fetal development. The more pregnant women stimulate or stimulate the baby's auditory nerves in the womb, the more neural pathways to the brain will develop and become stronger so that when the child is born, they will be better prepared for the world outside the womb.

This study aims to determine the effect of fetal stimulation education on pregnant women with video media on knowledge and attitudes. The research method uses a quasi-experimental with control group design. This study intervened by using video media. The sample is pregnant women with a sampling strategy using purposive sampling with a sample size of 60 people. The location used is the Cipayung Health Center area, East Jakarta. The analysis be used is a paired t test (Paired t test) dependent and independent. The results showed that there were differences in the mean of knowledge and attitudes before and after the intervention. By using the dependent t test between the intervention group and the control group, the p value in the intervention group was obtained for the variables of knowledge (p = 0.015), attitude (p = 0.038).

The results of the independent t test showed that there was a significant difference in knowledge and attitudes between the intervention group and the control group after the intervention (p value = 0.000),

Conclusion: There is an effect of fetal stimulation education in pregnant women using video media on knowledge and attitudes.

Keywords: stimulation, fetus, knowledge and attitude

I. INTRODUCTION

In Indonesia, about 16% of children under five years of age experience developmental disorders, including speech delay disorders and motor development disorders [1]. One of the factors causing developmental disorders is the lack of parental stimulation for children.

An important time in fetal development begins at the age of 5 months of pregnancy. The interaction between the baby and the environment will stimulate brain development before and after childbirth [2].

Khasanah (2017),[3] that the results of developmental screening in 30 provinces in Indonesia and found 45.12% of infants with developmental disorders. Research in West Java shows that 30% of children experience developmental disorders and 80% of them are caused by a lack of stimulation.

According to Verny T and Kelly T [4], suggesting that at a certain age the fetus is able to distinguish which situations or conditions are pleasing to him and which ones make him uncomfortable. The fetus will react through movements, as well as prolonged stress conditions will affect the fetus through the release of hormones that enter the blood circulation.

The results of Eka's research, 2015[5] show that health education about fetal stimulation can increase the motivation of pregnant women to stimulate the fetus. The intensity of communication between pregnant women and the fetus as a stimulus for hearing and brain development. According to Adriana, 2013, [6] that since a mother is declared

pregnant, at that time the mother can start her child's education through stimulation, even though it is still a fetus. The efforts of pregnant women in providing stimulation to the fetus will have a good impact on their prospective children, especially in mastering vocabulary because it has been introduced since in the womb (Suria, 2019)[7]. Likewise, Rahmawati, 2020, [8] that health education about fetal stimulation can increase the knowledge of pregnant women.

The more a pregnant woman stimulates or stimulates the baby's auditory nerves in the womb, the more neural pathways to the brain will develop and become stronger so that when the child is born, they will be better prepared for the world outside the womb.

Based on the description above, we are therefore interested in examining the effect of health education on fetal stimulation on knowledge, attitudes and practices of fetal stimulation in pregnant women. This difference with previous research is in this study using video media in providing health education to pregnant women. Based on the background that has been described, the researcher formulates the problem "How is the Effect of Education with Video Media on Stimulation in Pregnant Women on knowledge and attitudes in the District Health Center area in Cipayung".

II. METHOD

Based on the problem and research objectives to be achieved, the type of research used is a quasi-experimental research with control group design. The study was conducted by providing health education interventions about stimulation of fetal intelligence in the intervention group. This study received ethical clearance from Health Polytechnic Jakarta III.

Data Analysis to prove the hypothesis in this study, statistical tests were carried out. The data analysis in this study was a bivariate test conducted to determine the effect of health education on increasing knowledge and attitudes of pregnant women about fetal stimulation. Bivariate analysis used is pair t test and unpaired t test.

III. RESULT

Characteristics of respondents

The results of the analysis show the average age of the respondents in the intervention group, namely 32.56 years old, the youngest is 24 years old. and the oldest is 40 years old, while in the control group the average age of the respondents is 29.33 years with the youngest being 22 years old and the oldest being 39 years old

Table 4.1 Characteristics of respondents based on education, gestational age, and number of pregnancies

Variabel	Kel.Intervensi		Kel.Control		Total	
	N	%	N	%	N	%
Education						
- University	9	30.0	5	16.7	14	23.3
- High School	19	63.3	17	56.7	36	60
- < High school	2	6.7	8	26.6	10	16.7
Age of pregnancy						
- 2-15 week	4	13.3	6	20	10	16.7
- ≥ 16 week	26	86.7	24	80	50	83.3
Number of precnancy						
- < 3	17	56.7	16	53.3	33	55
- ≥ 3	13	43.3	14	46.7	27	45

Table 4.2 Uji homogenitas of responden

VARIABLE		N	Mean	SD	PValue
1. Umur ibu	Kelp	30	30.43	4.362	**0,623**
	Intervensi	30	29.23	4.819	
	Kelp control				
2.Usia kehamilan	Kelp	30	24.33	8.652	**0.614**
	Intervensi	30	24.60	9.152	
	Kelp control				
3. Kehamilan Ke berapa	Kelp	30	2.33	0.844	**0.526**
	Intervensi	30	2.37	0.964	
	Kelp control				
4. Pengetahuan	Kelp	30	10.77	1.547	**0.206**
	Intervensi	30	10.70	1.291	
	Kelp control				
5. Sikap	Kelp	30	19.77	2.982	**0.157**
	Intervensi	30	19.10	3.889	
	Kelp control				

The results of the analysis of the equivalence test (homogeneity) in table: 5.2 above show that there is no difference in age, gestational age, gestational age, knowledge and attitudes between the intervention group and the control group before being given fetal stimulation education intervention, p > 0,05

Differences in knowledge and attitudes scores before and after the intervention. Fetal stimulation education

Table 4.3 Analysis of knowledge scores and attitudes before and after fetal stimulation education intervention

Variabel	Kelompok	Mean	SD	95% CI	T	P value
Skor Pengetahuan	Kel. Intervensi					
	Sebelum	9.8	1.375	-1.341 - 0.169	-2.593	**0.015**
	Sesudah	10.60	1.364			
	Selisih	0.8				
	Kel. Kontrol					
	Sebelum	10.70	1.291	-0.406-0.139	-1.000	**0.326**
	Sesudah	10.83	1.391			
	Selisih	0.13				

Sikap	Kel. Intervensi					
	Sebelum	19.27	0.982	-1.904 – 0.037	- 1.967	**0.038**
	Sesudah	20.20	3.199			
	Selisih	0. 93				
	Kel. Kontrol					
	Sebelum	19.10	3.889	-1.244 – 0.110	-1.712	0.098
	Sesudah	19.67	3.818			
	Selisih	0.57				

t dependent test

Table 4.4 Analysis of knowledge scores and attitudes of fetal stimulation between group

Variable	Group	N	Mean	SD	95% CI	F	P value
Knowledge	Intervention	30	10.60	1,354	-.943 - .476	.206	0.000
	Controle	30	10.83	1.392			
Attitude	Intervention	30	19.27	2.983	-2.135 – - .065	1.181	0.000
	Controle	30	20.37	3.327			

The results of the analysis show that there are significant differences in knowledge and attitudes pvalue = 0.000

IV. Discussion

Before discussing the following, we present the characteristics of the respondents as follows: In this study, respondents in the intervention group were 32.56 years old, the youngest was 24 years old. and the oldest is 40 years old, while in the control group the average age of the respondents is 29.33 years with the youngest being 22 years old and the oldest being 39 years old. This shows that this age is an age that can be said to be ready to carry out reproductive functions.

The reproductive period is a period when a person is physically, mentally and socially ready to carry out the functions of the reproductive system.

Most of the respondents have a secondary education background (63.3%) with a high school education background, this makes it easier for someone to communicate and adapt to changes. Most are pregnancies greater than or equal to 16 weeks. And children who are less than three people. This means that most of the respondents are people who are not pregnant for the first time, so they have knowledge and experience in previous pregnancies. This will certainly affect how a person feels pregnancy and responds or better understands what to do during pregnancy

Based on the results of research on fetal stimulation education, it was found that there were differences in the mean knowledge and attitudes of pregnant women in the intervention group and the control group. before and after intervention in the intervention group. By using the dependent t test between the intervention group and the control group, the p value in the intervention group was obtained for the knowledge variable (p value = 0.015), attitude (p value = 0.038). The results of the independent t test showed that there was a significant difference in knowledge and attitudes between the intervention group and the control group after the intervention (p value = 0.000). It can be concluded that there is an effect of fetal stimulation education using video media on knowledge and attitudes.

The results of this study are similar to the results of Eka's , 2015[5] which shows that health education about fetal stimulation can increase the motivation of pregnant women to stimulate the fetus. And concluded that fetal stimulation education is effective in increasing knowledge. The intensity of communication between pregnant

women and the fetus as a stimulus for hearing and brain development. Likewise, the results of Rahmawati's research, 2020,[8] that health education about fetal stimulation can increase the knowledge of pregnant women.

Some of the results of research related to knowledge will be described as follows. The results of this study indicate that most respondents (66.7%) still answered incorrectly about the fetus requiring stimulation. Fetal stimulation can be carried out since the mother is declared pregnant, at that time the mother can start educating her child through stimulation, even though it is still a fetus. Babies begin to learn about the world they live in while they are in the womb. With prenatal experiences that go through can form expectations about life outside the womb, and to prepare for life after birth. When a baby is in the womb, his brain is still forming neural connections that are important for learning. Same as with Sunarsih Should for parents as much as possible to provide education for children while in the womb [14]

Stimulation given to the fetus during pregnancy will establish a bond between mother and fetus, and teach the fetus about the world in the womb by stimulating its senses during pregnancy; prenatal sensory experiences help shape the baby's brain. the fetal stimulation techniques can positively affect the neonate's behaviors including the domain of habituation.[15]

The fetus in the womb can begin to hear at the age of 24 weeks, the results obtained 60% of respondents answered correctly. Likewise, a soft and regular voice will affect the fetus to feel calmer. The fetal inner ear develops at 24 weeks of gestation, and the fetus can hear at this stage. When the fetus discovers a new sound being played in the mother's abdomen at this stage, the fetal heart rate drops briefly as they adjust to the new sound, indicating they can distinguish between different sounds.

The results showed that there was a significant difference in attitude between the intervention group and the control group after the intervention (p value = 0.000). This means that fetal stimulation education affects the attitude of pregnant women. Attitude is an emotional or behavioral predisposition to adapt to the surrounding environment. Attitude is a learned predisposition or tendency of an individual to respond positively or negatively with sufficient intensity to objects, situations, concepts or people.

The attitude in this study is how pregnant women view the stimulation of the fetus. Pregnant women have a positive attitude/view towards fetal stimulation. Consciously or not, pregnant women have stimulated the fetus, but do not understand further, that this is very important to do and has an effect on fetal development and especially the intelligence of the fetus.

V. Conclusion

The caracteristic of responden are intervention group were 32.56 years old, the youngest was 24 years old and the oldest was 40 years old, while in the control group the average age of the respondents was 29.33 years with the youngest age being 22 years old and the oldest 39 years old, representing a gestational age of more or less. equals 16 weeks. And is a child of less than three people. Most of the respondents have a high school educational background.

There are differences in the mean knowledge and attitudes of pregnant women in the intervention group and the control group, before and after the intervention.

There is a significant effect between knowledge before and after the intervention.
There is a significant influence between attitudes before and after the intervention

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