

## Effect Of Butterfly Hug Therapy On Anxiety In Pre-Operative Patients Scheduled In The Room Imam Bonjol Kindergarten Hospital. Iii Dr.

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Informasi	Abstract
Volume : 3 Nomor : 6 Bulan : Juni Tahun : 2026 E-ISSN : 3062-9624	<p><i>Patients who are about to undergo surgery often experience increased anxiety due to fear of surgical procedures, anesthesia, and possible complications. This anxiety can cause physiological and psychological changes, such as increased heart rate, blood pressure, and respiratory rate. One of the non-pharmacological interventions that can be used to reduce anxiety is Butterfly Hug therapy. This study aims to determine the effect of Butterfly Hug therapy on the anxiety levels of pre-operative patients at RK III DR. Reksodiwiryo Padang in 2025. This study employs a pre-experimental design with a one-group pretest-posttest approach. A sample of 24 pre-operative patients was selected using a purposive sampling technique. The Butterfly Hug intervention was given for 30 minutes before surgery. Anxiety levels were measured using the Hamilton Anxiety Rating Scale (HARS) questionnaire before and after the intervention. Data analysis was carried out using the Wilcoxon test. The average anxiety score of pre-operative patients before the intervention was 26.83, which decreased to 21.92 after the intervention, showing a reduction of 18.30%. The results of the Wilcoxon test showed a p-value of 0.000 (<math>p &lt; 0.05</math>), indicating that there is a significant effect of Butterfly Hug therapy on reducing anxiety. This therapy can be used as one of the nursing self-help interventions to reduce anxiety before surgery. Researchers are further advised to explore other relaxation techniques that can be applied as alternative non-pharmacological interventions to address pre-operative patient anxiety.</i></p> <p><b>Keyword:</b> Butterfly Hug, anxiety, pre-operation, HARS</p>

### A. INTRODUCTION

Surgery is a difficult experience for patients. Patients will usually experience physical and mental stress. Patients can experience anxiety due to the amount of stress they face before undergoing surgery. The patient's sense of anxiety can lead to physical and psychological changes, activating the sympathetic autonomic nerves. Thus, heart rate, blood pressure, and breathing can increase. Increased vital signs will affect the surgical procedure and even the patient's healing (Parman et al., 2019).

Based on data on surgical patients according to the World Health Organization (2020), Every year, there is a substantial increase in the volume of surgical procedures performed, with an estimated 165 million surgeries performed worldwide. In 2020, hospital records worldwide showed a total of 234 million patients with surgery in Indonesia alone, reaching around 1.2 million people. Based on data from the Indonesian Ministry of Health (2021), in Indonesia, surgical intervention ranks 11th among 50 different disease treatments, with major surgeries accounting for 32% of these procedures (Ramadhan et al., 2023). The latest data in 2022 regarding surgical patients in West Sumatra shows that there were 5,564 patients who underwent surgery at Dr. Djamil Padang Hospital. 813 patients underwent surgery until September 2022.

Patients who experience pre-operative problems will usually experience several complaints, such as decreased immunity, which include symptoms such as low blood pressure, tachycardia, temperature, and discomfort that can cause delays in the implementation of surgical procedures. The result of this delay in surgery will result in an extension of treatment that can increase administrative costs. In addition, the impact also has the potential to affect patients' health, worsen their circumstances, and make their behavior less supportive.

Implementations that nurses can provide to reduce pre-operative patient anxiety are to provide massage, deep breath relaxation therapy, progressive muscle relaxation, music therapy, and spiritual therapy (Girianto et al., 2021). In addition, another method that can be used to reduce anxiety is by Butterfly Hug or a butterfly hug.

Butterfly Hug Or a butterfly hug is a simple treatment by crossing both hands in front of the collarbone, then clapping both hands alternately like a butterfly's flapping of wings. Butterfly Hug It is used for emotional stabilization by controlling emotions in oneself independently so that it is calmer (Girianto et al., 2021). Affected Hormones Butterfly Hug The hormone cortisol is a stress hormone produced by the adrenal glands. When we feel anxious or stressed, cortisol increases. Butterfly Hug can help lower cortisol by triggering a relaxation response. Method Butterfly Hug can be combined with providing positive affirmations to increase the effectiveness of its implementation (Pristianto et al., 2022).

## **B. RESEARCH METHOD**

This study uses a *pre-experimental* design with a *one group pretest-posttest* approach. A sample of 24 pre-operative patients was selected using *purposive sampling* techniques. The *Butterfly Hug intervention* is given for 30 minutes before the surgery. Anxiety levels were

measured using the Hamilton Anxiety Rating Scale (HARS) questionnaire before and after the intervention. The assessment of the answer was Score change 0-17, mild anxiety 18-24, moderate anxiety 25-30, severe anxiety 31-56 panic. The analysis of this study uses *the Wilcoxon test*. the instrument to be used in this study consists of an SOP of *Butterfly Hug* therapy which is given 1x a day 30 minutes before surgery for 10-15 minutes.

Here's how to do *a butterfly hug* according to (Girianto et al., 2021)

1. Position the body as comfortably as possible, it is recommended to sit and lean in a position. Cross your hands in front of your chest. Then place the fingertips of each hand so that they are under the collarbone or upper arm.
2. Regulating breathing by inhaling slowly then exhaling for several times, respondents should focus on diaphragmatic breathing for this breathing regulation therapy. Close both eyes while adjusting your breath. Don't forget to focus your mind during the *Butterfly Hug*.
3. Say positive words when doing the *Butterfly Hug*, you can also say positive words, mantras, or affirmations that help reduce anxiety or stress. For example, "I'm calm," "I'm able to cope with this," or "I feel safe and protected." Perform movements such as clapping your hands 10 times slowly until both palms look like flapping butterfly wings. Move for 3 minutes or more until you feel calm.
4. Maintain concentration on yourself, observe any emotions that arise, benchmark yourself and introspect yourself in any case and keep your breathing in check. Repeat Hand Gently Tapping on the Shoulder, alternating left and right, tapping for a few minutes as per the need for calmness.
5. *Butterfly Hug therapy* can be stopped when the feelings of anxiety have decreased and the body becomes more relaxed.

**C. RESULTS AND DISCUSSION**

In this section, the results of the analysis of respondent distribution, anxiety level distribution, anxiety score analysis and data analysis using the Wilcoxon test will be presented.

The age distribution of respondents was most >20 years old (87.5%) with mild to severe anxiety.

**Table 1 Distribution of pre-operative patient anxiety by age**

Age	Mild anxiety	Moderate	Severe anxiety	Panic	n%
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	anxiety					
<20th	0	0	3	0	12.5%	
>20th	0	4	17	0	87.5%	

**Table 2 Distribution of pre-operative patient anxiety by gender**

Gender	Mild anxiety	Moderate anxiety	Severe anxiety	Panic	n%
Male	0	1	14	0	62.5%
Women	0	3	6	0	37.5%

The gender distribution of respondents was the most male, namely 15 respondents (62.5%) with moderate to severe anxiety.

The distribution of respondents' experience was found that all respondents had never had surgery 24 (100%)

**Table 3 Distribution of pre-operative patient anxiety based on surgical experience**

Experience	Mild anxiety	Moderate anxiety	Severe anxiety	Panic	n
Never	0	4	20	0	100%
pernah	0	0	0	0	0%

Based on the calculation results, nili Z was obtained as  $r = 0.878$  with a p value asymp. Sig (2-tailed) 0.000 where  $<0.05$  so that  $H_1$  is accepted or means there is a significant difference between anxiety before and after Butterfly Hug therapy

**Table 4 Analysis of pre-operative patient anxiety scores based on mean values**

Group	variabel	Z Value	p-Value
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Intervention	Pre-test	0.878	0.000
	Post-test		

Based on the analysis, the results of the intervention obtained that the average anxiety value before being given Butterfly Hug therapy was 26.83 and after being given Butterfly Hug therapy was 21.92

**Table 5 Data analysis results with Wilcoxon Signed Ranks**

Category	Mean	SD Deviation	min	max
Pre-test	26.83	2.120	24	30
Post-test	21.92	2.448	17	24

In this study, the age of the most respondents was >20 years old. According to Sudaryono (2024) in his study entitled "The Relationship between Age and Anxiety Levels in Adult Elective Surgery Patients", early adult respondents felt anxious about what would happen to surgery, anxious about pain after the loss of the effects of anesthesia, anxious about a long recovery, and anxious thinking about whether or not they were biased in their activities as before.

The gender distribution in this study was the largest, with 15 respondents (62.5%) being male. In theory, women have a higher level of anxiety than men because they are influenced by hormonal factors that make women more emotional and more prone to anxiety (sahar et al., 2018). Generally, adult men have a stronger mentality than women (Marbun et al., 2023).

In this study, it was found that the distribution of respondents without surgery experience, respondents' surgery experience included minor/major surgery. The patient's surgical experience of the type of surgery, the level of discomfort, the magnitude of the consequences and the overall level of care received can be recalled in the patient which ultimately affects the patient's physical response to the surgical procedure (Muttaqin & Sari in Rahmawati et al., 2014)

In this study, a Z value of 0.878 was obtained with p-Value asymp. Sig (2-tailed) 0.000 where < 0.05 so that H1 is accepted or there is a significant difference between anxiety before and after therapy Butterfly Hug. Average anxiety score before therapy Butterfly Hug namely 26.83 and after being given therapy Butterfly Hug 21.92. terapi Butterfly Hug Given 1x a day 30 minutes before the action for 10-20 minutes can reduce and provide a calming effect for

patients during surgery. The results of this study are in line with the research conducted by Intan, et al., (2024) with the title *The Effect of Butterfly Hugs on Anxiety Reduction in Pre-Operative Patients at Jatiwinangun Purwokerto Hospital*, the average anxiety before being given therapy was obtained Butterfly Hug which is 30.2 with a standard deviation of 6.33 with severe anxiety. The study used the Wilcoxon Signed Rank Test and showed a significant reduction in anxiety after the intervention.

These results are different from the research conducted by Nadidah et al., (2024) with the title *Therapeutic Influence Butterfly Hug Towards Reduced Anxiety Levels of Pre-operative Patients Lymphophymy who show average anxiety before being given therapy Butterfly Hug* namely 47.44 with a standard deviation of 4,472 with the panic category. This means that the initial anxiety level in the patients in Nadidah's study was higher than the respondents in this study. In the study of Nadidah et al., the Wilcoxon Signed Rank Test was also used to measure differences in anxiety levels before and after therapy. Butterfly Hug which was shown to significantly reduce anxiety in both studies.

Butterfly Hug is a therapeutic method to give advice to oneself on how to feel better. Technique Butterfly Hug It has also been shown to increase oxygen levels in the blood and provide a calming effect. In addition, Butterfly Hug It is known to have a healing effect on negative and traumatic emotions. This was proven in 1998 when the method was used by survivors of natural disasters in Mexico to relieve traumatic emotions(Aulia et al., 2024).

Therapy Butterfly Hug It is included in cognitive psychotherapy actions that are beneficial for the treatment of anxiety. The method of this therapy is by giving suggestions to yourself, controlling your own emotions. This therapy is first aid in anxiety because it includes a form of stimulation independently to calm oneself when faced with various kinds of negative feelings such as feelings of discomfort, sadness, fear, and anxiety (Effendi et al., 2023).

#### **D. CONCLUSION**

This study showed that Butterfly Hug therapy effectively lowered the anxiety levels of pre-operative patients. The results of the analysis using the Wilcoxon test showed a significant difference between the level of anxiety before and after the intervention, with a value of  $p = 0.000$  ( $p < 0.05$ ). The average anxiety score decreased from 26.83 to 21.92, which means there was a decrease of 18.30%. Although the anxiety level in this study was in the very severe category, the Butterfly Hug intervention still had a significant positive impact. These findings are in line with previous research that showed the effectiveness of the Butterfly Hug in reducing

anxiety, although there were variations in respondents' anxiety categories. Therefore, this therapy can be recommended as a simple and applicative non-pharmacological intervention in nursing practice for pre-operative patients.

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