The Effect of The Self-Healing Method With The Butterfly Hug Technique On Changes In Maternal Anxiety Levels In The Latent Phase of Labor In Rumah Sakit Bersalin Paradise Tanah Bumbu

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Abstract.
Anxiety in latent labor is a psychological response that can hinder labor by increasing stress hormones and tension in the muscles of the birth canal. Therefore, non-pharmacological treatments such as self-healing with the butterfly hug technique are necessary. This study aimed to determine the effect of self-healing with the butterfly hug technique on anxiety levels in latent labor. The study design used a Quasi-Experimental design with a one-group pretest-posttest. A sample of 10 mothers in the latent phase of labor who met the inclusion criteria (primigravida, maternal age <20->35 years) was obtained using an accidental sampling technique. The measurement instrument used the Pregnancy Related Anxiety Questionnaire-Revised 2 (PRAQ-R2) questionnaire. The intervention was carried out for 10 minutes with a butterfly hug procedure according to standard operating procedures. The results of the study showed that before the intervention, most (60%) mothers experienced moderate anxiety and after the intervention, most (60%) experienced mild anxiety. The results of the bivariate analysis using the Wilcoxon Test obtained a P-Value = 0.002 (<0.05) which means H0 is rejected and H1 is accepted. In conclusion, there is a significant influence of the self-healing method with the butterfly hug on the level of anxiety of mothers in the latent phase of labor. It is hoped that respondents can practice the butterfly hug technique independently as an effort to control anxiety during pregnancy.
Keywords : *Butterfly hug, Mothers in labor and Anxiety.*

I. INTRODUCTION

Labor is the stage in which the cervix dilates and thins, and the fetus begins to enter the birth canal. The term "labor" refers to the stage in which the fetus, placenta, and amniotic sac leave the uterus through the birth canal. The female reproductive system undergoes changes that take place several days to weeks before labor occurs. Pregnant women experience psychological changes in addition to physical ones during the period leading up to labor. Psychological adaptations such as excessive anxiety, worry, and fear can hinder the labor process, causing stress and causing the muscles in the body, particularly those in the birth canal, to tense and harden. This condition, resulting in the muscles' inability to achieve optimal elasticity, can potentially disrupt the course of labor.(Adilla et al., 2023).

Anxiety is common in pregnant women, affecting 29.2% of them, compared to 16.5% of postpartum women. Anxiety affects approximately 15-23% of pregnant women and increases the risk of negative outcomes for both mother and child. In developed countries, the prevalence of anxiety in pregnant women is estimated at 7-20%, while in developing countries, the prevalence reaches 20% or more.(Aromatika & Utami, 2024).

*World Health Organization*The World Health Organization (WHO) reported in 2019 that approximately 12,230,142 pregnant women globally experienced challenges in the third trimester of pregnancy. Of these, 30% were identified as having prenatal anxiety, and 81% experienced mental health disorders throughout pregnancy. Conversely, 7.9% of primigravida mothers in France experienced anxiety disorders, 11.8% experienced depression, and 13.2% experienced both anxiety and depression during pregnancy. The WHO also reported that one in five women may experience psychological health problems during pregnancy or within one year after giving birth.(World Health Organization, 2022).

Approximately 20% of women with perinatal psychological health disorders are at risk of experiencing suicidal thoughts or self-harm. Approximately 8-10% of pregnant women experience anxiety during pregnancy, and the prevalence increases to 12% as labor approaches.*(World Health Organization,*

2022). According to(Sari et al., 2024)A high prevalence of psychological disorders among pregnant women is found in 15.6% of developing countries worldwide, with an additional 19.8% among postpartum women. These include countries such as Ethiopia, Niger, Senegal, South Africa, Uganda, and Zimbabwe.

United National Children's Fund(UNICEF) in*(Rohimah et al*., 2023)A study found that approximately 12,230,142 pregnant women experienced complications during labor due to anxiety during their first pregnancy. In Indonesia alone, 107 million pregnant women (28.7%) experienced intrapartum anxiety. The incidence of severe anxiety among pregnant women in Indonesia is 57.5%.(Ministry of Health of the Republic of Indonesia, 2021).

Parity can influence anxiety because this phenomenon is associated with psychological aspects, given that primigravida mothers have not yet experienced childbirth, which ultimately gives rise to anxiety and fear. In multigravida mothers, anxiety arises from memories of previous labor pains. Pregnancy under the age of 20 can potentially lead to complications because the body is not yet fully mature, while the ages of 20-35 are considered a relatively safe period for pregnancy and childbirth. During this time, a woman's body is in prime condition. However, after the age of 35, some pregnancies are classified as high-risk due to the increased likelihood of congenital abnormalities and complications during delivery. During this period, rising maternal and infant mortality rates create greater anxiety.(Khoiriah & Mariyam, 2020).

Persistent anxiety affects both the mother and the fetus. Pregnancy anxiety causes physical changes and nutritional and sleep problems, which affect the mother's emotional well-being and the fetus's development. Fetal anxiety can increase the risk of premature birth, low birth weight, and neurological disorders in the child.(Adilla et al., 2023).

Based on the results of a preliminary study conducted by researchers who distributed anxiety questionnaires to mothers in the latent phase at Paradise Maternity Hospital, three mothers with moderate anxiety reported anxiety about childbirth because they had never experienced it before. They feared something untoward would happen to themselves or their babies. Two mothers with severe anxiety reported symptoms of fear of childbirth because they had never experienced it before. They worried about losing control during labor and worried about changes in their bodies and not being able to regain their shape after giving birth.

Anxiety can have a significant impact on pregnant women, requiring further treatment. This can be achieved through pharmacological and non-pharmacological anxiety management interventions. In particular, non-pharmacological approaches can be used to reduce anxiety through various relaxation techniques, such as deep breathing, meditation, massage, music therapy, hypnotherapy, Spiritual Emotional Freedom Technique (SET), and self-healing methods. Self-healing is a process that aims to help individuals overcome emotional problems.(Lidya, 2023).

The Butterfly Hug technique is a self-healing method that can be used. It's a therapeutic method that involves giving yourself suggestions to improve your health. This technique has also been shown to increase blood oxygen levels, making a person feel calmer. Butterfly Hug therapy focuses on calmness. It's also used as an alternative therapy for anxiety. It's widely used by psychiatrists to reduce anxiety.(Labok, 2024).

In line with research(Lidya, 2023)The results of the study showed that, before receiving the Butterfly Hug intervention, the majority of respondents (17 or 60.7%) experienced moderate anxiety. After receiving the intervention, the majority of respondents (14) experienced mild anxiety. This indicates that the Butterfly Hug intervention has an effect on pre-caesarean section patients at Fatmawati Soekarno General Hospital, Surakarta. This therapy is given in one 10-minute session.

One factor influencing a person's anxiety level is their efforts to relax and manage anxiety so it doesn't interfere with their activities. One method for reducing anxiety is butterfly hug therapy.(Naspufah et al., 2022).

Based on the background, this study formulated the main question: Does the self-healing method with the butterfly hug technique affect the change in anxiety levels of mothers in the latent phase of labor at Paradise Maternity Hospital? The purpose of this study was to examine the effect of the self-healing method with the butterfly hug technique on changes in anxiety levels of mothers in the latent phase of labor. It is

hoped that the results of this study can provide practical benefits for respondents and health workers in conducting anxiety interventions. Therefore, this research is attempted to contribute to improving the quality of life of mothers in labor.

II. RESEARCH METHODOLOGY

This research is a quantitative study using a quasi-experimental research design with a pre-test and post-test one group design. In this study the population used was all pregnant women who were detected to give birth between June-July 2025 at Paradise Tanah Bumbu Maternity Hospital. A sample of 10 respondents was taken using the Accidental Sampling technique. The inclusion criteria were primigravida mothers, age <20 years - >35 years and exclusion criteria were mothers in a state of panic and the delivery process experiencing an emergency.

The instrument used was the PRAQ-R2 (Pregnancy-Related Anxiety Questionnaire – Revised) questionnaire to determine the level of anxiety consisting of 11 questions related to fear and worry about the labor process, fetus, body changes with a validity test value (0.77) and a reliability test (0.85) so it is said to be valid and reliable. The butterfly hug instrument uses the butterfly hug SOP which has been tested for validity by two expert psychologists.

Before conducting the intervention, researchers measured anxiety levels and then provided a 10-minute intervention to respondents experiencing mild, moderate, and severe anxiety, then remeasured their anxiety levels. The results were tested using the non-parametric Wilcoxon test.

III. RESEARCH RESULT

Table 1. Frequency distribution of respondents by age

No	Age	frequency	(%)
1.	<20 years	2	20
2.	20-35 years	7	70
3.	>35 years	1	10
	Total	10	100

Based on table 1, it can be seen that the majority (70%) of respondents are aged 20-35 years.

Table 2. Frequency distribution of respondents based on their last education

No	Education	Frequency	(%)
1.	Elementary School	0	0
2.	Junior high school/equivalent	2	20
3.	High school/equivalent	7	70
4.	S1	1	10
	Total	10	100

Based on table 2, it can be seen that the majority (70%) of respondents' highest education was high school/equivalent.

Table 3. Frequency distribution of anxiety levels of mothers in latent phase of labor before being given the self-haling method with the butterfly hug technique.

No	Anxiety level	Frequency	(%)
1.	Light	0	0
2.	Currently	6	60
3.	Heavy	4	40
	Total	10	100

Based on table 3 above, it is known that of the 10 respondents at the latent phase of maternal anxiety levels in labor at Paradise Maternity Hospital before being given intervention using the self-haling method with the butterfly hug technique, the majority (60%) of respondents experienced moderate anxiety and almost half (40%) of respondents experienced severe anxiety.

Table 4. Frequency distribution of anxiety levels of mothers in the latent phase after being given the self-healing method with the butterfly hug technique.

No	Anxiety level	Frequency	(%)
1.	Light	6	60
2.	Currently	4	40
3.	Heavy	0	0
	Total	10	100

Based on table 4 above, it is known that of the 10 respondents at the latent phase of maternal anxiety levels in labor at Paradise Maternity Hospital after being given treatment using the self-haling method with the butterfly hug technique, the majority (60%) of respondents had mild anxiety and almost half (40%) of respondents experienced moderate anxiety.

Table 5. Analysis of the influence before and after the self-healing method with the butterfly hug technique on changes in the anxiety levels of mothers in the latent phase of labor

No	Category	Anxiety level				p-value
		Before		After		
		F	%	F	%	
1.	Light	0	0	6	60	0.002 (<0.05)
2.	Currently	6	60	4	40	
3.	Heavy	4	40	0	0	
	Total	10	100	10	100	

Based on table 5, the results of the bivariate test using the alternative test, namely Wilcoxon, because the data is not normally distributed and the results obtained are P-value = 0.002 (<0.05), which means that H0 is rejected and H1 is accepted, so that it means there is an influence before and after being given the self-healing method with the butterfly hug technique on changes in the level of anxiety of mothers in the latent phase of labor at Paradise Maternity Hospital.

IV. DISCUSSION

The level of anxiety of mothers in the latent phase of labor before being given the self-haling method with the butterfly hug technique.

Based on research conducted by researchers, it was found that the majority (60%) of respondents experienced moderate anxiety caused by all respondents often feeling anxious about childbirth, often feeling worried about pain during contractions during the labor process, worrying about not being able to control themselves during labor, fear of screaming, worrying about the baby being stillborn during labor and never having experienced labor before. This occurred due to several factors such as knowledge, parity, and husband's support. The condition that occurred was in the latent phase of labor before being given the self-healing method intervention with the butterfly hug technique.

In theory(Potter & Perry, 2018)states that the latent phase is characterized by uterine contractions that begin to be felt but are not yet intense and can last quite a long time, leading the mother to feel uncertain and anxious about what will happen next. This anxiety is also influenced by several factors such as lack of experience, emotional support, and physical discomfort.

According to(Putra et al., 20221)Anxiety can be defined as a vague, pervasive state of worry that pervades the mind. It is associated with feelings of uncertainty, helplessness, isolation, alienation, and discomfort, and can impact a person's life.

According to(Septiana, 2024)Anxiety is an emotional response characterized by feelings of discomfort and worry about things that haven't yet happened. It's common in women about to give birth, especially primigravidas. The latent phase, the initial period of cervical dilation, typically lasts quite a long time and can leave the mother feeling psychologically exhausted.

This research is in line with research conducted by(Faizaturrahmi & Siswari, 2022)The highest level of anxiety was moderate anxiety (50%). This occurs due to the mother's lack of awareness. As labor

approaches, women generally experience anxiety about the birth process. This condition can occur both in mothers giving birth for the first time and in mothers with a history of traumatic experiences during previous births.

Research conducted by(Sari et al., 2023)The research results showed that high-risk respondents (58.3%) experienced severe anxiety, 33.3% experienced moderate anxiety, and 8.3% experienced mild anxiety. This was due to several factors, one of which was parity.

This study shows that the latent phase of labor is a period that naturally triggers anxiety, especially in primigravidas who have no prior experience of pregnancy and childbirth. Uncertainty about the duration of labor, the onset of painful contractions, and concerns for the safety of both herself and the baby are key factors contributing to anxiety.

Most respondents (70%) were within the safe age range for pregnancy (20-35 years). However, even within a healthy reproductive age, psychological factors such as fear of pain, worry about losing control during contractions, and anxiety about the baby's safety can still occur. Research by(Safitri et al., 2023)states that being too young (<20 years) or too old (>35 years) tends to increase the risk of anxiety, but mothers of productive age are still vulnerable if they lack knowledge or experience regarding childbirth.

Anxiety experienced by mothers during labor affects the progress of labor, increasing the risk of prolonged labor, impaired contractions, and other obstetric complications. The high levels of anxiety experienced by mothers during the latent phase of labor, especially in first pregnancies, before intervention, demonstrate that early anxiety management, such as self-healing with the butterfly hug technique, is crucial to prevent negative impacts on both the mother's condition and the fetus's health.

The level of anxiety of mothers in the latent phase of labor after being given the self-haling method with the butterfly hug technique.

Based on the results of the study conducted by researchers, the majority (60%) of respondents experienced mild anxiety after being given a self-healing intervention using the butterfly hug technique. The majority of respondents showed a decrease from the moderate anxiety category to mild anxiety. The decrease in anxiety occurred because respondents were able to perform the butterfly hug technique well, where the butterfly hug is very useful for controlling or minimizing emotions and overcoming anxiety caused by excessive fear and worry in certain situations. Respondents stated that initially they felt afraid, worried, and lacked confidence in facing the labor process. However, after the butterfly hug intervention, they felt more relaxed, able to control their breathing and thoughts, and felt more mentally prepared to undergo the labor process.

According to theory, the butterfly hug can overcome anxiety because, in Butterfly Hug therapy, which uses self-healing methods, individuals are guided to achieve a state of relaxation even in anxiety-provoking situations. During the therapy, respondents are asked to manifest positive thoughts and suggestions to themselves, thereby achieving a state of relaxation and calm.(Yuliana et al., 2024).

Research conducted by(Caturini et al., 2023) said that the Butterfly Hug technique was developed by Lucina Artigas and Ignacio Jarero as a form of bilateral stimulation, through simple movements such as tapping or pressure, which is effective in reducing anxiety and increasing relaxation. This method is interpreted as a method of self-acceptance, through self-acceptance, individuals are directed to provide positive suggestions to themselves, which allows feelings to improve and helps overcome trauma without requiring external assistance. This method is applied by hugging oneself and giving calming words, accompanied by meditation that focuses on the breath and spoken words.

This is in line with the findings of research conducted by(Mahyuvi & Ramadhan, 2025)stated that butterfly hug therapy is a simple intervention proven effective in reducing anxiety in a diverse population. Its effects help regulate emotions and calm the nervous system, helping to reduce the intensity of negative emotions and promote a sense of calm by modulating activity in the sympathetic nervous system.

The findings of this study are in line with the results of research conducted by(Simanjutak et al., 2024)Results showed that after the butterfly hug intervention, respondents experienced a transition from mild

anxiety to emotional stability. Researchers attributed this to the relaxation effect of butterfly hug therapy, resulting in a calmer state and more positive feelings than before.

Based on research conducted by(Yuliana et al., 2024)The study found that anxiety levels decreased, with mild anxiety transitioning to no anxiety and moderate anxiety decreasing to mild after butterfly hug therapy. Researchers reported that respondents felt more relaxed and able to think positively about themselves.

This research is also in line with research conducted by(Girianto et al., 2021)The results obtained showed that there were changes after being given butterfly hug therapy, showing that half of the respondents (50.0%) experienced moderate anxiety and half of the respondents (50.0%) experienced mild anxiety. Reducing anxiety in respondents makes respondents more able to adapt to the surrounding environment.

Based on research findings, the butterfly hug intervention has been shown to have a positive impact on reducing anxiety experienced by mothers in labor, especially in the early stages of labor. Respondents who previously felt fearful, anxious, and lacking confidence showed changes after the intervention, such as feeling calmer, being able to regulate their breathing and thoughts, and being more mentally prepared for labor. This technique works through bilateral rhythmic movements that stimulate a relaxation response and help reduce sympathetic nervous system activity. The butterfly hug is part of a self-healing method that aims to calm the mind and emotions, thereby reducing anxiety. Researchers recommend this technique as an alternative non-pharmacological method suitable for pregnant women experiencing anxiety before labor.

Implementation of the butterfly hug technique has been shown to reduce anxiety levels in mothers in the latent phase of labor. Therefore, the butterfly hug can be used as a non-pharmacological intervention because this technique is considered effective, practical, simple, and relevant for managing anxiety before labor.

The Effect of Self-Healing Method with Butterfly Hug Technique on Changes in Anxiety Levels of In-Parturition Mothers in the Latent Phase

Based on the research results, before the intervention was implemented, 60% of respondents experienced moderate anxiety, while nearly half (40%) experienced severe anxiety. This anxiety was triggered by various factors, such as frequent worry about the labor process, painful contractions, fear for the baby's safety, uncertainty about the timing of delivery, and lack of childbirth experience, especially among primigravida mothers.

After the intervention, there was a significant decrease in respondents' anxiety levels. Sixty percent of respondents were mildly anxious, and 40% experienced moderate anxiety. Respondents indicated that feelings of worry and fear regarding childbirth and the baby's safety changed from very frequent to fairly frequent.

The results of the bivariate analysis using the Wilcoxon test obtained a P-value = 0.002 (<0.05) which means there is an effect of the self-healing method with the butterfly hug technique on the level of anxiety of mothers in the latent phase of labor at Paradise Maternity Hospital. Thus, the hypothesis that states there is an effect of the self-healing method with the butterfly hug technique on changes in the level of anxiety in mothers in the latent phase of labor at Paradise Maternity Hospital in 2025 can be accepted. The implementation of the Butterfly Hug as many as 10 claps in one session for 10 minutes shows a decrease in anxiety and an increase in the calmness of mothers in facing labor.

Mothers in labor, especially those in the latent phase, often experience uncertainty because pain begins to appear before labor is actively underway. This uncertainty triggers anxiety, especially in primigravidas who have no previous experience of giving birth. This is exacerbated by psychosocial factors such as lack of husband support, unfamiliarity with the labor process, and young age.(Khoiriah & Mariyam, 2020).

According to theory(Simic et al., 2021)Most anxiety symptoms are mediated by the sympathetic nervous system, a branch of the peripheral autonomic nervous system. The amygdala plays a key role in regulating anxiety and fear. Amygdala activity increases when an individual experiences anxiety, indicating that the amygdala is working more intensely, indicating high levels of anxiety.

Butterfly Hug therapy can reduce anxiety levels by influencing the activity of the amygdala, a brain structure involved in emotional regulation. The amygdala contains catecholamines, which involve two key chemical reactions: adrenaline and noradrenaline, which are involved in responding to stress and anxiety. This therapy helps balance these reactions, thus contributing to anxiety reduction.(Aulia et al., 2024). In the butterfly hug the rhythm of the beat is used as a focus of attention, which supports the development of positive traits and increased self-esteem.(Rosyid et al., 2024).

According to(Pristianto et al., 2022)The butterfly hug is a simple yet effective technique designed to provide bilateral stimulation through the movement of hugging oneself and alternating finger tapping on the arms. This technique was first introduced by Lucina Artigas and Ignacio Jarero as part of EMDR therapy to address trauma and anxiety. This bilateral stimulation activates emotional regulation through sensorimotor integration, modulates sympathetic nervous system activity, and increases connectivity between the amygdala and the prefrontal cortex, which play a role in emotional and stress management.

This finding is in line with research conducted by(Arohmah, 2024)The findings of this study indicate that butterfly hug therapy significantly reduces anxiety experienced by pregnant women in the third trimester, which means that butterfly hug therapy has an effect on anxiety levels in pregnant women in the third trimester. Researchers concluded that demographic information such as age, education, and occupation have a significant impact on anxiety levels in pregnant women, based on the finding that pregnant women aged 20 years and above may experience moderate to severe anxiety due to a lack of knowledge and experience of pregnancy.

Research conducted by(Nurchayati, 2024)The results obtained after butterfly hug therapy indicated that butterfly hug therapy had an effect on the level of anxiety in pre-caesarean section patients from the category of severe anxiety to moderate anxiety.

Supported by research conducted by researchers(Lidya, 2023)The results showed a significant effect of self-healing intervention using the butterfly hug technique on pre-cesarean section patients. Before the intervention, some respondents with moderate anxiety levels frequently expressed excessive worry in certain situations. After the intervention, their anxiety levels decreased.

Meanwhile, respondents with mild anxiety initially mostly experienced frequent worries, but after the intervention, these worries decreased.

Researchers concluded that the butterfly hug intervention is highly appropriate for mothers in the latent phase of labor because it is easy to learn, requires no special equipment, and can be performed independently. The butterfly hug is a positive psychological technique that helps individuals achieve emotional calm and reduce anxiety. This technique is flexible and can be applied in various situations, without being bound by time or place, and provides a calming effect as if the individual is hugging and personally reassuring themselves that the situation will remain under safe control. The decrease in anxiety levels in mothers in labor after the intervention indicates that the butterfly hug has a positive impact on emotional conditions, including by balancing brain chemicals that play a role in regulating stress and emotions.

Based on the above analysis, it can be concluded that the butterfly hug technique significantly impacts the anxiety levels of mothers in the latent phase of labor at Paradise Maternity Hospital. This technique can be used as an effective and applicable non-pharmacological intervention in the delivery room due to its advantages, such as being easy to teach, requiring no additional equipment, being safe for both mother and fetus, and providing a rapid effect in reducing anxiety.

V. IMPLICATIONS

Health workers, particularly nurses, provide health education to mothers in labor using the butterfly hug technique to address anxiety. This non-pharmacological intervention can be implemented not only in direct nursing practice but also taught to mothers so they can apply it independently, both during the early stages of labor and in preparation for delivery. This aims to improve the comfort, calm, and overall well-being of mothers in labor.

VI. LIMITATIONS OF THE RESEARCH

Limitations of this study include the lack of comprehensive classification of cervical dilation. Subjects included only women in the latent phase with 2–3 cm dilation, while respondents with 4 cm dilation were excluded due to uncooperative communication.

VII. CONCLUSION

Based on the findings obtained, it can be concluded that the self-healing method using the butterfly hug technique has a significant effect in reducing the level of anxiety in mothers in the latent phase of labor. This finding emphasizes the importance of implementing simple, efficient, and safe non-pharmacological interventions as an optional support in the management of labor anxiety. The significance of this study lies not only in its impact on mothers in labor, but also in opening up opportunities for broader application in maternity nursing practice and other populations experiencing anxiety. Thus, the findings obtained can be used as a reference for future research by classifying more diverse phases of labor.

Therefore, healthcare workers, particularly maternity nurses, are advised to integrate the butterfly hug technique as part of their nursing interventions when assisting women in labor. Pregnant women are also encouraged to learn this technique during pregnancy to better prepare for labor with a stable psychological state. Further research is recommended to classify the stages of labor in more detail and explore combinations of other relaxation techniques for more comprehensive and applicable results.

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