

# Do the physical discomforts from breast cancer treatments affect the sexuality of women who underwent mastectomy?

DESCONFORTOS FÍSICOS DECORRENTES DOS TRATAMENTOS DO CÂNCER DE MAMA INFLUENCIAM A SEXUALIDADE DA MULHER MASTECTOMIZADA?

¿LAS INCOMODIDADES FÍSICAS DERIVADAS DEL TRATAMIENTO DE CÁNCER DE MAMA INFLUYEN EN LA SEXUALIDAD DE LA MUJER MASTECTOMIZADA?

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## ABSTRACT

The objective of this integrative review is to analyze the scientific production addressing the sexuality of women with breast cancer following mastectomy, focused on the effects that the physical discomfort due to cancer treatments have on their sex life. The search included articles published in the period between 2000 and 2009 on the MEDLINE, LILACS and PsycINFO databases, using the following descriptors: *mastectomy, breast neoplasms, sexuality, sexual behavior, amputation, psychosexual development, and marital relations*. Nine articles were selected, which addressed the effects of the physical discomfort from cancer treatments on the patients' sexuality. The findings revealed that, even when the patient's sex life is intense and fulfilling before the disease, factors such as stress, pain, fatigue, insult to body image, and low self-esteem due to the treatments may alter the sexual functioning of the affected woman. Healthcare professionals must be sensitized in order to welcome and include the topic in policies as well as in preventive, diagnostic, and therapeutic strategies.

## DESCRIPTORS

Women  
Breast neoplasms  
Mastectomy  
Sexuality  
Review

## RESUMO

Este trabalho é uma revisão integrativa, que objetiva analisar a produção científica dedicada à sexualidade da mulher com câncer de mama após a mastectomia, com foco na interferência dos desconfortos físicos decorrentes dos tratamentos sobre sua vida sexual. O estudo abrangeu trabalhos publicados no período de 2000 a 2009, utilizando as bases MEDLINE, LILACS e PsycINFO, por meio dos descritores *mastectomy, breast neoplasms, sexuality, sexual behavior, amputation, psychosexual development, marital relations*. Foram selecionados nove artigos, que abordavam as repercussões dos desconfortos físicos provenientes dos tratamentos oncológicos na vivência da sexualidade. Os achados evidenciaram que, mesmo quando existe intensa e satisfatória vida sexual no período prévio à doença, fatores como estresse, dor, fadiga, insulto à imagem corporal e baixa autoestima, decorrentes dos tratamentos, podem desorganizar o funcionamento sexual da mulher acometida. É necessário sensibilizar os profissionais para acolherem o tema em políticas e estratégias preventivas, diagnósticas e terapêuticas.

## DESCRIPTORIOS

Mulheres  
Neoplasias da mama  
Mastectomia  
Sexualidade  
Revisão

## RESUMEN

Revisión integrativa que objetiva analizar la producción científica orientada a la sexualidad de mujeres con cáncer de mama luego de mastectomía, atendiendo la interferencia de las incomodidades físicas derivadas del tratamiento en su vida sexual. El estudio incluye trabajos publicados entre 2000 y 2009, utilizando las bases MEDLINE, LILACS y PsycINFO, utilizando los descriptores *mastectomy, breast neoplasms, sexuality, sexual behavior, amputation, psychosexual development, marital relations*. Fueron seleccionados nueve artículos abordando las repercusiones de la incomodidad física provocada por los tratamientos oncológicos en la experiencia de la sexualidad. Los hallazgos evidenciaron que, incluso existiendo intensa y satisfactoria vida sexual en el período previo a la enfermedad, factores como estrés, dolor, fatiga, insulto a la imagen corporal y baja autoestima derivados del tratamiento, pueden desorganizar el funcionamiento sexual de la mujer afectada. Es necesario sensibilizar a los profesionales para atender el tema en políticas y estrategias preventivas, diagnósticas y terapéuticas.

## DESCRIPTORES

Mujeres  
Neoplasias de la mama  
Mastectomía  
Sexualidad  
Revisión

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## INTRODUCTION

Breast cancer is probably the type of tumor that most frightens women, due to its high prevalence, as well as its psychological and physical effects<sup>(1)</sup>. The impact caused by the disease is related to its possible effects, as well as to living without the breast and the consequences of the mutilation for the marital relationship<sup>(2)</sup>. It is in the resumption of social relationships, of leisure activities, of work and of family life that the concerns of the affected women emerge in relation to their own bodies. At this point, they generally feel satisfied with the end of the treatment, but are mentally and physically exhausted by the prolonged exposure to invasive and painful procedures<sup>(3-5)</sup>. In addition to the social aspects, the physical dimensions of cancer also reveal a devastating scenario of a mutilating disease, with the additional connotation of a "dirty" illness, which produces secretions, necrosis and releases unpleasant odors. These associations favor the stigmatization of cancer patients and their withdrawal from their social lives<sup>(6)</sup>. This disease also produces important changes in the body image and self-image of the women, which may affect their experiences of sexuality and their marital satisfaction. Such interference in the sexual practice is often experienced as physical changes caused by cancer treatments, such as loss of the breast, fatigue and vaginal dryness, leading to pain and discomfort during sexual intercourse (dyspareunia)<sup>(7-8)</sup>.

Studies have reported that many breast cancer survivors report fatigue after the completion of the treatment and that this symptom is reported to be highly disruptive and a limiting factor in the quality of life of these women<sup>(9-10)</sup>. According to another recent review<sup>(4)</sup>, it is known that there are barriers for the interventions that address the sexuality of women with cancer. These barriers stem from the implicit assumptions about this subject, both of the patient and the caregiver. What happens in practice is that this topic ends up being marginalized in the care and not being discussed by the caregiver with the patient, which indicates to the patient that she can not raise the topic in question. When investigating the issue of the visibility of sexual questions in Nursing practice, a study showed an increasing number of studies that seek to promote reflections that contribute to change the scenario of concealment and invisibility of this topic<sup>(11)</sup>. It is up to nurses and other healthcare professionals to try to respond to the questions that women encounter in the various care scenarios, since the difficulties of experiencing sexuality are more common than might be imagined. However, there is a lack of openness in the service, making it impossible to form a bond between the patient and the professional, which makes it difficult to verbalize the problem<sup>(12)</sup> and invalidates the integrality of the care, making this a public health problem in Brazil.

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A study pointed out that this issue is neglected in the formation of the health professionals, who in the course of their future practice may encounter challenging situations for which they feel unprepared. It is known that the graduate Nursing student has incorrect notions about sexuality. Obtaining knowledge on this topic can help to minimize undue and inappropriate attitudes when faced with such a topic, whether in terms of sex education, in detecting alterations or in preventing eventual problems. For this, the educational institutions need to commit to training the student in this theme<sup>(13)</sup>. This is true not only for Nursing students, but also for students of Medicine, Psychology, Physiotherapy, and Occupational Therapy, among other courses. These findings show that sexuality and marital life are still neglected dimensions in public healthcare. In this field, an issue that has not received proper attention from researchers is the influence of the physical discomfort produced by the breast cancer treatment on the sexual life. Thus, the proposal of the present study is justified, where the original contribution is to focus on the impact of the physical discomfort in the sexual life of the woman, caused by breast cancer treatments,

in the first months after breast surgery. The knowledge generated by the examination of the physical impact triggered in the women affected by breast cancer can contribute to better training, sensitization and instrumentalization of healthcare professionals in relation to the topic and thus promote more qualified care for these women. Based on these assumptions, this study aimed to investigate the repercussions of the physical discomfort caused by breast cancer treatments, regarding the sexuality of women with mastectomies, from the analysis of national and international scientific literature published from 2000 to 2009.

## METHOD

This is a retrospective, descriptive and documentary study, using an integrative literature review. This type of review was chosen as the methodological approach because it allows previous studies on the topic selected to be summarized, maintaining the standards of clarity, rigor and replication of the primary studies<sup>(14)</sup>. This methodology proposes a discussion of the methods, sources, aims and results, allowing conclusions to be established regarding the demarcated field of knowledge<sup>(15)</sup>. The PICOC strategy was used to structure the clinical question, in order to clarify the components that guided the search for evidence<sup>(16)</sup>. The guiding question of the present study was: In women with breast cancer (P), how do the physical discomforts caused by the treatments that they underwent (I) influence their experience of sexuality (O) in the first months after breast surgery (T), when compared to the period before the disease (C)?

The time frame of this study was from January 2000 to December 2009. To achieve the aim, the following methodological steps for undertaking an integrative review were followed<sup>(17)</sup>: a) systematic survey of the national and international publications on mastectomy and sexuality; b) definition of the variables to be investigated: identification of the authors, study type, year of publication, journals in which the studies were published, the origin of the articles, the language in which they were written, the aims and the results obtained; c) descriptive analysis of the study results and critical evaluation of the contributions provided for the production of knowledge in the theme.

To ensure the comprehensiveness of this review, the following databases were consulted: MEDLINE, LILACS and PsycINFO. The data were collected from April to May 2010. The articles indexed with the following keywords were studied: *mastectomy, breast neoplasms, sexuality, sexual behavior, amputation, psychosexual development, marital relations*. The descriptors were chosen according to DeCS - Health Science Descriptors (the first four keywords) and Terminologia Psi (the others). The descriptors were chosen in order to expand the possibilities of combinations and maximize the number of articles returned and thus prevent the specificity of some terms restricting the *corpus* of the study.

In this literature review the following parameters were considered as inclusion criteria in the search for the articles: 1) articles on female breast cancer: 2) written in English, Portuguese or Spanish; 3) published between 2000 and 2009; 4) that present empirical results; 5) that provide the abstract in the indexing databases; 6) published in journals available in full on the world wide web, being the site of the journal itself or through the SIBI system of the University of São Paulo, a service network that includes an online catalog providing access to databases and the content of the journals indexed; 7) publications that dealt with mastectomy as a treatment for breast cancer and its repercussions on the sexuality of the women affected; and 8) that focused on these issues from the perspective of women with mastectomies and not the perception of other people related to them. The following limits were established as exclusion criteria: 1) presentation in dissertation, thesis, book chapter, book, editorial, summary, comment or critique format; 2) articles about prophylactic mastectomy; 3) articles from literature review studies; 4) research reports with women who had recurrence breast cancer or metastasis; 5) studies with only women who had breast reconstruction surgery; 6) articles not concerned with the theme investigated.

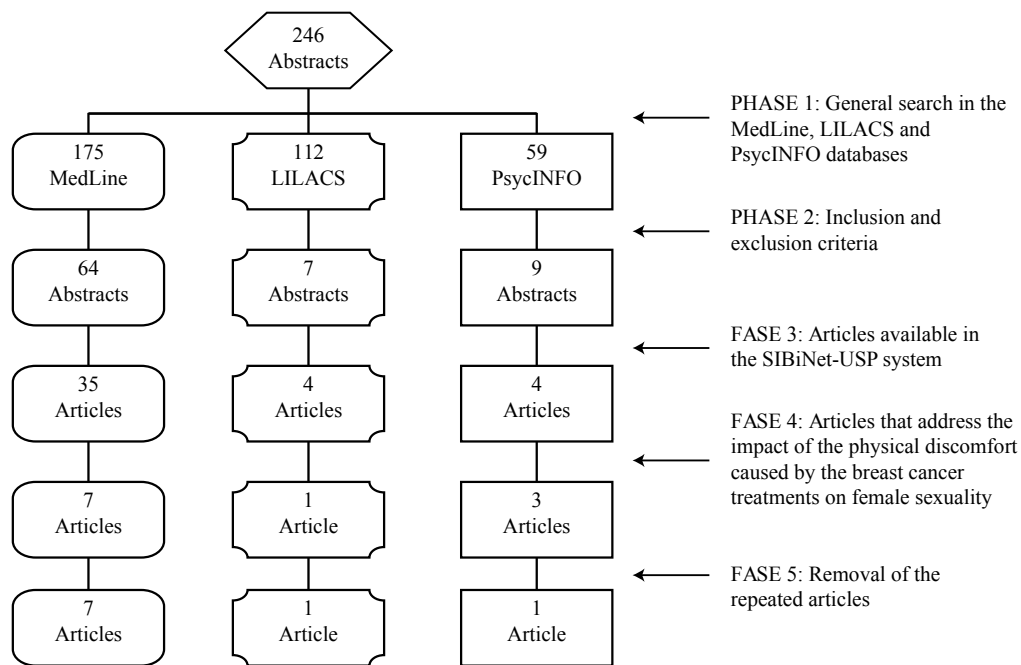


Figure 1 - Flowchart of the stages of the integrative review - Ribeirão Preto, 2009

After reading the abstracts, the articles selected, according to the inclusion and exclusion criteria, were retrieved. After reading the articles in full the data of interest for the review was extracted. The information was recorded on a previously prepared identification form based on the literature<sup>(15,18-19)</sup>. The form was completed for each article of the

sample, allowing the systematization of the data that were later organized into a folder and listed in ascending numerical order according to the year of publication. After summarizing the articles in their entirety, works that focused on the physical discomforts or sexuality were separated, which formed the *corpus* of the study.

## RESULTS

The final sample consisted of articles indexed in the selected databases and which met the inclusion criteria for the literature search. Of the 246 studies listed in the preliminary search, 43 met these criteria. Among these, nine were related to physical discomfort caused by the breast cancer treatment as an interfering factor in the sexual life of the women, five from the database MEDLINE, one from LILACS, one from PsycINFO and two found in the MEDLINE and PsycINFO databases. These articles formed the *corpus* of this study. Table 1 shows the authors, year of publication and article titles that form the *corpus* of the study and summarizes the type of methodological approach used, the study design and the population studied. The main topics related to physical discomfort were: vaginal dryness, pain, fatigue and hot flushes resulting from the breast cancer treatment and from treatment-induced early menopause. The physical discomforts were mentioned as reasons for the decrease in sexual desire and the frequency of sexual relations<sup>(20-26)</sup>.

The selected articles were published in nine different journals: Files of Health Science, Journal of International Medical Research, Journal of the National Cancer Institute, Palliative & Supportive Care, Psychology, Health & Medicine, Psycho-oncology, Social Science & Medicine, The Breast Journal, and Tumori. When the area(s) that the journals of origin of the articles focused on were investigated, it was found that seven (77.8%) were from multi/interdisciplinary journals, where the priority themes focused on the health-disease interface. The multidisciplinary character could also be evidenced in the authorship of the articles, published by professionals from different areas of healthcare (nursing, medicine, and psychology, among others). This shows that there is an increasing interest in the exchange of information between the various healthcare professions who work to provide care in the breast cancer area.

**Table 1** - Distribution of the articles that comprise the *corpus* of the study according to authors, year of publication, title, methodological approach, study design and sample - Ribeirão Preto, 2009

Autor(es), ano e título	Estratégia metodológica	Delineamento do estudo	Amostra
Ming (2002) <sup>(20)</sup> Psychological predictors of marital adjustment in breast cancer patients	Data collection through the questionnaires The Dyadic Adjustment Scale (DAS), The General Health Questionnaire (GHQ), The Self Dyadic Perspective-Taking Scale (PTS), The Other Dyadic Perspective-Taking Scale (ODPT) and The Body Image Scale and through questions about the marital relationship, applied to each spouse, separately.	Quantitative and qualitative, non-experimental, comparative, cross-sectional, retrospective and descriptive study.	86 women who had breast cancer and who had mastectomy without breast reconstruction: 33 received no further treatment after the mastectomy, 19 received only chemotherapy, three received only radiotherapy, six underwent hormone therapy and another 23 received combined treatments. Time of at least two months after surgery.
Avis, Crawford, Manuel (2004) <sup>(21)</sup> Psychosocial problems among younger women with breast cancer	Data collection through the questionnaire The Cancer Rehabilitation Evaluation System (CARES).	Quantitative, non-experimental, comparative, cross-sectional, retrospective and descriptive study.	204 women who had breast cancer with different types of treatment and who were aged 50 years or less at diagnosis. Time of at least three months after diagnosis.
Ganz et al., (2004) <sup>(22)</sup> Quality of life at the end of primary treatment of breast cancer- first results from the moving beyond cancer randomized trial	Data were collected through the questionnaires RAND SF-36 (also known as the Medical Outcomes Study [MOS]-SF-36) and the Ladder of Life Scale. The groups were subdivided into: mastectomy without chemotherapy, lumpectomy without chemotherapy, mastectomy with chemotherapy and lumpectomy with chemotherapy.	Quantitative, non-experimental, comparative, cross-sectional, retrospective and descriptive study.	558 women who had breast cancer and who underwent different types of treatment. Women who received chemotherapy as part of their primary treatment were significantly younger than those who did not perform this treatment. The women who received surgery without chemotherapy used tamoxifen more often than the women who received chemotherapy. Time of one month after surgery.
Speer et al.(2005) <sup>(23)</sup> Study of sexual functioning determinants in breast cancer survivors	Data collection was carried out using the scales Female Sexual Functioning Index (FSFI), Hamilton Depression Inventory (HDI), Body Image Survey (BIS), Marital Satisfaction Inventory-Revised (MSI-R), a demographic questionnaire and the testosterone level.	Quantitative non-experimental, comparative, cross-sectional, retrospective study.	55 women who had breast cancer and who underwent different types of treatment. 24 lumpectomy, 30 mastectomy. The time from surgery ranged from 3 months to 16 years.

Continued...

Continuation...

<b>Autor(es), ano e título</b>	<b>Estratégia metodológica</b>	<b>Delineamento do estudo</b>	<b>Amostra</b>
Takahashi e Kai (2005) (24) Sexuality after breast cancer treatment: changes and coping strategies among Japanese survivors	Data collection through semistructured interviews.	Qualitative, non-experimental, cross-sectional, retrospective and descriptive study.	21 Japanese women who had breast cancer and who underwent different types of treatment. The majority of the respondents had undergone modified radical mastectomy or breast conserving surgery. Time of four to 123 months after surgery.
Fatone et al. (2007)(25) Urban voices: the quality-of-life experience among women of color with breast cancer	Data collection through semistructured interviews.	Qualitative, non-experimental, cross-sectional, retrospective and descriptive study.	20 women over 18 years of age who had breast cancer who underwent different types of treatment. 36% self-identified themselves as black or African American.
Talhaferro, Lemos, Oliveira (2007)(26) Mastectomy and its consequences in the life of the woman	Data collection through semi-structured questionnaire, directing questions toward aspects of sexuality.	Qualitative, non-experimental, cross-sectional, retrospective and descriptive study.	10 women who had breast cancer and who underwent mastectomy. Women who had no steady partner were excluded. Maximum time of three months after surgery.
Alicikus et al. (2009)(27) Psychosexual and body image aspects of quality of life in Turkish breast cancer patients: a comparison of breast conserving treatment and mastectomy	Data collection through a questionnaire composed of 42 questions.	Quantitative non-experimental, comparative, cross-sectional, retrospective and descriptive study.	112 women who had breast cancer and who underwent any type of treatment. After surgery, all the patients underwent adjuvant radiotherapy, with or without chemotherapy and hormone therapy. Time of at least two years after surgery.
Gorisek, Krajnc, Krajnc (2009)(28) Quality of life and the effect on social status among Slovenian women after breast cancer treatment	Data collection through the European Organization for Research and Treatment of Cancer core questionnaire and breast module 23 (EORTC QLQ-C30/+BR23).	Quantitative non-experimental, comparative, cross-sectional, prospective and descriptive study.	382 women diagnosed with breast cancer who had undergone a surgical intervention: 198 patients underwent mastectomy with axillary lymphadenectomy and 184 patients underwent conservative surgery with local axillary lymphadenectomy. Time of six months after surgery.

## DISCUSSION

One study showed that women who underwent mastectomy reported higher scores regarding difficulty with vaginal lubrication than those who underwent conservative surgery<sup>(27)</sup>.

Another study demonstrated that, considering the various breast cancer treatments, 37% of the women interviewed experienced vaginal dryness and 24% reported they felt pain during sexual intercourse<sup>(28)</sup>. Vaginal lubrication problems were more severe among women who received chemotherapy than those who did not undergo this treatment. Approximately 50% of the women who received chemotherapy reported that the breast cancer had had a negative effect on their sex life, a statistically significant difference compared to 18-25% of women who did not receive chemotherapy<sup>(22)</sup>. Vaginal dryness was mentioned in another study<sup>(21)</sup>, which reinforces the need for the oncology center to provide guidance and, if possible, intimate lubricants, in order to alleviate the discomfort re-

sulting from this symptom so recurrent in women and not part of the focus of the healthcare professionals at that moment. These findings have relevance for the practice, showing that professionals should investigate this kind of discomfort and be aware of the need to prescribe intimate lubricants and to recommend the use of condoms to reduce the vulnerability caused by the immunosuppression in women undergoing chemotherapy.

The physical symptoms were a major concern of the women surveyed in another study<sup>(25)</sup>, with specific complaints that included joint pain, difficulty sleeping, hot flushes, and symptoms suggestive of factors related to menopause. The physical deterioration from the treatment was mentioned as a reason for decreased sexual interest in two studies<sup>(20-21)</sup>. Many women reported a lack of sexual interest due to physical complications, such as general fatigue and delayed operative wound healing. These reasons were highlighted to explain why the wom-



en resisted the resumption of sexual relations. Decreased sexual desire was reported by 50% of the respondents. A decline in sexual activity was often mentioned, but was not regarded as particularly problematic<sup>(25)</sup>.

One study found that physical stress was the main reason for the decrease in sexual arousal<sup>(24)</sup>. In a study conducted with 558 women, 23.4% reported a moderate to severe lack of sexual interest, more frequently among women of the two chemotherapy groups (mastectomy and lumpectomy)<sup>(22)</sup>. These results suggest that professionals should turn their attention to research issues related to the resumption of the sexual life of women, offering advice and guidance.

A study in which women with breast cancer, women with sexual dysfunction and "normal" women were compared, the participants with breast cancer had significantly lower scores in all areas of sexual functioning (desire, arousal, lubrication, orgasm, satisfaction and pain) compared with the normal control group, but higher scores than those reported by women with sexual dysfunction in all areas except sexual desire and pain<sup>(23)</sup>. The older women were significantly more susceptible to pain and lack of vaginal lubrication. Even when there is an intense and satisfying sexual life before the disease, the combination of emotional stress, pain, fatigue, damage to the body image and low self-esteem, resulting from the breast cancer treatments, can disrupt the sexual functioning of the couple<sup>(26)</sup>. Nursing professional must use listening strategies and provide advice directed toward the needs of the women affected by the disease, which focus on the relationship with the partner.

The literature also shows that only a minority of study participants reported that the mastectomy did not cause changes in their sexual life or even noticed an improvement after the breast cancer<sup>(21,26)</sup>. These apparent exceptions show the need to promote qualitative studies for a deeper understanding of the trajectories (therapeutic and life) of these women, so that the consequences of the breast cancer treatments in the experience of sexuality of these women can be better comprehended. Thus, nursing professionals must engage in a more dialogic communicative practice, avoiding the unilinear hegemonic model still prevalent in the healthcare practices. Finally, the impact of breast surgery on female sexuality was evidenced by the close relationship found between physical discomfort and difficulties in resuming sexual activity after the surgical removal of the breast. The findings highlighted by this review are consistent with other studies in the area, indicating the high susceptibility of women with breast cancer to physical stressors<sup>(10,29-30)</sup>.

In future studies it will be important to consider the effects of the physical alterations on the experiences of sexuality when analyzing the adjustment process of the women. The need was also noticed for more qualitative studies that allow an understanding of the experiences of the women in their subjective dimensions, in a way that provides contributions for integral, individualized care, adapted to the needs of each patient. As the concern of this study is with improving the care to women affected by

breast cancer, especially in the area of sexuality, it is very important that further research be conducted for greater coverage of the findings to produce better integration of the care actions. There must be effective incorporation of scientific knowledge into the health system.

It was evident that with the increase in time since the surgery fewer problems with sexual interest are found, which is related to a decreased in the physical stressors. This fact indicates the need for more studies that investigate women with a short time since diagnosis and/or surgery up to the end of the primary breast cancer treatment. The findings indicate the need to incorporate some guidance and counseling strategies into the healthcare, aimed at the professionals themselves, helping them to raise their awareness regarding the consideration of the sexuality of women who have undergone mastectomies. There is also a need to include the topic in the formation of healthcare professionals.

Currently, cancer care is founded on the principles of multidisciplinary and has been incorporating other healthcare professionals as well as physicians and nurses, including psychologists, social workers, physiotherapists and occupational therapists. Learning to work as a team is acquiring a growing importance in the healthcare area, which increases the willingness to invest in developing health care strategies that include a host of aspects that transcend the strictly biological dimensions. The present study has shown that, even when eminently physical aspects are involved, there are repercussions on the sexuality and well-being of women with breast cancer.

## CONCLUSION

The use of an integrative review as the methodological strategy proved to be relevant to achieve the aim and to identify gaps that indicate the need to aggregate new advances in knowledge production, with implications for the transformation of the care practice in order to achieve integrality. The impact of the breast cancer treatment on the sexuality of the women affected, although being quite evident in the quotidian of the health professionals, is still a relatively unexplored theme in care. Furthermore, this problem is also neglected in the literature, which was evidenced by the low number of articles encountered. Despite this lack of studies, it was confirmed that the impact of physical discomforts caused by the treatment on female sexuality is empirically supported in the literature.

Systematic literature review studies are relevant to support health practices and actions based on scientific evidence. The limitation of this study is that the evidence level offered is moderate to weak, since it is a synthesis of evidence from descriptive or qualitative studies in response to the guiding question. Another key step is to incorporate the knowledge produced by recent studies in public health policies into the healthcare actions. This is perhaps the biggest current challenge.

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