

The Relationship of Mental Readiness of Primigravida Pregnant Women with the Level of Anxiety Before Childbirth

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ABSTRACT

Mental readiness is an important factor influencing the psychological state of pregnant women before delivery. In primigravida mothers, lack of experience and knowledge about the labor process often triggers increased anxiety. Anxiety in the period before delivery can impact the smoothness of the labor process, the mother's ability to adapt, and the well-being of the fetus. This study aims to determine the relationship between the mental readiness of primigravida pregnant women and the level of anxiety before delivery in the work area of the Ambacang Padang Community Health Center. The study used a descriptive analytical design with a cross-sectional approach. A total of 40 primigravida pregnant women were selected through a purposive sampling technique. The research instruments were a mental readiness questionnaire and an anxiety level questionnaire. Data analysis was performed univariately to describe the characteristics of the respondents and bivariately using the Chi-Square test. The results showed that 26 respondents (65%) had low mental readiness and 14 respondents (35%) had high mental readiness. The anxiety levels consisted of low (15%), moderate (45%), and high (40%). The Chi-Square test showed a significant relationship between mental readiness and anxiety levels ($p < 0.05$). Mothers with low mental preparedness are more likely to experience moderate to high levels of anxiety. This finding underscores the importance of midwives' role in providing antenatal education, childbirth preparation counseling, and psychological support to improve mental preparedness and reduce anxiety.

Keywords: *Mental Readiness, Primigravida, Anxiety, Childbirth*

INTRODUCTION

Pregnancy is an important period in women's lives, which marks physical, emotional and psychological changes. During pregnancy, especially for primigravidian mothers, there are many changes and uncertainties that can affect mental readiness to face childbirth. Primigravidian mothers often feel high anxiety related to the labor process due to lack of experience and knowledge about the labor that will be faced (Amin et al., 2021).

Anxiety in primigravida pregnant women is a significant issue, both in developed and developing countries, including in Indonesia. In the later stages of pregnancy, the primigravidian mother often feels a deep uncertainty about the process of childbirth that she has never experienced before. Some of the main factors that contribute to this anxiety include fear of pain felt during the delivery process, concern for possible complications, as well as uncertainty about the baby's health condition. This fear of the Unknown often increases the level of anxiety experienced by primigravida pregnant women (Syriac et al., 2022).

In addition, the anxiety experienced by pregnant women can also be influenced by a lack of knowledge about the labor process itself. Many primigravid mothers do not have a clear idea of how Labor will take place, what will happen during the process, and how to deal with it properly. This limited knowledge makes pregnant women tend to feel more anxious and worried, especially if they do not have adequate support. Some studies show that mothers who are less informed or educated about childbirth are more likely to experience higher anxiety (Wang et al., 2021).

Excessive anxiety during pregnancy can have a considerable negative impact, both on the mother and the baby. Physiologically, anxiety can lead to increased levels of stress hormones such as cortisol, which in turn can affect the mother's body systems, including reproductive function. Excessive anxiety can also cause premature contractions, slow the progress of Labor, and potentially trigger other complications. In addition, uncontrolled anxiety can exacerbate pain during labor, making mothers more susceptible to fatigue and physical trauma (Nguyen et al., 2020).

The psychological impact is no less important. Anxious mothers tend to feel less prepared for childbirth, which can interfere with the post-partum recovery process. Excessive anxiety can cause the mother to feel anxious and afraid to face the newborn, leading to an increased risk of post-natal depression. Therefore, it is important for medical personnel to provide more intensive support to primigravida pregnant women, both through adequate education and through psychological approaches that can help reduce their anxiety ahead of childbirth (Suryani et al., 2022).

From a clinical perspective, high anxiety can affect the mother in physiological and psychological terms. Anxious mothers tend to show muscle tension, respiratory distress, and an inability to relax, which can hinder the delivery process. Even severe anxiety can have an impact on an increased risk of obstetric complications and difficulties in postpartum recovery (Nguyen et al., 2020).



Based on various studies, primigravidian mothers are more likely to experience anxiety compared to mothers who have experienced it (multigravida). Research shows that about 40% to 50% of primigravidian mothers experience high anxiety leading up to childbirth, with various factors such as lack of knowledge about childbirth and fear of the risk of complications (Liao et al., 2021). This shows the importance of attention to the mental readiness of primigravida pregnant women.

The mental readiness of primigravida pregnant women is very related to the level of anxiety they experience. Mental preparedness involves an understanding of the birthing process, confidence in coping with childbirth, and support received from a partner, family, and health workers. Mothers who feel mentally prepared tend to have lower levels of anxiety and are better able to deal with childbirth more calmly (Wang et al., 2021).

Some of the factors that affect the mental readiness of pregnant women include knowledge regarding childbirth, attitude towards birth, previous experience (if any), and social support. Recent research has shown that mothers who receive antenatal education and counseling are better able to manage anxiety and feel better prepared for childbirth (Amin et al., 2021). Therefore, it is important for health workers to provide clear and in-depth information about the labor process.

Midwives play an important role in helping expectant mothers mentally prepare them for childbirth. Support from midwives who educate mothers about childbirth, provide relaxation techniques, as well as reduce fear through effective communication can reduce the level of maternal anxiety (Pires et al., 2020). In addition, social support from couples and families also contributes greatly to the mental readiness of pregnant women, so it can reduce feelings of anxiety and increase self-confidence (Nguyen et al., 2020).

Recent research has also shown a significant relationship between mental readiness and anxiety in pregnant women, especially in primigravid mothers. Mothers who felt mentally prepared, with good knowledge and adequate support, showed lower levels of anxiety. Conversely, mothers who lack preparation and knowledge are more likely to experience high anxiety ahead of delivery (Liao et al., 2021).

In Indonesia, the prevalence of anxiety in primigravida pregnant women is still quite high. Studies conducted in several regions report that about 30% to 40% of primigravidian mothers experience moderate to severe anxiety. This condition indicates that there is a need for greater efforts in providing education and support to pregnant women, especially in primigravida (Suryani et al., 2022).

Based on this background, research on the relationship of mental readiness with the level of anxiety before childbirth in primigravida pregnant women is very important. This research is expected to contribute to the development of strategies to improve the mental readiness of pregnant women and reduce anxiety, as well as assist in designing more effective educational programs in antenatal services at the Ambacang Padang Health Center.

METHODS

This study used a quantitative design with a correlational approach, which aims to determine the relationship between mental readiness primigravida pregnant women with anxiety levels before delivery. The sample consisted of 40 primigravida pregnant women who were in the working area of Ambacang Padang Health Center. Sample selection using purposive sampling technique with inclusion criteria primigravida pregnant women at 34-40 weeks of gestation, willing to participate in the study, and do not have mental disorders or severe medical complications. Pregnant women who meet these criteria will be asked to fill out two main instruments of the study: a mental readiness questionnaire and an anxiety scale.

The mental readiness of the mother was measured using a questionnaire specially designed to assess the knowledge, attitude and emotional readiness of primigravida pregnant women in the face of childbirth. This questionnaire uses a Likert scale with four answer options and a higher score indicates better mental readiness. Maternal anxiety levels were measured using the State-Trait Anxiety Inventory (STAI), which measures situational anxiety and permanent anxiety on a Likert scale. Both of these instruments have been proven to be valid and reliable in previous studies. Data collection was done by asking participants to fill out questionnaires independently after getting an explanation of the objectives and procedures of the study.

The collected Data will be analyzed using software. Before performing the analysis, a normality test is performed to ensure the distribution of data. For normally distributed data, the Pearson correlation test is used to measure the relationship between two variables (mental readiness and anxiety). If the data is not normally distributed, the Spearman correlation test will be used as an alternative. This analysis aims to determine whether there is a significant relationship between the mental readiness of primigravida pregnant women and the level of anxiety before childbirth. The significance of the relationship is determined based on the value of $p < 0.05$. Research ethics is maintained by obtaining a letter of informed consent from all participants, as well as ensuring the confidentiality of participants' identities.

RESULTS

The results obtained based on univariate and bivariate analysis that can be used to describe the results of research on the relationship of Mental Readiness Primigravida pregnant women with the level of anxiety before childbirth in the Working Area of Ambacang Health Center as follows:

1. Univariate Results of Mental Preparedness and Anxiety

Table 1. Univariate Results of Mental Preparedness and Anxiety

Variable	Frequency (n)	Percentage (%)
Mental Readiness of Pregnant Women		
Primigravida		
Very ready	10	25%
Simply ready	18	45%



Variable	Frequency (n)	Percentage (%)
Less ready	12	30%
Emergency Level of Primigravida Pregnant Women		
Low emergency	16	40%
Emergency is on	12	30%
High emergency	12	30%

Based on table 1 obtained from 40 primigravida pregnant women studied, the majority (45%) of pregnant women feel quite ready for childbirth, followed by 30% who feel less ready and 25% who feel very ready. This shows that most pregnant women in the region feel the need for more preparation to face childbirth, both in terms of knowledge and emotional support. Regarding anxiety, almost half (40%) of pregnant women experience low anxiety, but there are 30% who experience high anxiety and another 30% experience moderate anxiety. This shows that anxiety before childbirth is still quite high in some primigravida pregnant women, although there are a number of mothers who feel quite calm.

2. Bivariate Results of Correlation Between Mental Readiness and Anxiety

Table 2. Bivariate Results of Correlation Between Mental Readiness and Anxiety

Mental Readiness	Low-level anxiety	Moderate anxiety	High levels of anxiety	Total
Very Ready	8 (20%)	2 (5%)	0 (0%)	10 (25%)
Simply Ready	6 (15%)	6 (15%)	6 (15%)	18 (45%)
Less Ready	2 (5%)	4 (10%)	6 (15%)	12 (30%)
Total	16 (40%)	12 (30%)	12 (30%)	40 (100%)

The results obtained excellent mental readiness (very ready) associated with low anxiety, where 8 mothers (20%) feel their anxiety is low, and only 2 mothers (5%) who feel their anxiety is moderate. This suggests that mothers who are more mentally prepared are more likely to feel calm and less anxious. Adequate mental readiness was associated with more variable anxiety: 6 mothers (15%) experienced low anxiety, 6 mothers (15%) experienced moderate anxiety, and 6 mothers (15%) experienced high anxiety. This suggests that despite the tendency to have lower anxiety, some mothers with moderate mental readiness still experience quite high anxiety. More or less mental readiness was associated with high anxiety, of which 6 mothers (15%) felt very anxious, and 4 mothers (10%) experienced moderate anxiety. This confirms that mothers who feel poorly prepared are more prone to higher levels of anxiety.

3. Bivariate Correlation Analysis Between Mental Readiness and Anxiety

Table 3. Bivariate Correlation Analysis Between Mental Readiness And Anxiety

Variable	Mental Readiness	Anxious Level	Corelasi	Significance (p-value)
Mental Readiness	1.00	-	-	-
Emergency Level	-0.45	1.00	-0.45	0.015

The results obtained correlation between mental readiness and anxiety levels is -0.45 which indicates a moderate negative relationship between the two variables. That is, the higher the mental readiness of primigravida pregnant women, the lower the level of anxiety they feel on the eve of childbirth. A p-value of 0.015 indicates that the relationship between mental readiness and anxiety is statistically significant, since the p-value is < 0.05 . This confirms that the hypothesis according to which there is a connection between the mental readiness of the expectant mother and the level of anxiety is acceptable.

DISCUSSION

1. Mental Readiness of Pregnant Women Primigravida

Based on the results of the univariate analysis, it was found that the majority of primigravida pregnant women felt quite ready (45%) to face childbirth, followed by mothers who felt less prepared (30%) and very prepared (25%). These findings are in line with research by Suryani et al. (2022) who also found that most pregnant women feel quite prepared for the labor process, but their level of readiness is often not fully maximized. Most of the expectant mothers in the study did not seem to feel fully prepared, even though they received labor-related information. This readiness can be influenced by several external factors, including social support from family and health workers, as well as their perception of the uncertain birth process. This study highlights the importance of providing more complete education so that pregnant women feel more confident and ready to face the process of childbirth.

This finding is also supported by the Mental Readiness theory developed by Moser & Corwin (2019), which states that the mental readiness of pregnant women is influenced by internal and external factors. These factors include knowledge about childbirth, the physical and mental condition of the mother, as well as social support provided by family and health workers. According to this theory, mothers who feel more mentally prepared have a tendency to better control their anxiety and feel more confident facing childbirth. Conversely, mothers who feel poorly prepared tend to be more anxious and worried about the birth process, which can hinder their overall readiness. In this case, many mothers who feel sufficiently prepared can be understood as the result of education and information that may not have been deep enough or specific about the things they fear about the process of childbirth.

Another study by Terry & Bell (2023) also revealed that mental readiness is not only related to physical aspects, but is also greatly influenced by the psychological readiness of pregnant



women. In this study, they found that although most mothers feel adequately prepared, uncertainty and concern about the unpredictability of the labor process often lower their level of psychological readiness. This means that while pregnant women may be physically prepared, psychological aspects associated with fear of pain, concerns about complications, and concerns about the safety of the baby, may worsen their perception of their overall readiness. This study confirms that guesswork or uncertainty can significantly affect a mother's mental readiness.

Suryani et al. (2022) also identified that although many pregnant women feel quite prepared, they often feel less confident in the face of childbirth, especially when they do not fully understand the stages of labor or do not know what to expect during the birth process. The results of this study note that ignorance of the medical procedures that will be performed during childbirth, as well as possible complications, could be the main factors that cause high anxiety in pregnant women. Therefore, it is important that health workers provide a more complete and thorough education about the birth process, to help mothers feel better prepared and reduce uncertainty.

The Theory of stress and anxiety proposed by Lazarus & Folkman (1984) is also relevant in this context. They argue that the anxiety of pregnant women is directly related to their perception of the threats and challenges faced. When mothers feel they have no control over the delivery process or do not understand what will happen during the birth, their anxiety levels increase. This has the potential to affect their mental readiness to face childbirth. Conversely, mothers who feel they have control over the situation or who are given clear information about what is going to happen tend to be better prepared and calmer to face the birth process.

Research by Utami et al. (2021) also showed that mothers who experience high anxiety often have ignorance about the stages of labor or concern about the pain that will be experienced. Pregnant women who feel unprepared tend to have higher levels of anxiety because they don't know what to expect. This affects their ability to prepare mentally and physically. Therefore, high anxiety in pregnant women is closely related to the lack of emotional support and information they receive.

The importance of social support and antenatal education to improve the mental readiness of pregnant women has also been highlighted by Indriani & Fitria (2023). In their study, it was found that pregnant women who received support from their partners, families, as well as medical personnel were more likely to feel ready for childbirth. In addition, they are also better able to manage anxiety and stress that arise. Antenatal education, which involves knowledge of the birth process, relaxation techniques, as well as coping strategies for dealing with pain and stress, greatly helps the mother to feel more mentally prepared. This support minimizes the uncertainty they feel, which in turn reduces anxiety.

In this study, most mothers who feel sufficiently prepared for childbirth can be said to be in a position sandwiched between a sufficient level of knowledge and uncertainty about the birth process. The lower mental readiness of the primigravid expectant mother is often associated with the lack of accurate and in-depth information about the birth. Therefore, to improve the mental

readiness of pregnant women, it is very important to provide a more structured and thorough education, which includes an understanding of each stage of Labor, how to manage pain, as well as providing space for mothers to ask questions that can reduce their anxiety.

2. Anxiety Level of Primigravida Pregnant Women

Based on the results of a univariate analysis, it was found that 40% of primigravidian pregnant women had low anxiety, while 60% had moderate and high levels of anxiety (30% each). These findings suggest that although some mothers feel calm, anxiety in the run-up to delivery remains a significant problem for many expectant mothers. Research by Fitriani & Supriyati (2023) also shows that pregnant women's anxiety is influenced by their knowledge of childbirth, social support, as well as personal or family experiences related to birth. The lack of clear information about the birth process is often a trigger for anxiety.

Siregar et al. (2023) revealed that high anxiety in pregnant women is often related to uncertainty regarding the delivery process and concern for the safety of the baby. This uncertainty exacerbates mothers' anxiety because they feel they have no control over the situation to be faced. The cognitive stress theory from Lazarus & Folkman (1984) states that anxiety arises when individuals feel that an existing threat is beyond their control. In this case, the anxiety of expectant mothers arises when they feel unprepared or afraid of possible complications during birth.

In addition, Utami et al. (2021) states that pregnant women who experience high anxiety tend to have a negative perception of the birth process, which can worsen their physical and emotional condition. Fear of pain or complications can increase stress levels, potentially prolonging the labor process. Therefore, poorly managed anxiety can affect the smooth delivery and the health of the mother and baby.

A reduction in anxiety can be achieved through good social support and the provision of effective antenatal education. Research by Fitriani & Supriyati (2023) shows that pregnant women who have emotional support from their partner, family, and medical personnel tend to be calmer and feel more prepared for childbirth. Providing clear information about the birth process, the pain that may be experienced, and possible complications can reduce the uncertainty that often triggers anxiety.

In conclusion, although some mothers feel quite prepared, anxiety remains a significant problem in the run-up to childbirth. Therefore, it is important for health workers to provide thorough information about the birth process and provide appropriate emotional support. With good education and adequate psychological support, pregnant women can better manage their anxiety, which in turn can speed up the delivery process and improve the overall birth experience.

3. The Relationship Between Mental Readiness and Anxiety Levels

Based on the results of bivariate analysis, a significant negative relationship was found between the mental readiness of primigravid pregnant women and the level of anxiety before childbirth ($r = -0.45$, $p = 0.015$). That is, the higher the mental readiness of mothers, the lower the



level of anxiety they feel. These findings are in line with research by Suryani et al. (2022) who also found that mothers who felt more mentally prepared had lower levels of anxiety. These results support the social tension and support theory proposed by Cohen & Wills (1985), which states that good social support and mental readiness can reduce the impact of stress and anxiety on individuals. In the context of pregnant women, good mental readiness provides the basis for managing the anxiety that arises from the uncertainty and anxiety associated with childbirth.

According to Moser & Corwin (2019), the mental readiness of primigravida pregnant women is influenced by several important factors, such as knowledge of the labor process, skills in managing stress, as well as emotional support received from family and medical personnel. Expectant mothers who feel better prepared for childbirth tend to have better coping skills, so they can manage anxiety more effectively. Research by Indriani & Fitria (2023) also supports this finding, stating that mothers who get enough information about childbirth feel calmer and are better able to control anxiety. A good knowledge of the birth process helps mothers feel more mentally prepared, so they can reduce excessive worry.

One of the main findings of the study is the importance of social support in improving the mental readiness of pregnant women. Social support theory from House (1981) explains that effective social support can strengthen mental readiness and help individuals cope with stress and anxiety. In this case, pregnant women who have strong emotional support from their partner, family and medical personnel, are more likely to feel prepared for childbirth, which leads to a decrease in anxiety. The social support provided, both in the form of information and emotional guidance, is essential to build the pregnant woman's self-confidence, which can ultimately reduce the level of anxiety leading up to childbirth.

Research by Wulandari & Irwansyah (2023) adds that uncertainty about the delivery process is often the main trigger for anxiety in pregnant women. When pregnant women feel they have no control over the birth process or don't know enough about what's going to happen, they're more likely to experience high levels of anxiety. Therefore, the provision of antenatal education that includes complete information about the stages of Labor and what can be expected during the birth process is very necessary. Good antenatal education can help improve the mother's mental Readiness, which then reduces anxiety. When pregnant women feel better prepared with enough information, they are better able to deal with the fear and anxiety that arises.

These findings confirm the importance of effective education and emotional support for pregnant women in the face of childbirth. With the provision of clear, structured and empathetic information, the anxiety of pregnant women can be minimized. Mothers who have a good understanding of the birth process, including pain management and possible complications, tend to have better mental preparedness. This is also in line with The Theory of Mental Readiness described by Moser & Corwin (2019), which suggests that high mental readiness can decrease the anxiety of pregnant women. This decrease in anxiety in turn has the potential to speed up the delivery process, make the birth experience more positive, and improve the health of the mother and baby.

In conclusion, the mental readiness of pregnant women has a significant influence on the level of anxiety they experience in the run-up to childbirth. Mothers who are more mentally prepared, both in terms of knowledge and social support, tend to experience less anxiety. Therefore, it is important to improve antenatal education and provide adequate emotional support to pregnant women in order to prepare them for childbirth more calmly and confidently.

CONCLUSIONS

Based on the results of the univariate analysis, the majority of primigravidian pregnant women feel quite prepared for childbirth, although there are some who feel less prepared or very prepared. The mental readiness of expectant mothers is influenced by their knowledge of the process of childbirth, social support received, and skills in managing stress. Most mothers who feel adequately prepared tend to have low levels of anxiety, although some mothers still experience moderate and high levels of anxiety. Limited knowledge of birth as well as a lack of social support can lead to higher anxiety ahead of delivery, which prolongs uncertainty and increases stress.

In the bivariate analysis, a significant negative relationship was found between the mental readiness of pregnant women and the level of anxiety before childbirth ($r = -0.45$, $p = 0.015$). This suggests that the higher the mental readiness of mothers, the lower the anxiety they feel. Factors such as adequate knowledge of the birth process, effective coping skills, and good social support play an important role in improving mental readiness and reducing maternal anxiety. Mothers who feel more mentally prepared are better able to manage the fear and anxiety associated with childbirth, which has a positive effect on their birth experience.

In conclusion, both univariate and bivariate analyzes indicate that the mental readiness of primigravida pregnant women has a direct impact on the level of anxiety they experience in the run-up to childbirth. Social support, adequate information, and stress management are key factors in improving mental readiness and reducing anxiety. Therefore, it is important that medical personnel provide adequate education and support pregnant women emotionally, so that they can go through the birth process with more calm and confidence.

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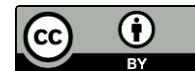
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