

The Impact of Evidence-based, Coordinated Nursing Care on the Emotional State of Mastectomy Patients

Fan Ling

Deyang People's Hospital, Deyang 618000, Sichuan, China.

How to cite this paper: Fan Ling. (2026) The Impact of Evidence-based, Coordinated Nursing Care on the Emotional State of Mastectomy Patients. *International Journal of Clinical and Experimental Medicine Research*, 10(2), 123-126.
DOI: 10.26855/ijcemr.2026.03.012

Received: January 30, 2026
Accepted: February 28, 2026
Published: March 26, 2026

***Corresponding author:** Fan Ling,
Deyang People's Hospital, Deyang 618000,
Sichuan, China.

Abstract

Objective: To analyze the impact of evidence-based coordinated nursing care on the emotional state of patients undergoing mastectomy. **Methods:** Seventy patients who underwent mastectomy from February 2023 to September 2025 were selected as the study subjects and randomly divided into a control group and an observation group, with 35 patients in each group. The control group received routine nursing care, while the observation group received evidence-based coordinated nursing care. Negative emotions, complication rates, and pain responses were compared between the two groups. **Results:** Before nursing care, there was no significant difference in negative emotion scores between the two groups ($p > 0.05$). After nursing care, the negative emotion score in the observation group was lower than that in the control group ($p < 0.05$). The complication rate in the observation group was lower than that in the control group ($p < 0.05$). The pain response at 12h and 24h postoperatively was lower in the observation group than in the control group ($p < 0.05$). **Conclusion:** Evidence-based coordinated nursing care for patients undergoing mastectomy can not only reduce negative emotions and postoperative pain responses but also has a certain effect on preventing the risk of complications, making it an effective nursing approach.

Keywords

Evidence-based approach; coordinated nursing care; mastectomy; pain

Breast cancer is a malignant tumor disease with a high incidence rate among women. Mastectomy is an effective treatment for the disease. While removing the tumor, this treatment may lead to various complications after the operation, affecting the recovery and having a long-term impact on the quality of life. Therefore, after mastectomy, it is necessary to pay attention to the patient's vital signs, prevent possible complications, and combine psychological intervention methods to reduce the patient's psychological burden and make them cooperate with the prognosis recovery and radiotherapy and chemotherapy, etc. [1]. Routine clinical nursing focuses on vital sign care and special care around the patient's wound condition, medication, etc. This nursing model lacks systematic and evidence-based support. However, the coordinated nursing based on the evidence-based concept is based on evidence-based issues, establishes evidence, changes the previous scattered nursing methods, combines clinical experience with patient needs, coordinates resources from all parties, effectively reduces the patient's pain, and improves their psychological comfort [2]. Therefore, this study takes the mastectomy patients included in our hospital as the research subjects and analyzes the application value of coordinated nursing based on the evidence-based concept.

1. Materials and Methods

1.1 General Information

This study selected 70 patients who underwent mastectomy between February 2023 and September 2025 as the

research subjects. Patients were randomly divided into a control group and an observation group, with 35 patients in each group. The control group had an age range of 34-68 (54.32±4.91) years, a BMI of 21-26 (23.43±2.01) kg/m², with 21 cases of left-sided involvement and 14 cases of right-sided involvement. The observation group had an age range of 33-69 (54.24±4.68) years, a BMI of 20-26 (23.25±2.21) kg/m², with 23 cases of left-sided involvement and 12 cases of right-sided involvement. There were no significant differences in general characteristics between the groups ($p>0.05$).

Inclusion criteria: (1) Meets the clinical diagnosis and treatment criteria for breast cancer [3]; (2) Has indications for mastectomy; (3) First treatment.

Exclusion criteria: (1) Communication barriers; (2) Pregnant women; (3) Comorbid infectious diseases and blood diseases.

1.2 Methods

Control group: Patients received routine nursing care. Preoperatively, they received health education explaining the surgery time and preoperative preparations, and were instructed to complete all examinations as ordered by the doctor. Postoperatively, nursing staff closely monitored the incision and drainage, provided a quiet ward environment, regularly disinfected the ward, ventilated the room at regular intervals, adjusted the ward temperature and humidity to the patient's comfort level, observed changes in the surgical incision, informed them of postoperative precautions, assessed the patient's pain level, and administered analgesic medication.

Observation Group: Patients received evidence-based, coordinated nursing interventions. (1) An evidence-based nursing team was established, consisting of one attending physician and three responsible nurses. After establishing the team, evidence-based questions were raised, such as the patient's medical and psychological needs, and the impact of various factors on patient prognosis was analyzed. Subsequently, literature on breast cancer resection nursing was reviewed to establish a coordinated nursing model, which was implemented and improved in practice. (2) Nursing Implementation: First, preoperative health guidance: Based on patient data and experience, and the coordinated nursing plan, nursing staff completed a comprehensive assessment and implemented targeted health education. Through oral education, video education, and manual education, patients were informed about breast surgery methods, perioperative precautions, and postoperative complication risks. Emphasis was placed on two-way communication, with patients and nurses asking questions to deepen the patient's understanding of the surgery and disease, and to clarify preoperative fasting, water restriction, and skin preparation requirements. Second, psychological support: Nursing staff communicated with patients daily, covering all stages before and after surgery, to understand the patients' true needs. Before each procedure, the significance of the procedure was explained to the patient to avoid misunderstandings and reduce their anxiety. For patients with stable emotions, nursing staff use newspapers and books to distract them and help them maintain emotional stability. If a patient's emotional state is poor, a psychological counselor provides psychological support, citing successful cases and the recovery of other patients to alleviate negative emotions. Third, postoperative incision care: Nursing staff disinfects the incision twice daily and carefully observes its healing. If infection occurs, the doctor is notified immediately, and appropriate intervention measures are taken. A personalized pain intervention plan is developed for each patient, including nonsteroidal anti-inflammatory drugs, cold compresses, and relaxation exercises to reduce pain from multiple angles. Fourth, functional exercises: Within one week post-surgery, nursing staff guides patients in finger, wrist, and elbow exercises, three times a day for 10 minutes each time, to reduce the risk of postoperative lymphedema and promote local blood circulation. Two weeks post-surgery, the range and intensity of upper limb movement are increased, such as shoulder range of motion exercises, twice a day for 15 minutes each time, to help patients regain upper limb function. Psychological support is also provided to prevent patients from becoming depressed due to mastectomy, with 20-minute sessions each time, helping patients release inner pressure, encouraging family support, and strengthening their confidence in recovery.

1.3 Observation Indicators

(1) Negative emotions: The Anxiety SAS and Depression SDS scales were used for assessment. Both scales are out of 100, and a high score indicates severe negative emotions.

(2) Incidence of complications: flap necrosis, lymphedema, subcutaneous effusion.

(3) Pain response: The visual analog scale (VAS) was used for assessment. The VAS score ranges from 0 to 10, with higher scores indicating higher pain levels.

1.4 Statistical Analysis

The study used SPSS 27.0 software for statistical processing of data. Standard deviations of continuous data $\bar{x}\pm s$

were expressed as n, and between groups were tested using t-tests. Count data were expressed as n and % and tested using chi-square tests. $P < 0.05$ was considered statistically significant.

2. Results

2.1 Comparison of Negative Emotions between Groups

Before nursing care, there was no significant difference in negative emotion scores between the groups ($p > 0.05$); after nursing care, the negative emotion score in the observation group was lower than that in the control group ($p < 0.05$), as shown in Table 1.

Table 1. Comparison of negative emotions between groups ($\bar{x} \pm s$ points)

Group	SAS		SDS	
	Before nursing	Post-care	Before nursing	Post-care
Observation group (n=35)	62.32±3.01	41.25±2.81	58.14±2.38	40.18±3.15
Control group (n=35)	62.24±2.63	50.31±3.71	58.19±2.43	47.23±2.09
t	0.118	5.483	0.294	5.381
p	0.983	0.001	0.793	0.001

2.2 Comparison of Complication Rates between Groups

The incidence of complications in the observation group was lower than that in the control group ($p < 0.05$), as shown in Table 2.

Table 2. Comparison of complication rates between groups (n, %)

Group	Number of examples	flap necrosis	Lymphedema	subcutaneous fluid	Incidence
Observation group	35	0 (0.00)	1 (2.85)	1 (2.85)	2 (5.71)
control group	35	3 (8.57)	2 (5.71)	3 (8.57)	8 (22.85)
χ^2					3.974
P					0.047

2.3 Comparison of Pain Response between Groups

The pain response in the observation group was lower than that in the control group at 12h and 24h after surgery ($p < 0.05$), as shown in Table 3.

Table 3. Comparison of pain response among groups ($\bar{x} \pm s$, points)

Group	Number of examples	12 hours after surgery	24 hours after surgery
Observation group	35	2.83±0.43	1.02±0.23
control group	35	3.76±0.37	1.89±0.15
t		4.834	2.883
p		0.001	0.008

3. Discussion

Breast cancer is a common malignant tumor disease that poses a huge threat to the physical and mental health of patients. The incidence of this disease accounts for 7% of the total incidence of malignant tumors, becoming a health problem that endangers women. Mastectomy is a common treatment for breast cancer, which not only causes great trauma to patients but also causes various psychological problems [4]. For example, after the breast is removed, women's self-esteem is affected, and they experience anxiety and depression, which have an adverse effect on the

treatment and recovery of the disease. Therefore, it is necessary to implement nursing intervention in the treatment of breast cancer patients. The routine nursing model is not systematic enough, and a systematic nursing system has not been established [5].

Evidence-based medicine originated in the field of clinical medicine and is a practice-oriented approach that combines existing evidence to make rational decisions. From a nursing perspective, high-quality evidence, obtained through retrieval and evaluation, provides a scientific basis for nursing practice. Coordinated nursing is a patient-centered nursing model that aims to provide patients with a comprehensive and systematic nursing care system. It requires communication among nursing teams to ensure the comprehensiveness of nursing services.

According to the results of this study, the negative emotion scores of patients in the observation group were lower than those in the control group. The reason is that the evidence-based nursing care guided patients to identify negative emotions and listed other patients' successful treatment cases, which helped patients get rid of feelings of inferiority and despair and build confidence in fighting the disease. Relaxation training is a psychological support method and is crucial for releasing emotional stress. Deep breathing and progressive muscle relaxation can regulate the patient's autonomic nervous system and relieve anxiety and depression. In addition, listing successful cases can reduce the psychological burden of patients [6]. The postoperative pain response of the observation group was lower than that of the control group. The reason is that the nursing model provides targeted analgesia after surgery, such as drug analgesia and physical analgesia, to reduce pain while implementing preventive measures to reduce the risk of postoperative complications [7]. The reason is that the evidence-based nursing care provides health guidance and psychological support, and improves patients' understanding of postoperative recovery knowledge from a diversified perspective. Combined with psychological support, it helps build confidence in treatment, improves patients' compliance with medical advice, and prevents the risk of postoperative complications [8]. The subsequent continuous observation of wound changes and dynamic monitoring of the patient's recovery period risk, combined with life guidance, can prevent personal factors from increasing the risk of complications and improve the safety of postoperative recovery.

An evidence-based, coordinated nursing care approach for patients undergoing mastectomy can reduce their psychological burden, postoperative pain, and the risk of complications. This nursing care model is safe, reliable, effective, and has clinical application value.

References

- [1] Chai XY, Liu H, Li QX. Application value of standardized nursing combined with evidence-based nursing in mastectomy patients. *Clin Med Eng*. 2023;30(6):841-2.
- [2] Dong F, Ma RX, Han QQ. The effect of evidence-based personalized nursing on the emotional state and compliance of patients undergoing mastectomy. *Clin Res Pract*. 2023;8(15):171-4.
- [3] Tao QD. Analysis of the intervention effect of high-quality nursing care throughout the process on patients undergoing breast tumor resection. *Gansu Sci Technol*. 2021;37(9):148-50.
- [4] Huang CJ, Zhuang JY, Liao H, et al. Application of holistic perioperative nursing in patients undergoing EnCor system resection of benign breast masses. *J Qilu Nurs*. 2021;27(6):129-31.
- [5] Wang L. Evaluation of the impact of pain nursing intervention on patients undergoing resection of benign breast tumors. *Prim Med Forum*. 2021;25(6):883-4.
- [6] Wu ME, Yang ZQ, Wang LL. Perioperative intensive nursing care of a patient with giant borderline phyllodes tumor of the breast. *Contemp Nurse (Mid-ed)*. 2026;33(1):128-30. doi: 10.19793/j.cnki.1006-6411.2026.03.023
- [7] Lu HJ. The effect of continuing care on PICC catheter-related complications in breast cancer patients undergoing chemotherapy. *Chin Med Guide*. 2024;22(22):147-9.
- [8] Zhang J, Yang J, Li M. The effect of multidisciplinary team collaboration on postoperative pain syndrome after mastectomy in young breast cancer patients. *J Evid Based Nurs*. 2023;9(5):874-8.