

THE INFLUENCE OF ANXIETY LEVELS IN THIRD TRIMESTER PREGNANT WOMEN  
THROUGH HEALTH EDUCATION ON CHILDBIRTH PREPARATION  
AT THE MARLINA CLINIC, CIPUTAT DISTRICT,  
TANGERANG SELATAN CITY

Indah Permata Sari<sup>1\*</sup>, Amalia Indah Puspitasari<sup>2</sup>

<sup>1-2</sup>Undergraduate Midwifery Study Program, Abdi Nusantara College of Health  
Sciences, Indonesia

Email Correspondence: indahprmtasss@gmail.com

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ABSTRACT

*The third trimester is an important period in pregnancy when the mother makes mental and physical preparations for childbirth. Untreated anxiety can increase the risk of complications during childbirth, such as premature labor and low birth weight babies. Additionally, anxiety is associated with the emergence of postpartum depression (PPD) and post-traumatic stress (PTS), which can result in a lack of emotional bonding with the baby. The aim of this study was to determine the influence of anxiety levels in third trimester pregnant women through health education on childbirth preparation at the Marlina Clinic, Ciputat District, Tangerang Selatan City, in 2024. This is a quantitative study using a quasi-experimental method. The research location is the Marlina Clinic, Ciputat District, Tangerang Selatan City. The research period starts from May 2024 until completion. The population in this study consists of pregnant women who received antenatal care from May to June 2024 at the Marlina Clinic, Ciputat District, Tangerang Selatan City. The sample in this research includes all third trimester primigravida pregnant women at the Marlina Clinic, totaling 30 people. The sampling technique used in this research is purposive sampling. The questionnaire used in this research was the Hamilton Anxiety Rating Scale (HARS). The bivariate analysis used in this research is the paired t-test. Based on the results of the frequency of respondent characteristics, most respondents were under 25 years old. The majority of respondents had a high school education, totaling 22 people. Respondents were predominantly mothers who did not work, totaling 21 people. Based on data on the frequency distribution of anxiety levels, the highest levels of anxiety before providing health education about childbirth preparation were moderate and severe anxiety. After providing health education about childbirth preparation, the level of anxiety was predominantly mild anxiety. Based on the table on the influence of anxiety levels, it can be seen that health education regarding childbirth preparation for third trimester pregnant women has a very significant effect on the anxiety levels of pregnant women. This is evident from the p-value of  $0.00 < 0.05$  (95% confidence level).*

**Keywords:** Anxiety, Pregnancy, Health Education, Antenatal Care, Third Trimester

## INTRODUCTION

Anxiety is a feeling of tension, insecurity and worry that arises because there is a feeling that something unpleasant will happen, even though the source is largely unknown (Maramis, 2009). Pregnant women often experience anxiety as a response to pregnancy situations that are perceived as threatening, which is accompanied by physiological, emotional, psychological and cognitive symptoms. Anxiety is an emotion without a specific object, the cause is unknown, and usually appears after experiencing a new situation. In contrast to fear, which has a clear source and a definable object. Fear is an assessment of a threatening stimulus, while anxiety is an emotional response to that assessment (Stuart & Sundeen, 2006). Anxiety is a person's subjective emotions and experiences that make him feel uncomfortable, and this is divided into several levels (Kusuma & Hartono, 2011).

The third trimester is an important period in pregnancy where the mother makes mental and physical preparations for childbirth. Anxiety that is not treated immediately can increase the risk of complications during childbirth, such as premature labor and low birth weight babies. Apart from that, anxiety is also associated with the emergence of Post Partum Depression (PPD) and Post Traumatic Stress (PTS), which can result in a lack of emotional bonding with the baby (Gosselin P, et al., 2016). The incidence rate of anxiety among pregnant women in Indonesia reaches 28.7%, with the highest prevalence among pregnant women in the third trimester who are preparing for childbirth. Research conducted by Dunkel Schetter and Tanner (2012) found a relationship between high levels of anxiety in

pregnant women and an increased risk of premature labor and the birth of low birth weight babies. 78% of pregnant women experience low to moderate levels of antenatal psychosocial stress and 6% experience high levels of antenatal psychosocial stress, where this occurs most often at gestational age <37 weeks.

Anxiety in third trimester pregnant women can also have an impact on the birth experience and the mother's mental well-being after delivery. The study by Alehagen et al. (2016) showed that high anxiety in pregnant women is associated with a worse birth experience and an increased risk of postpartum depression. This emphasizes the importance of reducing anxiety in the early stages of pregnancy. In addition, sociodemographic factors such as education, socio-economic status and social support also influence anxiety levels in pregnant women. Kingston et al. (2012) found that pregnant women with lower levels of education and lack of social support were more likely to experience anxiety during pregnancy. Therefore, health education must take into account this sociodemographic diversity in an effort to reduce anxiety.

High levels of anxiety can have a negative impact on the well-being of mother and baby. Anxiety can be classified into several levels of response, which include mild anxiety related to daily stress and causing increased alertness and sensitivity to changes in perception. Moderate anxiety allows a person to focus on important things while ignoring other things. Severe anxiety indicates a tendency to fixate on particular details without the ability to think about anything else concretely. Meanwhile, panic level anxiety is related to fear and

feelings of terror, often causing individuals to be unable to take any action even though there are clear directions (Handayani, 2015). Actions to reduce anxiety can be divided into two types, namely pharmacological approaches (using drugs) and non-pharmacological approaches (without using drugs). Pharmacological approaches involve the use of medications to reduce anxiety or treat restlessness.

Meanwhile, non-pharmacological approaches aim to increase the mother's adaptive capacity during pregnancy and can include the principles of nursing care, such as health education through the Health Education program. The focus is to provide information about the preparation and process of childbirth, as well as pain management during labor, so that mothers' anxiety can be reduced and they are ready to face the birth process (Baradero et al., 2016). The government has an important role in dealing with the anxiety of pregnant women through various programs and policies supported by adequate resources and health facilities. One of the efforts made is to provide comprehensive maternal health services, including counseling services and psychological support for pregnant women.

In addition, the government can also carry out educational campaigns about the importance of mental health during pregnancy and promote easier access to mental health services for pregnant women. All of this aims to improve the welfare of pregnant women and reduce the risk of complications that may arise due to anxiety (Indonesian Ministry of Health, 2020). Evidence from research by Bayrampour et al. (2015) confirmed that prenatal health education programs have proven effective in reducing anxiety levels in pregnant women, where

most women who are known to have mental health problems prefer a communicative approach. This shows the potential of health education as a tool to reduce anxiety in third trimester pregnant women.

According to initial research conducted at the Marlina Clinic, Ciputat District, Tangerang Selatan City, researchers conducted interviews with ten primigravida pregnant women who had entered their third trimester. The results showed that seven out of ten pregnant women experienced some level of anxiety, while the other three pregnant women did not experience anxiety. This anxiety especially arises when pregnant women imagine the birth process they will undergo, including concerns about a normal birth, the condition of the fetus they are carrying, and a lack of knowledge about the signs of labor that will soon come and the necessary preparations. Apart from that, anxiety also arises due to fear of the possibility of bleeding during the birth process and concerns about the safety of oneself and the baby. Of the seven pregnant women who experienced anxiety, none had succeeded in overcoming this anxiety.

Based on the above, the researchers were interested in researching "The Influence of Anxiety Levels in Third Trimester Pregnant Women Through Health Education on Childbirth Preparation at the Marlina Clinic, Ciputat District, Tangerang Selatan City".

## LITERATURE REVIEW

Anxiety is a feeling of worry, fear that has no clear cause. Anxiety is a great force in driving behavior. Both normal behavior and deviant behavior, both are statements, appearances, manifestations of

defense against anxiety. Fear is caused by threats, so people will avoid themselves and so on. Anxiety can be caused by danger from outside or from within, and in general the threat is vague (Tidore, 2022).

Anxiety in pregnant women arises due to fear and one of the fears most often experienced by pregnant women is anxiety and fear of facing childbirth (Videbeck SL, 2008). The emotions felt by the mother will not be able to cross the placenta, but the mother's hormones will. Stressed mothers will produce an abundance of catecholamine hormones which have an impact on emotions. These stress-inducing substances will cross the placenta and make the body's system "feel afraid". If this happens continuously, the fetus will get used to stress and will be born that way and eventually experience emotional and digestive disorders (Ranita, 2016). When a mother faces childbirth and is still filled with fear, anxiety and stress, her body is already in a defensive posture and the stress hormone catecholamine is released which will be released in large quantities before and during labor.

The risk factors that cause anxiety in pregnant women are maternal characteristics which include maternal education which is also one of the factors that

determine maternal anxiety, this is in line with the opinion of Hidayat (2004) that education in general has a strong correlation with knowledge, where knowledge where a high level of education will form an adaptive pattern of anxiety because it has better coping (Apriliani, 2024).

## RESEARCH METHODS

**Study** This is study quantitative, use method experiment pseudo ( *quasi-experiment* ). The research design uses a *pre and post test without design controls*. The location of this research is at the Marlina Clinic, Ciputat District, Tangerang Selatan City. The time for this research starts from May 2024 until completion. The population in this study were pregnant women who received *antenatal care* from May to June 2024 at the Marlina Clinic, Ciputat District, Tangerang Selatan City. The sample in this research is all pregnant women III trimester primigravida at the Marlina Clinic amounted to 30 people. The sampling technique in this research is *purposive sampling*. The questionnaire used in this research was the Hamilton Anxiety Rating Scale (HARS). Analysis bivariate which used in this research that is *paired t-test*.

## RESEARCH RESULT

Table 1. Characteristics of Respondents in TPMB Marlina, Ciputat District, Tangerang Selatan City

Respondent Characteristics		n	%
Age	<25	20	66.7
	>25	10	33.3
	Total	30	100
Education	elementary school	0	0

	Junior school	high	1	3.3
	Senior school	high	22	77.3
	PT		7	23.3
	<b>Total</b>		30	100
<b>Work</b>	Work		9	30
	Doesn't work		21	70
	<b>Total</b>		30	100

Based on the frequency table of respondent characteristics, the majority of respondents came from the age range under 25 years, amounting to 20 people with a percentage of 66.7% and respondents aged > 25 years amounting to 10 people with a percentage of 33.3%. Respondents who had the most educational

background were high school graduates, totaling 22 people with a percentage of 77.3% and none had a final education at elementary school level. Respondents were dominated by mothers who did not work, numbering 21 people with a percentage of 70% and working mothers numbering 9 people with a percentage of 30%.

**Table 2. Frequency Distribution of Anxiety Levels in TPMB Marlina, Ciputat District, Tangerang Selatan City**

Anxiety Level	Before		After	
	n	%	n	%
Not Anxious	1	3.3	1	3.3
Light	6	20.0	16	53.3
Currently	10	33.3	10	33.3
Heavy	10	33.3	3	10.0
Panic	3	10.0	0	0
<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>

Based on data on the frequency distribution of anxiety levels, the highest level of anxiety before providing health education regarding childbirth preparation was dominated by moderate and severe anxiety, each amounting to 10 people with a percentage of 33.3%, then mild anxiety amounting to 6 people with a percentage of 20%, not feeling anxious. amounting to 1 person with a percentage of 3.3% and panic numbering 3 people with a percentage of 10%.

After providing health education regarding childbirth preparation, the level of anxiety was dominated by mild anxiety, amounting to 16 people with a percentage of 53.3%, then moderate anxiety amounting to 10 people with a percentage of 33.3%, severe anxiety amounting to 3 people with a percentage of 10%, not feeling anxious amounting to 1 person with the percentage was 3.3% and no respondents felt panicked.

**Table 3. Effect of Anxiety Levels of TM III Pregnant Women Before and After Providing Health Education**

Anxiety level	Before		After		Correlation	Asymp. Sig
	n	%	n	%		
Not Anxious	1	3.3	1	3.3		
Light	6	20.0	16	53.3		
Currently	10	33.3	10	33.3	0.744	,000
Heavy	10	33.3	3	10.0		
Panic	3	10.0	0	0		
Total	30	100	30	100		

Based on the table on the influence of anxiety levels, it can be seen that health education regarding childbirth preparation for TM III pregnant women has a very significant effect on the anxiety levels of pregnant women. This can be seen from the p value of 0.00

<0.05 (95% confidence level). Based on the results of the correlation data, it shows that these 2 variables have a very strong and positive relationship, which is shown by the correlation value of  $0.744 > 0.374$  (rTable df = 28 with a significance of 5% is 3.74).

## DISCUSSION

### The Influence of Anxiety Levels in Third Trimester Pregnant Women Through Health Education on Childbirth Preparation at TPMB Marlina, Ciputat District, Tangerang Selatan City

Based on the research results, it can be seen that the level of anxiety before providing health education regarding childbirth preparation was dominated by moderate and severe anxiety, then mild anxiety, not feeling anxious and there were respondents who felt panicked. After providing health education regarding childbirth preparation, the level of anxiety decreased, dominated by mild anxiety, then respondents who felt severe anxiety also experienced a decrease and there were no longer any respondents who felt panic.

Anxiety during pregnancy, especially before delivery, is a common problem faced by many pregnant women. High levels of anxiety can have a negative impact on the health of the mother and fetus, and can affect the birthing

process itself. Various studies have shown that unmanaged anxiety can increase the risk of birth complications and affect the mother's overall experience of giving birth. One approach that has been widely studied to reduce this anxiety is through health education in preparation for childbirth. This health education aims to provide comprehensive information regarding the birthing process, relaxation techniques, pain management, and mental preparation so that pregnant women feel more prepared and less anxious about childbirth.

Previous research has provided strong evidence regarding the effectiveness of childbirth preparation health education in reducing anxiety in pregnant women. For example, research by Rachmawati (2020) found that pregnant women who took part in a childbirth preparation health education program showed a significant reduction in anxiety levels compared to those who did



not take part in the program. Additionally, a study by Sari et al. (2021) also show that structured health education can help pregnant women feel more confident and ready to face childbirth, which in turn reduces their anxiety levels. These findings demonstrate the importance of health education programs in supporting the mental health of pregnant women and ensuring a more positive birth experience.

Based on the results of statistical analysis, it can be seen that there is a significant influence between providing health education regarding childbirth preparation on the anxiety level of TM III pregnant women from a p value of  $0.00 < 0.05$  (95% confidence level). Based on the results of the correlation data, it shows that these 2 variables have a very strong and positive relationship, which is shown by the correlation value of  $0.744 > 0.374$  ( $r_{Table\ df = 28}$  with a significance of 5% is 3.74).

The results of statistical analysis from previous research show that health education in preparation for childbirth has a significant influence in reducing the anxiety level of pregnant women. Quantitative studies using experimental and quasi-experimental methods often report significant reductions in anxiety scores following health education interventions. Research by Suryanti (2021) shows that there is a difference in the level of anxiety of pregnant women in the third trimester after being given health education using lecture and leaflet methods with a value of  $p=0.000$ . Health education given to pregnant women during antenatal care has been proven to be able to increase pregnant women's knowledge of their pregnancy.

Research conducted by Rachmawati (2020) used an independent t-test to compare a group of pregnant women who received childbirth preparation health education with a control group who did not receive the intervention. The results of the analysis showed that there was a statistically significant difference in anxiety levels between the two groups, with the intervention group showing a greater reduction in anxiety ( $p < 0.05$ ). Research conducted by Muzayyana and Sitti (2021) shows that maternal education has a very strong relationship with anxiety of pregnant women in the third trimester during the Covid-19 pandemic with a significant value ( $PV=0.028 < 1 \pm 0.05$ ).

Another research conducted by Sari et al. (2021) used linear regression analysis to evaluate factors that influence pregnant women's anxiety levels after participating in a health education program. The results of the analysis show that childbirth preparation health education is a significant predictor of reducing anxiety levels, even after controlling for other variables such as age, parity, and social support. These findings indicate that health education is not only effective in reducing anxiety directly but also has a long-term impact in increasing the mental readiness of pregnant women. Robust statistical analysis of these studies confirms the importance of implementing childbirth preparation health education programs as a strategy to improve the mental health of pregnant women.

## CONCLUSION

Based on the results of the frequency of respondent characteristics, the majority of

respondents were under 25 years old, totaling 20 people with a percentage of 66.7%, while respondents over 25 years old totaled 10 people with a percentage of 33.3%. Most respondents had a high school education, totaling 22 people with a percentage of 77.3%, and none had only an elementary school education. The respondents were predominantly mothers who did not work, numbering 21 people with a percentage of 70%, while working mothers numbered 9 people with a percentage of 30%. Based on data on the frequency distribution of anxiety levels, before providing health education on childbirth preparation, the highest levels of anxiety were moderate and severe, each amounting to 10 people with a percentage of 33.3%.

Mild anxiety was reported by 6 people with a percentage of 20%, one person (3.3%) did not feel anxious, and 3 people (10%) felt panic. After providing health education on childbirth preparation, mild anxiety became the most common, reported by 16 people with a percentage of 53.3%. Moderate anxiety was reported by 10 people (33.3%), severe anxiety by 3 people (10%), one person (3.3%) did not feel anxious, and no respondents felt panic. Based on the table on the influence of anxiety levels, it can be seen that health education on childbirth preparation for third trimester pregnant women has a very significant effect on reducing anxiety levels. This is evidenced by a p-value of  $0.00 < 0.05$  (95% confidence level). The correlation data shows a very strong and positive relationship between the two variables, with a correlation value of  $0.744 > 0.374$  ( $r_{Table\ df = 28}$  with a significance of 5% is 0.374).

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