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RESEARCH

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SEXUALITY OF WOMEN SUBMITTED TO MASTECTOMY: IDENTIFICATION OF PHASES AFFECTED IN THE SEXUAL RESPONSE CYCLE

Sexualidade de mulheres submetidas à mastectomia: identificação das fases afetadas no ciclo da resposta sexual

Sexualidad de mujeres submetidas a mastectomía: identificación de las fases afectadas en el ciclo de la respuesta sexuaL

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ABSTRACT

Objective: analyze the sexuality of women with mastectomies, identifying the phases of the cycle of sexual response are affected and which developed dysfunctions. **Method:** using a questionnaire with socioeconomic data and Questionnaire Sexual Quotient - female version. This is a descriptive quantitative nature with mastectomies women in the outpatient clinic of oncological. **Result:** Sexual performance of the studied population presented a heterogeneous, where 50% showed satisfactory sexual standard and 50% some kind of commitment in sexuality, and within this group, married include, under 49 years old and with education level of fundamental level. **Conclusion:** given the above, the general health professionals should be alert to the occurrence of these changes in the life of this woman, before the whole process, from diagnosis, treatment and rehabilitation, to thereby contribute to the comprehensive care.
Descriptors: Mastectomy; sexuality; nursing**.**

RESUMO

Objetivo: analisar a sexualidade das mulheres mastectomizadas, identificando quais as fases do ciclo da resposta sexual são afetadas e quais as disfunções desenvolvidas. **Método:** foi utilizando um questionário com dados socioeconômicos e o Questionário Quociente Sexual - versão feminina, trata-se de uma pesquisa descritiva de cunho quantitativo, com mulheres mastectomizadas em atendimento no ambulatório de Cuidado oncológicos. **Resultado:** o desempenho sexual da população estudada apresentou-se heterogêneo, onde 50% apresentou padrão

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sexual satisfatório e 50% algum tipo de comprometimento na sexualidade, e dentro deste grupo, incluem-se as casadas, com menos de 49 anos e com grau de instrução de nível fundamental. **Conclusão:** diante do exposto, os profissionais de saúde em geral devem estar atentos para a ocorrência dessas modificações na vida dessa mulher, diante do todo o processo, desde diagnóstico, no tratamento e readaptação, para dessa forma contribuir para o cuidado integral.

Descritores: Mastectomia; Sexualidade; Enfermagem.

RESUMÉN

Objetivo: analizar la sexualidad de las mujeres mastectomizadas, la identificación de las fases del ciclo de respuesta sexual están afectadas y las disfunciones desarrollado. **Metodo:** utilizando un cuestionario con datos socioeconómicos y Cuestionario Cociente Sexual - versión femenina. Se trata de un carácter cuantitativo descriptivo con mastectomías mujeres en el ambulatorio del oncologia. **Resultados:** el rendimiento sexual de la población estudiada presentó un grupo heterogéneo, donde el 50% mostró norma sexual satisfactoria y el 50% algún tipo de compromiso en la sexualidad, y dentro de este grupo, se casó incluir, en virtud de 49 años de edad y con un nivel de educación de las nivel fundamental. **Conclusiones:** teniendo en cuenta lo anterior, los profesionales de la salud en general deben estar alerta ante la aparición de estos cambios en la vida de esta mujer, antes de que todo el proceso, desde el diagnóstico, tratamiento y rehabilitación, para contribuir así a la atención integral.

Descriptores: La mastectomía; la sexualidad; enfermeira.

INTRODUCTION

Breast cancer is the most frequent type among women in Brazil and the world, after that of non-melanoma skin, followed by cervical cancer, accounting annually for about 25% of new cases, presenting a national estimate of new cases of 57,960 in 2016 and female deaths of 14,206 in 2013. The breast cancer mortality rate adjusted by the world population shows an upward curve and represents the first cause of cancer death in the Brazilian female population.[1]

Commonly, it occurs from the age of 35, being rare in younger ages, and if diagnosed and treated in a timely manner, the prognosis is relatively good. The diagnosis most often causes a devastating effect on the woman's life, generating as the main factor the fear of dying. Among the risk factors are age, older women, especially from the age of 50, are more likely to develop the disease, aspects of reproductive life, use of oral contraceptives, early or late menopause and hormone replacement therapy, sedentary lifestyle, eating habits, overweight and obesity, alcohol intake and genetic/hereditary factors.[1]

The treatment is performed through a surgical procedure and adjuvant techniques, which include radiotherapy, chemotherapy, and hormone therapy, being aggressive because they have physical and emotional consequences that are unfavorable to the life and health of the woman. Surgery may be of the conservative type, characterized by the removal of a segment of the breast, in other words, lumpectomy or quadrantectomy, associated with post- or pre-operative radiotherapy, or non-conservative type, mastectomy, defined by total breast withdrawal. Such procedures of an aggressive and traumatizing nature to the life and health of the woman provide alterations in their body image, identity, and self-esteem, and can have repercussion in their sexuality.[2-4]

Since the breasts are a part of the female body that has a lot of relevance in the sexual aspect, its withdrawal can present damages that directly implicate in the quality of life of these women, being characterized as much emotional as physical, sometimes reflecting in the sexual performance. Where, since the diagnosis of the disease changes in their life begin to develop, and when initiating treatment of any kind, surgical, radiotherapeutic or chemotherapeutic, these modifications are intensified by adverse effects, where they may experience pictures of vulvovaginal atrophy, dyspareunia, vaginal irritation and dryness, inhibition of desire or arousal, premature menopause, nausea, vomiting, fatigue, alopecia, directly reflecting their sexuality, favoring unsatisfactory sexual functioning.[3]

It is perceived that the sexual act transcends reproduction, with sex as its main objective: Pleasure and any alteration related to its phases can be defined as sexual dysfunction, recognized by the World Health Organization as a public health problem, it is of extreme importance to approach the sexuality of the mastectomized woman, who has experienced traumas not only physical but also psychological, which can have repercussions on her quality of life.[4]

Sexual dysfunction is defined as a disorder resulting from total or partial blockages of the physiological response related to desire, arousal and orgasm characterized by lack of desire, lack of orgasm, excitation dysfunction, and discomfort during sexual intercourse, which impairs one or more phases of the sexual cycle, and may even block it, and may be triggered by adjuvant treatments, such as chemotherapy.[3-5]

According to the Ministry of Health, the diagnosis of sexual dysfunctions is as important as the identification of any other health problem and of great relevance, since they interfere in people's life quality.[6]

Most research on breast cancer is focused on the period of diagnosis and treatment and few publications are devoted to investigating the impact of this on sexuality and sexual life after treatment. Health professionals do not usually discuss sexuality and sexual functioning with women and their partners after treatment for breast cancer. Therefore, generating the need to develop a better understanding about the subject to enable integral attention to women's health.[7,8]

One way to evaluate the sexual activity of the woman is through the questionnaire named Sexual Quotient - Female Version (SQ-F), developed in the Program of Studies in Sexuality (ProSex) of the Institute of Psychiatry from the Clinics Hospital of the Medical School from the *Universidade de São Paulo*.[9]

The study's goal is to analyze the sexual performance pattern of mastectomized women, identifying the possible sexual dysfunctions that occurred after the surgical process, in order to contribute to the improvement of the care provided by nursing professionals.

METHODS

It is a descriptive study with a quantitative approach, which translates into numbers the opinions and information to be classified and analyzed, so the validity and reliability of the scores on the instruments lead to meaningful interpretations of the data, using statistical techniques to demonstrate the results.10 The study was conducted at the University Hospital named *Hospital Universitário Professor Alberto Antunes (HUPAA)*, *Maceió* city, *Alagoas* State, at the Center for High Complexity in Oncology, located on the ground floor, which is a place of teaching/learning of the academic community in the area of health of the *Universidade Federal de Alagoas (UFAL)*.

Participants were 70 women who underwent breast surgery for conservative and non-conservative breast cancer, in an outpatient follow-up by medical appointment. The inclusion criteria were women submitted to surgical treatment for breast cancer of the conservative and non-conservative type, with active and over-active sexual life, obeying the interval from 1 (one) to 5 (five) years after surgery, and the exclusion criteria were those who had personal history of another type of cancer and had recurrence of the disease.

The research instruments were two questionnaires, one socioeconomic approach: age, marital status, income, type of housing, schooling, type of surgery, time of surgery, means of access to information, possession of health insurance and number of and SQ-F, which consists of 10 questions, each of which must be answered on a scale of 0 to 5, and can be interpreted in terms of total score, assessing the overall quality of the woman's sexual performance/satisfaction, and because it encompasses all phases of the sexual response cycle with related domains, is also an instrument that indicates in which aspects of this response the difficulty of each woman is found.[9]

The QF-S result is the higher the score, the better the sexual performance standard, in other words, women with a score from 82 to 100, are classified as good to excellent, from 62 to 80, regular to good, from 42 to 60 points, unfavorable to regular, from 22 to 40 points, bad to unfavorable and 0 to 20 points, null to bad. During validation, the cut-off point was set at 60 as a means of screening for female sexual dysfunction. In order to obtain the result, it is necessary to add the points assigned to each question, subtract 5 points from question 7 and multiply the total by 2 : 2 x (Q 1 + Q 2 + Q 3 + Q 4 + Q 5 + Q 6 + [5-Q 7] + Q 8 + Q 9 + Q 10) (Q = question) [5-Q 7] = question 7 requires that this subtraction be done in advance and that the result should be in the sum of the questions.[9]

The data collection instruments were applied in a single meeting, after approval by the Research Ethics Committee from the UFAL, under the *Certificado de Apresentação para Apreciação Ética (CAAE)* [Certificate of Presentation for Ethical Appreciation] No. 55315816.5.000.5013, explaining first the type and purpose of the study, followed by the invitation for voluntary participation, respecting the ethical aspects related to the research, according to the Resolution No. 466 from December 12th, 2012 of the National Health Council, where two copies of the Informed Consent Form (ICF) were signed.

Data processing and analysis were performed using tables and figures, according to the interpretation of the results, and also by using the program Microsoft Excel version 13.0.

RESULTS AND DISCUSSION

During the research, 70 women were interviewed, who attended the HUPAA/UFAL oncology ambulatory for routine medical consultation from May to June 2016.

The data in **Table 1** show the characterization of the studied population.

Table 1 - Distribution of the considered women according to socioeconomic data (*Maceió* city, *Alagoas* State, 2016).

Variable		n	%
Age	32 to 49 y/o	33	47.13%
	50 to 72 y/o	37	52.87%
Marital status	Single	18	25.71%
	Married	43	61.43%
	Divorced	6	8.57%
	Widow	3	4.29%
Born in the *Alagoas* State		59	89.29%
Born in other State		11	15.71%
Having own home		53	75.71%
Profession	Housewife	28	28.40%
	Freelancer	18	25.75%
	Employed	22	31.43%
	Student	2	2.86%
Shared transportation		53	75.71%
Own transportation		17	24.29%
Schooling	Illiterate	3	4.29%
	Elementary school	38	54.29%
	High school	19	27.14%
	College (higher)	10	14.29%
*Income	Less than 1 MW	12	17.15%
	1 MW	43	61.43%
	More than 2 MWs	15	20.82%
Healthcare plan	Yes	9	12.86%
	No	61	87.14%
Access to information	TV	70	100.00%
Total		70	100.00%

*MW: Minimum Wage.

Source: study data.

The results in **Table 2** shows the affected phases of the sexual response cycle.

Table 2 - Distribution of the considered women according to the phases of the sexual response cycle affected by the surgical treatment (*Maceió* city, *Alagoas* State, 2016).

Affected phase	n	%
Desire	23	32.86%
Excitation	20	28.57%
Orgasm	26	37.14%

Source: study data.

The results in **Table 3** shows the types of sexual dysfunction presented by the considered women.

Table 3 - Distribution of the considered women according to the sexual developed dysfunctions (*Maceió* city, *Alagoas* State, 2016).

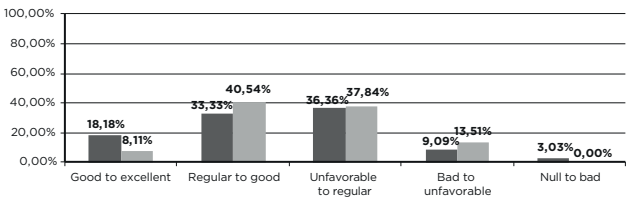
Variable	n	%
Dysfunction in the desire phase	23	32.86%
Dysfunction in excitation phase	20	28.57%
Difficulty in penetration (Vaginismus)	16	22.86%
Dyspareunia	19	27.14%
Orgasmic dysfunction	26	37.14%

Source: study data.

Only 4.29% had no children. And more than half of the interviewees (64.29%) had total mastectomy without reconstruction reaching the result of regulating good, for those submitted to treatment with reconstruction (5.71%), the result was unfavorable to regular, only one of the interviewees performed right total mastectomy and left quadrantectomy (1.43%), presenting well to excellent results and those who underwent quadrantectomy (28.57%) presented a bad to unfavorable result.

Considering the age, the youngest in the age group from 32 to 49 years old had an unfavorable result to regulate, while those older than 50 years old, were classified as regular to good, according to **Figure 1**.

Figure 1- Percentage distribution of age and sexual performance relationship (*Maceió* city, *Alagoas* State, 2016).



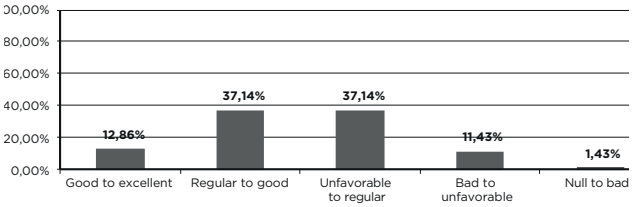
Source: study data.

The study pointed out unfavorable outcome to regulate for married women, bad to unfavorable for divorced women, good to excellent for single women and bad to unfavorable for widows.

With regards to schooling, there was a predominance of the elementary education of 54.29%, which was equivalent to the bad to unfavorable result, for those who did not have a level of education, the result was unfavorable to regular, the best result were for women who had the high school education, which was regular to good, and for those with higher schooling levels, they presented a bad to unfavorable result.

In the present study, 37.14% (n = 26) of the respondents presented an unfavorable outcome to regular, 69.23% being married and within the age group from 32 to 49 years old, 37.14% (n = 26) presented a regular result 12.86% (n = 9) scored good to excellent, 11.43% (n = 8) presented a bad to unfavorable result, and only 1.43% (n = 1) scored null to bad, according to **Figure 2**.

Figure 2 - Distribution of the women according to their sexual performance (Maceió city, Alagoas State, 2016).



Source: study data.

According to the cut-off point for reading the final score, values lower than 60 points characterize the function and/or sexual satisfaction of the woman, indicating some type of sexual dysfunction (ABDO, 2009), thus, 50% of the women present some type of difficulty in sexuality.

Herein, 70 women with an average age of 56 years old were evaluated. The women were within the age group from 32 to 72 years old, then showing the average age indicated in a research performed on this subject, where younger of 30-year-old were already falling ill.[11] This data deserves special attention, since in 2015 the *Instituto Nacional de Câncer (INCA)* [National Cancer Institute] revised the age range for screening mammography for 1 examination every 2 years for women within the age group from 50 to 69 years old.[1]

A study carried out at a referral hospital for the treatment of cancer in the city of *Natal*, State of *Rio Grande do Norte*, pointed out that younger women who underwent surgical treatment for breast cancer had a higher risk of sexual dysfunction when compared to those of older age,[12] as the present research demonstrates, the youngest women in the study between the ages of 32 and 49 years old had a impaired sexual function. The literature justifies that this group is classified with the worst results, either by immaturity, or by the desire for postponed or excluded maternity due to treatment, or even early menopause.[13,3]

Only three women in the sample did not have children, among the younger ones. In research on the subject it was exposed that the absence of motherhood can influence the life of this woman, sometimes reflecting in her sexual performance, since the breast is characterized as one of the first bonds, the formation and strengthening of the bond between mother and child, with the emotional conflict occurring between the real and the symbolic.[11,14]

Most of the interviewees were married and presented issues towards sexuality; many of them reported during the interviews the lack of understanding and support of

the companion in the rehabilitation phase after the surgical trauma. Studies show that the support of the partner greatly influences the experience of the sexuality of the woman who becomes ill with breast cancer in all stages of the disease, needing understanding and dedication to feel safer and deal with the situation.[15] The literature indicates that the existence of a good conjugal relationship and the presence of sexual satisfaction, concluding that when the quality of the conjugal relationship is good, sexual dissatisfaction decreases.[11]

The researches show results directly proportional to the level of education, the lower the schooling the worse the result of the sexual pattern, the data obtained in the research do not corroborate with a study carried out with 40 women, pointing out that 52.5% have low schooling and a higher prevalence of sexual dysfunction.[15] Here, there is a higher score for the high school level, followed by a decrease for the women with higher schooling level that obtained the worse result, and such disagreement was observed by the sample difference, where the highest number was for the elementary schooling level.

Because of the setting up of a public hospital, most women underwent non-conservative surgery, and showed little interest in having reconstruction for remitting negative memories about the treatment. In a study carried out with 36 women in ambulatories of the Plastic Surgery discipline of the Department of Surgery and in the breast cancer ambulatory of the Mastology discipline of the Department of Gynecology from the *Escola Paulista de Medicina* of the *Universidade Federal de São Paulo (EPM-Unifesp)*, showed that mastectomized women submitted to breast reconstruction had better sexual function than those without reconstruction, the result of the present study corroborates partially with the data of the author above, since the sample is not homogeneous, pointing only 4 patients with surgical repair and 45 mastectomized without reconstruction, only one performed right total mastectomy and left quadrantectomy and 20 performed quadrantectomy.[16]

According to the phases of the sexual response cycle 32.86% of the women present difficulty in the desire phase, since low scores for the issues of this domain according to the SQ-F, mean that the sexual desire is not enough for the woman is interested and satisfied with the relationship, another study points out in a sample of 51 mastectomized women that 82.4% did not feel sexual desire nor were they sexually active.[9,17]

Although the phase of desire indicated commitment, more than half of the women were sexually responsive to the foreplay and arousal of the partner, since they obtained high scores for this domain. A study in 2014 with women with breast cancer shows a high prevalence for lubrication problems, where 88.2% of the women had dysfunction at this stage. The author also shows a decrease in desire, activity and sexual pleasure after diagnosis and during treatments, sometimes even after treatments.[17]

Considering sexual dysfunctions, 50% to 64% of women with breast cancer have difficulty in arousal, desire, and lubrication. The research data reveal that women are more affected by orgasmic dysfunction, followed by hypoactive desire, linked to the subsequent phase of the cycle, the excitation, presenting difficulty in lubrication. Related to the relaxation of the vagina, 27.14% stated that they did not feel difficulty during penetration. The pain was found in 27.14%, classified as sometimes and absent in 41.43%. A study done with 11 women in 2011, using the same instrument, demonstrated that the patients' greatest complaint was a lack of lubrication, leading them to feel no desire to have sexual intercourse, thus failing to reach orgasm.[11,18]

In a study carried out with 34 women, where the same instrument was used, where 35.3% were found with a null to a bad pattern, 29.4% were unfavorable to a regular one, and 5.9% achieved a score equivalent to good to good excellent.[3]

CONCLUSIONS

The study demonstrated the influence of surgical treatment on the sexuality of women affected by breast cancer, where greater difficulties were found in sexual life of the youngest participants, married and showing elementary schooling level, which was justified by the cut-off grade below 60 points, according to the SQ-F.

The involvement of the orgasmic phase was the highest percentage, followed by the desire phase. Overall, 35 of the women interviewed had difficulty with sexual intercourse, since they achieved results: null to bad, bad to unfavorable and unfavorable to regular, and 35 achieved a satisfactory result, with a good to excellent and a regular to good classification.

According to some studies, the most frequent sexual alteration is in the desire phase, characterizing hypoactive desire, which compromises the next phase, the excitation, precisely due to the correlation between them.

Hence, the study demonstrates the importance of approaching the sexual issue by health professionals who assist women experiencing the context of breast cancer, contributing to a better perception of the changes that have occurred and the rehabilitation in the life routine, facilitating the care integral, aiming at minimizing the damage imposed by the entire treatment process.

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