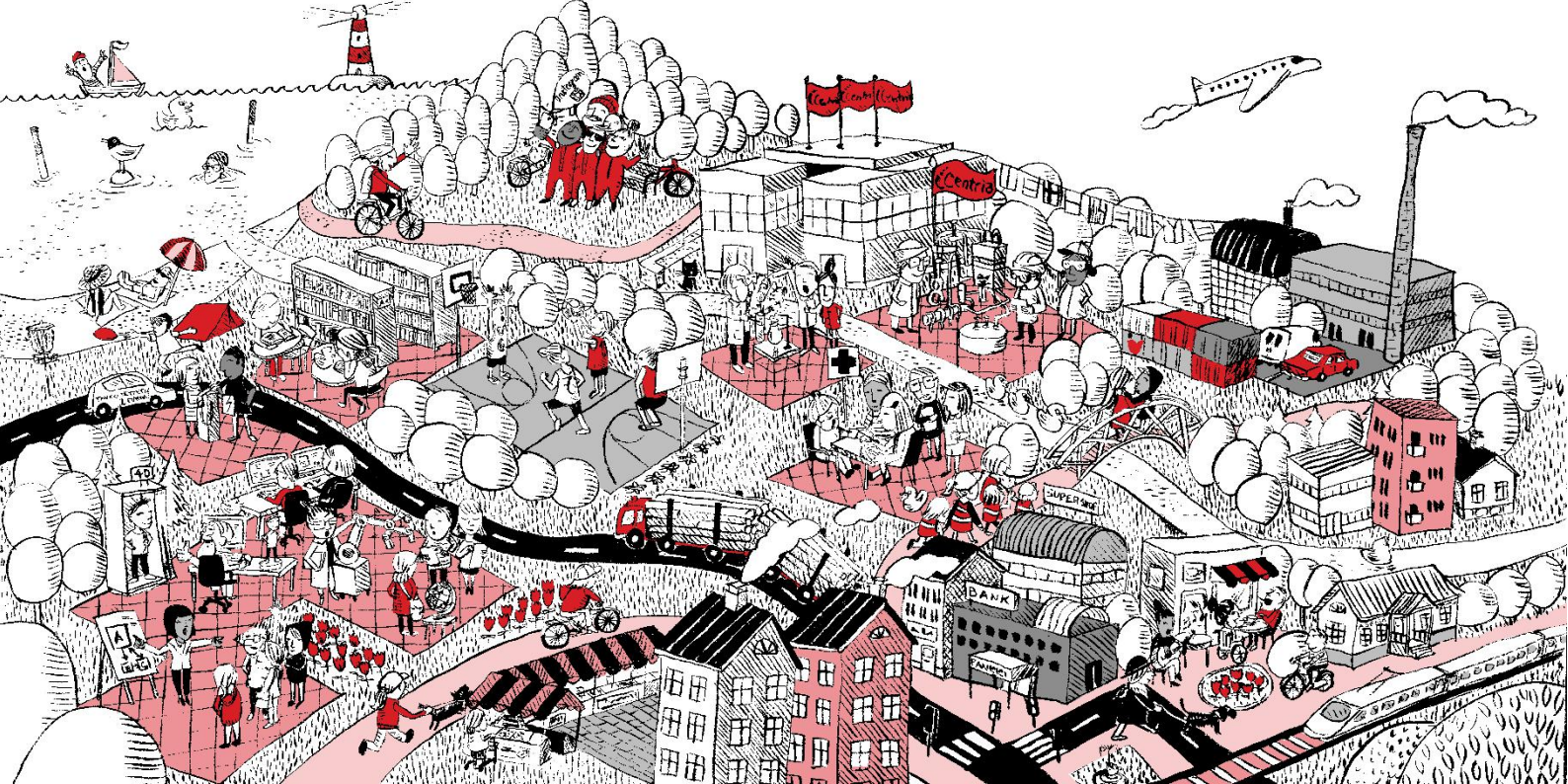


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THESIS
POSTOPERATIVE PSYCHOLOGICAL CARE FOR BREAST
CANCER PATIENTS
A Literature Review

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ABSTRACT

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<p>Breast cancer is a common tumor of the female breast. In Finland, in excess of 5,000 females are reported to have breast cancer each year. The main reason for choosing the topic was the intention to make nurses put more emphasis on psychological care, and the purpose of this thesis which aims at studying the psychological care after breast cancer surgery is to help alleviate the psychological pain and reduce the negative emotions of patients after the surgery. In this study, practical postoperative psychological care guidance is provided to facilitate the recovery.</p> <p>A literature review is the basis of this study, and eight articles of the last six years from the CINAHL database were selected for the study.</p> <p>In summary, three types of psychological care for postoperative breast cancer patients have been found in this study, which are emotional support, adjuvant therapy and education about breast reconstruction. Further research should focus on breast cancer postoperative psychological nursing care quality and the effectiveness of the nursing care methods in practice.</p>		
Key words Breast cancer, Mastectomy, Nursing intervention, Postoperative care, Psychological care		

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1 INTRODUCTION

Breast cancer is a disease in which the cells in the breast grow out of control. There are many different types of breast cancer, and the most common two are called invasive ductal carcinoma and invasive lobular carcinoma. When breast cancer spreads to other parts of the body, it is called metastasis - cells of breast cancer may metastasize through the breast to lymph nodes or other parts of the human body. In most cases, breast cancer may develop in lobules or ducts of the breast. (Centers for Disease Control and Prevention 2020.) Moreover, the incidence of the disease is increasing year by year, and the age of onset tends to be younger than before. (Kudela, Samec, Kubatka, Nachajova, Laucekova, Liskova, Dokus, Biringer, Simova, Gabonova, Dankova, Biskupska, Bodova, Zubor & Trog 2019.) Surgery has been one of the essential methods of breast cancer treatments until now. However, many patients suffer from a lot of psychological pressure after breast cancer surgery due to the change of the body and various post-operative adverse reactions. As a result, these patients tend to suffer from existential anxiety, pessimism, despair, self-abased psychology, etc. Due to this reason, their postoperative rehabilitation is normally not very satisfactory (Mayo Foundation for Medical Education and Research 2019.), even though the current postoperative nursing of breast cancer patients take into account psychological nursing in addition to physical nursing. In terms of rehabilitation of breast cancer patients after the surgery, nurses play a crucial role in the whole process of caring them. Considering that psychological barriers are common in patients after breast cancer surgery, and nurses should try to help these patients with effective psychological nursing intervention. So it is essential to provide emotional support and other nursing interventions, such as medication and basic care. (Shih, Lin & Fang 2020.)

In this thesis, the effects of psychological nursing care on breast cancer patients after mastectomy surgery, as well as breast cancer patients who need mastectomy surgery, will be investigated. The psychological nursing care here refers to meeting the psychological needs of such patients and implementing certain psychological nursing interventions. The purpose of the study is to describe the effects and necessity of psychological nursing care for the patients. The research also aims to increase the nursing knowledge for related nurses. The importance of the research topic lies on that it will prove whether psychological nursing care has positive impacts on the rehabilitation of patients after breast cancer surgery for potential improvement in the patients' recovery. Therefore, not only is this very topic important to the nurses, but also it is beneficial to the patients themselves in terms of their mental health and rehabilitation. For nurses, they will be able to learn how to give psychological care to

patients after breast cancer surgery and the importance of psychological nursing care. (Legg 2010.) They will also enrich their skill of psychological therapy, which is different from physical therapy. Therefore, nurses will be able to use psychological care to help patients recover both mentally and physically after breast cancer surgery. (Han, Zhu & Zhao 2017.) As for the patients themselves who are definitely the most significant beneficiaries, a higher level of psychological nursing care may alleviate the psychological trauma caused by breast cancer and the physical trauma and the fear caused by the surgery.

2 THEORETICAL BACKGROUND

In this part, the theory based on which this research is carried out will be explained and described, so as to help readers have a clear understanding of the study itself.

2.1 The breast cancer and women's health

The breast is composed of skin, fibrous tissue, breast and fat, and breast cancer is a malignant tumor that occurs in the epithelial tissue of the breast. It is the most common cancer among women and the second leading cause of cancer death in women after lung cancer. Women are the biggest victims of breast cancer, but breast cancer does not only occur in women, sometimes men also get breast cancer. (Glendenning, Pederson, Shewbridge, Tutt, Richardson & Armes 2012.)

A common staging system is often used for the cancer patients, which is called the American Joint Committee on Cancer (AJCC) TNM system. In this system, different letters represent different meanings. The letter T means the scope of the tumor, indicating how big the cancer is. The N means the spread to nearby lymph nodes, indicating if the cancer is spread to nearby lymph nodes and to what extent the cancer has spread. The letter M indicates if the breast cancer has spread to more places in the body. The scope of the disease after 0 which refer to the early period of development before obvious symptoms occur (carcinoma in situ), is from 1 to 4. The larger the number, the further the breast cancer has spread, the more severe the breast cancer is. (American Cancer Society 2019.)

Mastectomy is a method of treating or preventing breast cancer. It is a procedure to remove all the breast tissues from the breast. There are five different types of mastectomy, which are "simple" or "total" mastectomy, modified radical mastectomy, radical mastectomy, partial mastectomy and nipple-sparing mastectomy (Mayanju et al. 2018.) but it is normally difficult for patients to make a decision among different operations. In fact, many patients will have a hard time accepting mastectomy surgery, especially when women patients think about that they will lose their breast(s) due to the operation - for females, the breast could be perceived as a life-giving organ and could be the symbol of women (Simth et al., 2020.), because it produces and secretes milk through mammary gland to feed the infants.

Breast cancer occurs when breast cancer cells begin to grow abnormally. (Temple, Salmon, Tudur-Smith, Huntley & Fisher 2020.) There are many factors that can cause breast cancer, but many of the breast cancer risk factors are beyond individuals' control, for example, age and family history. However, people can control certain risk factors, such as weight, physical activity and drinking. The factors associated with an increased risk of breast cancer are listed in TABLE 1:

TABLE 1. The factors associated with an increased risk of breast cancer (adapted from DeMiglio, Murdoch, Ivison, Fageria & Voutsadakis 2020.)

No.	Factor	Explanation
1	About gender	Women are more likely to develop breast cancer than men, but it does not mean that men do not develop breast cancer - they also have a chance to suffer from this disease.
2	As the growth of the age	Growing elder is the second largest risk factor for breast cancer. The older one becomes, the greater the risk of breast cancer.
3	The Family history of breast cancer	If a family member were diagnosed with breast cancer, especially at a young age, the risk of breast cancer increases. In spite of this, most people who were diagnosed with breast cancer didn't have a family history of breast cancer.
4	A history of breast cancer or breast lumps	If someone has been diagnosed with breast cancer on one side, there is an increased risk of breast cancer in the other breast.
5	Body weight	Being overweight increases the risk of breast cancer. Women who become overweight or obese during menopause phase may also have a higher chance of developing breast cancer, for having more fat tissue means having higher estrogen levels, which increases the risk of breast cancer.
6	Excessive drinking	Heavy drinking also increases the risk of breast cancer.
7	Radiation exposure	Radiotherapy of the chest for children or young adults for the treatment of other types of cancer greatly increases

	the risk of breast cancer.
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Although there are many factors in daily life that can become the risk factors of breast cancer, some unhealthy behaviors can be prevented to reduce the risk of breast cancer. The methods and measures to prevent breast cancer include receiving breast cancer screening in hospitals, maintaining a healthy diet, keeping a reasonable weight, drinking moderately and limiting food consumption, exercising the body at least once a week, preventive medications and preventive surgery among people with high risk of breast cancer. And everyone can follow these to prevent the occurrence and the risk of breast cancer. (Temple et al. 2020.)

2.2 Psychological needs of breast cancer patients

Obviously, breast cancer patients need psychological nursing care, not only because the disease will bring a lot of pain feeling, but also because the psychological pressure from the particularity of the disease, especially for women. The personal factors that may make patients vulnerable to poor psychological outcomes and cause their psychological pain and increase their needs for the psychological nursing care include pressure from marriage life and other psychological pressure, previous stressful life events, previous mental illnesses, a negative body image, treatment side effects such as lymphoedema or menopause, strong response to initial diagnosis and treatment, medical comorbidity or poor pain control, gender as a female, current or past substance abuse, poor postpartum state, prior suicide attempt, a young age, a family history of mood disorders or alcoholism, etc.

2.3 Psychological Nursing Care for the Breast Cancer Patients

Psychological nursing care can be defined as that nurse provide psychological guidance and psychological construction to cancer patients, which is for the purpose of making the patients recover from both physical and psychological pains and distress from the breast cancer itself and mastectomy surgery. (Legg 2010.) The effect of psychological nursing care is influenced by many factors, such as nurses' professional skills and patients' cooperation.

Being diagnosed with breast cancer is one of the most painful things for a woman. Although mastectomy is one of the main treatments for breast cancer, many women cannot accept the fact that

they will lose their breasts. Also, in the whole process of the treatment, they will be very worried about things such as their symptoms, the treatment itself, and their mortality. Their emotions will become unstable, which may even affect their work and family. (Weis 2015.) For some women, suffering from breast cancer has been so unacceptable that they would refuse surgery or stop receiving radiation or chemotherapy. Many of them will suffer from depression and anxiety. So consequently, they need professionals with breast cancer psychological nursing experience to help them overcome these psychological difficulties. (American Psychological Association, 2011.)

3 PURPOSE, OBJECTIVES AND RESEARCH QUESTION

The overall goal of this research is to study how psychological nursing care works after breast cancer surgery. In detail, its purpose is to describe the effects of psychological nursing care on breast cancer patients after mastectomy surgery. The aim is to study the psychological effects of breast cancer patients who need or have undergone mastectomy surgery and increase the nursing knowledge of relevant nurses. In addition, the study aims to explore different kinds of psychological nursing interventions should be used for breast cancer patients and how they react to the psychological nursing care, as well as psychological nursing care's effects on the health and well-being of breast cancer patients who need mastectomies.

The research question in this thesis is as follows:

- 1) What kind of the psychological nursing care register nurses are implementing after breast cancer surgery?

4 METHODOLOGY

The author of this thesis uses the method of literature review to summarize the relevant topics. All the data was collected and analyzed based on different literature sources in CINAHL. Centria UAS Library databases were used to search for the literature information, and all the references were appropriately used in this thesis.

4.1 Literature review

The literature review method is aimed to collect a large amount of relevant information on a particular field, a specific specialty or a certain aspect of the topic, research problems, based on which a comprehensive introduction and elaboration on the current case, issue or research topic will be made through reading, analyzing, refining, sorting out information about the latest progress, academic opinions or suggestions. (Machi & McEvoy 2016.)

Normally used as academic investigation on the basis of particular sources around a subject, literature review helps people to know and be familiar with the significance of studying in the research field, the research background and development of this field, current research level, existing problems and possible reasons, direction of research in the next stage and personal opinions and feelings around the topic. The process of making a literature review is mainly divided into five steps. (McCombes S 2019.) Firstly, one determines what he/she wants to investigate and what he/she chooses to study. Secondly, the value and suitability of the sources that have been found will be evaluated. Then the topics of the study and controversial debates and the gaps in the current knowledge should be verified through rigorous analysis of the information and data gathered. Next, the structure of the thesis should be determined and outlined in advance. Finally, the literature review comes to an end with integrating the existing literature resources and adding personal critical thinking. (Cook et al. 2016.)

4.2 Data collection

The Centria library Libguides were used for the data collection in this thesis, while some academic databases (e.g., CINAHL) were used for both the literature search and data collection. Some keywords

were essential during the process of searching literature (Cronin, Ryan & Coughlan 2008.), and the keywords used for the data collection for this thesis were Breast cancer and Psychological care. To obtain more associated data and literature, more keywords (e.g., nursing care, implementing, postoperative) were used to do search study in different databases. To guarantee that the collected data was comprehensive and reliable, some criteria have been established, and the inclusion criteria and exclusion criteria of the selected references are shown in TABLE 2.

TABLE 2. The inclusion and exclusion criteria of the selected references

Inclusion criteria		Exclusion criteria	
Literature content	-Articles related to breast cancer in nursing fields	Literature content	-Studies that focused on professions other than nursing
	-Articles produced between 2015-2021		-Articles produced before 2015
	-Articles in English		-Articles in other languages
	-Articles that were available in full text		-Any article that was not available in full text
Literature sources	-Sources from dissertations	Literature sources	-Sources from conference abstracts
			-Sources from editorials

4.3 Data analysis

Data analysis is a cycle of itemized exploration and outline of information to separate helpful information and structure results. The point of data analysis is to think about and focus on the data covered in a large amount of apparently confusing information in order to discover the inner patterns of the object of study. (Aldamak and Zolfaghari, 2017.) The data required for this thesis can be found from the open literature by the method of literature review, followed by a careful reading and deeper understanding of all selected works of literature. When sufficient data and information have been collected, the data should be sorted and analyzed, as disaggregated data will be easier to analyze and to draw conclusions on that basis. (Cronin et al., 2008.) The data analysis specifically means to break

down, sum up and review a lot of information gathered through the use of fitting factual investigation techniques, to augment the improvement of information capacity and make assumptions. (Kreis, Neubauer & Klora 2016.)

5 ETHICAL ISSUES AND TRUSTWORTHINESS

This thesis is a review paper which is based on published open literature works, the thesis is complete by the author in this study. However, in the process of literature citation, there may be ethical issues arising from certain acts of responsibility in the research process. In addition, incorrect data use may challenge the authenticity and trustworthiness of this thesis. Finally, ethical issues may exist in the paraphrasing process, such as incorrect paraphrasing which may lead to inconsistent meaning with the original text and excessive repetition, which infringes the copyright of the original author. (Finnish advisory board on research integrity 2012.) For this thesis, which will be conducted as a literature review, the data collection has been carried out by using Centria library database electronically, and the research selected in this thesis was focus on the necessity and impacts of postoperative psychological nursing care on breast cancer patients after surgery.

The author can ensure that she will conduct the research responsibly and sincerely abide by instructions given by Finnish advisory board on research integrity (2012). In addition, the author will correctly quote all the references and conform to the citation standards. In terms of dealing with the required data for this thesis which will be collected from both ScienceDirect and Centria library by multiple key phrases, the process of data mining and analysis will be conducted strictly based on the instructions to present authentic results. Moreover, after finishing the thesis, the thesis review system Urkund will be used to prove that the research work is not based on plagiarism.

6 RESULTS

This chapter presents the results of the literature analysis. A total of eight articles are used for the analysis and to answer and explain the research questions. The literature works are all presented in a table with the author names, year of publication, number of research participants and study results.

6.1 Emotional Support

According to the literature research and survey data, most patients with breast cancer have a high probability of experiencing emotional and psychological problems after the surgery, and most of them suffer from anxiety, depression, and a sense of loneliness. The problems are especially serious for patients who have received mastectomy, because the surgical scars will momentarily remind them of the fact that they have lost an important part of their body. For most women, it is difficult to accept the reality, and depression and anxiety will appear due to their low mood. (Merêncio & Ventura 2020.) So, the nurses should provide emotional support to the patients. Early nursing psychological intervention can effectively reduce the negative emotions of patients - the nurse can assess the patient's current situation and make a necessary intervention according to the assessment. For example, effective communication and proper emotional support can help patients reduce their anxiety and have a sense of security. (Sanchez, Fernandez, Calle, Ladera, Casado & Sahagun 2019.) Moreover, timely nursing intervention can effectively reduce the possibility of depression. In a study, patients in one intervention group who had undergone breast cancer surgery had significantly reduced their anxiety and depression and improved their quality of life by nursing interventions. (Bouya, Barahoie & Kiani 2021.) Appropriate nursing interventions for post-mastectomy patients can have a positive impact on the patients' well-being and can improve their quality of life. (Martínez & Raygoza 2018.)

6.2 Adjuvant Therapy

Non-pharmacological therapy is non-invasive and has no side effects. Nowadays, treatment and nursing care of postoperative patients with breast cancer extend far beyond the form of drug treatment - the patients can also improve their psychological conditions, and quality of life through the use of non-drug methods. Some adjuvant therapies can help patients to carry out postoperative rehabilitation

nursing more effectively, thus improving their life quality. (Bouya et al. 2021, 2.) Nurses can guide postoperative breast cancer patients to participate in activities based on certain auxiliary therapies, such as patient's music therapy, progressive muscle relaxation training, and aerobic exercise, in order to improve their conditions. Among these therapies, music therapy and muscle relaxation training can be implemented through mental relaxation and physical relaxation to reduce the patients' anxiety and depression. Taking music therapy as an example, the patients can distract their attention while listening to music, so that the brain will be relaxed, thus improving the psychological state. The study of 170 participants also showed that music therapy and muscle relaxation training have a positive effect on improving the situation of patients with depression and anxiety. The research in two other articles also proved that appropriate nursing care with postoperative adjuvant therapy can effectively reduce breast cancer patients' depression and anxiety. (Zhou, Li, Li, Liu, Dang, Wang & Xin 2015; Bouya et al. 2021.) Additionally, nurses may guide patients to take part in suitable sports like aerobic exercise to improve their health and mood. Furthermore, patients' adopting nursing intervention to increase therapeutic self-care is also important, and it requires relevant knowledge, skills, and motivation, the three components which will be indispensable for the effectiveness. On the whole, such interventions will have a positive impact on the well-being of post-mastectomy patients and improve their quality of life. (Martínez et al. 2018.)

6.3 Education About Breast Reconstruction

Breast reconstruction is a procedure to reconstruct the shape and appearance of breasts after breast cancer surgery. According to the research of an article with a comparison of 81 participants, those who had breast reconstruction reported significantly higher levels of happiness than those who did not. Breast reconstruction after mastectomy reduces the likelihood of depressive episodes and improves the patients' performance in many aspects, such as emotional, social, and physical aspects. In contrast, women patients who did not undergo breast reconstruction after mastectomy seemed to have poorer performance in the above aspects. (Fanakidou, Zyga, Alikari, Tsironi, Stathoulis & Theofilou 2018.) The surgery is designed to help female patients who has had a mastectomy normal, but the breasts reconstructed are not the same as natural breasts. (Tedesco & Loerzel 2020.) Nevertheless, breast reconstruction is important for female patients who have undergone or will receive mastectomy. In most cases, mastectomy has a more significant psychological impact on female patients than on men, for breasts are one of the symbols of womanhood, and the loss of breasts causes depression and anxiety in most female patients after mastectomy - they worry that the imperfection of their bodies as a

result of the effects of a mastectomy will reduce their physical attractiveness and good appearance, which can affect their emotional stability, leading to unpleasant emotions, tension and threatening their psychological well-being. Previous studies have already shown that patients are more likely to experience changes in all their psychological dimensions after a mastectomy and that this type of treatment can even affect their mental health. (Heidari, Shahbazi & Ghodusi 2015.) In this regard, nurses can provide the patients with psychological support and advice to increase their understanding of breast reconstruction. For example, for some patients who have little knowledge about breast reconstruction, the nurses may explain for them about the operation.

7 DISCUSSION

This section will explain how this thesis was conducted and the limitations of this thesis. It also interprets the methods of postoperative psychological care for breast cancer which were found in this study.

7.1 Methodological consideration and limitation

The research in this thesis which is conducted entirely through literature research, analysis, and summary, how nurses should give postoperative psychological nursing care to patients who have taken breast cancer mastectomy surgery is discussed, in order to study psychological nursing care after mastectomy through the literature for the purpose of reducing the psychological pain of the patients.

The study completed on the basis of the literature review, eight literatures are summarized and analyzed. The literature search is conducted by using CINAHL databases, and all the references are used appropriately in the thesis.

The creation of the literature review brings both advantages and disadvantages. The biggest challenge is that this is the first time in the author's life to write a thesis in the form of literature review. Through the help of the supervisor, the CINAHL databases was used successfully to search relevant research articles and summarize them. The main advantage of the literature review is that it enables the author to gain knowledge of nursing, while the most significant disadvantage is that there is not enough time to read a lot of works of research to perfect the thesis. By analyzing the process of writing this thesis, a table which lists the main points of the advantages and disadvantages is created, as shown below:

TABLE 3. The advantages and disadvantages in this thesis

Advantages	Disadvantages
Increasing knowledge	Challenge in the searching work
Reading professional literature	Difficult medical terminology
Studying data around the subject through relevant literature	Language differences

There is no need to conduct experimental investigations.	Strict limitations on the year of literature
It is easy to find relevant literature through the database.	The lack of time

In the process of writing the literature review, the author experienced some limitations. The first is in the collection of data. Although it is possible to view some of the literature in the databases through the university library, some others are not for free and require high fees. Secondly, during the keyword search, a lot of literature that is not relevant to this study and some literature that is not in English appear in the results, which increases the time cost for this study.

7.2 Discussion of the findings

Through this literature review as a summary of articles to expound on the effectiveness of postoperative psychological nursing for patients with mastectomy and the corresponding nursing intervention to improve the pessimistic mood of the patients after surgery, it has been found that there are three methods with which nurses can provide psychological care to the patients after mastectomy: emotional support, adjuvant therapy and education in breast reconstruction suggestion.

Emotional support is used as a primary approach in the psychological care. According to the survey and analysis of the literature data, the majority of patients who have undergone a mastectomy, especially women, will have a negative mood after the surgery, and most of them will show depression, anxiety, irritability. Nurses can effectively reduce the patients' negative mindset by providing emotional support for them, for example, through effective communication with the patients and timely understanding their psychological status to avoid the psychological disorders caused by mastectomy as early as possible.

As for adjuvant therapy, it is a non-drug treatment without any side effects. In addition to essential drug treatment for breast cancer, there are several treatments without the use of drugs that breast cancer patients can use to improve their psychological conditions and quality of life. Two articles point out several means of adjuvant treatments that nurses could use to help their patients. The first is music; nurses can guide the patients to listen to some music to make their brain feel relaxed and alleviate their negative psychological state. The second is muscle relaxation training, in which the nurse can perform

continuous, systematic muscle stretching and relaxation on the patient until the whole body is relaxed. Muscle relaxation training can relieve pain and help the patients recover more quickly after the surgery. The third is aerobic exercise, which is proven to be capable of reducing anxiety and depression in patients with breast cancer and improve their quality of life according to relevant data. The nurse can recommend appropriate aerobic exercise to patients who are able to take care of themselves.

The last method is to educate and advise the patient about breast reconstruction. The majority of the female patients will be affected not only visually but also physically and psychologically due to the breast defects after the surgery. At this time, the nurse can support the patients psychologically with breast reconstruction proposal, because female patients who received breast reconstruction will be less likely to have depressive episodes and improve their performance in other functional aspects, such as social and physical aspects.

8 CONCLUSIONS

Overall, this study provides a foundation for those who want to understand breast cancer postoperative psychological nursing care further, and it has implications for both nurses and breast cancer patients, including making them aware of the importance of the aspects.

Breast cancer is one of the most common malignancies in women - the majority of breast cancer patients are female. Due to the torture of the disease and the effects of the operation on the body, the patients often experience anxiety, pessimism, despair and other negative psychological states, and timely and practical psychological nursing has direct effects on their recovery.

Postoperative psychological care has an important role in the recovery process of breast cancer patients. The main conclusions of this study are that most patients who have undergone mastectomy will have negative emotions and even psychological disorders due to the absence of their breast after the surgery, and nurses should first alleviate the negative emotions of the patients through emotional support, and then alleviate their psychological and physical pain through appropriate adjuvant treatments such as non-pharmacological treatments, and may educate and guide patients with negative emotions or psychological disorders due to the loss of their breasts after the surgery on breast reconstruction. Overall, the results show that psychological care after mastectomy will be effective for the patients' recovery and can effectively reduce their psychological disorders caused by negative emotions after the surgery.

Psychological nursing is an essential part of the nursing work for breast cancer patients, and it can significantly reduce the anxiety, fear, sadness and other depressive mindsets of the patients when used reasonably and appropriately. For nurses, they should show complete understanding and sympathy to the patients in terms of their conditions, communicate with them more and constantly take a caring and considerate attitude to give them sufficient hope. The patients also need to increase their confidence to cooperate with the nurses' work actively.

In conclusion, postoperative psychological care is an integral part of breast cancer surgery, and nurses should provide psychological support according to the different situation of patients, and help the patients to develop appropriate rehabilitation training plans and encourage them to cooperate in the treatment for early recovery.

8.1 Learning process

The production of the thesis is of significance for the author of this paper. As a matter of fact, it marks a significant challenge, as this is the first time to make a thesis in the form of literature review. The topic of the study was determined because the author is interested in female breast cancer disease. In implementing the research work, the author used the literature review method to summarize the selected articles.

As this is the first time to perform a study of this kind, the author spent several months on investigation since the start of the thesis plan. After that, with the help from the supervisor, the author successfully mastered how to use keywords to search for relevant literature in the database for this literature review.

The primary purpose of this thesis is to study how to provide psychological care for patients after breast cancer surgery. The main reason for choosing this destination is that the author has had a one-year internship in a hospital in Shanghai with some exposure to postoperative psychological care of cancer patients, which inspired the author's desire to learn more about postoperative psychological nursing care through the literature.

The data from this study shows that the majority of breast cancer patients are deeply affected by the disease and the pain from the surgery. Most of the patients, especially women, would develop depression, anxiety and other manifestations and even psychological disorders after undergoing the surgery. Therefore, nurses are obliged to provide postoperative psychological care to breast cancer patients.

Through this literature review study, the author has learned more about breast cancer and the situation of the patients and realized the importance of psychological care for such patients. Overall, the thesis is written with the expectation that nurses will not only perform basic nursing care for patients with breast cancer, but also focus more on psychological care for them.

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APPENDIX

Author	Title	Aim/Goal of study	Sampling Method and Sampling Size	Results
Merêncio, K. M. & Ventura, M. C. 2020 Journal of Nursing	Experiences of women after mastectomy: rehabilitation nursing care in promoting autonomy	To describe the importance of rehabilitation nursing intervention for the women has mastectomy	Snowball sampling technique semistructured interview 9 participants	Perceived complications and difficulties Mastectomy causes feelings of doubt, anxiety and fear. The importance of a rehabilitation nursing
Salehoddin Bouya, Zeynab Barahoie, Fatemeh Kiani 2021 International Journal of Surgery Open	The effect of nursing self-care educational intervention on depression in women with breast cancer undergoing post-mastectomy chemotherapy: A quasi-experimental study	To explore the effect of nursing self-nursing education intervention on depression relief in patients with breast cancer after postoperative chemotherapy.	Convenience sampling method Random allocation 90 participants	Nursing interventions reduce the probability of depression. An effective adjunctive therapy
Kaina Zhou, Xiaomei Li, Jin Li, Miao Liu, Shaonong Dang, Duolao Wang, Xia Xin 2015 European Journal of Oncology Nursing	A clinical randomized controlled trial of music therapy and progressive muscle relaxation training in female breast cancer patients after radical mastectomy: Results on depression, anxiety and length of hospital stay	To examine effects of music therapy and progressive muscle relaxation training for the breast cancer patient after radical mastectomy	Randomized controlled trial design. 170 participants	The effect of depression and anxiety of patients have improved significantly. Music therapy and progressive muscle relaxation training reduce depression, anxiety and length of hospital stay.
Leticia Sanchez, Nelida Fernandez, Angela P. Calle, Valentina Ladera, Ines Casado, Ana M. Sahagun	Long-term treatment for emotional distress in women with breast cancer	To assess how women diagnosed and treated for breast cancer use	Questionnaire Hierarchical clustering 98 participants	Breast cancer patients report emotional distress. Patients need

2019 European Journal of Oncology Nursing		coping control and emotional defense mechanisms to combat emotional stress		emotional help. Have severe sequelae. Appropriate psychological intervention for treatment
Mohammad Heidari, Sara Shahbazi, Mansureh Ghodusi 2015 Journal of Mid-life Health	Evaluation of body esteem and mental health in patients with breast cancer after mastectomy	To evaluate the correlation between body esteem and mental health of breast cancer patients after mastectomy.	Convenience sampling Questionnaires 100 participants	low body esteem Direct linear relationship between body esteem and mental health
Ioanna Fanakidou, Sofia Zyga, Victoria Alikari, Maria Tsironi, John Stathoulis, Paraskevi Theofilou 2018 Journal of Quality of Life Research	Mental health, loneliness, and illness perception outcomes in quality of life among young breast cancer patients after mastectomy: the role of breast reconstruction	Discussed the relationship between mental health and quality of life in young breast cancer patients within one year after mastectomy, and to study the effect of breast reconstruction.	Grouping evaluation 81 participants	Patients without breast reconstruction feel more alone. Patients who underwent breast reconstruction had significantly better mental health.
Deborah Tedesco, DNP, APRN, ANP-BC, AP-PMN, CWS, CWCN-AP, and Victoria Loerzel, PhD, RN, OCN®, FAAN 2020 Journal of Clinical Journal of Oncology Nursing	Breast Reconstruction Impact of patient-centered, expectations-based education on women undergoing reconstructive surgery after mastectomy	The purpose of this study was to determine the impact of patient-centered expectations on education in women with breast reconstruction.	Questionnaire 27 participants	Patients have little knowledge of breast reconstruction. Patient-centered, expectation-based education can effectively adjust patients' preoperative expectations from unrealistic or unrealistic to realistic.
Gloria Daniela de la Borbolla Martínez, Martha Elena Huitzache Martínez and Nicolás Padilla Raygoza 2018 Journal of ecancermedicalscience	Nursing intervention in women who developed lymphedema after undergoing a modified radical mastectomy: a pre-	To analyze the effect of nursing intervention on improving the therapeutic self-care needs of patients with breast cancer	Social science model 30 participants	The use of nursing interventions has been shown to be effective. This intervention will have a positive impact

	experimental study	associated lymphedema after mastectomy.	on the well-being of post-mastectomy patients and improve their quality of life.
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