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Research Article

The Relationship Between Spirituality and Anxiety Levels in Third Trimester Pregnant Women

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ABSTRACT

The third trimester is a phase of pregnancy that is prone to increased anxiety before delivery, and spirituality is thought to play an essential role in helping to reduce this anxiety. This study aims to analyze the relationship between spirituality levels and anxiety levels in pregnant women in the third trimester. This study employed an analytical observational design with a cross-sectional approach and was conducted at RSIA Sitti Khadijah 1, Muhammadiyah Branch, Makassar, from November 10 to December 8, 2025. This study employed a total sampling approach to recruit 31 pregnant women in the third trimester who met the inclusion criteria. Spirituality levels were measured using the Daily Spiritual Experience Scale (DSES), and anxiety levels were measured using the Generalized Anxiety Disorder-7 (GAD-7). The results showed that most respondents had minimal anxiety levels (77.4%) and high spirituality levels (83.9%). The correlation test results showed a significant relationship between spirituality levels and anxiety levels ($p = 0.000$). This study suggests that higher spirituality is associated with lower anxiety levels. Therefore, it can be concluded that spirituality plays a vital role in helping pregnant women manage anxiety before childbirth and can be considered as part of a holistic approach to antenatal care.

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INTRODUCTION

Pregnancy is an important phase in a woman's life, marked by various physical, psychological, and social changes (Azizah et al., 2023). Hormonal and physiological changes during pregnancy are often accompanied by emotional instability and increased stress levels (Morton & Teasdale, 2022). In addition, various daily problems related to adapting to new roles and conditions can arise and potentially cause anxiety. Anxiety is an individual's natural response to situations that are perceived as threatening, whether they originate from within oneself or from the environment, and is still considered normal if it does not appear excessively (Crandon et al., 2024). However, anxiety that is not managed correctly can hurt the mental health of mothers and has the potential to trigger complications during pregnancy and childbirth (Ismail et al., 2024).

Anxiety during pregnancy, especially in the final trimester, is a significant health issue (Rachita et al., 2022). The World Health Organization (WHO) reports that approximately 30.0% of pregnant women worldwide face psychological challenges in the final trimester and experience anxiety prior to delivery (Mantouw & Rohmah, 2025). In the United Kingdom, approximately 81.0% of pregnant women are reported to experience mental health problems (Wibowo et al., 2025). Meanwhile, in France, 7.9% of primigravida mothers experience anxiety, 11.8% experience depression, and 13.2% experience both simultaneously (Halil & Puspitasari, 2023). In Indonesia, the prevalence of anxiety among pregnant women approaching childbirth is around 26.8% (Hasyati et al., 2025). This condition not only affects the psychological well-being of mothers but also contributes to the risk of complications such as hypertension, prolonged labor, increased cesarean section rates, post-traumatic stress disorder, and postpartum depression (Grisbrook et al., 2022).

Fear and anxiety in pregnant women approaching labor can trigger a stress response that directly affects the birth process (Horsch et al., 2024). A lack of knowledge about the labor process can increase fear, which in turn triggers hormonal changes, including sodium retention, increased potassium excretion, and decreased glucose levels, all of which are required for uterine contractions. Additionally, increased epinephrine release can inhibit uterine muscle activity. In contrast, norepinephrine can disrupt the coordination of uterine contractions, thereby reducing the effectiveness of delivery and increasing the likelihood of prolonged labor. This issue is critical in the context of developing countries, including Indonesia, which still faces high maternal mortality rates (Syairaji et al., 2024).

In recent years, attention to psychosocial factors, particularly spirituality, has increased in maternal health studies (Hosaini et al., 2023). In Iran, it has been shown that the level of spiritual intelligence of pregnant women is related to their level of fear and anxiety about childbirth (Abdollahpour & Khosravi, 2017). Lower levels of spiritual intelligence are associated with higher levels of anxiety, while higher spiritual intelligence acts as a protective factor. In addition, mothers' spiritual development is believed to contribute to fetal psychological development, given that fetuses can respond to their mothers' emotional and psychological states during pregnancy (Monterrosa-Castro et al., 2023).

In their research, Dominguez et al. (2024) showed that spirituality has been proven to play a role in increasing life expectancy, reducing alcohol consumption, and lowering levels of anxiety, depression, and anger (Dominguez et al., 2024). Religious practices such as prayer, fasting, and recitation of prayers are also known

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to trigger relaxation responses that contribute to lower blood pressure and improved quality of life (Suseno, 2024). Therefore, spiritual beliefs and practices play an important role in maintaining human mental and physical health. Research specifically examining the relationship between spirituality levels and anxiety levels in third-trimester pregnant women is still relatively limited, especially in the Indonesian social and cultural context. Therefore, this study aims to analyze the relationship between spirituality levels and anxiety levels in third-trimester pregnant women as a basis for developing a more holistic, integrative, and welfare-oriented approach to antenatal care for mothers and babies.

METHODS

Research Design and Subjects

The research design used was an analytical observational study with a cross-sectional approach that aimed to determine the relationship between spirituality levels and anxiety levels in third-trimester pregnant women. This study was conducted at the Sitti Khadijah 1 Muhammadiyah Hospital in Makassar from November 10 to December 8, 2025. The research subjects were all pregnant women in the third trimester who attended Antenatal Care (ANC) during the study period. The third trimester was chosen because during this phase, pregnant women generally experience increased anxiety related to preparation for childbirth and fetal health.

Sampling Method

Sampling was conducted using a total sampling technique, whereby all pregnant women in their third trimester who met the inclusion criteria and did not meet the exclusion criteria were included in the study sample. The inclusion criteria were pregnant women aged 27–40 weeks, aged 18–45 years, with no history of mental disorders, and willing to be respondents. Exclusion criteria included pregnant women with severe medical complications such as severe preeclampsia or uncontrolled gestational diabetes.

Data Collection

Data were collected through primary questionnaires completed directly by respondents, with assistance from researchers. Spirituality levels were assessed using the Daily Spiritual Experience Scale (DSES), and anxiety levels were assessed using the Generalized Anxiety Disorder 7-item scale (GAD-7). This study obtained ethical approval from the Research Ethics Committee of Universitas Muslim Indonesia, Makassar, Indonesia, through an expedited review process with approval number 839/A.1/KEP-UMI/X/2025, dated October 24, 2025, and valid until October 24, 2026. Institutional permission was also obtained prior to data collection, and all respondents were informed of the study objectives, the confidentiality of their responses, the voluntary nature of participation, and their right to withdraw from the study at any time.

Statistical Analysis

The collected data were analyzed using SPSS 24.0. The analysis was performed using a correlation test to assess the relationship between spirituality and anxiety levels. The Spearman's rank correlation was used because the data were ordinal and not normally distributed. A p-value < 0,05 was considered statistically significant.

RESULTS

Data collection was conducted at RSIA Sitti Khadijah 1 Muhammadiyah Branch, Makassar, from November 10 to December 8, 2025. A total of 31 pregnant women in the third trimester who met the inclusion criteria completed the

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questionnaire. The questionnaire consisted of demographic characteristics, the Generalized Anxiety Disorder 7-item scale (GAD-7) to assess anxiety levels, and the Daily Spiritual Experience Scale (DSES) to assess spirituality levels.

Based on Table 1, the demographic characteristics of the respondents show that most pregnant women were in the 26–30 age group, namely 15 people (48,4%), followed by the 21–25 age group with 11 people (35,5%), and the 31–38 age group with five people (16,1%). By parity, most respondents were primigravida (58,1%), whereas multigravida accounted for 13 (41,9%). By gestational age, most respondents were at 32–36 weeks (19 people, 61,3%), followed by 9 (29,0%) at 37–40 weeks and 3 (9,9%) at 27–31 weeks. By occupation, most respondents were housewives 25 (80,6%). The remainder worked as private employees (12,9%), civil servants (3,2%), and teachers (3,2%). All respondents in this study were Muslim (100%).

Based on Table 2, the distribution of respondents' anxiety levels shows that most pregnant women in their third trimester were in the minimal anxiety category, namely 24 people (77,4%). Respondents with mild anxiety levels numbered five people (16,1%), while respondents with moderate and severe anxiety levels numbered one person each (3,2%). The distribution of spirituality levels indicates that most respondents have high spirituality levels (26; 83,9%). Four respondents (12,9%) were in the moderate spirituality category, and only one respondent (3,2%) had low spirituality levels.

Table 1. Distribution Based on Patient Demographic Characteristics

Patient Characteristics	Frequency (%)
Age	
21-25 years old	11 (35.5)
26-30 years old	15 (48.4)
31-38 years old	5 (16.1)
Parity	
Primigravida	18 (58.1)
Multigravida	13 (41.9)
Gestational Age	
27-31 weeks	3 (9.9)
32-36 weeks	19 (61.3)
37-40 weeks	9 (29.0)
Profession	
Housewife	25 (80.6)
Civil Servant	1 (3.2)
Private Employee	4 (12.9)
Teacher	1 (3.2)
Religion	
Islam	31 (100.0)

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Table 2. Distribution of Anxiety Levels and Spirituality in Pregnant Women in the Third Trimester

Research Variables	Frequency (%)
Anxiety Level	
Minimal	24 (77.4)
Mild	5 (16.1)
Moderate	1 (3.2)
Severe	1 (3.2)
Spirituality Level	
Low	1 (3.2)
Moderate	4 (12.9)
High	26 (83.9)

Table 3. The Relationship Between Anxiety Levels and Spirituality in Pregnant Women in Their Third Trimester

Research Variables	Spirituality Level			*p-value*
	Low N (%)	Moderate N (%)	High N (%)	
Anxiety Level				
Minimal	0 (0,0)	1 (3.2)	23 (74.2)	<0.000
Mild	0 (0.0)	2 (6.4)	3 (9.7)	
Moderate	0 (0.0)	1 (3.2)	0 (0.0)	
Severe	1 (3.2)	0 (0.0)	0 (0.0)	

Based on Table 3, most respondents with high spirituality levels were in the minimal anxiety category, accounting for 23 respondents (74.2%). In contrast, the only respondent with low spirituality was in the severe anxiety category. This pattern suggests that lower anxiety levels were more frequently observed among respondents with higher spirituality levels. The Spearman's rank correlation test showed a statistically significant negative relationship between spirituality and anxiety levels among third-trimester pregnant women ($\rho = -0.649$; 95% CI: -0.87 to -0.28; $p < 0.001$). This indicates a strong negative correlation, suggesting that higher spirituality levels were associated with lower anxiety levels. Therefore, spirituality may serve as an important psychological and spiritual resource for pregnant women in managing anxiety during the third trimester.

DISCUSSION

The results of the bivariate analysis showed a significant relationship between spirituality levels and anxiety levels in third-trimester pregnant women, with a p-value of 0.000. This relationship was negative, meaning that the higher the spirituality level of pregnant women, the lower the anxiety level felt prior to delivery. These findings are consistent with previous studies that suggest spirituality acts as an adaptive coping mechanism in dealing with stress and anxiety during pregnancy (Putri et al., 2023). In addition, pregnant women with

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good spirituality tend to have a better ability to make sense of the physical and emotional changes they experience, and show a higher attitude of acceptance and trust in the process of pregnancy and childbirth (Dehestani et al., 2019).

The role of spirituality as an adaptive coping mechanism can be understood through its ability to provide a sense of calm, hope, meaning, and acceptance of situations filled with uncertainty (Nagy et al., 2024). Pregnant women with high levels of spirituality tend to have a more positive perception of pregnancy and childbirth, thereby reducing excessive anxiety responses (Backes et al., 2022). This is in line with the view that spirituality is not only related to religious practices, but also includes psychological dimensions such as meaning of life, purpose, and a sense of connection to something greater than oneself (Lalani, 2020).

The results of this study are also consistent with Fajar's (2022) study, which found a significant relationship between spiritual self-care and anxiety levels in pregnant women in their third trimester (Yousriatin et al., 2022). Fajar reported that unmanaged anxiety can hurt the well-being of mothers and fetuses, including an increased risk of pregnancy complications and psychological adaptation disorders. Additionally, Kiyak (2025) showed that pregnant women who received spiritual support tended to experience lower levels of anxiety compared to those who did not receive such support (Kiyak, 2025). This study reinforces the findings of this research that spirituality is a practical internal resource for coping with stress and anxiety during pregnancy.

In the context of pregnancy, closeness to God or spiritual values can increase a sense of security and confidence that the birthing process is part of a life journey that can be undertaken with trust and peace of mind. This explains why pregnant women with high spirituality are better able to cope with anxiety prior to childbirth than those with low spirituality. High anxiety in pregnant women is an important risk factor for maternal and neonatal complications, such as sleep disturbances, increased blood pressure, preterm labor, and postpartum psychological distress (Grisbrook et al., 2022). Therefore, this study has practical implications for maternal health services, particularly by strengthening a holistic approach that addresses not only the physical but also the psychological and spiritual dimensions of pregnancy.

In addition to spirituality, social support from partners, families, and communities also plays a role in reducing anxiety in pregnant women. Emotional and instrumental support can strengthen feelings of security and appreciation, which in turn reinforce the protective effects of spirituality against anxiety. Thus, interventions that integrate spiritual and social support have the potential to yield greater benefits. Based on this research, spirituality can be recommended as one component of non-pharmacological interventions in antenatal care, for example, through spirituality-based counseling, facilitating religious practices according to respondents' beliefs, and education on the importance of physical, psychological, and spiritual balance during pregnancy. The integration of this approach is expected to improve the quality of life for pregnant women and support a healthier, more comfortable delivery process.

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CONCLUSION

This study shows that most pregnant women in their third trimester experience minimal to mild anxiety, although a small number still experience moderate to severe anxiety. The majority of respondents have a high level of spirituality. Bivariate analysis confirmed a significant relationship between spirituality and anxiety levels ($p < 0.05$), with a tendency for higher spirituality to be associated with lower anxiety levels in pregnant women in their third trimester. This study employed a cross-sectional design, so it describes respondents' condition at a single point in time. Therefore, the results of this study cannot establish a causal relationship between spirituality and anxiety; they only indicate an association between the variables.

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