



REVISIONES

The sexuality of women undergoing treatment for breast cancer

A sexualidade de mulheres em tratamento para o câncer de mama

La sexualidad de las mujeres sometidas a tratamiento de cáncer de mama

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.Palavras chave: Sexualidade; Neoplasia da mama; Disfunção sexual

Palabras clave: Sexualidad; Neoplasias de la Mama; Disfunción sexual

ABSTRACT

Breast cancer is one of the main problems related to women's health, and the various forms of treatment can lead to bodily changes and significantly alter women's sexuality. The factors involved in sexuality of these women require a targeted approach, as the treatment of women is based on the diagnosis and treatment of health problems and does not necessarily cover all the complexity that the theme demands.

Objective: To evaluate the scientific evidence of interference treatment of breast cancer on women's sexuality. We found twenty-one publications that met the inclusion criteria.

Method: Integrative review conducted in MEDLINE, PubMed, LILACS and SciELO.

Results: The results showed that women with breast cancer may decrease or interrupt their sexual activity during treatment, and many of them have sexual dysfunction with changes in various areas of sexuality, and these changes vary among women in treatment and women who completed treatment. These differences also arise when comparing different types of treatment, conservative and surgical.

Conclusion: It is considered that this study contributes to the foundation of clinical practice of professionals involved in the health of women with breast cancer and the direction of future clinical trials.

RESUMO

O câncer de mama é um dos principais problemas relacionados à saúde da mulher, e as diversas formas de tratamento podem gerar mudanças corporais e alterar, significativamente, a sexualidade da mulher. Os fatores envolvidos na sexualidade dessas mulheres necessitam de uma abordagem direcionada, visto que o atendimento à mulher se baseia no diagnóstico e tratamento de problemas de saúde e não necessariamente engloba toda a complexidade que o tema exige.

Objetivo: Avaliar as evidências científicas sobre a interferência do tratamento para o câncer de mama na sexualidade das mulheres.

Método: Revisão integrativa realizada na MEDLINE, PubMed, LILACS e SciELO. Foram encontradas vinte e uma publicações que atenderam aos critérios de inclusão.

Resultados: Os resultados mostraram que as mulheres com câncer de mama podem diminuir ou interromper suas atividades sexuais durante o tratamento, e que muitas delas apresentam disfunções sexuais com alterações em diversos domínios da sexualidade, sendo que estas variam entre as mulheres em tratamento e aquelas que completaram o tratamento. Essas diferenças também surgem quando se comparam os diversos tipos de tratamento, conservadores e cirúrgicos.

Conclusão: Considera-se que este estudo contribui para o embasamento da prática clínica dos profissionais envolvidos com a saúde da mulher com câncer de mama e para o direcionamento de pesquisas clínicas futuras.

RESUMEN

El cáncer de mama es uno de los principales problemas relacionados con la salud de la mujer, y las diversas formas de tratamiento pueden dar lugar a cambios en el cuerpo y alterar significativamente la sexualidad de las mujeres. Los factores que intervienen en la sexualidad de estas mujeres requieren un enfoque específico, ya que el tratamiento de las mujeres se basa en el diagnóstico y tratamiento de problemas de salud y no cubre necesariamente toda la complejidad que exige el tema.

Objetivo: Evaluar la evidencia científica del tratamiento interferencia de cáncer de mama en la sexualidad de la mujer.

Método: Revisión Integral realizada en MEDLINE, PubMed, LILACS y SciELO. Encontramos veintiuna publicaciones que cumplieron los criterios de inclusión.

Resultados: Los resultados mostraron que las mujeres con cáncer de mama pueden disminuir o interrumpir su actividad sexual durante el tratamiento, y que muchas de ellas tienen disfunción sexual con los cambios en varias etapas de la sexualidad, y estos cambios varían entre las mujeres en tratamiento y mujeres que completaron tratamiento. Estas diferencias también surgen cuando se comparan diferentes tipos de tratamiento, conservador y quirúrgico.

Conclusión: Se considera que este estudio contribuye a la fundación de la práctica clínica de los profesionales que intervienen en la salud de las mujeres con cáncer de mama y la dirección de los futuros ensayos clínicos.

INTRODUCTION

The breast cancer is one of the biggest problems related to women's health; statistics indicates an increase of its incidence such in developed countries as in the ones still being developed and, according to the world wide organizations of health (WHO), in the decades of 60 and 70 an increase of 10 times were registered in the taxes of

incidence, adjusted by age was developed, in the Registers of Cancer of Population-based from several continents ⁽¹⁾.

For Brazil, in 2015, was expected 57.120 new cases of breast cancer with an estimate risk of 56,09 cases in every 100 thousand women. It represents the first cause of death from cancer in the feminine population, with 15,93 deaths per 100 thousand women in 2013⁽²⁾. Associated to a high incidence of breast cancer, they verify physical, psychological and social impacts that compromise even more than women's health ⁽³⁾.

The therapeutics for breast cancer is individual and orientated according to the extension of the disease, its biological characteristics and clinical condition of the woman ⁽⁴⁾. The chemotherapy and the hormone therapy are the most used types of systemic treatment, the radiotherapy and the surgery for the loco regional treatment ⁽⁵⁾. Several forms of treatments can generate contradictory feelings between the hope for the cure and fear of confronting corporal changes. These factors can affect the femininity and compromise the relations with the partners, taking the woman to a low self esteem ⁽⁶⁾ and damage the psychological image that she has of herself and to her sexuality ⁽⁷⁾. Secondary effects to the treatment as alteration in the production of sexual hormones and precocious menopause can aggravate the picture ⁽⁸⁾.

Factors involved in women's sexuality with breast cancer necessity of a directed approach, seeing that the service of them is based on the diagnoses and treatment to the health problem and not necessarily include the whole complexity that the subject demands. The highlight from such service happens individually, in the gynecological consultations from the spontaneous demand of each woman who, most times, is restricted to the delimited field of the disease and /or the restoration of the functioning of the organs ⁽⁹⁾.

Considering that the treatment for the breast cancer can have repercussions on the sexuality, one of the priorities of the public service policies to the women, it becomes necessary the studies about this problematic and to look for scientific evidences for which nurses and other health professionals are guided to supply service of bigger quality in their practice care.

Therefore, the use of integrative revision, with the data lifting about the alterations in the sexuality of women with breast cancer, it becomes of supreme importance in practice of nursing to subsidize the assistance to the women, during and after the treatment, possibly extending the duration of this in benefit to the marital life of the woman with breast cancer.

The use of Practice Based on Evidence (PBE) will incorporate the best scientific evidence for the use of taking decisions in clinical practice and in the individual intervention to the patient ⁽¹⁰⁾, just as in the interventions of preventive character to the occurrence of sexual dysfunctions of women in treatment for breast cancer.

Facing the need of analyzing scientific evidences about women's sexuality in treatment for the breast cancer, the following question sustained the study: "what is the interference of the treatment for the breast cancer in the sexuality of women?" Trying to contribute to the enlargement of knowledge for nursing with the impact in teaching, search and assistance, it has as an objective to evaluate the scientific evidences about the interference in the treatment for breast cancer in women's sexuality.

MATERIAL AND METHODS

For the reach of the objective proposed in this study, we use the integrative revision as method, which includes the analysis of relevant research that give support for the taking decision and to the improvement of clinical practice ⁽¹¹⁾. This method has six distinct phases, described below: identification of the subject, search for literature, studies categorization, evaluation of the studies included in the revision, interpretation of the results and syntheses of knowledge shown up in the analyzed articles ⁽¹²⁾.

The bibliographical uplifting was done through consultation in bases of data of relevance for the production of knowledge in health: MedLine (Medical Literature Analysis and Retrieval System Online), PubMed (U.S. National Library of Medicine) and LILACS (Latin American Literature in Sciences of Health) and in the library SciELO (Scientific Electronic Library Online).

To define the sample of selected studies for the present article it was established the following criteria: scientific articles that show the sexuality of women in treatment for breast cancer, published in the last five years (2009 to 2014), for the topicality of the publications referring to the subject, in the Portuguese, Spanish and English languages available online.

As the criteria of the exclusion were established: the reports of informal cases, literature reviews, integrative reviews, qualitative studies (which are not considered as a base for classification of the levels of evidence), consensus, guidelines, books chapter, dissertations, theses, report, news, editorials and non-scientific texts.

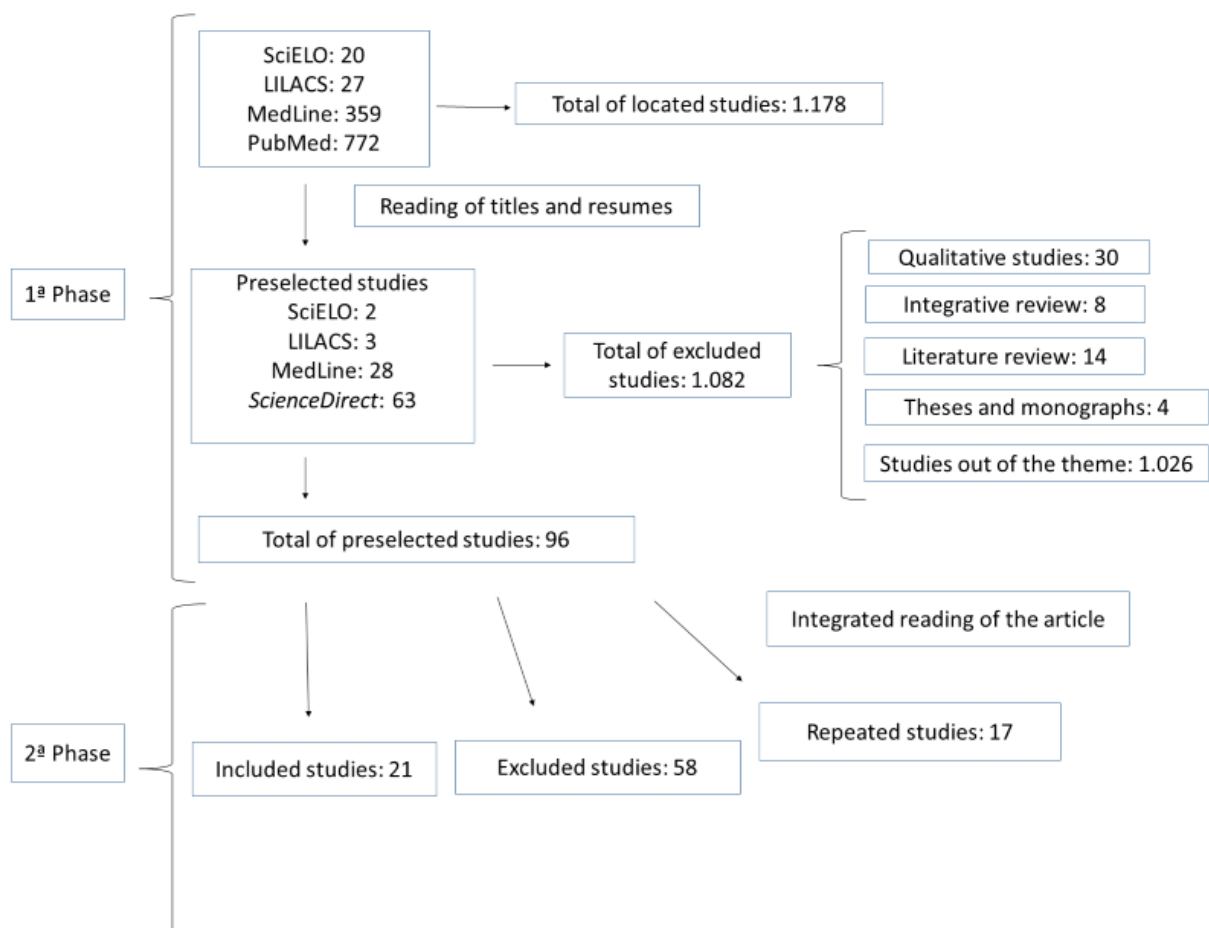
The strategy of search based using the lathing of the descriptor standardized "sexuality" and non-standardized "Breast cancer". The standardized term was identified in the Descriptors in Science Health (DeCS).

The data bases were accessed during January 2015. In the first phase, for the selection of articles was realized a careful reading of titles and summaries of all publications located, In order to check the adequacy to the criteria of inclusion and its framework with a guiding question of the first selection. The cases in which the titles and the summary were not enough to define its first selection, these were looked in the whole text. The publications which were not available in the full text in the virtual search were commuted for the evaluation of inclusion.

During the second phase, it was done the reading in the full text of each preselected study. The studies evaluations were done concomitant and independent from two researchers. The third researcher was set when there was divergence in the inclusion or not of the studies. The repetitive studies were excluded in this phase.

For a best comprehension about the data collection and selection of the articles, it was elaborated a flow chart (figure 1), and for a better identification, the selected studies received a sequence of alphanumeric code (E1, E2, E3...).

Figure 1: Selection of articles



Between 1.178 articles located in the search, 772 (65,5%) were found in PubMed, 359 (30,5%) in MedLine, 27 (2,3%) in LILACS and 20 (1,7%) in Scielo. From the found studies, 1.082 was excluded for not being appropriated to the criteria of inclusion.

The total of preselected articles, 75 (78, 1%) were excluded, because they did not portray what was the interferences of the treatment for breast cancer in the sexuality of the woman.

The selection made, resulted then in: 09 scientific articles in PubMed, 08 in MedLine, 02 in SciELO, 02 in LILACS, completing a total of 21 scientific articles that answered to the inclusion of the criteria established for the present integrative revision.

For data extraction a synoptic picture was prepared, with the purpose of categorizing the included studies containing the next information: author/title/magazine/year/country of publication, objective, type of study/method, results and levels of evidence. After that step, it was carried out a careful reading of selected studies, in order to identify possible interference of the treatment for breast cancer in women's sexuality and the levels of study evidence.

The analysis was done in a careful way based in five levels of evidences and four degrees of recommendation from Oxford ⁽¹³⁾. The levels of evidence are classified in: 1 - Systematic revision of controlled clinical tests and randomized; 2 - Clinical randomized test or observational study; 3 - Cohort study with control group not

randomized/sequential study; 4 - Series of cases, case-control study or historically controlled studies; 5 - Mechanisms based in reasoning (opinion without critical explicit evaluation or based in basics principles – physiologic studies or animals studies).

The degrees of recommendations: A (studies level 1); B (studies of level 2 and 3); C studies of level 4); and D (studies of level 5 or problematically inconsistent or inconclusive). The degree of recommendation A represents a higher level of evidence, B moderated, C and D minor level of evidence.

The studies E2, E4, E7, E10, E12, E13, E14, E16, E18, E20, E21, represent the level of evidence 3 with degree of recommendation B ⁽¹⁴⁻²⁴⁾. And the studies E1, E3, E5, E6, E8, E9, E11, E15, E17, E19 presented level of evidence 4 with degree of recommendation C ⁽²⁵⁻³⁴⁾.

This demonstrates the studies about the sexuality of women with breast cancer have a moderate and weak degree of recommendation, being necessary the realization of new studies about the subject, where the methodology can show levels of evidence with a degree of higher recommendation, making possible for us a better and bigger analyses of the subject, incorporating a better scientific evidence in the use of taking decisions in clinical practice and in the individual intervention in the patient.

The location of the texts in the full text was possible with the access to the Electronic Libraries for 86, 07% of the works at the University of Nursing, and in the Central Library from the Federal University of Goias. Others 13, 93% were commuted.

RESULTS AND DISCUSSION

Among the twenty articles included, seventeen have predominantly doctors as authors and four are of psychologist's authorship. It becomes evidently the need for a bigger involvement of nurses and nursing academics in this area of knowledge production.

As for the language, we have that 80, 9% (17) from the articles were published in English and only 19, 1% (4) in Portuguese. The predominance of English denotes an intention from most of the authors in spreading their products in a world-wide level.

The syntheses of the twenty one selected articles for the present review are presented considering information referring to the author, scientific title article, name of the magazine, year of publication, country of publication, objective, type of study/method, results and levels of evidence (Chart 1).

Cuadro 1.- Presentación de la síntesis de los artículos científicos seleccionados según autor, título, año, país, objetivo, metodología, resultados y nivel de evidencia. Goiânia, 2015

Author/title/ magazine/year/ country	Objective	Type of study/method	Result	Level of evidence
<p>E1: Remondes-Costa S, Jimenéz F, Pais-Ribeiro JL. Corporal Image, sexuality and quality of life in the cancer of breast. Psychology, Health and diseases. Year: 2012. Country: Portugal.</p>	<p>Study of relation between the corporal image, function, sexual pleasure and the health and quality of life in women with breast cancer.</p>	<p>Co relational study with 51 women between 34 and 82 years old. The participants answered to three types of questionnaires and it was realized descriptive and co relational analysis.</p>	<p>In what refers to sexual function, the generality of the patients did not feel sexual desire, either was sexually active. As for the sexual pleasure, the women who were sexually active, in bigger number, did not feel pleasure in the sexual intercourse. The patients who felt sexual desire, were sexually active and who felt sexual pleasure evaluated better their health and their quality of life.</p>	<p>Level 4</p>
<p>E2: Huguet PR, Morais SS, Osis MJD, Pinto-Neto AM, Gurgel MSC. Quality of life and sexuality of women treated for breast cancer. Mag. Braz Ginecol Obstet. Year: 2009. Country: Brazil.</p>	<p>Evaluate the quality of life and aspects of women's sexuality with breast cancer, according to the type of surgery and characteristic socio-demographic.</p>	<p>Study of transversal cohort with 110 women treated to at least a year for breast cancer. The questions referent to sexuality formed two groups denominated intrinsic component (intimacy) and extrinsic component (attractiveness).</p>	<p>Women with stable relationships had scores better than the ones without relationship, thus in the intrinsic component as in the extrinsic component. In relation to the extrinsic component, those submitted to quadrantectomy with lymphadenectomy axillary or to the mastectomy with immediate reconstruction presented better scores when compared to the mastectomized without reconstruction. Younger women presented scores worse too in relation to sexuality in what concerns the extrinsic factor.</p>	<p>Level 3</p>
<p>E3: Vieira EM, Yoshinari Júnior GH, Souza HCC, Mancini MPM, Perdoná GSC. Reproductive and sexual history of women treated for breast cancer. Mag Bras Ginecol Obstet. Year: 2013. Country: Brasil.</p>	<p>Describe the socio-demographic characteristic, well as the reproductive history and sexual surviving women to the breast cancer.</p>	<p>Descriptive study where were interviewed 139 women diagnosed to at least six months of breast cancer. It was applied, in residence; a questionnaire which approached socio-demographic questions, the disease and the reproductive life is too and Index of Feminine Sexual Function (IFSF).</p>	<p>During the treatment, 45,3% women interrupted sexual relations, 25,9% did not interrupt and 28,7% did not have a partner. There was no tendency to the interruption of sexual relations according with the type of treatment realized, not with the situation of the treatment (concluded or not). After the illness, the women presented a reduction in the frequency of sexual relation. Almost half of the selected sample (44%) presented difficulties with the excitation domain, lubrication and orgasm. The biggest part (56%) indicated dissatisfaction with the sexual function.</p>	<p>Level 4</p>

<p>E4: Moreira JR, Sabino Neto M, Pereira JB, Biasi T, Garcia EB, Ferreira LM. Sexuality of women mastectomized and submitted to breast reconstruction. Mag Bras Mastologia. Year: 2010. Country: Brazil.</p>	<p>Compare and evaluate the sexuality of mastectomized women and the women who were submitted to breast post-treatment reconstruction of breast cancer.</p>	<p>Transversal descriptive study, composed by two groups, one with 17 mastectomized women and other with 19 women submitted to breast reconstruction. The volunteers answered to the index of the sexual function.</p>	<p>The obtained scores of the answers from the mastectomized women were significantly low than the ones submitted to reconstruction. Correlations were not observed between scores and time of post-operatory, as well the development of paid activity, stable relation and age of two groups. Mastectomized women and submitted to breast reconstruction show better sexuality than the others mastectomized without reconstruction.</p>	<p>Level 3</p>
<p>E5: Wang F, Chen F, Huo X, Xu R, Wu L, Wang J, Lu C. A neglected issue on sexual well-being following breast cancer diagnosis and treatment among Chinese women. PLOS ONE. Year: 2013. Country: China.</p>	<p>Evaluate the changes for sexual well-being of breast cancer and give necessary information for the implementation of future interventions which may help the quality of life.</p>	<p>Qualitative study. Twenty patients with breast cancer were recruited for interviews. According with the qualitative study conclusions, it was made a quantitative research through a structured questionnaire.</p>	<p>In the quantitative study, 88,9% of the patients felt sexual problems of long term after the diagnose and treatment of breast cancer. The main sexual complaints the patients have faced are: alterations of body image after mastectomy (83,3%) absence of passion (63,9%) and vaginal dryness or painful sex (50,0%). Between those who face such problems, only 70,6% looked for help or external information.</p>	<p>Level 4</p>
<p>E6: Kedde H, Van de Wiel HB, Weijmar Schultz WC, Wijzen C. Subjective sexual well-being and sexual behavior in young women with breast cancer. Support Care Cancer. Year: 2013. Country: Holland.</p>	<p>To compare the subjective sexual well-being and the sexual behavior of women in breast cancer treatment, with women that already concluded the treatment and a population in control of Dutch women.</p>	<p>Comparative study. The data about the sexual behavior and subjective sexual well-being were collected through a questionnaire of the internet. Data were used in "Sexual Health in the Netherlands 2006". The sample was constituted of 332 women.</p>	<p>In comparison to a group control, women with breast cancer has lower quantity of sexual fantasies, masturbating themselves with low frequency and did not keep sexual contact with their partners regularly in a period of 6 months. In relation to the subjective sexual well-being, the women who still are in treatment differ from all aspects of the Dutch feminine population, as they present bigger sexual stress, they are less satisfied with their sexual life, have more feelings of guilt about their sexual behavior, their sexual contact is less positive and it has lower self-esteem.</p>	<p>Level 4</p>
<p>E7: Sabino Neto M, Menezes MVA, Moreira JR, Garcia EB, Abla LE, Ferreira LM. Sexuality after breast reconstruction post mastectomy. Aesth</p>	<p>To value and compare the sexuality in women submitted to mastectomy with those who were submitted to breast reconstruction after the mastectomy.</p>	<p>Descriptive transversal study with 36 women, divided in two groups, one with 17 mastectomized women and another 19 women who were</p>	<p>The data show punctuation in the least IFSF for the women's mastectomized group when compared to a group of women who realized the breast reconstruction in all domains. There was no established relation between the punctuation and time to</p>	<p>Level 3</p>

Plast Surg. Year: 2013. Country: Brazil.		submitted to breast reconstruction, using a questionnaire index of sexual feminine function.	post-operative or between the scores and the question of income, stable conjugal relation and age for both groups.	
E8: Kedde H; Van de Wiel HB; Weijmar Schultz WC; Wijzen C. Sexual dysfunction in young women with breast cancer. Support Care Cancer. Year: 2013. Country: Holanda.	Determine the prevalence of sexual dysfunction in younger women with breast cancer and evaluate the relation between sexual dysfunction, the method for treatment and complaints to the treatment.	Comparative study of 332 with breast cancer. The interviewers were recruited through many channels, and a direct link was available for a questionnaire, in which it was provided through the internet. The criteria of inclusion were: historic of breast cancer to at least 6 years and age lower than 45 years.	The women who were in treatment reported problems with lubrication (45%), orgasm (31%), pain during sexual relation (30%) and hypoactive sexual desire (23%). The women who finished the treatment presented problems of lubrication (23%), orgasm (21%) and pain during sexual relation (16%). With the exception of sexual aversion and vaginismus, the predominance of sexual dysfunction was less in women who completed the treatment than in women that were still in treatment. Women who still were in treatment, the trouble of the hypoactive sexual desire, subjective excitement, genital excitement, perturbation of the orgasm and dyspareunia occurred more frequently in comparison with women who concluded their therapy.	Level 4
E9: Ussher JM, Perz J, Gilbert E. Changes to sexual well-being and intimacy after breast cancer. Cancer Nursing. Year: 2012. Country: Australia.	Analyze the sexuality alterations and the intimacy to relationship in patients with breast cancer.	Quail-quantitative study done online with a total of 1.965 Australians with breast cancer. The participants were 98% women, with average age of 54 years.	There were reports of lower frequency in sexual relations (78%), energy for sex (76%), sexual excitement (74%), feel wanted (73%), interest in sex (71%), sexual pleasure (64%), sex satisfaction (62%), and the intimacy (60%).no alteration were related to most of the participants in areas of "interest of partner in sex" (64,3%) and "communication with the partner about the sexual needs" (50,5%). In relation to the changes in sexual well-being, the answers more frequent were tiredness (71%), vaginal dryness (63%), confrontation (51%), and feeling less attractive (51%). Some interviewers described that the breast cancer affected their sexual relation "drastically" (24%), "considerably" (26%) and "a little" (32%).	Level I 4

<p>E10: Lam WW, Li WW, Bonanno GA, Mancini AD, Chan M, et al. Trajectories of body image and sexuality during the first year following diagnosis of breast cancer and their relationship to 6 years psychosocial outcomes. Breast Cancer Res Treat. Year: 2012. Country: Hong Kong.</p>	<p>Examine the degree of change in corporal image and in the sexuality during the first year after the diagnose, and to differentiate the path of the corporal image and the sexuality after six years of diagnose.</p>	<p>Cohort study with 405 women. Firstly proceeded with an interview face to face until 5 days after the surgery (T1). After, it was realized another interviews with 1, 4 and 8 months after the surgery (T2). After 6 years of treatment, they searched for telephone contact of all the participants of the study (T3).</p>	<p>Ninety per cent completed T1, 82% T2, and 84% completed T3. This study showed deterioration in the corporal image (17%) and in sexuality (30%). Most of the participants did not notice a wane in their self image and the sexuality in relation to pre-diagnose period. A significantly deterioration of corporal image (20%) and the sexuality (13%) during the time. The type of surgery did not influenced in the trajectory of self image and sexuality.</p>	<p>Level 3</p>
<p>E11: : Brédart A, Dolbeault S, Savignoni A, Besancenet C, This P, Giami A, et al. Prevalence and associated factors of sexual problems after early-stage breast cancer treatment: results of a French exploratory survey. Psycho-Oncology. Year: 2011. Country: France.</p>	<p>Evaluate the prevalence and associated factors to sexual activity, sexual problems or sexual satisfaction in Frenchwomen with initial stages of breast cancer.</p>	<p>Exploratory study with women between 18 and 70 years old were randomly selected of a consultation list. From 850 women selected, 378 returned the questionnaires completed. The questionnaires explored the quality of life, the corporal image and the sexuality.</p>	<p>Twenty nine per cent of the interviewers informed they did not have any sexual activity since the moment of the inquiry, among the reasons were: absence of a partner, loss of sexual interest and fatigue. None of the sexual activity or sexual dissatisfaction was: associated to the feeling of emotional separation from the couple or being afraid of the partner to the sexual relation. From the women sexually active (71%), the lowest frequency of sexual activity, the inferior sexual pleasure and the sexual discomfort were associated to the felling of emotional separation from the couple or fear of the partner.</p>	<p>Level 4</p>
<p>E12: Panjari M; Bell RJ; Davis Sir. Sexual function after breast cancer. Journal of Sexual Medicine. Year: 2011. Country: Australia.</p>	<p>Evaluate the impact of the first diagnose of the invasive breast cancer and its treatment, in relation to the symptoms of menopause and corporal image in the sexual function.</p>	<p>Prospective cohort study with 1.684 recruited women through the "Register of Victorian Cancer" in the 12 months from its first invasive breast cancer diagnoses. Only 1.011 women remained till the end of the research.</p>	<p>Seventy per cent of the women who reported problems with the sexual function were in the post-menopause, complaining of vasomotor and they were taking aromatase inhibition. The women with vasomotor presented twice the chances of having problems with sexual function. This association was more extreme for the women in use of aromatase inhibitors, but did not maintain in women who were not using endocrines therapies. Women with problems in the corporal image were 2,5 times more inclined to report problems of sexual function. The women</p>	<p>Level 3</p>

			who used tamoxifen were not inclined anymore having problems in the sexual function.	
<p>E13: Vaidakis D, Panoskaltsis T, Poulakaki N, Kouloura A, Kassanos D, et al. Female sexuality after female cancer treatment: a clinical issue. Eur J Gynaecol Oncol. Year: 2014. Country: Greece.</p>	<p>Register as a feminine cancer treatment can affect the sexuality and the interpersonal relationship of the couple.</p>	<p>Prospective study of 2008 to 2012, with 67 patients with breast cancer (Group A) and 43 with gynecological (Group B). Like group of control, were studied 33 patients with benign breast cancer and 30 patients with benign gynecological injuries (Group 0A and 0B respectively).</p>	<p>There was significant reduction of the “sexual desire”, “sexual excitement” and “orgasm” in both groups of cancer, in contrast with the group control. The scale of “sexual pleasure” was reduced significantly in the group of gynecological cancer, but not in the group with breast cancer. While the punctuation in the dimension “quality in the relationship” increased significantly in both groups of cancer. In all groups, there was a positive relation between the positive quality in the relationship and the sexual function and the pleasure were significantly negative.</p>	<p>Level 3</p>
<p>E14: Aerts L, Christiaens MR, Enzlin P, Neven P, Amant F. Sexual functioning in women after mastectomy versus breast conserving therapy for early-stage breast cancer: a prospective controlled study. The Breast Journal. Year: 2014. Country: Belgian.</p>	<p>Investigate the sexual adjustment of patients with breast cancer, during a period of sequence from a year after the mastectomy (ME) or breast conservative therapy (BCT)</p>	<p>Prospective study with 149 women with breast cancer and a group of 149 controls with healthy women pair wise per age, in which they completed a questionnaire to evaluate many aspects of sexual functioning and psychosocial before the surgery, six months and a year after the surgical treatment.</p>	<p>In comparison with the situation before the surgery, there was women’s predominance of the group BCT who reported problems with sexual excitement after six months of surgery. And significantly more women from the group ME reported problems with sexual desire, excitement and the capacity to reach orgasm, six months and a year after the surgery. While in comparison with healthy controls, there was no significant difference in the sexual functioning in relation to the group BCT. However, more women who were submitted to ME reported problems with sexual desire, excitement, the capacity to reach orgasm and the intensity of orgasm in relation to the controls.</p>	<p>Level 3</p>
<p>E15:: Raggio GA, Butryn ML, Arigo D, Mikorski R, Palmer SC. Prevalence and correlates of sexual morbidity in long-term breast cancer survivors. Psychol Health. Year: 2014. Country: United States.</p>	<p>Evaluate the prevalence and the predictors of problems with the corporal image and sexuality, between the survivors of breast cancer, three or more years after the diagnoses.</p>	<p>Descriptive study with 83 breast cancer survivors, who answered to the questionnaire after seven years of diagnose. Demographic pieces of information and clinics were investigated and, besides activity,</p>	<p>Seventy seven per cent of all participants and 60% of the participants sexually active were classified with sexual dysfunction on basis of IFSF. Between 37 and 51% of the participants filled out the criteria for the feminine sexual dysfunction, on basis of, at least, two domains of SDS-R. The physical satisfaction was the domain that presented the worst normative values. The</p>	<p>Level 4</p>

		sexual problems, corporal image, anguish regarding the body changes.	morbidity sexual predictors were: mastectomy, which was associated to the anguish in relation to the sexual changes and corporal. The weight gain post-treatment, which is related to bigger stress due to the dissatisfaction of the body.	
E16: Quintard B , Constant A , Lakdja F , Labeyrie-Lagardère H . Factors predicting sexual functioning in patients 3 months after surgical procedures for breast cancer: the role of the Sense of Coherence. European Journal of Oncology Nursing. Year: 2014. Country: France.	Evaluate the sexual functioning, three months after the surgical proceedings for breast cancer, and investigate the requisition of a sense of coherence and beauty treatment with predictors of sexual functioning.	Prospective study, randomized, controlled. The physical image and the psychological suffering were evaluated 6 days after the surgery and the sexual functioning was evaluated after 3 months. The sample was composed for 87 women, in which 44 received beauty treatment while in internment.	Half of the sample declared that did not have any sexual activity in the period, and 42% had no interest in sex. In terms of coherence sense, only the perception of which the resources were available to face the disease had a positive influence on the sexual functioning. Beauty treatments also were associated, but the indicator most significantly of the sexual functioning was the younger age.	Level 3
E17: Safarinejad MR , Shafiei N , Safarinejad S . Quality of life and sexual functioning in young women with early-stage breast cancer 1 year after lumpectomy. Psycho-Oncology. Year: 2013. Country: Ira.	Evaluate the sexual functioning, quality of life and self-esteem in younger women with breast cancer recently diagnosed.	Study of control-case with 186 women in stadium I or II of breast cancer and 204 pairs controlled per age (25-45). The controls had no breast cancer and they were not sexually active. The cases should have done mastectomy, at least, a year before and have completed the chemo and/or radiotherapy.	The patients with breast cancer, 57% presented disturbance of lubrication, 3,8% nuisance of sexual satisfaction, 42,5% nuisance of sexual desire and 37,0% nuisance of excitement. Patients with hormone therapy presented themselves more inclined to sexual dysfunctions. Therapies associated with radio/chemotherapy and hormone therapy were associated to a risk around six times higher of lubrication disturbs and the sexual satisfaction. The patients with cancer obtained rates lower for all the studied components, except for pain. The levels of self-esteem did not differ significantly between the two groups.	Level 4
E18: Cavalheiro JA , Bittelbrunn A , Menke CH , Biazús JV , Xavier NL , et al. Sexual function and chemotherapy in postmenopausal women with breast cancer. BMC Women's Health. Year: 2012.	Determine the index of feminine sexual function (IFSF) in two specific moments for patients with breast cancer and powder-menopause: 1) a month after the diagnose, and 2)	Nestled transversal cohort study. The IFSF was applied in 24 women in the powder-menopause, a month after the breast cancer diagnose (powders-	Scores in all domains of the IFSF were significantly lower in the group after the diagnosis than in the controls, mainly in the domains of desire, lubrication and orgasm. There was an important reduction in the scores of the IFSF after a conclusion of a chemotherapy cycle, more than once in all	Level 3

Country: Brazil	just after the second cycle of chemo-therapy, comparing with patients in the powder-menopause without cancer.	diagnoses) and a month after the conclusion of the first cycle of chemo-therapy (powders-chemotherapy group) and compared with 24 women in healthy powders menopause (control group).	domains. With special reduction in the domains of discomfort/pain and sexual satisfaction. Patients with more than 55 years old demonstrated worse results than the younger patients, particularly in the domains of excitement, lubrication and pain. The stratification of the scores of IFSF for stadium of the tumor showed significantly lower scores in patients with more advanced cancer. All participants of the study were sexually active in the start of the study, but after the diagnosis, six (25%) ceased their sexual activities. After chemotherapy, five more patients stopped with their sexual relation.	
E19: Andrzejczak E , Markocka-Mączka K , Lewandowski A . Partner relationships after mastectomy in women not offered breast reconstruction. Year: 2013. Psycho-Oncology. Country: Poland	Evaluate the impact of a mastectomy without breast reconstruction, the corporal image and self-esteem, well as the influence of that surgery in the sexual life of patients with breast cancer.	Descriptive exploratory study with 60 married women or in a heterosexual relationship, that had made a mastectomy without any subsequent reconstructive surgery. A questionnaire about marital happiness to evaluate the problem of the research.	Thirty three per cent of the participants reported that the mastectomy impacted negatively in their marital relationship. In particular, 31% reported deterioration of sexual attraction. 31% feeling of marital uneasiness and 30% considered that the partner felt less sexual attraction. Besides, 80% of the younger group reported they cover their body during the intimate contact, while 58% in the elderly age group reported the same behavior. Deterioration in the sexual satisfaction and in sexual pleasure was indicated from 71% and 77% of women, respectively, the same way, 71% also noticed a decrease in the sexual activity	Level 4
E20: Harirchi I , Montazeri A , Zamani Bidokhti E , Mamishi N , Zendehdel K . Sexual function in breast cancer patients: a prospective study from Iran. Journal of Experimental & Clinical Cancer Research. Year: 2012. Country: Ira.	Sexual function evaluation in Iranian patients with breast cancer who attend the Ira cancer institute.	Prospective study. The sexual function was evaluated through the index of feminine sexual function (IFSF) in two points in time: pretreatment and after the conclusion of the treatment of cancer. Data pre and post-treatment were compared.	From the 277 patients with breast cancer, 231 (83%) were sexual active and the data of 216 were available in pre and post-treatment. Sexual dysfunction pre and post treatment were found in 52% and 84% of the participants, respectively. The domains of desire and lubrication showed a diminution in the scores of the powder-treatment evaluation in comparison with other domains. The obtained results from the analysis of multiple logistic regression indicated	Level 3

			that the younger age, received endocrine therapy and disable sexual dysfunction in the pre-treatment were the most significantly factors for sexual trouble post treatment.	
E21: Webber K , Mok K , Bennett B , Lloyd AR , Friedlander M , et al. If I am in the mood, I enjoy it: an exploration of cancer-related fatigue and sexual functioning in women with breast cancer. The Oncologist. Year: 2011. Country: Australia	Describe the sexual functioning (SF) and its relation with fatigue related to cancer (FRC), nuisance of humor and quality of life (QL) in the first year after the conclusion of adjuvant therapy.	The study of cohort with 218 recruited women after the surgery for the breast cancer treatment, but before starts the adjuvant treatment itself for the initial phase of the breast cancer, and answered to a questionnaire in the start of the study, in the therapy conclusion, and from 6 to 12 months after the treatment.	In the start of the study, 40% reported problems with sexual interest and 60% reported problems with sexual dysfunction. In spite of the elevated prevalence of sexual problems, 70% reported of being “moderately” or “extremely” satisfied with their sexual life. After chemotherapy, the proportion of women who relate sexual problems increased 5% to 10% for most of the domain. The most notable difference was in relation to vaginal lubrication and the excitement. In general, the sexual satisfaction decreased along the time. The presence of nuisance of humor, but not fatigue, it predicted independently worse global sexual satisfaction.	Level I 3

Through studies analysis, we have the women with breast cancer reported that they were sexually active before the diagnoses and after; important parcel ceased ⁽²²⁾, or decreased the frequency of sexual relation ⁽²⁶⁾.

It is verified that the percentage of women who showed sexual dysfunctions increased according to the elapse of the treatment ⁽²³⁾, and there is a deterioration of the corporal image and the sexuality of women with breast cancer, until 6 years after the diagnoses ⁽¹⁷⁾.

Women with breast cancer presented lubrication disturbs, satisfaction, desire and excitement, besides the problems related to orgasm and pain during the sexual act ^(19,33), even though the sexual satisfaction is the domain that presents a higher reduction through the time ⁽²⁴⁾.

The main complaints related to the changes in the sexual well-being are in relation to the alterations of corporal image after the mastectomy, absence of desire, vaginal dryness or painful sex ⁽²⁷⁾, tiredness, confrontation, and feeling less attractive ⁽³⁰⁾, and between those who face such problems, only a small part look for help or external information ⁽²⁷⁾. However, only the perception that has available resources to face the disease provokes a positive influence about the sexual functioning ⁽²¹⁾.

Many sexually active women present less frequency of sexual activity, reduction of pleasure and discomfort associated to the feeling of emotional separation of the couple or the fear of the partner for the sexual relation ⁽³¹⁾.

Through the evaluation of the sexuality with the questionnaire Index of Feminine Sexual Function (IFSF) we observed that most women with breast cancer were classified with sexual dysfunction⁽³²⁾, and the scores most affected were the domain of desire, lubrication and orgasm⁽²²⁾, but the women also related a reduction in the frequency of sexual relation, the energy and interest in sex⁽³⁰⁾.

The sexual desire demonstrates an overthrown in women with breast cancer who are not sexually active, and this rate is predominantly important between older women⁽²⁵⁾, besides that domain, women with more than 55 years old demonstrated worse results than the younger patients, in the domain of excitement, lubrication and pain⁽²²⁾. In the meantime, younger women presented scores worse than in relation to sexuality concerning the factor of attractiveness⁽¹⁴⁾.

As for sexual pleasure, many women with breast cancer do not feel in sexual relation, but it is noticed that women with more years of schooling show better rates during sexual relation⁽²⁵⁾.

In relation to the stage of the tumor, we know that women with advanced breast cancer present worse scores of the IFSF and the significant differences were found in the domains of desire and excitement⁽²²⁾. The alterations to the levels of cortisol are also associated to the alterations in the dimension of sexual excitement⁽¹⁹⁾.

Women with breast cancer in treatment have lower quantity for sexual fantasies; they masturbate with less frequency, present bigger sexual stress, are less satisfied with their sexual life, have more feelings of guilty about their sexual behavior and have low sexual self-esteem⁽²⁸⁾.

We notice that women also report problems related to lubrication, orgasm, desire and pain during the sexual act, but in women who finished the treatment they show problems with lubrication, orgasm and pain during the sexual act. Another study demonstrates that the domains of desire and lubrication are the ones which show higher fall in the score in the evaluation powders-treatment⁽²³⁾.

In relation to sexual dysfunction we know that, the trouble with hypoactive sexual desire, the subjective excitement, the genital excitement, orgasm perturbation and dyspareunia occur most frequently in women in treatment; however the nuisance of sexual aversion and vaginismus are more prevalent in women who completed the treatment⁽²⁸⁾.

After chemotherapy, the proportion of women who reported sexual problems increase significantly⁽²⁴⁾, it is noticed there is an important reduction in the scores of IFSF after the conclusion of a chemotherapy cycle which all the domains are affected, with a special reduction in the domains of discomfort/pain, sexual satisfaction⁽²²⁾, lubrication and excitement⁽²⁴⁾.

The hormone therapy produces higher probability of sexual dysfunction in women with breast cancer, and the therapies associated to radio/chemotherapy and hormone therapy were associated to a risk six times bigger than the disturbance of lubrication and sexual satisfaction⁽³³⁾. The women in use of aromatase inhibitors and with symptoms of vasomotor presented more chance to show problems with sexual function, but the women who use the tamoxifen do not present this propensity⁽¹⁸⁾.

Women who were submitted to surgical treatment for breast cancer and in stable relationship demonstrated better scores than the ones without relationship, in relation to intimacy and sexual attractiveness ⁽¹⁴⁾, even so they refer that the mastectomy impacted negatively in marital relation, mainly in relation to the frequency of activities, attraction, satisfaction and sexual pleasure ⁽³⁴⁾.

The quadrantectomy or mastectomized and submitted to breast reconstruction presented better sexuality than those mastectomized without reconstruction ⁽¹⁴⁻¹⁶⁾. However, independently of the age, the women reported covering their body during the intimate contact after the surgery ⁽³⁴⁾.

The mastectomy creates problems in the domains of sexual desire, excitement and the capacity to reach orgasm, which can last six months to a year after the surgery, but in women who were submitted to breast conservative surgery refer more problems with sexual excitement when compared to a situation before the surgery ⁽²⁰⁾.

CONCLUSION

The present study demonstrated the women with breast cancer can decrease or interrupt their sexual activities during the treatment, and that many of them show sexual dysfunction with alterations in many domains of sexuality.

It is noticed the advanced age and the stadium of the tumor are factors of risk for the appearance of sexual alterations. And women with a better degree of schooling present better index in relation to sexual pleasure.

There is a difference between the domains of affected sexuality and the sexual dysfunction more prevalent when compared to women in treatment and those who completed. These differences also appear when they are compared to various types of treatment, conservative, and surgical. However, independently of which or how many domains are affected, it is noticeable the sexuality of women with breast cancer is changed significantly during and after the treatment.

This study contributed for the basement of clinic practice from the professionals involved with the health of women with breast cancer and for the direction of future clinic researches. It is possible to notice a scarcity of randomized clinical rehearse and the national studies that address the alteration of sexuality in women with breast cancer.

It is noteworthy the fact the nurse must take the technical orientation responsibility and the attendance from those women in relation to the alteration in sexuality which can appear during the treatment of breast cancer developing actions of promotion to health aiming to a better experience of the sexuality in those women.

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