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Implementation of Guided Imagery to Reduce Anxiety in Patients with Breast Cancer

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Abstract: Anxiety is one of the most prevalent psychological problems experienced by preoperative patients, particularly those diagnosed with breast cancer. Preoperative anxiety may activate sympathetic responses, exacerbate physiological stress, and negatively affect patients' readiness for surgery. Guided imagery is a non-pharmacological intervention that promotes relaxation and emotional regulation through structured mental visualization. This case study employed a descriptive approach involving a single patient with breast cancer (Mrs. S) scheduled to undergo Modified Radical Mastectomy (MRM). Anxiety levels were assessed using the Zung Self-Rating Anxiety Scale (SAS). The initial assessment indicated moderate anxiety (score = 45), characterized by restlessness, tension, impaired concentration, and increased motor activity. Nursing interventions were implemented in accordance with the Indonesian Nursing Intervention Standards (SIKI) for Anxiety Reduction (I.09314), including patient education, observation, emotional support, and guided imagery. Following the intervention, the patient's anxiety score decreased to 35, indicating mild anxiety. Clinically, the patient appeared calmer, more cooperative, and better able to redirect attention. These findings suggest that guided imagery may be an effective, safe, and simple complementary nursing intervention for reducing preoperative anxiety in patients with breast cancer.

Keywords: Anxiety, Breast Cancer, Guided Imagery, Preoperative

INTRODUCTION

Breast cancer (carcinoma mammae) is one of the most prevalent malignancies worldwide and remains a leading cause of cancer-related mortality among women. In 2022, more than 670,000 deaths globally were attributed to breast cancer, highlighting its substantial public health burden (1). In Indonesia, breast cancer ranks as the most frequently diagnosed cancer, with more than 65,000 new cases and approximately 22,000 deaths reported in 2020 (2). The incidence rate among women reaches 37.4 per 100,000 population, while the incidence among men is estimated at 0.4 per 100,000 population (3). In eastern regions of Indonesia, including Makassar, many patients are diagnosed at an advanced stage due to low disease awareness, limited access to healthcare services, and sociocultural barriers. These factors contribute to delayed treatment, poorer prognosis, and reduced preparedness for medical procedures, including surgical interventions (4). Anxiety is one of the most common psychological problems experienced by patients with breast cancer who are scheduled to undergo surgery. Preoperative anxiety may activate the sympathetic nervous system, exacerbate physiological stress responses, increase anesthetic requirements, and negatively affect postoperative recovery (5). Among patients with breast carcinoma, anxiety is further intensified by concerns related to body image changes, fear of surgical procedures, uncertainty about disease recurrence, and potential side effects of cancer treatment (6). Consequently, effective nursing interventions are essential to address anxiety prior to surgery in order to improve both psychological well-being and clinical outcomes.

Guided imagery is a non-pharmacological intervention that has been shown to be effective in reducing anxiety by encouraging patients to engage in structured positive visualization. This technique stimulates parasympathetic nervous system activity, thereby alleviating physical tension and promoting psychological relaxation (7). Previous studies have demonstrated the effectiveness of guided imagery in reducing anxiety among preoperative patients (8), patients with cancer (10), and individuals undergoing various surgical procedures (11). Specifically, in patients with breast cancer, guided imagery has also been reported to reduce pain and enhance overall comfort during the perioperative period (12).

Despite the documented benefits of guided imagery, anxiety among breast carcinoma patients awaiting surgery is often inadequately managed, particularly with complementary nursing interventions. This gap in care underscores the need for practical, non-invasive strategies that can be readily implemented in clinical settings. Therefore, this study aims to evaluate the effectiveness of guided imagery in reducing anxiety levels among patients with breast carcinoma undergoing surgical treatment.

CASES

Mrs. S was a female patient diagnosed with breast cancer (carcinoma mammae) who was scheduled to undergo a Modified Radical Mastectomy (MRM) in the Preoperative Room of Dr. Tajuddin Chalid Hospital, Makassar. During the preoperative nursing assessment, the patient appeared restless and tense, experienced difficulty concentrating, and verbally expressed fear regarding the upcoming surgical procedure. She also reported palpitations, sleep disturbances, and a persistent feeling of uneasiness. Assessment of anxiety using the Zung Self-Rating Anxiety Scale revealed a score of 45, indicating a moderate level of anxiety.

Based on these findings, the primary nursing diagnosis was established as Anxiety (D.0080). Nursing interventions were implemented in accordance with the Indonesian Nursing Intervention Standards (SIKI) for Anxiety Reduction. These interventions included providing education about the surgical procedure, offering emotional support, ensuring continuous accompaniment, and teaching relaxation techniques. The primary intervention applied was guided imagery therapy, which aimed to promote relaxation by facilitating positive mental visualization.

The guided imagery intervention was conducted in the preoperative setting by creating a calm and supportive environment, regulating the patient's breathing, and guiding her to imagine a pleasant and comforting scenario. Following the intervention, the patient appeared calmer, more cooperative, and better able to manage her anxiety. Reassessment of anxiety levels demonstrated a reduction in the score to 35, corresponding to mild anxiety. These findings suggest that guided imagery therapy was effective in reducing preoperative anxiety in this patient prior to surgical intervention.

METHODS

This study employed a descriptive case study design aimed at providing an in-depth examination of the implementation of guided imagery therapy in reducing anxiety among preoperative patients diagnosed with breast cancer (carcinoma mammae). This design was selected to allow a comprehensive description of the nursing care process, encompassing assessment, nursing diagnosis, intervention planning, implementation, and evaluation, in accordance with the Indonesian Nursing Diagnosis Standards (SDKI), Nursing Intervention Standards (SIKI), and Nursing Outcomes Standards (SLKI).

The study was conducted between September and October 2025 in the Preoperative Room of Dr. Tajuddin Chalid Hospital, Makassar. The subject of the study was a single patient (Mrs. S) who met the inclusion criteria: a preoperative patient with a moderate level of anxiety as measured by a standardized anxiety scale, the ability to communicate effectively, cooperative behavior, and willingness to participate

as indicated by signed informed consent. Patients with perceptual disturbances, impaired communication, or unstable clinical conditions were excluded from the study.

Data were collected using several instruments, including a perioperative nursing assessment form, a guided imagery intervention observation sheet, and the Zung Self-Rating Anxiety Scale (SAS). The SAS consists of 20 items designed to assess anxiety levels before and after the intervention. Scores were categorized as mild anxiety (20–44), moderate anxiety (45–59), severe anxiety (60–74), and panic-level anxiety (75–80). Nursing interventions and outcome evaluations were documented using the standardized SIKI–SLKI format in accordance with the Indonesian National Nurses Association (PPNI) guidelines.

The data collection procedure began with a comprehensive assessment of the patient's physical, psychological, and social conditions, followed by measurement of baseline anxiety levels. Guided imagery was then administered by creating a calm and comfortable environment, providing instructions for deep breathing, and guiding the patient through positive mental visualization for approximately 10–15 minutes. After completion of the intervention, anxiety levels were reassessed using the same instrument to identify changes following the therapy.

Data analysis was conducted descriptively by comparing anxiety scores before and after the guided imagery intervention and by describing the patient's subjective and objective responses. The findings were presented in narrative form, supported by tables and nursing care documentation, in accordance with scientific reporting standards.

RESULT AND DISCUSSION

This section presents the research findings related to the nursing care process and the application of guided imagery in preoperative patients with Carcinoma Mammae. The presentation includes assessment results, subjective and objective data, changes in anxiety levels before and after the intervention, and the patient's responses during the nursing care process.

1. Patient Assessment Results

The assessment results showed that Mrs. S, a 47-year-old patient, came to the pre-operative care unit with a medical diagnosis of Carcinoma Mammae and was scheduled to undergo a Modified Radical Mastectomy (MRM). During the initial assessment, the patient complained of fear and anxiety about the upcoming surgery, particularly regarding the possibility of postoperative pain, changes in body shape, and concerns about the surgical outcome. Subjectively, the patient stated that she felt restless, had difficulty sleeping, and was unable to focus during conversations. She was also observed frequently taking deep breaths, clenching her hands, and exhibiting facial muscle tension.

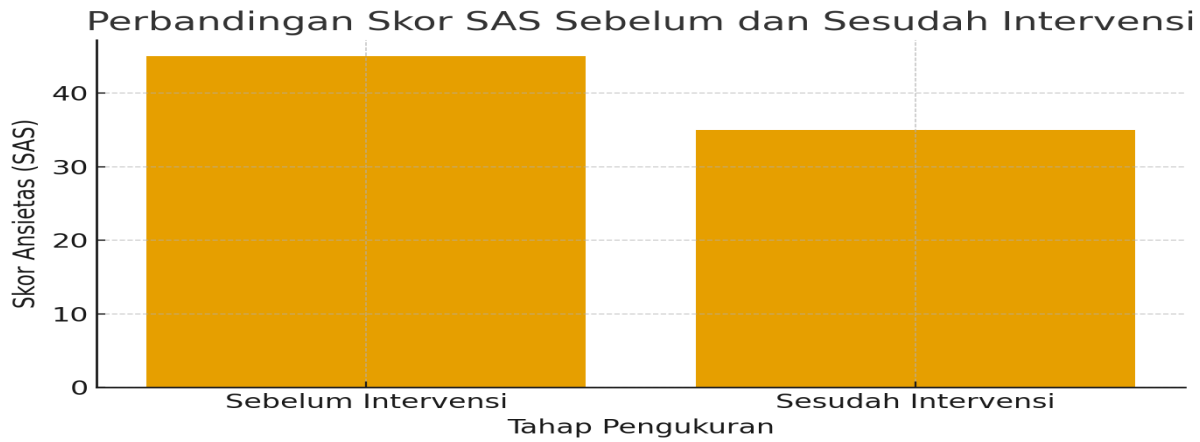
Objectively, the nurse observed an increase in motor activity; the patient appeared restless, frequently moved her legs, and showed a tense facial expression. Vital signs indicated an increased pulse and respiratory rate compared to normal values for the patient's condition. Based on the Zung Self-Rating Anxiety Scale (SAS), the patient obtained a score of 45, which is categorized as moderate anxiety.

2. Nursing Implementation Process

The nursing implementation was carried out based on the SIKI interventions with a primary focus on anxiety reduction. The interventions provided included orientation to the care procedures, giving information about the stages of the surgery, and educating the patient on simple relaxation techniques. In addition, the nurse provided emotional support through therapeutic communication and an empathetic approach.

The guided imagery intervention was carried out in a calm environment, with the patient asked to sit comfortably and close her eyes. The nurse guided the patient to imagine a safe and soothing situation, such as natural scenery, the sound of water, or any place that provided a sense of comfort. During the intervention, the nurse monitored the patient's breathing response, muscle tension, and ability to maintain focus on the visualization. The intervention lasted for approximately 10–15 minutes

3. Results of Anxiety Level Measurement



After the guided imagery session was completed, the nurse reassessed the patient's anxiety level using the SAS instrument. The patient showed significant changes in both physical and emotional responses. Subjectively, the patient stated that she felt more relaxed, calmer, and no longer overly worried about the surgery. She appeared more cooperative, smiled when spoken to, and no longer exhibited excessive motor activity.

Objectively, muscle tension decreased, the breathing pattern became slower and more regular, and the patient's facial expression appeared more relaxed. The SAS score decreased from 45 (moderate anxiety) to 35 (mild anxiety). This reduction indicates an improvement in the patient's anxiety condition after the intervention.

4. Respon Pasien Terhadap Intervensi

In addition to changes in anxiety scores, the patient's behavioral responses were also observed during the intervention. At the beginning of the intervention, the patient appeared to have difficulty concentrating and shifting her thoughts. However, after a few minutes of following the visualization instructions, the patient began to show better responses, indicated by slower breathing and a more relaxed facial expression. The patient stated that the guided imagery technique helped her better control her thoughts and feelings of fear. After the intervention, the patient appeared more open to discussing the surgical procedure and expressed readiness to undergo the operation

Discussion

The findings of this study demonstrate that guided imagery was associated with a reduction in anxiety levels among preoperative patients with breast cancer, as indicated by the decrease in the SAS score from 45 (moderate anxiety) to 35 (mild anxiety). This result supports the potential role of guided visualization as an effective non-pharmacological intervention for anxiety management, particularly in

patients preparing to undergo surgical procedures. Guided imagery functions by directing the patient's attention toward calming mental images, which may activate the parasympathetic nervous system and suppress excessive sympathetic activity. As a result, physiological manifestations of anxiety—such as increased heart rate, muscle tension, and altered breathing patterns—may be reduced.

The reduction in anxiety observed in this study is consistent with existing theoretical frameworks (5), which suggest that relaxation-based interventions can interrupt cycles of negative cognition that precipitate and sustain anxiety. By shifting attention away from perceived surgical threats and toward positive imagery, patients may experience reduced anticipatory fear and enhanced emotional regulation. These findings are also aligned with previous research (8), which reported that guided imagery significantly reduced preoperative anxiety by improving self-control and decreasing emotional tension.

Furthermore, the findings of this study are supported by evidence from prior studies (9), which indicate that positive visualization can decrease sympathetic nervous system activity, enabling patients to feel calmer and more prepared to face medical procedures. Additional studies involving patients with cancer (10-25) have demonstrated that guided imagery not only reduces anxiety but also enhances patients' perceived sense of control over their illness and treatment process. This suggests that guided imagery functions not merely as a temporary relaxation technique, but also as a psychological coping strategy that facilitates positive adaptation in individuals facing chronic and life-altering conditions such as breast cancer.

From a nursing perspective, this study contributes valuable insights into the application of complementary interventions in preoperative care. The findings reinforce existing evidence that non-pharmacological approaches, such as guided imagery, are safe, cost-effective, and easy to implement without causing adverse effects. Within the context of healthcare services in Indonesia, where resource limitations remain a challenge in many facilities, guided imagery represents a practical and feasible intervention. Moreover, this approach is consistent with the principles of holistic nursing care, in which nurses address not only patients' physical needs but also their psychological and emotional well-being as an integral component of comprehensive perioperative management.

CONCLUSION

This case study demonstrates that guided imagery may be an effective complementary nursing intervention for reducing preoperative anxiety in patients with breast cancer. The observed decrease in anxiety levels following the intervention suggests that guided imagery can help patients achieve greater emotional calmness and psychological readiness prior to surgical procedures. As a non-pharmacological approach, guided imagery is simple, safe, and easy to implement within routine nursing care.

The findings highlight the potential value of integrating guided imagery into preoperative nursing interventions, particularly in settings with limited resources. By addressing patients' psychological needs alongside physical preparation, nurses can contribute to more holistic and patient-centered perioperative care. However, given the single-case design of this study, further research involving larger sample sizes and experimental designs is recommended to strengthen the evidence base and support broader clinical application.

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AUTHOR'S CONTRIBUTION STATEMENT

Nurhasana Irwansjah, Haeril Amir, Suci Hardiyanti Suharto Putri, Erna Marini was responsible for the research design, data collection, analysis, and drafting of the manuscript. , Haeril Amir, Suci Hardiyanti Suharto Putri supervised the research process, contributed to the theoretical framework and literature review, and revised the manuscript critically for intellectual content.

CONFLICT OF INTEREST

All author declare No conflict of interest

DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

Artificial intelligence tools were used to assist with language editing and grammar checking. No content generation, data analysis, or critical interpretation was performed by AI. All intellectual contributions are the sole responsibility of the authors. All research design, data collection, analysis, and interpretation were performed by the authors without AI assistance.

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