

Effectiveness of Holistic Midwifery Care on Anxiety Levels of Third-Trimester Pregnant Women

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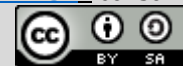
ABSTRACT

This study aims to evaluate the effectiveness of holistic midwifery care in reducing anxiety levels among third-trimester pregnant women. This study aims to evaluate the effectiveness of holistic midwifery care in reducing anxiety levels among third-trimester pregnant women. This research used a pre-experimental design with a one-group pre-test and post-test approach. A total of 30 third-trimester pregnant women visiting antenatal care services at City Public Health Center (Puskesmas Kota) were selected using purposive sampling. The intervention was conducted over two weeks in four sessions, which included pregnancy education, relaxation techniques, social support (involving husbands), and spiritual enhancement. Anxiety levels were measured using the Hamilton Anxiety Rating Scale (HARS) before and after the intervention. Data were analyzed using the Wilcoxon Signed Rank Test. The results showed a significant reduction in maternal anxiety scores following the intervention. The mean anxiety score decreased from 27.07 ± 4.66 before the intervention to 19.30 ± 4.90 after the intervention, with the Wilcoxon Signed-Rank Test indicating a statistically significant difference ($Z = -3.873$, $p < 0.001$). The intervention demonstrated a large effect size ($r = 0.71$), suggesting a substantial improvement in maternal psychological well-being. These findings suggest that holistic midwifery care may contribute to reducing anxiety among third-trimester pregnant women. However, given the one-group pretest-posttest design without a comparison group, the findings should be interpreted with caution. Integrating holistic approaches into routine antenatal care may support maternal mental health, although further controlled studies are needed to confirm these findings.

Keywords

Anxiety
Holistic Midwifery Care
Pregnant Women
Relaxation
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**Introduction**

Pregnancy is an important transitional period in a woman's life, during which major changes occur not only physically, but also psychologically, socially, and spiritually. From a midwifery perspective, pregnancy is a normal physiological process, but for most women, this period also becomes a moment full of uncertainty that causes anxiety. This anxiety can arise from early pregnancy and increase with gestational age, especially when entering the third trimester, which is the period approaching childbirth [1], [2].

The third trimester of pregnancy is a challenging period because pregnant women often experience various physical discomforts such as increased fetal weight, back pain, sleep disturbances, and digestive problems. At the same time, women also experience considerable psychological pressure as they begin to think about the childbirth process, the safety of the fetus and themselves, and their readiness to care for the baby after birth. These conditions can trigger anxiety during late pregnancy. Studies show that anxiety symptoms tend to increase during the third trimester, with prevalence estimates reaching around 24% among pregnant women [3], [4], [5] If not managed properly, persistent anxiety during pregnancy may develop into clinical anxiety disorders or perinatal depression [6].

According to the World Health Organization (WHO), the prevalence of mental disorders during pregnancy ranges from 10–15%, and is even higher in developing countries. Data from the Indonesian Ministry of Health also show that psychological problems among pregnant women remain high, but are often undetected because health services focus more on the physical aspects of pregnancy such as monitoring blood pressure, body weight, or fetal growth. Anxiety disorders in pregnant women have significant impacts. In addition to disrupting the mother's quality of life, this condition can also cause obstetric complications, premature birth, and impaired fetal development and child mental health later in life ([7], [8], [9].

In the context of modern midwifery, the approach to caring for pregnant women cannot only emphasize biomedical aspects. The success of midwifery care must include improving overall maternal well-being, including fulfilling emotional and spiritual needs. Therefore, a holistic approach is needed in midwifery practice, which not only views pregnancy as a biological process, but also as a complete and meaningful human experience [10], [11].

Holistic midwifery care is a service approach that considers the individual as a whole bio-psycho-social-spiritual being. This care emphasizes the importance of the relationship between health workers and clients in building trust, providing emotional support, and helping pregnant women cope with changes and challenges during pregnancy. In practice, this care may include psychological counseling, childbirth preparation education, relaxation exercises, pregnancy exercise, partner support, and strengthening spiritual values according to the mother's beliefs [12], [13], [14].

Several studies have demonstrated the effectiveness of holistic approaches in improving maternal well-being during pregnancy. Relaxation techniques have been shown to reduce anxiety and physiological stress responses such as blood pressure [15]. Antenatal health education also plays an important role in reducing fear of childbirth and increasing maternal self-efficacy [16], [17]. In addition, social support from partners and family members is associated with better maternal mental health and reduced psychological distress [18]. Spiritual practices such as prayer or positive affirmations have also been found to provide emotional comfort and meaning for pregnant women facing uncertainty during pregnancy [19].

However, many health service facilities, both at the primary and secondary levels, have not fully integrated a holistic approach into midwifery care. This is caused by various factors such as limited service-time, lack of training for health workers, and the unavailability of standard operating procedures (SOPs) that support a holistic approach. As a result, many pregnant women do not receive adequate emotional and spiritual services, so the risk of anxiety disorders remains high, especially in the third trimester of pregnancy [14], [20], [21].

On the other hand, health workers, especially midwives, have a central role in providing meaningful care for pregnant women. As health professionals closest to the community, midwives play an important role not only in conducting clinical examinations but also in providing emotional support, empathetic communication, and helping women achieve a positive pregnancy and childbirth experience [22], [23]. The quality of interaction and continuity of care provided by midwives has been shown to improve maternal satisfaction and psychological well-being during pregnancy. Therefore, scientific evidence regarding the effectiveness of holistic midwifery care is needed so that this approach can be more widely adopted and integrated into maternal health service policies [24].

Through this study, the author aims to examine in depth whether holistic midwifery care can significantly reduce anxiety levels in third-trimester pregnant women. By using a pre-test and post-test design without a control group, the author will measure changes in anxiety levels before and after the provision of holistic care. The intervention will include pregnancy and childbirth education, relaxation techniques, emotional counseling, husband involvement, and spiritual strengthening according to the mother's cultural background.

This study is expected to provide scientific and practical contributions to the field of midwifery. Scientifically, this study can strengthen evidence that a holistic approach plays an important role in reducing anxiety and increasing maternal readiness for childbirth. Practically, the results of this study can be used as a basis for developing a more humane, empathetic, and comprehensive midwifery care model. Thus, midwifery services are not only oriented toward safe birth outcomes, but also ensure a mentally and spiritually healthy pregnancy experience.

Thus, this study becomes relevant and important, not only to improve the quality of antenatal care services, but also to support the achievement of national health development goals, namely reducing maternal and infant mortality rates through holistic, sustainable, and mother-centered services that view mothers as whole human beings

Material and Methods

A. Study Design and Setting

This study employed a quantitative pre-experimental design using a one-group pre-test-post-test approach. The design was used to evaluate changes in anxiety levels among third-trimester pregnant women before and after receiving holistic midwifery care. All study procedures were conducted at the City Community Health Center. Anxiety was assessed immediately before the intervention as the pre-test and reassessed after completion of the intervention as the post-test. Because the study did not include a control group or random allocation, the observed changes were interpreted as within-participant differences following the intervention rather than as definitive evidence of causality.

B. Participants and Sampling

The study population consisted of third-trimester pregnant women attending antenatal care (ANC) services at the City Community Health Center during the study period. Participants were recruited using purposive sampling according to predetermined eligibility criteria. A total of 30 pregnant women who met the study criteria and completed the intervention were included in the analysis.

Participants were eligible if they had a gestational age of ≥ 28 weeks, were willing to participate in the entire study procedure, were able to read and write, and did not have severe pregnancy complications such as severe preeclampsia or gestational diabetes. Pregnant women undergoing psychiatric treatment were excluded because such treatment could independently influence anxiety outcomes. Participants who were unable to complete all intervention sessions were also excluded from the final analysis.

C. Measurement of Anxiety

Maternal anxiety was assessed using the Hamilton Anxiety Rating Scale (HARS). The HARS consists of 14 items assessing psychological and somatic manifestations of anxiety. Each item is rated on a five-point scale ranging from 0 (*not present*) to 4 (*very severe*), producing a total

score ranging from 0 to 56. Higher total scores indicate greater anxiety severity. The total HARS score was used as the primary outcome variable, and changes between pre-intervention and post-intervention scores were examined to assess the effect of holistic midwifery care.

Before the main data collection, the instrument was pilot-tested among pregnant women with characteristics comparable to those of the study population who were not included in the final sample. Item validity was assessed using corrected item-total correlations. All 14 items met the predetermined validity criterion of ≥ 0.30 . Internal consistency analysis produced a Cronbach's alpha coefficient of 0.72, indicating acceptable reliability for the study population. Based on these results, the instrument was considered sufficiently valid and reliable for assessing anxiety in the present study.

D. Holistic Midwifery Care Intervention

The holistic midwifery care intervention was implemented using a standardized protocol developed with reference to Indonesian Ministry of Health antenatal care guidelines, principles of holistic midwifery care, and evidence-based approaches to reducing anxiety during pregnancy. Prior to implementation, the intervention protocol was reviewed by two senior midwifery lecturers and one obstetrician to assess the appropriateness and relevance of its content.

The intervention was delivered by the same certified midwife, who had more than five years of experience in maternal health services. Before the study began, the midwife completed a one-day orientation and training session on the intervention manual to standardize the delivery of educational, psychological, relaxation, and spiritual components.

Participants attended four individual face-to-face sessions over a two-week period, with two sessions conducted each week. Each session lasted approximately 60 minutes and was conducted in a private counseling room at the Community Health Center. The four sessions comprised:

- Session 1 – Pregnancy education and childbirth preparation: information on physiological changes during the third trimester, signs of labor, childbirth preparation, and strategies for coping with concerns related to delivery.
- Session 2 – Relaxation and breathing techniques: guided breathing and relaxation exercises intended to reduce physical tension and anxiety.
- Session 3 – Psychological counseling and social support: supportive counseling addressing pregnancy-related concerns, emotional adaptation, and involvement of the husband as a source of social support.
- Session 4 – Spiritual strengthening: activities adapted to the participant's beliefs, including prayer, *dhikr*, and positive affirmations where appropriate.

Between sessions, participants were encouraged to practice breathing relaxation

techniques and positive affirmations at home for approximately 15–20 minutes per day. At the beginning of each subsequent session, the midwife asked participants about their home practice, discussed difficulties encountered, and provided additional guidance when necessary.

E. Data Collection and Intervention Fidelity

Data collection consisted of three consecutive stages. First, a pre-test was conducted before the intervention to establish each participant's baseline anxiety level using the HARS. Second, participants completed the four-session holistic midwifery care intervention over two weeks. Third, the post-test was administered two days after the fourth intervention session using the same HARS instrument to evaluate changes in anxiety scores.

Several procedures were applied to maintain intervention fidelity. All sessions were delivered by the same certified midwife using a standardized intervention manual and session checklist. Attendance was documented for every session, and only participants who completed all four sessions were included in the final analysis. After each intervention session, the midwife completed a fidelity checklist confirming whether all planned intervention components had been delivered. The principal investigator periodically reviewed the completed checklists to assess adherence to the intervention protocol and consistency of implementation across participants.

F. Statistical Analysis

Data were analyzed using IBM SPSS Statistics. Descriptive statistics were used to summarize participant characteristics and anxiety scores. Continuous variables were presented using appropriate measures of central tendency and dispersion, whereas categorical variables were summarized using frequencies and percentages. The distribution of pre-test and post-test HARS scores was assessed using the Shapiro–Wilk test. Because the anxiety scores did not meet the assumption of normality, differences between paired pre-test and post-test scores were examined using the Wilcoxon signed-rank test. Statistical significance was established at $p < 0.05$. In addition to statistical significance, the magnitude of the intervention effect was estimated using the standardized effect size:

$$r = \frac{|Z|}{\sqrt{N}} \quad (1)$$

where Z represents the standardized Wilcoxon test statistic and N represents the number of paired observations. Effect sizes were interpreted according to conventional criteria as small ($r \approx 0.10$), moderate ($r \approx 0.30$), and large ($r \geq 0.50$). Reporting the standardized effect size allowed the practical magnitude of the pre–post change to be evaluated in addition to the statistical significance of the intervention.

Results and Discussions

This research was conducted on 30 pregnant women, with the pre-test results as

follows. Table 1 summarizes anxiety scores before and after the holistic midwifery intervention using measures of central tendency and dispersion. The Wilcoxon signed-rank test evaluates whether the pre-post difference is statistically significant, while the standardized effect size (r) indicates the magnitude of change, complementing the reported p -value with practical significance.

Table 1. Descriptive Statistics and Wilcoxon Signed-Rank Test Results for Anxiety Scores Before and After the Intervention

Variable	Mean $\pm$ SD	Median (IQR)	Minimum-Maximum	Z	p-value	Effect Size (r)
Pre-test	27.07 $\pm$ 4.66	26.5 (26.0–27.75)	20–38			
Post-test	19.30 $\pm$ 4.90	16.0 (16.0–21.75)	14–30	-3.873	0.001	0.71 (Large)

Descriptive analysis showed that the mean anxiety score decreased from 27.07 $\pm$ 4.66 before the intervention to 19.30 $\pm$ 4.90 after the intervention. The median anxiety score also declined from 26.5 (Q1–Q3: 26.0–27.75) to 16.0 (Q1–Q3: 16.0–21.75). The Wilcoxon Signed-Rank Test revealed a statistically significant reduction in anxiety scores following holistic midwifery care ($Z = -3.873$, $p < 0.001$). The calculated effect size was $r = 0.71$, indicating a large intervention effect. Among the participants, 15 experienced a reduction in anxiety scores, while no participant showed an increase, and 15 participants had unchanged scores.

This finding indicates that most third-trimester pregnant women experience significant psychological pressure before childbirth. The high level of anxiety can be caused by various factors such as concerns about the upcoming childbirth process. Lack of knowledge about danger signs of pregnancy and childbirth. Limited social support, especially from the partner. Hormonal and physical changes that cause discomfort. Thus, a holistic midwifery care-based intervention becomes important to be implemented, because this approach not only covers the physical aspects of pregnancy, but also provides space for fulfilling the emotional and spiritual needs of pregnant women.

The reduction in maternal anxiety observed in this study may be explained by the comprehensive nature of holistic midwifery care. Unlike conventional antenatal care, the intervention addressed multiple dimensions of maternal well-being, including physical, psychological, social, and spiritual aspects. Providing information about pregnancy and childbirth may reduce uncertainty and improve women's confidence in managing labour. Relaxation and breathing exercises may decrease physiological stress responses by promoting parasympathetic nervous system activity, whereas psychological counselling and husband involvement may strengthen emotional support and coping capacity. In addition, spiritual reinforcement may enhance emotional resilience and foster a sense of calmness when facing

childbirth. The integration of these complementary components is likely responsible for the substantial reduction in maternal anxiety observed after the intervention.

Unlike many previous studies that focused on a single intervention, such as childbirth education, relaxation exercises, or psychological counseling alone, the present study implemented a structured holistic midwifery care programme integrating physical, psychological, social, and spiritual components within a single intervention package. This multidimensional approach may explain the large effect size observed ($r = 0.71$), as addressing multiple aspects of maternal well-being simultaneously is likely to provide greater benefits than interventions targeting only one domain. The integration of husband involvement and spiritual support further distinguishes this intervention by promoting emotional resilience and strengthening maternal preparedness for childbirth.

The holistic approach departs from the assumption that individuals are whole beings in which the body, mind, and environment are interconnected. Therefore, the management of anxiety in pregnant women should not rely solely on medical treatment but also involve emotional and spiritual support as part of comprehensive maternity care [25], [26], [27]. Spiritual practices such as prayer, positive affirmations, and other religious approaches have been shown to provide psychological comfort, increase self-confidence, and help mothers cope with the challenges of pregnancy and childbirth [28], [29].

In addition, social support, especially from partners or family, plays a major role in reducing anxiety. The involvement of husbands in counseling and education sessions makes mothers feel more cared for and not alone in facing the challenges of pregnancy. This is in line with social support theory which states that the presence of close people during stressful processes can reduce psychological tension and increase emotional resilience [30], [31], [32].

Providing appropriate education is also an important component in reducing anxiety. The education provided in holistic care is not only informative, but also motivates mothers to be more confident and prepared to face the childbirth process. Fear of the unknown often becomes the main trigger of anxiety, and information delivered empathetically by health workers can reduce this uncertainty [33], [34].

These findings are also consistent with previous studies showing that psychological support and mind-body interventions during pregnancy can significantly reduce maternal anxiety. A systematic review found that relaxation therapy, mindfulness, and psychological counseling were effective in reducing anxiety symptoms among pregnant women (Abera et al., 2024; Vázquez-Lara et al., 2025). Another study also reported that supportive and woman-centered maternity care improves maternal satisfaction and reduces negative emotional experiences during late pregnancy and childbirth [37], [38].

The consistency between the present findings and previous studies may be attributed to the similar multidimensional nature of the interventions. Most previous studies incorporated educational, psychological, or relaxation components aimed at improving maternal coping skills and reducing uncertainty related to childbirth. Although the specific intervention protocols differed, they shared the common objective of enhancing maternal preparedness and emotional well-being, which may explain the comparable reductions in anxiety levels observed across studies.

Thus, it can be concluded that holistic midwifery care is not only statistically effective, but also clinically and practically relevant, especially in primary health care facilities such as Community Health Centers. The wider implementation of this approach is expected to improve the quality of antenatal care (ANC) services and provide a mentally and spiritually healthier pregnancy experience for pregnant women.

This study has several limitations. First, the one-group pre-test and post-test design without a control group limits the ability to attribute the observed reduction in anxiety solely to the intervention. Second, the relatively small sample size and recruitment from a single community health center may limit the generalizability of the findings. Future studies employing randomized controlled trials with larger and more diverse populations are recommended to further confirm the effectiveness of holistic midwifery care in reducing maternal anxiety.

From a clinical perspective, the findings suggest that integrating holistic midwifery care into routine antenatal services may improve maternal psychological preparedness for childbirth. Because the intervention combines educational, psychological, social, and spiritual components within a structured programme, it may provide a practical and low-cost strategy for addressing maternal anxiety in primary healthcare settings where access to specialized mental health services is limited.

From a clinical perspective, the findings suggest that integrating holistic midwifery care into routine antenatal services may improve maternal psychological preparedness for childbirth. Because the intervention combines educational, psychological, social, and spiritual components within a structured programme, it may provide a practical and low-cost strategy for addressing maternal anxiety in primary healthcare settings where access to specialized mental health services is limited.

Conclusion

This study suggests that holistic midwifery care may contribute to reducing anxiety levels among third-trimester pregnant women attending the City Community Health Center. A significant reduction in maternal anxiety scores was observed following the intervention,

supported by the Wilcoxon Signed-Rank Test ($Z = -3.873$, $p < 0.001$) and a large effect size ($r = 0.71$). The intervention, which integrated pregnancy education, relaxation techniques, partner support, and spiritual care, may have improved maternal psychological well-being by addressing multiple dimensions of health.

However, the findings should be interpreted with caution because this study employed a one-group pretest–posttest design without a comparison group. Consequently, the observed reduction in anxiety cannot be attributed exclusively to the intervention, and other factors may also have influenced the outcomes.

Nevertheless, the findings indicate that holistic midwifery care is a promising approach for supporting maternal mental well-being during late pregnancy. Integrating educational, psychological, social, and spiritual support into antenatal care may enhance maternal preparedness for childbirth. Future studies using controlled or randomized research designs with larger and more diverse populations are recommended to provide stronger evidence regarding the effectiveness of holistic midwifery care.

Conflict of Interest

The authors declare no conflict of interest.

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