

Original Research

The Effect Of Pregnancy Exercise On Third Trimester Primigravida Anxiety In Dealing With Childbirth

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ABSTRACT

Background: *The first labor anxiety is an unpleasant psychological condition due to physiological changes that cause psychological instability. The condition of excessive anxiety, worry, fear without cause, and stress, causes the muscles of the body to tense up, especially the muscles in the birth path to become stiff and hard, making it difficult to expand. This study analyzed the effect of pregnancy exercise on third trimester primigravida anxiety in dealing with childbirth.*

Methods: *Quasi experimental design with nonrandomized pretest-posttest control group. The sampling technique used was purposive sampling with 34 research subjects. 17 people for the treatment group were given pregnancy exercise 8 times, and 17 people for the control group were given health education about preparation for childbirth. This research used the Hamilton Rating Scale Anxiety (HRS-A) instrument to examine of respondent's anxiety. The data was analysed by using the Wilcoxon signed rank test.*

Results: *The results of data analysis using the Wilcoxon signed rank test showed that the average reduction in the treatment group was 8.00 and the control group was 3.00. The effect of pregnancy exercise on third trimester primigravida anxiety in the treatment group with a p-value (0.000) <(0.05), while the control group with a p-value (0.180) > (0.05).*

Conclusion: *There is an effect of pregnancy exercise on third trimester primigravida anxiety in dealing with childbirth in the Wuryantoro Health Center work area.*

ARTICLE HISTORY

Received : Feb, 08, 2021

Accepted : March, 31, 2021

KEYWORDS

anxiety; childbirth; exercise; pregnancy; primigravida

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Cite this as: Astuti, I. (2021). Effect Of Pregnancy Exercise On Third Trimester Primigravida Anxiety In Dealing With Childbirth. *Jurnal Kebidanan Dan Kesehatan Tradisional*, 76-83. <https://doi.org/10.37341/jkkt.v0i0.227>

INTRODUCTION

Labor anxiety is a psychological condition instability caused by psychological changes (A & Yeyeh, 2013). The impact of anxiety that is given is a shorter gestation period, nausea, increased vomiting, insomnia, cesarean section, and epidural anesthesia (Deklava et al., 2015). Poor mental health during pregnancy has a lasting impact on the quality of life of the mother and the cognitive development of the child (Fraser & Cooper, 2009). The results of the study on 113 pregnant women showed 50% anxiety in the first trimester, 71.4% in the second trimester, and 80% in the third

trimester(Gourount, Karapanou, Karpathiotaki, & Vaslamatzia., 2015). Prenatal anxiety increased by 13.1% in the first trimester, 12.2% in the second trimester, and 18.2% in the third trimester. In addition, pregnant women were afraid of vaginal delivery (34.0%), perineal rupture/ episiotomy (32.4%), and infant mortality (27.5%) (Julia, Susanne, Katja, Roselind, & Hans, 2010).

Various ways to reduce anxiety for pregnant women can be done, one of which is supportive self-help. For example, supported self-help is pregnancy exercise and prenatal yoga. Preliminary studies have been conducted and the results show that 5 women in third-trimester primigravida pregnant women feel relaxed after participating in pregnancy exercise and 1 pregnant woman who did not participate in pregnancy exercise experienced moderate anxiety because of anxiety and fear of facing childbirth.

Health workers, especially midwives, need to provide stimulation for pregnant women to empower themselves by doing pregnancy exercises. The availability of facilities provided by health personnel for pregnancy exercise, pregnant women can overcome various complaints during pregnancy, especially anxiety facing childbirth. So that the authors conducted a research which had purpose to prove the effect of pregnancy exercise on third trimester primigravida anxiety in dealing with childbirth in the work area of Wuryantoro Community Health Center Wonogiri.

MATERIALS AND METHOD

The research design used a quasy experimental nonrandomized pretest-posttest control group design. Conducted in the working area of the Wuryantoro Health Center, Wonogiri in August 2017 - January 2018. The research sample was 34 pregnant women. All of the pregnant women were primigravida and in the third trimester. The treatment group was given pregnancy exercise with a total of 17 people while 17 people in the control group were given health education about preparation for childbirth. In this study, researchers used interview guidelines to obtain data on respondent characteristics and assessment of anxiety using the Hamilton Rating Scale Anxiety (HRS-A) instrument. Data analysis using the Wilcoxon Signed Ranks Test.

RESULTS

This is result of univariate analyze. Distribution of 17 respondents are difference based on age, education, and job.

Table 1. Distribution of Respondent Characteristics

Respondent Characteristics	Group			
	Intervention		Control	
	Total	Percentage (%)	Total	Percentage (%)
Age				
a. <20 years	0	0	0	0
b. 20-35 years	17	100	17	100
c. >35 years	0	0	0	0
Total	17	100%	17	100%
Education				
a. Primary School	0	0	0	0
b. Junior High School	3	17,6	6	35,3
c. Senior High School	12	70,6	9	52,9
d. College	2	11,8	2	11,8

Total	17	100%	17	100%
Profession				
a. Government employees	0	0	0	0
b. Private employees	4	23,5	0	0
c. Entrepreneur	2	11,8	4	23,5
d. Housewife	11	64,7	13	76,5
Total	17	100%	17	100%

The treatment group aged between 20-25 years was 17 respondents (100%). The majority have high school education as many as 12 respondents (70.6%), and the majority of jobs are housewives as many as 11 respondents (64.7%). Control group aged 20-25 years. The majority have high school education as many as 9 respondents (52.9%), as well as 13 respondents (76.5%) as housewives.

Bivariate Analysis

Table 2. Anxiety Frequency Before and after Treatment

Group		Frequency Of Anxiety Level									
		Nothing		Light		Moderate		Weight		So Heavy	
		f	%	f	%	f	%	f	%	f	%
Treatment	Pre	2	11,8	8	47,1	7	41,2	0	0	0	0
	Post	10	58,8	7	41,2	0	0,0	0	0	0	0
Control	Pre	1	5,9	7	41,2	9	52,9	0	0	0	0
	Post	2	11,8	8	47,1	7	41,2	0	0	0	0

The results of bivariate analysis in the treatment group after being given pregnancy exercise were 58.8% had no anxiety and 41.2% experienced mild anxiety. The control group experienced a decrease in anxiety 47.1% for mild anxiety, 41.2% moderate anxiety and 11.8% no anxiety.

Table 3. Analyze Anxiety Before and After Treatment Each Group

		N	Mean Rank	Sum of Ranks
Posttest eksperimen – pretest eksperimen	Negative Ranks	15 ^a	8,00	120,00
	Positive Ranks	0 ^b	,00	,00
	Ties	2 ^c		
	Total	17		
Posttest Kontrol – Pretest Kontrol	Negative Ranks	4 ^d	3,00	12,00
	Positive Ranks	1 ^e	3,00	3,00
	Ties	12 ^f		
	Total	17		

Table 4. Analyze Effect of Treatment to Anxiety

	Posttest eksperimen – pretest eksperimen	Posttest kontrol – pretest kontrol
Z	- 3,000 ^b	-1,342 ^b
Asymp. Sig. (2-tailed)	,000	,180

Analysis of the data using the Wilcoxon signed rank test, it was found that the value of $p = 0.000$, there was an effect of giving pregnancy exercise on primigravida anxiety in dealing with childbirth in the working area of the Wuryantoro Health Center. In the control group, the result of $p = 0.180$, there was no effect of giving pregnancy exercise on third trimester primigravida anxiety in dealing with childbirth.

DISCUSSION

The results of the study in table 2 indicate that the anxiety of the third trimester of pregnant women before being given pregnancy exercise, namely the majority of 47.1% of respondents experienced mild anxiety. After being given pregnancy exercise, most respondents (58.8%) did not experience anxiety.

The third trimester is the time to prepare for birth and parenthood. The mother feels worried, afraid of her own life, the baby, the baby's abnormality, childbirth, pain in childbirth and will never know when she will give birth. In this period the mother can't wait for the birth of her baby, waiting for signs of labor, the mother's attention focuses on movement, and the uterus enlarges (Indrayani, 2011).

The right exercise during pregnancy is pregnancy exercise. This is useful so that the body is healthy and fit and in accordance with the physical changes of the mother (Myra, 2009). Practicing relaxation is one of the benefits of pregnancy exercise. The relaxation process is needed during pregnancy until delivery, to deal with stress, pain, relaxation of the lower uterine segment which will affect physiological labor. Various kinds of relaxation methods, namely breathing and progressive relaxation.

The results showed that 17 respondents in the treatment group who were given pregnancy exercise twice a week for 1 month, experienced a decrease in anxiety levels by 88.2% while 11.8% of respondents had no anxiety. The results of the interview showed that after participating in the pregnancy exercise 2x a week for 1 month there was a decrease in anxiety levels and the mother felt more relaxed.

Based on the results of the analysis, it showed that 52.9% experienced moderate anxiety in the control group. After being given health education about childbirth preparation, and assessed after the study was completed, it was found that 23.6% experienced a decrease in anxiety, 70.6% did not experience a decrease in anxiety, and 5.8% experienced an increase in anxiety. The results of the interview, respondents said that health education about labor preparation to reduce anxiety had little effect on reducing anxiety, because mothers were still worried about labor and the condition of their babies.

Inaccurate perceptions of pregnant women about the delivery process cause an increase in anxiety symptoms. Childbirth is considered a frightening and painful process, especially in primigravida pregnant women who have no experience of childbirth. The results of these thoughts lead to an increase in the sympathetic nervous system so that the endocrine system such as the thyroid, adrenal, and pituitary glands secrete hormones to prepare the body for emergency situations (stressors). Thus, the autonomic nervous system activates the adrenal glands which influence the system of the hormone epinephrine (adrenal hormone) and provides energy for physical and psychological preparation. The effect that is given to pregnant women can lead to dysregulation of the body's biochemistry, resulting in physical tension in pregnant women, as well as psychological effects of adrenaline, for example pregnant women are irritable, irritable, restless, not concentrated, even want to escape reality (Suliswati, 2008).

Data on respondent characteristics shows that the age of respondents in the treatment and control groups is mostly vulnerable to the age of 20-35 years (100%). Age 20-35 years is a productive age for women to receive information, because the memory of information, both direct and indirect, is easier to remember and understand (Manuaba, 2010). The majority of respondents education is high school as much as 12 respondents (70.6%) in the treatment group and 9 respondents in the control group (52.9%). The way of thinking of high school education has begun to be able to receive and implement information. The higher the level of education, the easier it is to receive and implement information, especially about pregnancy exercise.

Most of them work as housewives, namely 11 respondents (64.7%) in the treatment group and 13 respondents (76.5%) in the control group. There is no relationship between work and the level of maternal anxiety in dealing with childbirth in the third trimester of pregnant women (Windi, 2008). The results of this study are supported by research results (Astria, Nurbaeti, & Rosidati, 2009) which states that there is no relationship between work and anxiety in dealing with childbirth based on the results of calculations using the chi-square test $p > 0.05$.

The results of the analysis using the Wilcoxon signed rank test obtained a significant value in the treatment group 0.000 and 0.180 in the control group. So it can be concluded that the provision of pregnancy exercise 2x a week for 1 month is more significant than providing health education about childbirth preparation. Pregnancy exercise consists of 3 components of movement, namely breathing exercises, strengthening and relaxation exercises. Relaxation exercises consist of breathing relaxation and muscle stretching, so that they can provide a relaxing effect and can stabilize emotions in pregnant women (Maryunani & Sukarti, 2011).

Previous research that supports the results of this study, namely (Aryani, Ismarwati, & Raden, 2016; Ningrum, 2009; Sari, 2010) states that pregnancy exercise is effective in reducing anxiety in facing childbirth, and (Larasati & Wibowo, 2012) states that there is a strong correlation between increased participation in pregnancy exercise, the primigravida anxiety variable decreases, and otherwise.

Relaxation is created from a body condition without a load, so it aims to provide a break for the body from routine physical and mental activities (Iswantoro, 2013). Breaking the cycle of anxiety with relaxation can reduce anxiety. When a person experiences anxiety and tension due to a certain situation, then the muscles and organs of the body will experience tension so that he feels anxious. Relaxation exercises given to pregnant women will make them relaxed and comfortable. Relaxation has the potential to reduce negative feelings and complications in pregnant women (Chambers, 2007).

The results of this study are in accordance with the research results (Guszkowska, Sempolska, Zaremba, & Langwald, 2013) states that relaxation exercises can overcome the emotional problems of pregnant women who experience anxiety and depression compared to providing health education. So it can be stated that pregnancy exercise has an effect on primigravida anxiety in facing childbirth.

CONCLUSION

There is an effect of pregnancy exercise on third trimester primigravida anxiety in dealing with childbirth in the Wuryantoro Health Center work area. The results of the study are expected to provide benefits to pregnant women regarding pregnancy exercise which can have an effect on overcoming anxiety in facing childbirth. It is hoped that

educational institutions can use it as a reference in developing learning. For further researchers as reference material for research on pregnancy exercise and anxiety in dealing with childbirth.

ACKNOWLEDGEMENT

Acknowledgments are conveyed to appropriate parties, especially to the institution or person who is actually assisting the research such as midwife in the Wuryantoro Health Center Care and other.

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