

The Effect Of Psychoeducational Videos And Relaxation Techniques On Stress Reduction In Pregnant Women At The Pratama Larasati Clinic In 2025

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ABSTRACT

*Stress is a common psychological problem experienced by pregnant women and can have negative impacts on maternal health as well as fetal development. Unmanaged stress may increase the risk of pregnancy complications, emotional disturbances, and even preterm birth. This study aimed to analyze the effect of psychoeducational videos and relaxation techniques on reducing stress levels among pregnant women at Pratama Larasati Clinic in 2025.***Methods:** *This research employed a quasi-experimental design with a pretest-posttest control group design. The sample consisted of first- to third-trimester pregnant women who met the inclusion criteria, selected through purposive sampling. The research instrument used a validated and reliable pregnancy stress scale questionnaire. The intervention group received psychoeducational videos about healthy pregnancy along with guided relaxation techniques delivered in several sessions, while the control group only received standard antenatal care. Data were analyzed using paired t- tests to examine within-group differences and independent t-tests to compare between groups.***Results:** *The findings revealed a significant reduction in stress scores among pregnant women after receiving psychoeducational video and relaxation interventions ($p= 0.03 < 0.05$). In contrast, the control group showed no significant changes. Moreover, the difference in mean stress scores between the intervention and control groups was statistically significant, indicating the effectiveness of the intervention.***Conclusion:** *The combination of psychoeducational videos and relaxation techniques was proven effective in reducing stress levels in pregnant women. This approach offers a simple, practical, and non-pharmacological alternative that can be integrated into antenatal care services. Its implementation should be considered by healthcare providers to improve maternal mental health during pregnancy*

Keywords: *stress, pregnant women, psychoeducation, relaxation techniques*

I. INTRODUCTION

Pregnancy and childbirth are generally perceived as happy events. However, behind this happiness, many women experience emotional tension in response to the

drastic changes that occur within themselves, both physically and psychosocially. The period of pregnancy marks a phase of identity transition, from an individual to a mother, which is often accompanied by pressure to adapt to a new role, as well as anxiety about the safety of oneself and the fetus. From this perspective, pregnancy is not only a biological phenomenon, but also a *developmental* crisis that can trigger psychological stress responses (Özsaydı, Özsaydı and Gökçek, 2024).

Stress during pregnancy has become a significant global mental health issue, with varying prevalence rates between countries and regions. Globally, the World Health Organization (WHO) estimates that approximately 10% of pregnant women in developed countries and up to 15.6% in developing countries experience mental disorders such as anxiety or depression during pregnancy (WHO, 2023). However, data from various studies indicate that mild to moderate stress symptoms can be experienced by more than 70% of pregnant women, and approximately 10–16% experience severe stress (Afiyanti, Faridah and Selamita, 2022). In fact, in some low-income countries, the prevalence of pregnancy anxiety can reach more than 50%, indicating the urgency of more systematic treatment in antenatal services (Haeriyah, Wnarni and Agustin, 2024; Yanti and Hasrida, 2024).

In Indonesia, stress and anxiety during pregnancy are also high. Pascal et al. (2023) reported that approximately 28.7% of pregnant women experience anxiety about childbirth, based on a survey of pregnant women in their third trimester. This is reinforced by various data indicating that the psychological pressure experienced by pregnant women in Indonesia is closely correlated with economic factors, social support, and a history of high-risk pregnancies (Veri, Holiday and Rahayu, 2022). In general, nearly one-third of pregnant women in Indonesia experience mild to moderate stress, reflecting the importance of psychosocial interventions in midwifery practice.

A similar situation occurred in Banten Province, which is an area with a fairly high level of maternal stress. Data from research by Veri, Holiday, and Rahayu (2022) shows that 27.3% of the total 30,531 pregnant women in Banten experienced anxiety during pregnancy. Meanwhile, research by Wardani and Wulandari (2022) in Serang Regency recorded a prevalence of anxiety of 33.3% in pregnant women in their third trimester. Riskesdas 2018 also noted that emotional disorders among women of productive age in Banten reached 14%, slightly higher than the national figure of 10% (Indonesian Ministry of Health, 2018). These figures confirm that Banten Province is one of the regions that requires a specific strategy to address pregnancy stress and anxiety.

Stress in pregnant women can be influenced by various factors, including physical, psychological, and environmental factors. Physical and biological factors include hormonal changes that affect mood swings, discomfort due to nausea, vomiting, fatigue, back pain, or difficulty sleeping. Other physical and biological factors include pregnant women with comorbidities such as anemia, hypertension, or diabetes. Rapid changes in body shape that lower self-confidence can also be physical and biological factors that trigger stress in pregnant women. Psychological factors such as

anxiety about the health of the fetus, fear of childbirth, worries about not being a good mother, and a history of stress and trauma are also causes of stress in pregnant women. Lack of support from partners or family, domestic problems, economic conditions, and an uncomfortable environment (noisy, crowded, unsafe) are social and environmental factors that cause stress in pregnant women. Other causes of stress include work-related factors such as excessive workload, discrimination, and lack of support at work. Another factor is the pregnancy itself, such as high-risk pregnancies (e.g., multiple pregnancies, history of miscarriage), and unplanned pregnancies.

The impact of stress on pregnant women, if not handled properly, will affect the health of the mother and her unborn child. The impact on the mother can be physical disorders such as fatigue, headaches, insomnia, and high blood pressure. Psychological disorders such as excessive anxiety and depression during pregnancy and after childbirth are also effects of stress on pregnant women. In addition, a decrease in immunity and lifestyle disorders such as irregular eating habits and laziness in doing activities are further effects of stress on pregnant women. Further effects on the fetus include stunted growth, risk of premature birth, fetal brain development problems, and emotional and behavioral disorders in children in the future as a result of stress in pregnant women. Another consequence of stress in pregnant women is that it affects the delivery process. Usually, delivery takes longer or is more difficult due to muscle tension and high anxiety, and increases the risk of delivery by induction, vacuum, or cesarean section.

Negative psychological symptoms, such as stress, anxiety, and depression, are receiving increasing attention in the reproductive health literature. This is due to the complex impact of these conditions on the course of pregnancy and birth outcomes (Romero-Gonzalez *et al.*, 2020; Ng *et al.*, 2021). Evidence suggests that pregnant women experiencing emotional distress are more prone to pregnancy complications, including preterm birth, low birth weight, and fetal neurological developmental disorders. Furthermore, untreated psychological disorders during pregnancy have been shown to correlate with an increased risk of postpartum affective disorders and poor mother-child bonding in the early stages of the infant's life.

In the cognitive behavioral theory approach, pain is not viewed as merely a physical sensation, but rather as a complex and multidimensional psychological experience (Hubbard and Falco, 2020; Jayanti and Lestari, 2021; S. Herrera *et al.*, 2023). Pain that occurs during pregnancy, especially chronic pain, is influenced by how individuals interpret and respond to the condition. Every pregnant woman has a unique experience of pain, depending on the cognitive and emotional aspects that underlie it. Therefore, pain during pregnancy cannot be adequately explained by physical intensity alone.

The dimensions of pain encompass various factors, such as difficulties in performing daily activities, perceptions of social support, feelings of control over one's life, and levels of emotional distress (Karunakaran and Chinnappa, 2022; Turla *et al.*,

2024; Ghorpade and Kamble, 2025). All of these aspects form a framework of pain experience that is personal and varies between individuals. The pain experienced by pregnant women is a reflection of the interaction between biological conditions and inherent psychosocial circumstances. Thus, the experience of pain during pregnancy is a combination of physical factors and cognitive-affective processes that influence each other.

This view emphasizes that pain is not a one-dimensional phenomenon that can simply be measured on an intensity scale. Instead, pain is positioned as a behavioral response that is shaped by a person's mindset, beliefs, and social context (Arfianto *et al.*, 2022; Mangoulia, 2023a; Maurya *et al.*, 2025). Therefore, an effective pain management approach for pregnant women needs to include strategies that target cognitive and emotional dimensions. This approach opens up space for interventions such as psychoeducation and relaxation techniques as part of holistic pain and stress management during pregnancy.

In recent years, concerns about the side effects of medication use during pregnancy have led to a shift toward non-pharmacological intervention methods (Kay, Pollio and North, 2020; Baldisserotto, Melo and Meyer, 2021; S. N. Herrera *et al.*, 2023). Pregnancy is a sensitive physiological condition, so the choice of therapy needs to consider the safety of both the mother and the fetus. Various natural and simple approaches are now being applied in midwifery practice as safer and lower-risk alternatives. This is important considering that non-pharmacological interventions generally do not affect the labor process and do not cause significant clinical side effects.

Two prominent forms of intervention in this approach are psychoeducational videos and relaxation techniques, as described by Mohammadi and Parandin (2019). Psychoeducational videos provide structured and easy-to-understand information for pregnant women on how to cope with stress and build psychological readiness for pregnancy and childbirth. Meanwhile, relaxation techniques help relieve physical and emotional tension through breathing control and muscle tension release. Both approaches are considered safe, practical, and can be applied independently by pregnant women, both at home and in scheduled education sessions.

Thus, researchers are interested in conducting non-pharmacological interventions in the form of psychoeducational videos and relaxation techniques that will be applied to pregnant women at the Larasati Primary Clinic. This is because this clinic is one of the primary health care facilities that is quite active in providing antenatal services, but does not yet have a structured education program that targets the psychological aspects of pregnant women. Furthermore, based on preliminary data obtained through interviews with midwives, a number of pregnant women at the clinic showed a tendency to experience mild to moderate stress, but had not received adequate psychological support.

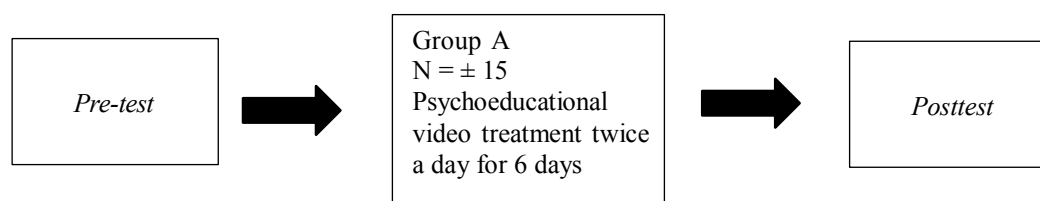
A preliminary study was conducted in July 2025 at the Larasati Primary Clinic as a first step to assess the psychological condition of pregnant women prior to the research.

Data collection was carried out through brief interviews and the completion of the *Perceived Stress Scale* (PSS-10) questionnaire by 30 pregnant women who met the inclusion criteria. The results showed that 30% of respondents experienced mild stress, 50% experienced moderate stress, while the remaining 20% of respondents did not experience stress. This shows that the distribution of stress levels was mostly in the moderate stress category. These findings are in line with the literature which states that lack of social support and attention from partners is a major trigger of stress during pregnancy, especially in primary health facilities. Based on field observations, antenatal services at this clinic still focus on physical examinations and fetal health, without any structured programs that accommodate the psychological needs of pregnant women. This condition reinforces the urgency of implementing educational and practical interventions, such as the use of psychoeducational videos and relaxation techniques, which are expected to reduce stress levels and improve the well-being of pregnant women.

II. RESEARCH METHOD

This study uses a quantitative approach with a *quasi-experimental* design. A *quasi-experimental design* was chosen because the researcher did not fully randomize the research subjects but still provided controlled treatment or intervention to the two groups being compared. Research Population: all pregnant women in their first to third trimesters at the Larasati Primary Clinic. Research Sample: treatment and control groups (± 15 people per group).

K1



K2

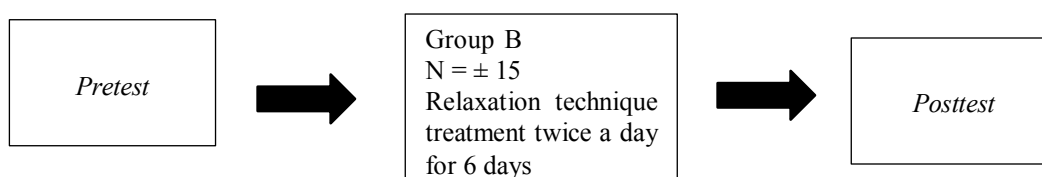


Figure 1 Research Design

As illustrated in Figure 1, the design used was a *pretest-posttest with two control groups*, namely two groups that were paired based on certain characteristics before the treatment was given. The first group received an intervention in the form of a psychoeducational video, while the second group received relaxation techniques. Data analysis in this study was conducted using descriptive statistics, normality tests, and

inferential tests. The choice of analysis method was adjusted to the type of data and research design, namely pretest and posttest in two different intervention groups. All analyses were aimed at answering the research objectives regarding the effect of psychoeducational videos and relaxation techniques on stress levels in pregnant women, as well as comparing the effectiveness of each intervention. Parametric and non-parametric statistical approaches were considered depending on the data distribution, which was determined through normality tests.

III. RESULTS AND DISCUSSION

Based on the results of research conducted at the Larasati Primary Clinic, there were 30 respondents. The variables studied included the effect of psychoeducational videos and relaxation techniques on stress reduction in pregnant women at the Larasati Primary Clinic. The following are the results of univariate and bivariate data analysis obtained in tabular form.

Univariate Analysis Results

1. To determine the effect before the provision of psychoeducational videos and relaxation techniques on stress reduction in pregnant women at the Larasati Primary Clinic in 2025

Table 1
The Effect of Psychoeducational Videos and Relaxation Techniques on Stress Reduction in Pregnant Women at Larasati Primary Clinic in 2025

Stress Level	Psychoeducation		Relaxation	
	F		F	%
Mild	3	20	4	26.7
Moderate	12	80	11	73.3
Weight	0	0	0	0
Total	15	100	15	100

Source: SPSS Software Version 27

Based on Table 1, the effect of psychoeducation videos and relaxation techniques on stress reduction in pregnant women at the Larasati Primary Clinic in 2025 shows that in the psychoeducation intervention group, most of the respondents were in the moderate stress category, namely 12 people (80%), and in the relaxation group, most of the respondents were in the moderate stress category, namely 11 people (73.3%)

2. To determine the effect after administering the Psychoeducational Video and Relaxation Techniques on Reducing Stress in Pregnant Women at Larasati Primary Clinic in 2025

Table 2
The Effect of Psychoeducational Videos and Relaxation Techniques on Stress Reduction in Pregnant Women at Larasati Primary Clinic in 2025

Stress Level	Psychoeducation		Relaxation	
	F	%	F	%
Light	14	93.3	11	73.3
Moderate	1	6.7	4	26.7
Weight	0	0	0	0
Total	15	100	15	100

Source: SPSS *Software* Version 27

Based on Table 2, the effect of psychoeducation videos and relaxation techniques on reducing stress in pregnant women at the Larasati Primary Clinic in 2025 shows that in the psychoeducation intervention group, almost all respondents were in the mild stress category, namely 14 people (93.3%), while in the relaxation group, most respondents were in the mild stress category, totaling 11 people (73.3%)

Normality Test

The normality test used the Shapiro-Wilk test with 30 respondents in the psychoeducation video and relaxation technique intervention.

Table 3
Data Normality Test Results

	Statistics	df	Sig.	Description
Pretest	0.952	30	0.554	Normally Distributed
Posttest	0.975	30	0.925	Normal Distribution

Source: SPSS *Software* Version 27

Based on Table 3, it is known that the significant value (sig) in the pretest is 0.554 and in the posttest is 0.925. Because both significant values are greater than 0.05, it can be concluded that the data on psychoeducational videos and relaxation techniques, both before and after the provision of psychoeducational videos and relaxation techniques, are normally distributed. Thus, further data analysis can be continued using the paired sample t-test to determine the comparison of the Effect of Psychoeducational Videos and Relaxation Techniques on Stress Reduction in Pregnant Women at the Larasati Primary Clinic.

Bivariate Analysis Results

Paired Sample t-Test

Table 4

Comparison of the Effects of Psychoeducational Videos and Relaxation Techniques on Stress Reduction in Pregnant Women at the Larasati Primary Clinic in 2025.

Stress Levels	Min	Max	P Value
Psychoeducation	5	15	0.030
Relaxation	6	16	

Source: SPSS Software Version 27

Based on Table 4.4, the stress scores of pregnant women who received the video-based spikoeducation intervention ranged from a minimum of 5 to a maximum of 15, while those in the relaxation intervention group had stress scores ranging from a minimum of 6 to a maximum of 16. The statistical test results show a p-value of $0.030 < 0.05$, which means that there is a significant difference between the psychoeducation video group and the relaxation technique group in reducing stress levels in pregnant women. Thus, it can be concluded that psychoeducation intervention is more effective than relaxation techniques in reducing stress levels in pregnant women.

Discussion

Bivariate Discussion Results

The Effect of Psychoeducational Videos on Stress Reduction in Pregnant Women at Larasati Primary Clinic in 2025

The results of bivariate analysis using a *paired t-test* showed a significant difference between the stress scores of pregnant women before and after being given psychoeducational video intervention ($p = 0.03 < 0.05$). The average stress scores of pregnant women decreased significantly after attending video sessions containing education about healthy pregnancy, danger signs of pregnancy, and strategies for dealing with physical and emotional changes. These findings indicate that audiovisual-based psychoeducation is effective in improving pregnant women's understanding of their pregnancy, thereby reducing their psychological burden.

The results showed that before the intervention, the majority of respondents were in the moderate stress category. This condition illustrates that pregnancy is a period that is prone to stress due to physical, hormonal, emotional, and social changes. Anxiety about the health of the fetus, worries about childbirth, and pressure from the family environment are common factors experienced by pregnant women.

Theoretically, this can be explained through Lazarus & Folkman's *Transactional Model of Stress and Coping*, which states that stress arises when individuals perceive environmental demands to be greater than their coping abilities. In pregnant women, stressors arise in relation to bodily changes, economic conditions, and uncertainty surrounding the childbirth process. If coping mechanisms are inadequate, stress tends to be moderate to high (Lazarus, 2020).

These results are in line with the research by Afiyanti et al. (2022), which found that more than half of pregnant women in Indonesia experience mild to moderate stress, with the main triggers being anxiety about the condition of the fetus and lack of family support (Afiyanti, 2022). Research by Rahmawati & Sari (2021) also shows that most pregnant women in their third trimester experience psychological stress due to the burden of thoughts ahead of childbirth (Rahmawati, 2021).

According to Alder's *Prenatal Stress Theory*, pregnant women are prone to anxiety and stress due to hormonal changes that affect emotional stability. Uncontrolled stress during pregnancy can lead to increased cortisol levels, which pose a risk to the health of both the mother and the fetus (Alder, 2020).

Research by Nugroho (2019) shows that more than 60% of pregnant women in their second trimester experience moderate stress before receiving education or psychological intervention. These results are in line with research by Sari & Putri (2021), which states that pregnancy stress before intervention is a common phenomenon due to adaptation to changes in physical condition. Confounding factors in the pre-intervention phase include gestational age, hormonal changes, family economic status, and early support from the environment. Pregnant women with limited economic conditions tend to be more prone to stress, as do those who lack family support from early pregnancy.

According to the researchers' assumptions, the effect before and after psychoeducation was given was due to the fact that at the beginning of their pregnancy, mothers often felt anxious due to a lack of information about pregnancy and childbirth. After receiving psychoeducation through videos, pregnant women better understood the changes that occurred, the danger signs, and how to maintain their health, thereby increasing their confidence and reducing their anxiety. This explains the significant decrease in stress scores after the intervention.

The Effect of Relaxation Techniques Before and After Delivery on Stress Reduction in Pregnant Women at the Larasati Primary Clinic in 2025

The results of the *paired t-test* analysis showed a significant difference between the stress scores of pregnant women before and after being given relaxation techniques ($p = 0.03 < 0.05$). The average stress score decreased after pregnant women participated in relaxation exercises consisting of deep breathing techniques, muscle tension release, and focusing on positive thoughts. This indicates that relaxation is

effective in reducing the physiological and psychological tension experienced by pregnant women.

According to physiological stress theory, the stress response is characterized by increased activity of the sympathetic nervous system, which triggers muscle tension, increased heart rate, and rapid breathing. Relaxation techniques work by stimulating the parasympathetic nervous system, thereby lowering heart rate, normalizing breathing patterns, and creating a sense of calm. Bandura (2020) also explains that practicing relaxation skills increases *self-efficacy* in managing stress, enabling mothers to feel more capable of facing the challenges of pregnancy (Bandura, 2020).

These results are consistent with Rosyadah's (2024) study, which shows that relaxation exercises are effective in reducing prenatal anxiety, but their effects are limited to the short term. Guardino & Schetter (2021) confirm that relaxation is one of the adaptive coping strategies proven to help pregnant women reduce their perception of threat, increase calmness, and lower the risk of prenatal anxiety (Guardino & Schetter, 2021).

Stress triggers in pregnant women are multifactorial conditions, influenced by a combination of physical, psychological, social, and environmental aspects. Physiologically, bodily changes during pregnancy such as nausea, vomiting, back pain, sleep disturbances, and fatigue are often sources of discomfort that trigger stress. Additionally, psychological factors such as anxiety about the condition of the fetus, fear of the delivery process, and concerns about possible obstetric complications further exacerbate the mental burden on pregnant women.

According to the researchers' assumptions, the effect before and after the relaxation technique was administered was due to the fact that pregnant women generally experience physical tension and psychological anxiety due to pregnancy changes. After receiving relaxation training, pregnant women are able to regulate their breathing, calm their minds, and reduce muscle tension, thereby creating a sense of calm. This explains the significant difference in stress scores before and after the intervention, which shows that relaxation effectively helps pregnant women control stress in a simple and practical way.

Comparison of the Effects of Psychoeducational Videos and Relaxation Techniques on Stress Reduction in Pregnant Women at the Larasati Primary Clinic in 2025

Knowing the comparison of the Effect of Psychoeducational Videos and Relaxation Techniques on Stress Reduction in Pregnant Women at Larasati Primary Clinic in 2025, it was found that the results of the Independent T-test with a p-value of 0.03 (<0.05) indicates that there is a significant difference between psychoeducational videos and relaxation techniques in reducing stress among pregnant women at Larasati Primary Clinic in 2025.

The results of the comparison show that both psychoeducational videos and relaxation techniques have an effect on reducing stress in pregnant women. However, a

more significant reduction was seen in the group that received the Psychoeducational Video. This can be explained because audiovisual-based psychoeducation not only provides information, but also improves understanding, mental preparedness, and fosters confidence in pregnant women to face pregnancy and childbirth. Psychoeducational videos have the advantage of interactive visual and audio displays, making them easier to understand and remember than just listening to explanations or doing relaxation exercises. Clear information about the pregnancy process, bodily changes, ways to cope with anxiety, and emotional support from educational media can enhance mothers' *coping mechanisms*. The advantages of psychoeducation can be explained through the Health Belief Model, which emphasizes that increased knowledge and risk perception are closely related to changes in health behavior. Psychoeducation not only reduces immediate stress symptoms, but also equips mothers with understanding and adaptive coping strategies, so that stress is more manageable in the long term. In contrast, relaxation focuses on physiological responses, so the effects wear off more quickly.

Research by Jayanti & Lestari (2021) supports these findings by showing that psychoeducation increases self-efficacy and family involvement, thereby reducing stress more consistently. Romero-Gonzalez et al. (2020) also prove that CBT is effective in reducing stress in pregnant women, both psychologically and physiologically. Conversely, Mohammadi & Parandin (2019) found that relaxation does reduce stress, but without cognitive intervention, the effects do not last long.

The confounding factor in this comparison is the difference in respondent characteristics. Educational level affects understanding of psychoeducation content (Özsaydı et al., 2024), obstetric history such as miscarriage increases stress vulnerability (Răchită et al., 2022), and maternal health conditions such as hypertension or anemia can affect the effectiveness of interventions (Hasriantirisna et al., 2024).

According to the researchers' assumptions, the differences observed before and after psychoeducation and relaxation were due to the fact that pregnant women initially tended to experience stress due to a lack of information, anxiety about pregnancy, and physical and psychological tension. After receiving psychoeducation, pregnant women gained a better understanding of pregnancy and how to deal with it, thereby reducing their anxiety. Meanwhile, relaxation techniques helped mothers calm their bodies and minds through breathing control and muscle tension release. The combination of these two interventions not only increased knowledge but also provided practical skills in controlling stress, resulting in a significant decrease in stress scores among pregnant women compared to before the intervention.

IV. CONCLUSION

Based on the results of research conducted in September 2025 entitled "The Effect of Psychoeducational Videos and Relaxation Techniques on Stress Reduction in Pregnant Women at the Larasati Primary Clinic in 2025", it can be concluded that:

1. Before receiving psychoeducation, most pregnant women experienced moderate levels of stress, characterized by anxiety about fetal health, physical changes, and a lack of information about pregnancy and childbirth preparation. After receiving psychoeducation through video media, stress levels decreased significantly. This occurred because mothers gained a clearer understanding of pregnancy conditions, danger signs, and ways to cope with changes, thereby reducing anxiety and increasing confidence.
2. Before relaxation intervention, pregnant women tend to experience physical tension, difficulty controlling emotions, and anxiety that leads to psychological discomfort. After participating in relaxation techniques, there is a noticeable reduction in stress because deep breathing exercises and muscle tension release help mothers feel calmer both physically and emotionally.
3. A comparison of the results before and after the intervention shows that both psychoeducation and relaxation are equally effective in reducing stress in pregnant women, but with different mechanisms. Psychoeducation videos are more effective than relaxation techniques. Audiovisual psychoeducation not only provides short-term effects, but also shapes positive mindsets, increases self-efficacy, and strengthens mothers' ability to cope with anxiety during pregnancy.

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