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Slow deep breathing and guided imagery therapy as a nonpharmacological treatment for patients with anxiety

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Abstract

Background: Anxiety is one of the most prevalent mental health problems worldwide and can significantly impair an individual's daily functioning if not properly managed. Non-pharmacological interventions are increasingly preferred due to their safety, ease of application, and minimal side effects.

Purpose: To analyze the effectiveness of a combination of slow deep breathing and guided imagery in reducing anxiety levels in patients.

Method: A case study approach in psychiatric nursing care involving a patient with clinically significant anxiety. Data were collected through interviews, observations, and the Hospital Anxiety and Depression Scale (HADS) as a standardized assessment tool. The intervention consisted of a combination of slow deep breathing and guided imagery conducted for 7 consecutive days, with each session lasting 10–15 minutes.

Results: The results showed a reduction in the patient's anxiety score from 11 (abnormal category) before the intervention to 6 (normal category) after the intervention. The patient also demonstrated decreased restlessness, improved relaxation ability, and better control of negative thoughts following the combined intervention.

Conclusion: The combination of slow deep breathing and guided imagery was effective in reducing anxiety by addressing both physiological and psychological responses. This intervention can be considered an effective non-pharmacological nursing strategy to improve emotional well-being and coping mechanisms in patients with anxiety.

Keywords: Anxiety; Guided Imagery; Nursing Care; Relaxation Therapy; Slow Deep Breathing.

INTRODUCTION

Anxiety is one of the most common mental health problems experienced by individuals across various age groups. Changes in lifestyle, work demands, and increasing social pressures have contributed to the rising prevalence of anxiety from year to year. Anxiety is characterized by excessive worry, tension, fear, and physiological changes such as increased heart rate and respiration (Stuart, 2022). If left untreated, anxiety can affect an individual's quality of life and reduce the ability to perform daily activities (Aditama, 2025).

Global data indicate that anxiety disorders are among the most prevalent mental health disorders

worldwide. The World Health Organization reported that more than 301 million people worldwide experienced anxiety disorders in 2023 (Visagie, Temane, & Poggenpoel, 2024). In Indonesia, data from the Ministry of Health of the Republic of Indonesia show that the prevalence of emotional mental disorders, including anxiety, has increased in recent years, particularly among individuals of productive age and patients undergoing treatment in healthcare facilities (Kumari & Patil, 2023). This condition demonstrates that anxiety is a significant health problem requiring special attention in prevention and management efforts. Untreated

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anxiety may lead to various negative physical and psychological impacts. Physiologically, anxiety can cause increased respiratory rate, muscle tension, sleep disturbances, and chronic fatigue. Psychologically, individuals may experience difficulty concentrating, restlessness, irritability, and decreased decision-making ability (Townsend & Morgan, 2017).

Efforts to manage anxiety can be carried out through both pharmacological and non-pharmacological approaches. However, non-pharmacological interventions are increasingly utilized because they are relatively safe, easy to implement, and associated with minimal side effects. One effective technique is slow deep breathing, a breathing relaxation technique aimed at reducing sympathetic nervous system activity and increasing parasympathetic activity, thereby promoting bodily relaxation (Ma, Yue, Gong, Zhang, Duan, Shi, & Li, 2017). In addition, guided imagery is a relaxation technique involving visual imagination to create calming mental images, helping individuals divert their thoughts from stimuli that trigger anxiety (Nguyen & Brymer, 2018).

Each technique has demonstrated effectiveness in reducing anxiety. Slow deep breathing is effective in reducing physiological responses associated with anxiety, such as respiratory rate and heart rate (Purqoti & Oktaviana, 2021). Guided imagery has also been shown to reduce anxiety by improving control over emotional responses (Kurniati & Putri, 2022). The combination of relaxation techniques provides more optimal effects compared to the use of a single technique because it integrates both physiological and psychological aspects simultaneously (Varvogli & Darviri, 2022). Nevertheless, most previous studies have focused

on the separate use of relaxation techniques and primarily employed experimental research designs involving large groups. Case study-based research within the context of psychiatric nursing care that combines slow deep breathing and guided imagery in a structured and continuous manner remains limited. Furthermore, the use of the Hospital Anxiety and Depression Scale (HADS) as an instrument to evaluate the effectiveness of the combined intervention has not been widely reported specifically in clinical nursing practice (Sawab, Yusuf, Fitryasari, & Arifin, 2024).

RESEARCH METHOD

A case study in the field of psychiatric nursing using a comprehensive nursing care approach. The nursing care approach employed includes the assessment phase, the establishment of nursing diagnoses, nursing planning which encompasses the identification of outcomes and interventions nursing implementation, and nursing evaluation. Research subjects were selected based on the criterion of exhibiting excessive anxiety behaviour. Data collection was conducted through interviews and observations of the respondents, as well as an assessment using the Hospital Anxiety and Depression Scale (HADS) to subjectively evaluate patients' levels of anxiety and depression based on their psychological condition, including emotional aspects, tension, worry, and the individual's ability to control feelings of anxiety. The intervention provided consisted of a combination of slow deep breathing and guided imagery, conducted in Ward Lily 11 at Soerojo Hospital in Magelang. The intervention took place over 7 days from January 9 to January 16, 2026, with each therapy session lasting 10–15 minutes.

RESEARCH RESULTS

Table 1. Interpretation of Anxiety Scores Based on Hospital Anxiety and Depression Scale (HADS)

Score Range	Interpretation
0–7	Normal
8–10	Borderline
11–21	Abnormal

Table 1 presents the interpretation of anxiety scores based on the Hospital Anxiety and Depression Scale

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(HADS). Scores ranging from 0–7 indicate normal anxiety levels, scores of 8–10 indicate borderline anxiety, and scores of 11–21 indicate clinically significant or abnormal anxiety.

Table 2. Patient Characteristics and Initial Anxiety Assessment

Variable	Result
Initials	Ny. A
Age	40 years
Gender	Female
Main Complaint	Persistent anxiety
Clinical Symptoms	Excessive worry, restlessness, difficulty sleeping, difficulty concentrating, negative thoughts
Instrument Used	Hospital Anxiety and Depression Scale (HADS)
Pre-Test Anxiety Score	11
Interpretation	Abnormal

Table 2 describes the demographic characteristics and initial anxiety condition of the patient before intervention. The patient had a pre-test anxiety score of 11, categorized as abnormal, indicating clinically significant anxiety symptoms.

Table 3. The Effect of Combined Slow Deep Breathing and Guided Imagery Therapy

Measurement	Anxiety Score	Interpretation
Pre-Test	11	Abnormal
Post-Test	6	Normal
Score Difference	<5 points	Decreased anxiety level

Table 3 shows the comparison of anxiety scores before and after the intervention. After seven days of combination therapy using slow deep breathing and guided imagery, the anxiety score decreased from 11 (abnormal) to 6 (normal), indicating improvement in the patient's psychological condition.

Table 4. Changes in Patient Condition After Intervention

Variable	Before Intervention	After Intervention
Anxiety Level	Severe anxiety	Anxiety decreased
Emotional Condition	Restless and tense	More relaxed and calm
Sleep Pattern	Difficulty sleeping	Sleep quality improved
Thought Control	Dominated by negative thoughts	Better thought control
Daily Activities	Disturbed	Improved functioning
Coping Ability	Ineffective coping	Improved coping ability

Table 4 illustrates the changes in the patient's condition following the intervention. Improvements were observed in emotional stability, sleep quality, coping ability, thought control, and daily functioning after the administration of slow deep breathing and guided imagery therapy.

DISCUSSION

The results of the study on patients experiencing anxiety problems showed that the patient experienced emotional disturbances characterized by excessive worry, restlessness, difficulty sleeping, and an inability to control negative thoughts. This

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condition indicated the presence of psychological disturbances that affected the patient's daily functioning. This finding is consistent with the opinion stating that anxiety is an emotional response to stress characterized by tension, fear, and physiological changes such as increased heart rate and respiratory rate (Salsabila, Idriansari, & Effendi, 2025). Uncontrolled anxiety may lead to impaired concentration, sleep disturbances, and decreased ability to perform daily activities (Verawaty & Widiastuti, 2020). Based on the results of the assessment using the Hospital Anxiety and Depression Scale (HADS) before the intervention, the patient had an anxiety score of 11, which was categorized as abnormal. This score indicated that the patient experienced clinically significant anxiety. The condition was marked by increased sympathetic nervous system activity, triggering physical symptoms such as muscle tension, increased respiratory rate, and excessive restlessness. This finding is in line with previous research stating that anxiety is associated with excessive activation of the sympathetic nervous system (Deynilisa, 2023).

The intervention provided consisted of a combination of slow deep breathing and guided imagery conducted for 7 days, with each session lasting approximately 10–15 minutes. The intervention was administered gradually and adjusted to the patient's condition and abilities. During the initial session, the intervention focused on the orientation phase and the establishment of a therapeutic relationship to enhance the patient's sense of safety and trust. At this stage, the nurse provided simple education regarding relaxation techniques and the objectives of the intervention to be implemented (Alhawtmeh, Albataineh, & Abuhammad, 2022).

In the following sessions, the patient was introduced to slow deep breathing exercises, a deep breathing technique performed by inhaling through the nose, holding the breath for several seconds, and exhaling slowly through the mouth. This exercise was repeated continuously to help reduce sympathetic nervous system activity and increase parasympathetic activity, thereby promoting relaxation. This technique has been proven effective in reducing physiological responses associated with anxiety, such as heart rate and respiratory rate

(Putra & Ilmi, 2024). Subsequently, the intervention continued with guided imagery techniques, in which the patient was guided to imagine calming situations, such as being in a comfortable and peaceful place. This technique aimed to divert the patient's focus from negative thoughts toward more positive mental experiences. Guided imagery works by modulating emotional responses and improving stress control (Thoyibah, Purqoti, & Oktaviana, 2020).

Throughout the gradual implementation of the intervention, the patient demonstrated significant improvements, including reduced restlessness, improved relaxation ability, and better control over negative thoughts. The patient also appeared calmer and more capable of controlling emotions compared to before the intervention. Based on the post-intervention evaluation, the patient's anxiety score decreased to 6, which was categorized as normal. This reduction indicated an improvement in the patient's psychological condition from abnormal to normal status. These findings suggest that the combination of slow deep breathing and guided imagery was effective in reducing the patient's anxiety level (Aulia, Yuliastuti, & Suyatno, 2024).

The findings of this study are consistent with previous studies stating that relaxation techniques such as slow deep breathing and guided imagery are effective in reducing anxiety through both physiological and psychological relaxation mechanisms (Tolin, Lee, Levy, Das, Mammo, Katz, & Diefenbach, 2021). The combination of these two techniques provides more optimal effects because it simultaneously balances both bodily and mental responses. Therefore, the combination of slow deep breathing and guided imagery may serve as an effective non-pharmacological therapy for reducing anxiety, improving coping abilities, and gradually enhancing patients' emotional conditions (Asfar, 2022).

CONCLUSION

The combination of slow, deep breathing and guided imagery is effective in reducing patients' anxiety levels. After a 7-day intervention, patients' anxiety scores decreased from 11 (abnormal) to 6 (normal), accompanied by improved relaxation skills, reduced restlessness, and better control over negative thoughts.

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