

Exploring the Psychoeducational Needs and Strategies to Reduce Psychological Distress in Woman Breast Cancer Post Mastectomy by Nurses: Implications for Psychosocial Competence

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ABSTRACT

Background: Post-mastectomy breast cancer patients often experience psychological distress, which nurses play a crucial role in addressing. This study aimed to explore nurses' perceptions of the psychoeducational needs of women following mastectomy to reduce psychological distress. **Methods:** This research uses a qualitative research design with focus group discussions carried out by twenty nurse informants from the Kariadi Hospital in Semarang, Indonesia, recruited through purposive sampling techniques. Focus Group Discussion (FGD) guide created by the researcher with open questions is employed. FGDs were recorded, transcribed, and analysed thematically. **Results:** The themes that emerged were "psychoeducational goals", with one subtheme (reducing the level of psychological distress); "content of psychoeducational material", with five subthemes (patient adaptation regarding the impact of mastectomy, physical treatment, the impact of negative thoughts, the impact of negative emotions and psychological support); and "psychoeducation format", with six subthemes (form, method, media, tools, duration and frequency). Several strategies are applied to overcome the problem of psychological distress faced by women who have breast cancer after mastectomy. **Conclusion:** Psychoeducational competency is inherent in nurses because they demonstrate skills in dealing with patients' psychological distress, such as pain management, deep breathing techniques, progressive muscle relaxation, early ambulation, physical mobilisation, range of motion, self-talk, and psychological support. Therefore, hospital managers can implement a program to increase the competence of nurses in dealing with patients' psychological stress by providing psychoeducation so that nursing practice can improve.

Keywords: Breast Cancer; Mastectomy; Nurses; Psychoeducational Needs

INTRODUCTION

Several factors influence psychological distress after mastectomy. In society, post-mastectomy women often face challenges related to body image, social interactions, and emotional well-being, leading to significant psychological distress (Balat, Laftah & Radhi, 2025). The most common psychological factor is body image problems, which are positively related to depressive symptoms (Wang *et al.*, 2024). This conclusion is supported by research that shows that 52.84% of patients with body image problems experience moderate depression (Li, 2022). Depression caused by the patient's shame due to breast loss can have an impact on physical well-being, emotional well-being, social well-being, and coping strategies (Bioku *et al.*, 2025; Rasouli, Khazaie & Yarahmadi, 2024). A societal stigma related to body image after mastectomy is also a significant contributor, with women often feeling less feminine or socially isolated, which exacerbates depression and other psychological issues.

Physical factors are also causes of psychological distress (Majumdar *et al.*, 2024). Chronic pain and fatigue are the physical sensations most often found in women with breast cancer after mastectomy. This conclusion is aligned with research which shows that 42.9% of women experience chronic pain (Chiang *et al.*, 2023) and fatigue and therefore require psychoeducation (Abdelrahman *et al.*, 2025). Additionally, women who undergo

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mastectomy report a lack of awareness and understanding in their social circles, leading to further psychological challenges. Family members and society at large often underestimate the long-term emotional toll and physical limitations, which can leave patients feeling unsupported.

Psychoeducation is needed for breast cancer patients who need immediate help either before, during, or after medical procedures to accept, tolerate, and overcome negative thoughts, emotions, and behavior (Izydorczyk *et al.*, 2018; Wang *et al.*, 2024). Psychoeducation offers several advantages in this context: it helps patients, and their families understand the psychological and emotional impact of the diagnosis and treatment process, provides coping strategies, and enhances their ability to manage stress, anxiety, and depressive symptoms. Psychoeducation is a psychosocial intervention (Ashton & Oney, 2024) and integrates psychotherapy and education (Lukens & Mcfarlane, 2006). It empowers patients to engage actively in their recovery by offering practical tools for emotional regulation and decision-making. Moreover, psychoeducation improves communication between patients and healthcare providers, creating a supportive environment that can reduce feelings of isolation and helplessness. In response to this growing need, psychoeducational programs have become a crucial component of postmastectomy care in many countries, helping women navigate the psychological impact of the procedure more effectively. However, the availability and consistency of such programs in healthcare settings vary, resulting in gaps in care and increased psychological distress among these women.

There is a role for nurses to overcome psychological distress by knowing the psychoeducational needs that breast cancer women require after mastectomy. To determine how nurses deal with psychological distress based on the psychoeducational needs of post-mastectomy breast cancer women, this study explored the necessary psychoeducational needs and strategies used by nurses when faced with the problem of patient psychological distress.

METHODOLOGY

Research Design

This study used a qualitative research design with an exploratory and descriptive approach (Nowell *et al.*, 2017). The focus was on understanding the psychoeducation format required by patients and the strategies used by nurses when dealing with psychological distress in post-mastectomy breast cancer patients.

Participants and Sampling

The population consisted of nurses working at Kariadi Hospital, Semarang, Indonesia. Purposive sampling techniques were used to select twenty nurse informants based on the following inclusion criteria: they must be registered nurses in Indonesia, have been employed at Kariadi Hospital for at least one year, and be willing to participate in the study. Exclusion criteria included nurses with less than one year of work experience, nurses not directly involved in the care of post-mastectomy patients, or those unwilling to provide consent. A total of 20 nurse participants met the criteria and were included in the sample. The sample size was determined based on data saturation, where no new information or themes emerged from the focus group discussions (FGDs).

Data Collection

Data were collected using focus group discussions (FGDs), guided by an FGD manual created by the researchers. The guide included open-ended questions aimed at facilitating discussions around the nurses' strategies in dealing with patients' psychological distress. FGDs were audio-recorded with the participants' consent and lasted between 30 and 60 minutes. The research process began with securing ethics approval and permission from hospital directors. Nurses who met the inclusion criteria were invited to participate, and informed consent was obtained from all participants prior to their involvement in the study. Two separate FGDs were conducted, each consisting of 10 participants, with sessions held over one month (July 2023). FGD sessions continued until new themes were no longer emerging from the data.

Data Analysis

The audio recordings were transcribed verbatim and translated into Indonesian for analysis. A thematic analysis, following the Braun and Clarke (2006) framework (Nowell *et al.*, 2017), was employed to identify recurring themes and subthemes from the data. This analysis was performed manually by the researchers, who

reviewed the transcripts multiple times to ensure accuracy and depth. Member checking was conducted by returning the transcripts to participants for validation, ensuring the credibility of the findings.

Ethical Consideration

This study received ethical approval from the Ethics Committee of Kariadi Hospital Semarang, Indonesia with reference number 1452/EC/KEPK-RSDK/2023 on 24th March, 2023. Participants were provided with informed consent forms, and confidentiality was maintained throughout the study.

RESULTS

Participant Characteristics

The study involved 20 participants, predominantly female (70%). Most were adults aged 18–44 years (95%), with the remainder aged 45–55 years (5%). The majority held a bachelor's degree in nursing with professional certification (60%), followed by vocational degrees (30%) and specialised medical-surgical nursing qualifications (10%). Most participants were married (85%) and employed as permanent staff (70%). In terms of work experience, 70% had 5–10 years of experience, while 15% had less than 4 years or more than 11 years.

Themes Analysis

The exploration of nurses' responses related to psychoeducation needs in post-mastectomy women with breast cancer resulted in three themes, with ten subthemes emerging in the research. The first theme is “psychoeducational objectives,” which includes one sub-theme: lowering levels of psychological distress. The second theme is "psychoeducational content," which comprises two sub-themes: physical and psychological problems. The third theme is "format of psychoeducation", which includes seven sub-themes: form, method, delivery, media, tools, duration, and frequency of psychoeducation. Theme 1: the objectives of psychoeducation, obtained from the results of the exploration that all nurses during the FGD said that psychoeducation overcomes and reduces the psychological stress experienced by women with breast cancer after undergoing mastectomy. Theme 2: psychoeducation content, obtained from the results of the exploration that there are two problems or impacts on women with breast cancer after undergoing mastectomy, namely the effect of physical sensations such as pain, fatigue, and stiffness on the side of the operation. The psychological impacts include worry, sadness, fear, anxiety, and depression, so the impact of physical and psychological sensations experienced by women becomes content in providing psychoeducation. Theme 3: Psychoeducation format, obtained from the exploration results that the appropriate form of psychoeducation to reduce psychological distress is with a direct or face-to-face method, individual/patient delivery, using effective and interesting media such as audiovisual or video, tools that are easy for patients and families and can be viewed at home such as mobile phones, short duration, namely less than 30 minutes, and unlimited frequency when using digital audiovisual media because patients and families can access it continuously as long as needed. The participants used several strategies in delivering a psychoeducational format to overcome psychological distress in post-mastectomy breast cancer women (see Figure 1).

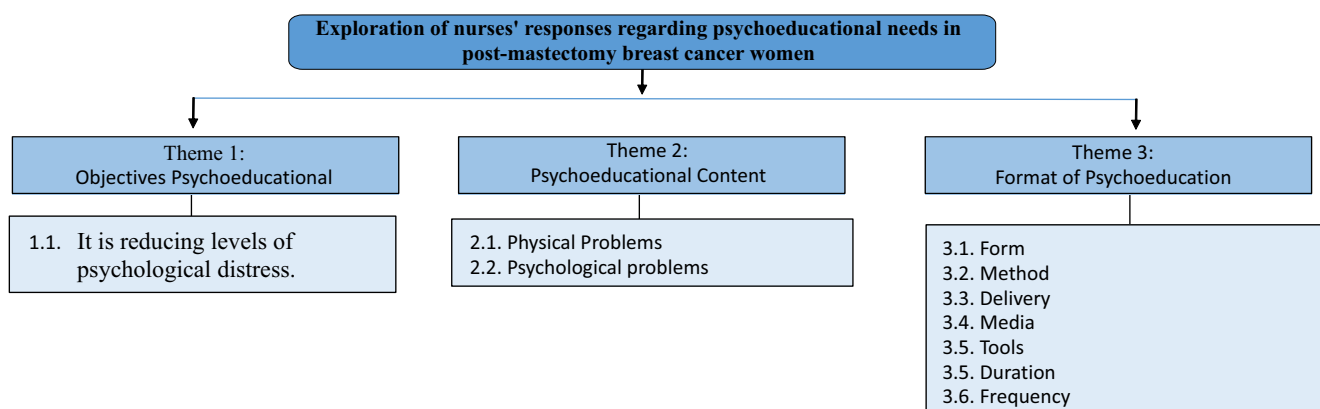


Figure 1: The Emergent Themes and Sub-Themes of the Study

Theme 1 Objectives Psychoeducational

The first theme includes the aim of psychoeducational interventions to overcome problems in post-mastectomy breast cancer women.

Reducing Levels of Psychological Distress

This subtheme refers to the aim of psychoeducational intervention as a psychosocial intervention to overcome the patient's psychological problems, such as symptoms of anxiety and depression that can arise from the impact of a mastectomy.

"This psychoeducational intervention is suitable for dealing with patients' psychological problems". P4

"I think this psychoeducation can overcome the patient's physical and psychological problems". P7

"The main aim is due to the psychological aspect; the most important thing is to reduce anxiety and depression". P10

"...Because breast cancer women have physical and psychological problems, it is called distress". P12

"...Of these two problems, it can be called psychological distress". P15

Strategies to Overcome Psychological Distress

The strategy collaborates with other health professionals such as surgical oncologists, clinical psychologists, and nurses to overcome patient psychological stress.

"I think the person who can deal with psychological problems is a psychologist; if it is severe, the nurse will refer to a psychiatrist's. P1

"Usually, the doctor refers to a psychologist if there are psychological problems and, if they are serious, to a psychiatrist, if not by a nurse". P8

Theme 2 Psychoeducational Content

The second theme includes psychoeducation content, which provides for physical and psychological problems in post-mastectomy breast cancer women and strategies for overcoming them.

Physical Problems

This subtheme refers to the main problems experienced by women with breast cancer after mastectomy, namely physical problems such as pain and fatigue.

"I think there are side effects such as pain, fatigue, and risk factors after having the breast removed". P8

"The patient's most frequent physical problems are pain and fatigue". P10

"Pain and fatigue sometimes, patients also complain of other physical problems but only mild". P15

Strategies to Overcome the Patient's Physical Problems

The strategy used to overcome the patient's physical problems is the patient's adaptation regarding physical problems and post-mastectomy physical care, namely physical exercise or range of motion (ROM) gradually and continuously.

"I usually explain the impact and risk factors to the patient; the nurse explains techniques for reducing pain with deep breathing and early ambulation." P1

"The first intervention is the patient fasts. First, the education is not to eat and drink, etc.; secondly, monitoring the equipment installed and then starting to mobilise for the first 6 hours; in the next 6 hours, the patient can mobilise on the right side and tilt left, etc., gradually. P5

Psychological Problems

"The experience that we face from patients with ca mammae is that these patients, after surgery, usually

experience psychosocial problems due to the loss of limbs. Some patients say they are sad and continue to be angry; sometimes, they are also afraid that after surgery, there will be other procedures, and the patient often looks anxious.” P1

This sub-theme supports the main problems experienced by women who have breast cancer after mastectomy, namely psychological issues such as sadness, anger, fear, anxiety, and body image.

“The patient feels that his body organs are no longer perfect, thus reducing his mental state” . P2

“The experience that we face from patients with ca mammae is that these patients, after surgery, usually experience psychosocial problems due to the loss of limbs” . P14

Strategies to Overcome the Patient's Psychological Problems

The strategies used to overcome the patient's psychological problems are techniques for overcoming the impact of negative thoughts and emotions as well as psychological support from the patient's husband or family members.

“To overcome this, if the patient is angry or anxious, we suggest taking a deep breath, then self-talk and positive support from your husband or family” . _P13.

“Acceptance or adaptation to conditions after surgery is critical.” _P14

Theme 3 Format of Psychoeducation

The third theme contains the psychoeducation format, which includes the form, method, delivery, media, tools, duration, and frequency of psychoeducation.

“Patients who are treated in a room cannot be combined with the same patient because it is based on classes and empty rooms, so the best form of psychoeducation is individual psychoeducation” . _P2

“Individual psychoeducation because it is carried out in each patient's room” . _P3

“Nurses play a crucial role in delivering psychoeducation, particularly those who care for patients 24 hours a day” . P5

“Their continuous presence and close relationship with patients make them ideal facilitators of psychoeducational sessions.” P6

“Nurses can accompany patients when viewing psychoeducational videos, such as explaining medication usage, demonstrating self-care techniques, or providing information about the patient's condition” . P7.

“The duration of psychoeducation should be less than 15 minutes” . _P11

“Frequency of psychoeducation can be provided during treatment” . _P12

Strategies for Psychoeducation Format

The strategy used in the psychoeducation format, which aims to reduce psychological distress, is to study literature reviews or journals and consult with experts.

“Psychoeducation formats should be developed based on literature reviews and consultation with experts” . _P7

DISCUSSION

Psychoeducation Objectives

Nurses who care for post-mastectomy breast cancer patients who have physical and psychological problems may face difficulties in providing psychoeducational interventions (Fawzy & Fawzy, 1994;

Mustikaningsih *et al.*, 2023). This difficulty can be overcome by identifying psychoeducational needs. Reducing psychological distress in patients was the earliest identified goal of psychoeducation. Psychological distress is the psychological pressure that a person experiences unpleasantly when facing a particular stressor, either temporary or permanent (Lang-Rollin & Berberich, 2018), with the psychological pressure most often experienced by breast cancer women after mastectomy being body image problems (Gradishar *et al.*, 2022). Symptoms of anxiety and depression also appear as psychological distress. So, the aim of psychoeducation is the primary key to identifying the patient's psychoeducational needs. Understanding these needs is pivotal to creating targeted interventions that can lead to both immediate and long-term improvements in patients' quality of life. Knowing the content or psychoeducational material thoroughly allows nurses to understand the problems or pressures experienced and felt by patients.

Psychoeducational Content

Some psychoeducational materials that are suitable for women with breast cancer after mastectomy include physical issues such as pain and fatigue (Mustikaningsih *et al.*, 2023). Post-mastectomy pain syndrome is a chronic neuropathic pain condition that affects many women who have undergone breast cancer surgery (Chappell *et al.*, 2020). Research indicates that the level of neuropathic pain after mastectomy is reported to be 69.2% at moderate-severe levels (Bibi *et al.*, 2022). This chronic pain persists for three months after surgery, is localised and neuropathic (Gónima Valero *et al.*, 2024), while fatigue lasts for six months or more with high levels of fatigue in the first two months, then mild-moderate fatigue at 12 months after surgery (Reme *et al.*, 2022).

Other physical sensations were found 48 hours after surgery: dizziness, coughing, shortness of breath, nausea, and vomiting (Wesmiller *et al.*, 2023). These physical sensations are also impacted by the patient's psychological problems (Majumdar *et al.*, 2024), so it requires psychoeducation (Ashton & Oney, 2024). One of the most effective psychoeducational techniques for dealing with pain and fatigue is deep breathing exercises and progressive muscle relaxation, which aim to reduce the level of pain and fatigue as well as anxiety after surgery (Martinez-Calderon *et al.*, 2024). These techniques not only address physical symptoms but also enhance patients' coping mechanisms, allowing them to regain a sense of control over their recovery.

Another psychoeducation with early ambulation and Range of Motion (ROM) exercises, which aims to increase the muscles in the abdominal area, move the joints in the extremities, restore the ability to move muscles, improve blood circulation, speed up the wound healing process and prevent post-mastectomy complications (Ribeiro *et al.*, 2019). The use of pedicled rectus abdominis myocutaneous (MS-TRAM) flaps and Transverse Rectus Abdominis Myocutaneous (TRAM) flaps can reduce ambulation time and post-mastectomy pain (Wu & Ho, 2019). It can overcome other physical sensations, namely reducing dizziness, coughing, shortness of breath, nausea, vomiting, and arm stiffness, by increasing arm flexion, abduction, external rotation, and shoulder flexion (Ribeiro *et al.*, 2019). Based on the above, it can be identified that the strategy to overcome the problem of physical sensation after mastectomy is patient adaptation regarding the impact of mastectomy and physical care such as pain management, deep breathing techniques, progressive muscle relaxation, early ambulation, range of motion (ROM) or physical mobilisation exercises.

Apart from the side effects of physical sensations, mastectomy women also experience psychological impacts (Majumdar *et al.*, 2024). The psychological effect on women after mastectomy is a decrease in emotional function in the form of negative thoughts and emotions (El Haidari *et al.*, 2023). The impact of negative thoughts that most often arise in women after mastectomy is body image problems (Chu *et al.*, 2023), while the effects of negative emotions that occur after mastectomy include feelings of sadness, worry, anger, and anxiety. If the patient cannot cope with physical sensations, negative thoughts, and emotions, such an outcome will result in decreased emotional function (El Haidari *et al.*, 2023), psychological distress (Anim-Sampong *et al.*, 2021), and reduced quality of life (Calderon *et al.*, 2019). Negative emotions arise from individuals' negative thinking responses (Lengacher *et al.*, 2019). This is based on research, which states that the negative emotion in breast cancer patients after mastectomy is 40% anxiety (Civilotti *et al.*, 2021). In addition, a decrease in emotional functions such as sadness, worry, fear, and anger was found in patients who underwent surgery (El Haidari *et al.*, 2023).

This harmful emotional problem needs to be handled with psychoeducation, such as deep breathing techniques (Magnon, Dutheil & Vallet, 2021). This technique aims to calm the mind, balance hormones, reduce cortisol levels, increase the flow of endorphins in the body, and help patients who experience sleep disorders. Deep breathing exercises have also been proven effective in significantly increasing high-frequency (HF) power and reducing anxiety (Magnon, Dutheil & Vallet, 2021). The progressive muscle relaxation technique is another psychoeducation to reduce negative emotions (Rasouli, Khazaie & Yarahmadi, 2024). This technique lowers anxiety levels by 50% and depression by 27.6% (Ahn *et al.*, 2022).

Meanwhile, the most frequent negative thought of post-mastectomy breast cancer patients is body image (El Haidari *et al.*, 2023). This problem needs to be addressed with psychoeducation because it can have an impact on the patient's psychological stress. One psychoeducational approach to improving body image is the self-talk technique, which involves saying positive affirmations to oneself (Hamilton *et al.*, 2011). This research also revealed psychological support from the husband, family, health professionals, and organisations or institutions. These interventions should include a structured plan that fosters resilience and leverages peer-support systems. This finding is supported by the results of research by Fekih-Romdhane *et al.* (2022) and colleagues, which explain that psychoeducation is needed to build relationships in the form of psychological and social support (Fekih-Romdhane *et al.*, 2022). Systematic review research shows that psychoeducation to get support from breast cancer survivors most often includes psychological or emotional needs, health system or information needs, physical and daily activities, and interpersonal needs (Khajoei *et al.*, 2023).

Format of Psychoeducation

The subsequent identification of psychoeducational needs is the psychoeducational format. Psychoeducation formats that need to be identified include forms, methods, media, tools, duration, and frequency of psychoeducation (Fawzy & Fawzy, 1994). This form of individual psychoeducation given directly face to face is suitable for patients treated with post-mastectomy. This is by the results of research by Ploos van Amstel *et al.* (2020), which shows that individual face-to-face psychoeducation can reduce symptoms of anxiety and depression. Digital psychoeducation methods, such as audiovisual media and mobile devices, are appropriate for patients. Research by Stanton *et al.* (2005) explains that digital-based psychoeducation using audiovisual or video media and mobile phones is also more effective than conventional media.

The appropriate duration and frequency of psychoeducation for patients treated with mastectomy are less than eight weeks; this is according to research from Setyowibowo *et al.* (2022), which shows the results that a short duration is more effective in reducing psychological distress. A frequency of less than eight weeks will effectively solve patient problems quickly (digital caring). Nurses must adapt the psychoeducational strategies to individual patient preferences and technological literacy levels for better outcomes. Nurses can offer different psychoeducation formats tailored to patient needs and preferences. However, the most critical competency of nurses is how to deliver appropriate psychoeducation to patients, including form, method, media, tools, duration, and frequency. This strategy has significant implications for the nurse's task, making it easier to carry out nursing actions.

Limitation

The study has constraints such as a small sample size, regional restrictions, and nurses from limited wards. These factors could impact the findings' generalisability. To validate and expand on the findings of this study, additional research with larger samples and in different wards can be conducted.

CONCLUSION

This study explored nurses' perceptions of the psychoeducational needs of women following mastectomy to reduce psychological distress. The findings highlight the critical role of nurses in identifying and addressing psychoeducational needs, including objectives, content, and formats suitable for post-mastectomy patients. The primary objective of psychoeducation is to alleviate psychological distress by addressing physical sensations such as chronic pain, fatigue, and other physical symptoms, as well as psychological challenges, including body image concerns, anxiety, and emotional dysfunction. Psychoeducational content identified by

nurses includes techniques such as deep breathing, progressive muscle relaxation, self-talk, early ambulation, and range-of-motion exercises. These interventions were recognised as effective in helping patients adapt to the physical and emotional impacts of mastectomies. Nurses also emphasised the importance of providing social and psychological support by involving their families, health professionals, and organisations in the psychoeducational process.

The psychoeducational format preferred by nurses includes individualised face-to-face sessions complemented by digital tools, audiovisual media, and short-duration interventions tailored to patients' needs. Nurses must collaborate with surgical oncologists, clinical psychologists, and other professionals to ensure a comprehensive approach to psychoeducation. The study concludes that assessing and identifying psychoeducational needs are essential for nurses to design effective interventions. This process requires enhanced nurses' competencies through training programs supported by hospital administrators to improve the quality of nursing care. These findings provide a foundation for developing psychoeducational assessment tools and promoting interprofessional collaboration to alleviate psychological distress in post-mastectomy women. Future research should focus on evaluating the effectiveness of interprofessional psychoeducational interventions in improving patient outcomes.

Conflict of Interest

The authors declare that they have no competing interests.

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