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BREAST RECONSTRUCTION AFTER MASTECTOMY IN WOMEN WITH BREAST CANCER: INTEGRATIVE REVIEW

RECONSTRUÇÃO MAMÁRIA EM MULHERES MASTECTOMIZADAS POR CÂNCER: REVISÃO INTEGRATIVA

RECONSTRUCCIÓN MAMARIA EN MUJERES SOMETIDAS A LA MASTECTOMÍA DEBIDO AL CÁNCER: REVISIÓN INTEGRADORA

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ABSTRACT

Objectives: To analyze the scientific production available in the literature related to breast reconstruction from the perspective of mastectomized women who underwent it and to identify the levels of evidence of the selected publications. **Method**: This is an integrative review carried out in the LILACS, BDENF and MEDLINE databases. A time frame of articles published from 2013 was established and to identify the levels of evidence, the pyramid proposed by Melnyk and Fineout-Overholt was used. **Results**: The corpus was composed of 18 articles, with predominance of the English language. Thirteen articles are of moderate evidence (N4) and five of weak evidence (N6). After the analysis, five categories were listed: expectations and (un) satisfaction with the reconstruction; quality of life; emotional aspects; sexuality and body image; physical complications. **Conclusions**: It was found that breast reconstruction impacts the lives of mastectomized women due to breast cancer and that there is a shortage in the literature on the work developed by nursing.

Descriptors: Breast reconstruction; Breast neoplasms; Nursing.

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RESUMO
Objetivos: Analisar a produção científica disponível na literatura relacionada à reconstrução mamária na ótica de mulheres mastectomizadas que a realizaram e identificar os níveis de evidência das publicações selecionadas. **Método**: Trata-se de uma revisão integrativa realizada nas bases de dados LILACS, BDENF e MEDLINE. Foi estabelecido recorte temporal de artigos publicados a partir de 2013 e para identificar os níveis de evidência utilizou-se a pirâmide proposta por Melnyk e Fineout-Overholt. **Resultados**: O corpus foi composto por 18 artigos, com predomínio da língua inglesa. Treze artigos são de evidência moderada (N4) e cinco de evidência fraca (N6). Após a análise, elencou-se cinco categorias: expectativas e (in)satisfações com a reconstrução; qualidade de vida; aspectos emocionais; sexualidade e imagem corporal; complicações físicas. **Conclusões**: Constatou-se que a reconstrução mamária causa impactos na vida de mulheres mastectomizadas devido ao câncer de mama e que há escassez na literatura sobre o trabalho desenvolvido pela enfermagem.
Descritores: Reconstrução mamária; Neoplasia de mama; Enfermagem.

RESUMEN
Objetivos: Analizar la producción científica disponible en la literatura relacionada con la reconstrucción mamaria desde la perspectiva de mujeres que se sometieron a ese procedimiento después de la mastectoma e identificar los niveles de evidencia de las publicaciones seleccionadas. **Método**: Se trata de una revisión integradora realizada en las bases de datos LILACS, BDENF y MEDLINE. Se estableció como límite temporal los artículos publicados a partir de 2013 y para identificar los niveles de evidencia se utilizó la pirámide propuesta por Melnyk y Fineout-Overholt. **Resultados**: El corpus estuvo compuesto por 18 artículos, la mayoría fue publicado en inglés. Trece artículos tienen evidencia moderada (N4) y cinco evidencia baja (N6). Después del análisis, se enumeraron cinco categorías: expectativas e (in)satisfacción con la reconstrucción; calidad de vida; aspectos emocionales; sexualidad e imagen corporal; complicaciones físicas. **Conclusiones**: Se observó que la reconstrucción mamaria impacta en la vida de las mujeres que se sometieron a la mastectoma debido al cáncer de mama y que es escasa la literatura sobre el trabajo que realizan los enfermeros.
Descriptores: Reconstrucción mamaria; Neoplasias mamarias; Enfermería.

INTRODUCTION

Breast cancer is a disease generated by the growth of abnormal cells in the breast, which form a tumor with the ability to enter other tissues and organs. It is the most common neoplasm, after skin cancer, being the one that causes the most deaths in women in Brazil and in the world.[1]

Currently, the high incidence of this cancer stands out in developed and developing countries, causing an important public health problem.[2] According to the National Cancer Institute (INCA), estimates are of 66,280 new cases of breast cancer for each year of the triennium of 2020-2022, and in 2018 the total number of deaths from this type of neoplasm was 17,763 cases, of these17,572 women and 189 men.[3]

The treatment for breast cancer depends on several factors, such as the stage

of the disease, characteristics of the tumor, the presence of metastasis or not, and the woman's clinical condition. After confirming the diagnosis and evaluating the extent of the tumor, the appropriate treatment is established, aiming at the balance between tumor responses and prolonging survival. The therapies can be: local treatment, being surgical (which encompasses several types of mastectomies), radiotherapy and systemic treatment, which include chemotherapy, hormone therapy and biological therapy.[4.5]

Mastectomy is the most common surgery as a form of treatment for the removal of the tumor in the breast. It can be partial or total, depending on some characteristics of the disease, being normally indicated for tumors with three centimeters or more.[6] This mutilation, which generates a sudden change in the woman's body, can bring difficulties in accepting the body image, problems with femininity and sexuality, since the breast has a very significant symbology in women's lives.[6.7]

From this, breast reconstruction is one of the alternatives to rescue lost self-esteem and femininity. Studies show the benefits of reconstruction, the main ones being the improvement of body image visualization and the restoration of psychological balance after the news of cancer and the loss of the breast. Therefore, it favors women's social and emotional relationships, improving their quality of life.[6.8]

Indications for breast reconstruction vary according to the type of cancer, tumor location, established treatment, general clinical conditions, as well as the individual interests of each woman. It can be made with the patient's own material, prosthetic material or a combination of both, immediately after removal of the breast or later, when mastectomy is performed in one surgery and reconstruction in another.[5,9] The most used reconstruction methods in Brazil are the "reconstruction with a rectus abdominis muscle flap and a latissimus dorsi muscle flap; use of a tissue expander, which is later replaced by a silicone prosthesis."[8] However, even if women want to perform such a procedure, the lack of information, the lack of knowledge of this legal right, as well as the fear of a new surgery are factors that restrict achievement.[10]

Care after breast reconstruction strictly includes rest, avoiding sudden movements of the arms in the first few days, not removing the bra and the compressive dressing without medical indication. The team should advise on the sensitivity of the

breast, which will be different from the previous breast, that the edema and hematoma will take time to disappear and that healing is a slow process, which may take months.[11]

Considering that nursing is the profession that has care as its principle, the contribution that nurses can provide to women with breast cancer who undergo breast reconstruction is highlighted. As mastectomy is a procedure that generates suffering, anguish and uncertainties for women, it is up to this professional to welcome her in the most sensitive way possible, guaranteeing her autonomy and respecting her feelings. It is emphasized that the nurse should guide her about pre and postoperative, the possibility of breast reconstruction and care after surgery, in addition to listening to her in order to help her understand her feelings and clarify doubts.

With this, it is expected that the present study will contribute to the reflection on the subject, as well as to the improvement of nursing care regarding the care of women who underwent breast reconstruction. In this way, we seek to answer the following research question: "What is the content of publications related to breast reconstruction from the perspective of women who underwent mastectomy?" The objectives of the study are: to analyze the scientific production available in the literature related to breast reconstruction from the perspective of women who underwent mastectomy and to identify the levels of evidence of the selected publications.

METHOD

This is an integrative literature review, which consists of "a secondary study that gathers and synthesizes research results on a delimited theme or question", that is, it refers to a broad research that follows a protocol to search for studies primary, data analysis and dissemination of evidence found.[12]

The conduction of this study was defined considering the following research question: "What is the content of publications related to breast reconstruction from the perspective of women who underwent mastectomy?". Thus, with regard to sampling, it was organized following the establishment of inclusion and exclusion criteria, the identification of descriptors, the search in the database, and the selection of primary studies carried out by two reviewers to minimize possible bias. of the study.[12]

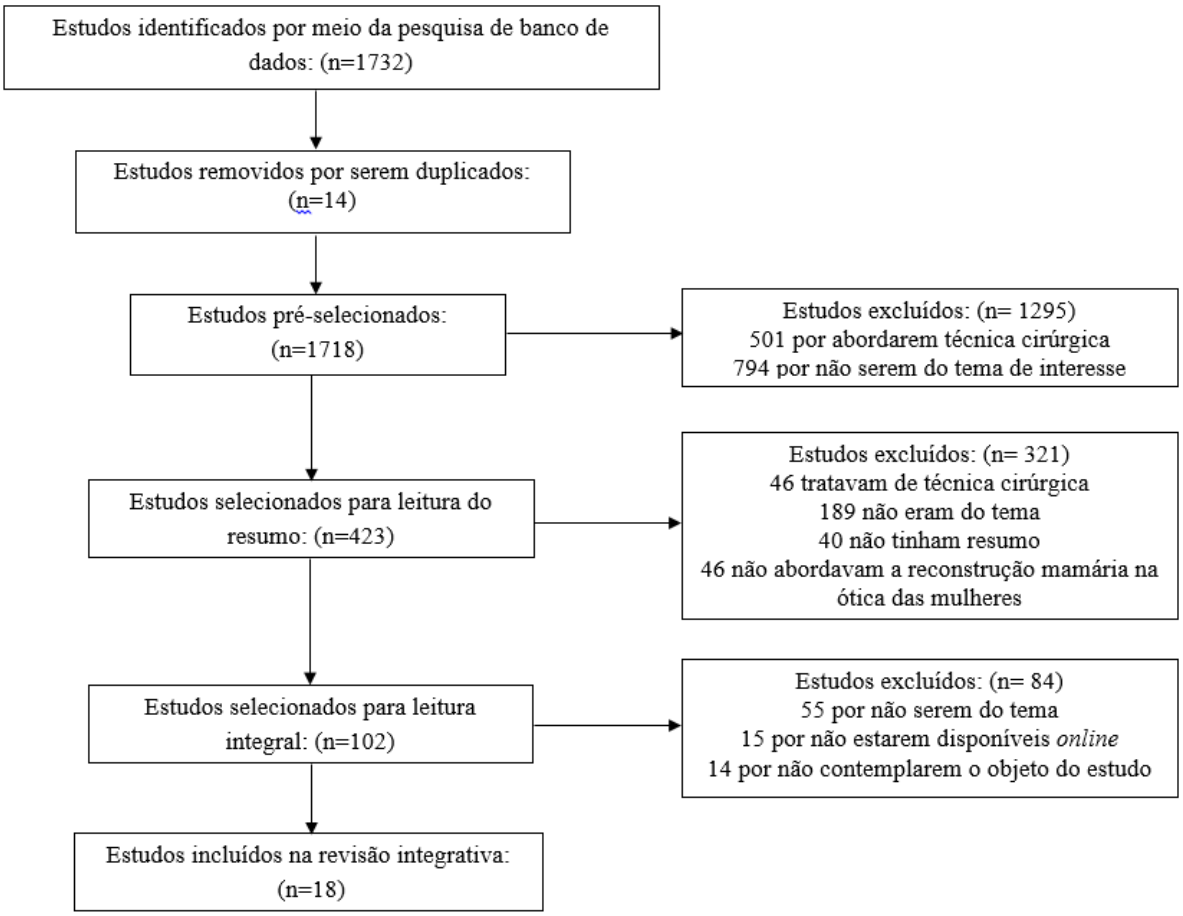
Based on this, the following inclusion criteria were listed: primary

articles published in Portuguese, English or Spanish, available online in full, which addressed the issue of breast reconstruction from the perspective of mastectomized women who underwent it. Exclusion criteria were reviews, theoretical studies, reflections, opinion articles, dissertations, theses and articles that addressed surgical technique. Duplicate articles in databases were counted only once.

After defining the descriptors and/or keywords, the search strategy used was: tw: ((mammoplasty OR "breast reconstruction") AND ("breast neoplasms" OR cancer OR neoplasias)) AND (instance:"regional ") AND (fulltext:("1") AND db:("MEDLINE" OR "LILACS" OR "BDENF") AND la:("en" OR "pt" OR "es") AND type:("article")), which was applied to the following databases: Latin American and Caribbean Literature on Health Sciences (LILACS), Nursing Database (BDENF) and Medical Literature and Retrivial System Online (MEDLINE). The year 2013 was established as a time frame, in view of the Law No. 12,802/13 which provides for mandatory plastic surgery to repair the breast by the network of units that are part of the Unified Health System (SUS), in cases of mutilation resulting from cancer treatment, which guarantees comprehensive care for these women.13 The search was held in March 2019.

From the applied strategy, 1,732 articles were identified. In cases of divergence in the selection of the study, the reviewers discussed it on a case-by-case basis and defined it in a consensual way. The details of the study selection process are presented in the flowchart in Figure 1, below.

Figure 1– Flowchart of search and selection of articles.



To extract the information of interest, a summary table was prepared containing the following items: reference, country and language of publication, objectives, design (type of study and population), number of participants, main results and level of evidence.

In the critical evaluation of the primary studies, the levels of evidence were used, according to the pyramid proposed by Melnyk and Fineout-Overholt, which evaluates studies with a clinical question focused on treatment/intervention and has the following levels of evidence: N1: systematic review or meta-analysis of randomized controlled clinical trials; N2: randomized controlled clinical trials; N3: clinical trial without randomization; N4: cohort and case-control; N5: systematic review of descriptive or qualitative studies; N6: descriptive or qualitative study and N7: expert opinion.[12]

The analysis of the collected data followed the principle of similarity of ideas, being grouped in thematic categories, aiming to answer the research question and the objectives of the review.

RESULTS

The integrative review consisted of 18 articles, presented in Table 1. Of these, 17 articles (94.4%) were located in the MEDLINE database and one article (5.6%) in LILACS; 17 (94.4%) were published in English and one (5.6%) in Portuguese. As for the year of publications, these are more prevalently distributed in 2017, with six articles (33%), followed by four in 2013 and 2016 (22% each), three in 2015 (17%) and one in 2018 (6%).

Table 1- Selected articles on breast reconstruction in women with mastectomy.

ID	TITLE	BASE	HUH
E1	Postoperative outcomes of breast reconstruction after mastectomy	MEDLINE	N4
E2	Outcomes of immediate versus delayed breast reconstruction: Results of a multicenter prospective study	MEDLINE	N4
E3	Met and Unmet Expectations for Breast Reconstruction in Early Post treatment Breast Cancer Survivors	MEDLINE	N4
E4	Most women recover from psychological distress after postoperative complications following implant or DIEP flap breast reconstruction: A prospective long-term follow-up study	MEDLINE	N6
E5	Patient-Reported Outcomes 1 Year After Immediate Breast Reconstruction: Results of the Mastectomy Reconstruction Outcomes Consortium Study	MEDLINE	N4
E6	Predictors of satisfaction and quality of life following post-mastectomy breast reconstruction	MEDLINE	N4
E7	Unilateral breast reconstruction after mastectomy – patient satisfaction, aesthetic outcome and quality of life	MEDLINE	N4
E8	Body image and psychological distress in nipple-sparing mastectomy: the roles of self-compassion and appearance investment	MEDLINE	N4
E9	Effect of Patient Age on Outcomes in Breast Reconstruction: Results from a Multicenter Prospective Study	MEDLINE	N4
E10	A Comparison of Psychological Response, Body Image, Sexuality, and Quality of Life between Immediate and Delayed Autologous Tissue Breast Reconstruction: A Prospective Long-Term Outcome Study	MEDLINE	N4
E11	Is satisfaction with surgeon determining factor in patient reported outcomes in breast reconstruction?	MEDLINE	N4
E12	Patient-Reported Quality of Life After Breast Reconstruction A One-Year Longitudinal Study Using the WHO-QOL Survey	MEDLINE	N4

E13	Renegotiating Sexual Intimacy in the Context of Altered Embodiment: The Experiences of Women With Breast Cancer and Their Male Partners Following Mastectomy and Reconstruction	MEDLINE	N6
E14	Satisfaction following immediate breast reconstruction: Experiences in the early post-operative stage	MEDLINE	N6
E15	Feeling like me again: a grounded theory of the role of breast reconstruction surgery in self-image	MEDLINE	N6
E16	Impact of breast reconstruction on the quality of life of mastectomy patients treated at the Plastic Surgery Service of the Walter Cantídio University Hospital	LILACS	N6
E17	An evaluation of patient reported outcomes following breast reconstruction utilizing Breast Q	MEDLINE	N4
E18	The short-term psychological impact of complications after breast reconstruction	MEDLINE	N4

ID: identification.NE: level of evidence.

Regarding the level of evidence of the selected articles, 13 (72.2%) were classified as moderate evidence - level 4, which is characterized by cohort and case control studies (Pyramid: treatment/intervention) E1, E2, E4, E5, E6, E7, E8, E9, E10, E11, E12, E17, E18 and five as weak evidence – level 6, characterized by descriptive and qualitative studies (27.7%) E3, E13, E14, E15, E16.

As for the design, there was a predominance of quantitative studies, with 13 (72.2%) publications E1, E2, E4, E5, E6, E7, E8, E9, E20, E11, E12, E17, E17. The qualitative approach was present in three (16.7%) studies E13, E14, E15 and quantitative in two (11.1%) E3, E16.

Regarding the professional area of the authors, 14 (77.8%) studies were developed by medical professionals, three (16.7%) in the field of psychology and one (5.5%) in the social sciences.

As for the country of origin of the publications, seven (39.3%) studies were published in the United States of America E2, E3, E4, E5, E6, E9, E12, two (11.1%) in Ireland E11, E17 and United Kingdom E14, E15, one (5.5%) in China E1, Denmark E7, Australia E8, Canada E10, England E13, Brazil E16 and Netherlands E18.

Regarding the data collection instruments used in the studies, two stood out for being used in several studies: the BREAST-Q (reconstruction module), which issued to assess quality of life and satisfaction of women with breast reconstruction and OEORTC QLQ (European Organization on the Research and Treatment of Cancer Quality of Life Questionnaire Version 3.0), a questionnaire that measures quality of life in cancer patients. The use of anxiety and depression scales, event impact scale, structured and

semi-structured interviews, body image scale and WHOQOL questionnaire (World Health Organization Quality of Life)abbreviated, which aims to evaluate quality of life and general health satisfaction.

During the analysis of the results of the articles, the similarities and relevance of the findings of the studies were identified, resulting in five thematic categories, as shown in Table 2. Some articles were included in more than one category.

Table 2 – Thematic categories related to the results presented in the articles.

Thematic categories	Articles
Expectations and (dis)satisfactions with the reconstruction	E1, E3, E5, E7, E11, E14, E16
Quality of life	E1, E5, E6, E7, E9, E10, E12, E15
Emotional aspects	E2, E4, E10, E14, E8, E13, E15
Sexuality and body image	E1, E2, E8, E11, E13, E16
Physical complications	E1, E2, E9, E16, E17, E18

Expectations and (dis)satisfaction with the reconstruction addresses issues related to the outcome of breast reconstruction. Patients undergoing autologous reconstructive surgery report greater satisfaction with the aesthetic result of the breasts. A good relationship with the surgeon was significantly associated with breast-related satisfaction. The information received about the surgery influences the degree of satisfaction with the reconstruction. Unmet expectations after the procedure, pain, discomfort, and prolonged recovery time all contribute to dissatisfaction.

Quality of life was the thematic category most found in the studies, being related to the increase in quality of life identified after breast reconstruction in women who underwent mastectomy due to breast cancer, as well as greater well-being after surgery, recovery of femininity and sexuality. However, satisfaction with health was associated with the stage of cancer, showing that the more advanced the cancer, the greater the negative impact on quality of life.

In relation to Emotional Aspects, it can be seen that the studies explore several questions about anxiety, emotional sequelae, psychological distress, depression

after the failure of reconstructive surgery, anguish, distortion of body image, that is, an unrealistic perception of how the woman sees her body, as well as difficulty talking to partners about their body or intimate relational issues.

The Sexuality and Body Image category deals with studies related to the comparison of the aesthetic result between autologous and implant reconstruction, as well as the adverse impact of mastectomy on the way a woman sees herself and her body when the reconstruction is delayed. In this sense, studies indicate that the greater the stress and depression, the greater the disturbance in body image, given that the recovery of femininity is identified as a key component of appearance.

Physical complications were found in six studies addressing aspects such as infections after breast reconstruction, pain, hemorrhage, implant rejection, flap necrosis, complications comparing immediate and delayed reconstruction, and also contrasting reconstruction performed with implants and with autologous tissue.

DISCUSSION

Breast cancer can be considered the most feared neoplasm by women, since its occurrence has a negative impact on physical and mental health.[14] The diagnosis causes fear and uncertainties, since, generally, for the eradication of the tumor, the surgery of total or partial extirpation of the breast, known as mastectomy is performed.

Faced with the indication of mastectomy, women have the option of undergoing breast reconstructive surgery, either immediate or delayed, allowing them to hope for the recovery of femininity, sexuality and quality of life, impaired after the diagnosis and treatment of cancer. However, studies have found that expectations for breast reconstruction surgery are not met, particularly in relation to appearance.[15,16] The reconstruction procedure performed with a prosthesis is highlighted, since the characteristics of the breast are different from the breast before the procedure. mastectomy.[15] They also point out previous unmet expectations due to factors such as the lack of clarification about the scars and the maturation process of the incisions.[16] However, in the reconstruction of the autologous breast, made with tissues from the woman's own body,

Despite dissatisfaction with the results of reconstructive surgery, related to pain, discomfort, prolonged recovery time and complications in general[15,19], there is an association between the relationship

between satisfaction with the plastic surgeon and the results of the surgery, because when more information was given to patients before and after the reconstruction, the greater their satisfaction and safety.[20,21] In this sense, when patients do not receive information about the type of reconstruction and when it should be performed, barriers to doctor-patient communication, which are reflected in dissatisfaction.[16]

Breast reconstruction can help women with mastectomy to return to their routines, with better quality of life and self-esteem. This allows satisfaction with the new image, promoting the revaluation of the body, in addition to safety and comfort to face daily tasks, previously impaired.[22] Research indicates that the quality of life after breast reconstruction is independent of the age group in which the woman is.[23,24] There is no interference according to the type of reconstruction, whether immediate or delayed, autologous or with implant.[18, 25-26]

However, the quality of life differs in relation to the advanced stage of cancer, in which reports of dissatisfaction with health, psychological, physical and social aspects increase. In addition, not all women who undergo breast reconstruction have their quality of life restored. Cancer leaves these survivors significant losses, creating difficulties in facing the return to work, self-image and self-esteem.[23] That said, it must be recognized that not all women have their lives recomposed after surgery, considering their unique experiences.

Women who choose or are indicated for late breast reconstruction have greater emotional sequelae, related to longer living with the mastectomy scars, thus remembering the loss of the breast. Likewise, women undergoing delayed reconstruction are less satisfied with their breasts compared to those undergoing immediate reconstructive surgery. However, regardless of whether the reconstruction is delayed or immediate, stress, anxiety and depression levels decrease after surgery.[27-29]

A study shows that when there is a total failure in the reconstruction, whether with implant or autologous tissue, patients report higher levels of depression and anxiety. Despite this, the same study shows that most women who face cancer, after reconstruction, are able to recover from the psychological suffering that exists during the entire treatment.[19]

Considering the importance of breasts for female self-image, when they present stress, depression and psychological suffering, women are more exposed to body

image disorders, which negatively influence social and intimate relationships. This suffering is also related to the stage of cancer, because the more aggressive it is, the greater the psychic suffering.[27.30]

Regarding sexuality, the literature differs on women's satisfaction after breast reconstruction. While a survey indicates that most women were satisfied at a medium to very high level in their relationships with their partner,8 another indicates that some feel insecure and unattractive in relation to their physical appearance.[31] The partners, however, report that the appearance remains favorable and does not harm intimacy.[29] Another study shows a low level of sexual well-being in women satisfied with their body image, inferring an indirect relationship to the effects of chemotherapy and hormone therapy.[21]

Although the studies point out the benefits perceived after breast reconstruction, there are also those that point out the complications related to the performance of the procedure. Immediate reconstruction was associated with higher risks of general complications, when compared to late reconstruction.[28,32] Diabetes, smoking, obesity, bilateral reconstruction and use of vasopressors stand out as risk factors for complications.[32-33]

Necrosis, hemorrhage, seroma, capsular contracture, suture dehiscence, superficial infection, decreased mobility and shoulder strength are some of the complications that may occur during and after breast reconstruction surgery. These are less incident when reconstruction is delayed and when patients do not receive adjuvant radiotherapy[33-34] or even when they do not undergo radiotherapy and chemotherapy after breast reconstruction.[35]

CONCLUSION

It is concluded that publications related to breast reconstruction from the perspective of women who underwent mastectomy for cancer address issues related to expectations and (dis)satisfaction with reconstruction, quality of life, emotional aspects, sexuality and body image, in addition to physical complications. It appears that the performance of this surgical procedure has repercussions on their lives, favoring improving body image, restoring emotional balance and quality of life. The experience of going through breast cancer, treatments and mastectomy can be less negative when

breast reconstruction is performed, especially if there is support from professionals who guide them and clarify doubts.

Evidence contributes to highlighting the importance of caring for women at all stages of the process of performing breast reconstructive surgery, and information prior to mastectomy can generate fewer psychological complications and improve coping with the disease. Guidelines aimed at the needs of women, including their families, and professionals who offer a space for sensitive listening to emerging feelings, constitute a dimension of care that still needs to be strengthened. In this sense, the studies produced in relation to nursing care for women who undergo breast reconstruction after mastectomy for cancer show a gap in knowledge and present themselves as a dimension to be explored in future research.

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