

SELF-ESTEEM AND QUALITY OF LIFE IN WOMEN UNDERGOING BREAST CANCER SURGERY  
AUTOESTIMA E QUALIDADE DE VIDA DE MULHERES SUBMETIDAS À CIRURGIA ONCOLÓGICA DE MAMA  
AUTOESTIMA Y CALIDAD DE VIDA DE MUJERES SOMETIDAS A CIRUGÍA POR CÁNCER DE MAMA

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ABSTRACT

**Objective:** to analyze the influence of sociodemographic and clinical variables and self-esteem on the quality of life in women undergoing breast cancer surgery. **Methods:** A cross-sectional study developed in a university hospital. The sample consisted of 37 women in the late postoperative period. An instrument for the sociodemographic and clinical profile of women, the Rosenberg Scale for self-esteem, along with the WHOQOL-BREF for quality of life were used for data collection. The analysis was performed by means of descriptive statistics, Pearson's correlation coefficient, student t-test and Mann-Whitney test. **Results:** there was a moderate, positive correlation between self-esteem and education; a positive and moderate correlation between the social domain and family income, and between the environmental domain and age; a moderate correlation between self-esteem and the environmental domain and a strong correlation between self-esteem and the physical and psychological domains. **Conclusion:** Self-esteem influences the quality of life in women with breast cancer in the late postoperative period. There are given traits that identify those who will struggle to cope with cancer.

**Keywords:** Self Concept; Women's Health; Quality of Life; Nursing; Breast Neoplasms.

RESUMO

**Objetivo:** analisar a influência das variáveis sociodemográficas, clínicas e autoestima na qualidade de vida de mulheres submetidas à cirurgia oncológica de mama. **Métodos:** estudo transversal desenvolvido em um hospital universitário. A amostra compôs-se de 37 mulheres que estavam no período de pós-operatório tardio. Para a coleta de dados utilizou-se instrumento para o perfil sociodemográfico e clínico das mulheres, a Escala de Rosenberg para autoestima e o WHOQOL-bref para a qualidade de vida. A análise foi realizada por estatística descritiva, coeficiente de Pearson, teste T e teste de Mann-Whitney. **Resultados:** observou-se correlação moderada e positiva entre a autoestima e a escolaridade; positiva e moderada entre o domínio social e a renda familiar e entre o ambiental e a idade; moderada entre a autoestima e o domínio ambiental e forte entre a autoestima e os domínios físico e psicológico. **Conclusão:** existe influência da autoestima na qualidade de vida de mulheres com câncer de mama em pós-operatório tardio e há certos traços que permitem identificar aquelas que terão dificuldade para enfrentar o câncer.

**Palavras-chave:** Autoimagem; Saúde da Mulher; Qualidade de Vida; Enfermagem; Neoplasias da Mama.

RESUMEN

El objetivo de este estudio fue analizar la influencia de las variables sociodemográficas, clínicas y autoestima en la calidad de vida de mujeres sometidas a cirugía por cáncer de mama. Se trata de un estudio transversal realizado en un hospital universitario. La muestra estuvo conformada por 37 mujeres en postoperatorio tardío. La recogida de datos para el perfil sociodemográfico y clínico de las mujeres se llevó a cabo por medio de la escala de Rosenberg de autoestima y el instrumento genérico WHOQOL-BREF para la calidad de vida. El análisis se realizó mediante la estadística descriptiva, coeficiente de correlación de Pearson, prueba t y prueba de Mann-Whitney. Los resultados señalan correlación moderada y positiva entre la autoestima y la escolaridad; positiva y moderada entre dominio social y el ingreso familiar y entre el ambiental y la edad; moderada entre la autoestima y el dominio ambiental y fuerte entre la autoestima y los dominios físico y psicológico. Se llega a la conclusión que la autoestima influye en la calidad de vida de las mujeres con cáncer de mama en postoperatorio tardío y que hay ciertos rasgos que permiten identificar a aquellas mujeres que tendrán dificultad para hacer frente a la enfermedad.

**Palabras clave:** Autoimagen; Salud de la Mujer; Calidad de Vida; Enfermería; Neoplasias de la Mama.

## INTRODUCTION

Because the breast is a symbol of physical beauty, fertility, femininity and health at all stages of life, when a diagnosis of breast cancer is confirmed, women undergo psychological and social changes.<sup>1</sup> When a woman is threatened by the loss of this organ, the emotional impact can damage her physical integrity and her psychic image of herself and of her sexuality.<sup>2</sup>

Surgery is needed in virtually all cases, causing changes in self-concept and bodily image.<sup>1</sup> This event is permeated by painful experiences and changes the relationship established by a woman with her body and mind, leading to a threat from an existential perspective that can cause a loss or diminishment in her feeling that she is a woman.<sup>2</sup>

The changes that occur in a woman's life due to breast cancer are accompanied by negative feelings that can change her body image, self-esteem (SE) and social relationships.<sup>3,4</sup>

Self-esteem can be considered the assessment that a person makes of herself, which implies a sense of value, expressed in an attitude of approval/disapproval of oneself.<sup>5</sup> In fact, the way each person feels about herself affects aspects of her experiences.<sup>6</sup> In this sense, a high SE during the diagnosis, treatment and monitoring of breast cancer can positively influence the quality of life (QoL) of a woman, favoring her physical, psychological and emotional well-being.

Regarding QoL, the concept was introduced in the health care sciences in the 1980s, with the aim of evaluating the non-medical impact of chronic disease, and as a criterion for assessing treatment effectiveness.<sup>7</sup> The concept of the World Health Organization's Quality of Life Group defines QoL as "an individual's perception of his/her position in life in the context of the culture and value systems in which he/she lives and in relation to his/her goals, expectations, standards and concerns".<sup>8</sup>

Overall, patients with cancer undergo progressive deterioration as well as functional, physical and psychological limitations that increase over time and lead to a dependence on family members, caregivers and health professionals, affecting the QoL of the patients and their family members.<sup>7</sup> Therefore, oncology has been responsible for research on QoL due to the treatment aggressiveness and changes in the disease profile, which has lost its fatal characteristic and has become chronic.<sup>9</sup>

In this scenario, the QoL of women survivors of breast cancer is worse when compared to healthy women.<sup>10</sup> The type of surgery performed on women diagnosed with breast cancer interferes with QoL<sup>11</sup>, as well as their socioeconomic status, education and marital relationship.<sup>9</sup> In addition, QoL is interfered upon by self-care and SE.<sup>12</sup> However, one year after surgery, with the possible recovery of physical and mental well-being of women, it remains a question whether there are still changes in the QoL and SE of these women.

Thereby, in order to contribute to the construction of knowledge about the possible influence of SE on the QoL of

women undergoing breast cancer surgery, and in view of the assumptions presented, the aim of this study was to analyze the influence of sociodemographic and clinical variables and SE on the QoL of women undergoing breast cancer surgery.

## METHOD

This was a quantitative cross-sectional study developed at the Gynecology and Obstetrics Clinic of the *Hospital das Clínicas*, Federal University of Triângulo Mineiro (GO/HC/UFTM), through an active search for women who had undergone breast cancer surgery from 2007 to 2009. Data were collected in 2011.

We included women older than 18 that had undergone breast cancer surgery in the hospital in the period described as at least one year prior, living in the city of Uberaba-MG, and who agreed to participate. Those women under the age of 18 undergoing chemotherapy and/or radiotherapy at the time of data collection were excluded. A total of 48 women met the inclusion criteria. However, only 37 were interviewed, comprising the sample. Losses were due to death or change of address.

Three instruments were used for data collection. The first had sociodemographic and clinical data of women undergoing surgery, and was developed by the researchers based on scientific literature.

In order to evaluate self-esteem, the Rosenberg scale was administered. It was a self-administered questionnaire with ten questions, and the following options for response: strongly agree, agree, disagree and strongly disagree. Each response had an assigned level of importance, which ranged from one to four; affirmatives 1, 3, 4, 7 and 10 had a decreasing value, and the remaining affirmatives had increasing values. For the SE classification, all items are summed, totaling a single value for the scale. According to the total sum, SE can be classified as satisfactory or high (higher than 31 points); average (21 to 30 points); and, unsatisfactory or low for scores lower than 20 points.

To evaluate QoL, an abbreviated version of The World Health Organization's Quality of Life (WHOQOL-BREF) instrument, Portuguese version, was used. This instrument was chosen due to its worldwide recognized use, which favors a broader discussion. The WHOQOL-BREF consists of four domains: physical, psychological, social relationships, and environment. The answers were obtained by a score ranging from one to five (higher scores denote better QoL).

The women were individually interviewed by the researcher at their homes, after reading and signing the Terms of Free and Informed Consent. The interviews lasted for 20-210 minutes. The interviews included instructions on the importance of regular clinical monitoring, examinations, physical exercise and other relevant instructions related to individual questions and demands.

Data were entered into a database file using Microsoft Excel®. The results of sociodemographic and clinical characteristics were presented on contingency tables. The scores for SE and QoL were calculated using the Statistical Package for the Social Sciences (SPSS), version 11.5. The WHOQOL Group offers a syntax for WHOQOL-BREF.

The Pearson's coefficient was used for bivariate analysis of quantitative variables. The comparison of means for known groups was used for the analysis of quantitative outcomes and categorical variables. To evaluate quantitative and categorical variables, and to check for statistical significance ( $p \leq 0.05$ ) the t-test and Mann-Whitney for independent samples test were used. The p values must be interpreted considering the hypothesis that the sample is a simple random sample from a population with similar characteristics.

The study was approved by the Ethics in Research Committee of the Federal University of Triangulo Mineiro, Protocol number 1629.

## RESULTS

The sociodemographic and clinical profile of the 37 interviewed women was: mean age of 56.11 years; average years of study without repeating the same level of 6.24 years; no stable relationships (54.1%); family monthly average income of three to four minimum wages; working prior to surgery (67.6%); and a mean time after surgery of 31.7 months.

Regarding the QoL, there was no correlation between the physical domain items (pain and discomfort, energy and fatigue, sleep and rest, mobility, activities of daily living, dependence on medicinal substances and work capacity) and age ( $r = 0.22$ ;  $p = 0.18$ ), educational level ( $r = 0.20$ ;  $p = 0.22$ ), family income ( $r = 0.07$ ;  $p = 0.66$ ) or time after surgery ( $r = 0.06$ ;  $p = 0.66$ ).

The questions in the psychological domain address positive feelings – thinking and learning; self-esteem; body image – negative feelings and spirituality. There was not any correlation between this domain and age ( $r = 0.24$ ,  $p = 0.15$ ), level of education ( $r = 0.04$ ,  $p = 0.82$ ), family income ( $r = 0.12$ ;  $p = 0.49$ ) and time after surgery ( $r = -0.20$ ;  $p = 0.24$ ).

The social domain had a moderate positive correlation with family income ( $r = 0.33$ ;  $p = 0.05$ ) and did not have a correlation with the other variables (age, level of education, time after surgery). The questions of this domain are related to personal relationships, social support and sexual activity.

The environmental domain only had a moderate correlation with age ( $r = 0.39$ ;  $p = 0.02$ ). This domain has eight questions that include: physical security, home environment, financial resources, health care, information, recreation and leisure, physical environment, and transport.

Table 1 shows the means in the physical domain scores according to the qualitative variables. The following grouping was used: stable relationship: married women and those who used to live with a steady partner; and the others (single, widowed, divorced and separated) were grouped as not having a stable relationship. The side where the surgery occurred showed a statistically significant difference.

Concerning the psychological domain, Table 2 shows that women who had undergone a mastectomy had higher scores than those who had conservative surgery.

The profile in the psychological domain also corresponds to that found in the social domain (Table 3). Again, breast reconstruction contributes to an increase in the mean QoL; the difference found in this domain was the largest among them all (18.82 points). Nevertheless, having or not having a stable relationship was the only variable with a statistically significant difference.

Table 1 - Assessment of the physical domain according to qualitative variables

Qualitative variables		Mean	Standard deviation	Minimum	Maximum	P
Type of surgery	Conservative	58.21	18.14	21.43	82.14	0.90
	Radical	57.56	14.77	28.57	75.00	
Surgery occurred on the dominant side	Yes	50.42	17.44	21.43	82.14	0.009
	No	64.29	12.80	28.57	82.14	
Breast reconstruction	Yes	66.96	9.39	53.57	75.00	0.25
	No	56.82	16.88	21.43	82.14	
Working prior surgery	Yes	54.86	17.03	21.43	82.14	0.10
	No	64.29	13.71	39.29	82.14	
Stable relationship	Yes	58.61	15.57	21.43	82.14	0.82
	No	57.32	17.55	28.57	82.14	

Table 2 - Evaluation of the psychological domain according to qualitative variables

Qualitative variables		Mean	Standard deviation	Minimum	Maximum	P
Type of surgery	Conservative	58.75	13.71	41.67	83.33	0.60
	Radical	61.76	20.74	16.67	95.83	
Surgery occurred on the dominant side	Yes	56.37	16.74	16.67	95.83	0.22
	No	63.33	17.18	29.17	87.50	
Breast reconstruction	Yes	71.87	11.97	54.17	79.17	0.10*
	No	58.71	17.22	16.67	95.83	
Working prior surgery	Yes	58.33	18.63	16.67	95.83	0.36
	No	63.89	13.33	41.67	83.33	
Stable relationship	Yes	58.09	13.62	41.67	87.50	0.51
	No	61.87	19.79	16.67	95.83	

\* Mann-Whitney test.

Table 3 - Assessment of the social domain according to qualitative variables

Qualitative variables		Mean	Standard deviation	Minimum	Maximum	P
Type of surgery	Conservative	60.42	21.61	16.67	91.67	0.52
	Radical	64.71	18.52	33.33	91.67	
Surgery occurred on the dominant side	Yes	59.80	20.46	25.00	91.67	0.48
	No	64.58	20.03	16.67	91.67	
Breast reconstruction	Yes	79.17	4.81	75.00	83.33	0.07*
	No	60.35	20.31	16.67	91.67	
Working prior surgery	Yes	60.00	21.92	16.67	91.67	0.30
	No	67.36	15.27	41.67	91.67	
Stable relationship	Yes	54.41	21.87	16.67	83.33	0.02
	No	69.17	16.02	41.67	91.67	

\* Mann-Whitney test.

In the environmental domain (Table 4), a profile of breast reconstruction, status of working prior to surgery, and stable relationship was similar to the profiles found in the psycholog-

ical and social domains. Regarding breast reconstruction, the difference in having or not having this procedure was statistically significant in the environmental domain.

Table 4 - Assessment of the environmental domain according to qualitative variables

Qualitative variables		Mean	Standard deviation	Minimum	Maximum	P
Type of surgery	Conservative	51.41	14.46	15.63	71.88	0.15*
	Radical	58.64	11.82	31.25	78.13	
Surgery occurred on the dominant side	Yes	55.33	13.25	21.88	71.88	0.81
	No	54.22	14.28	15.63	78.13	
Breast reconstruction	Yes	68.75	8.07	59.38	78.13	0.02*
	No	53.03	13.25	15.63	71.88	
Working prior surgery	Yes	52.62	15.49	15.63	78.13	0.09
	No	59.11	7.35	46.88	71.88	
Stable relationship	Yes	50.92	15.30	15.63	68.75	0.20*
	No	57.97	11.45	31.25	78.13	

\* Mann-Whitney test.

After applying the Pearson's correlation test for QoL and SE, no correlation was observed between SE and the social domain ( $r = 0.20$ ,  $p = 0.225$ ); a moderate correlation was observed between SE and the environmental domain ( $r = 0.42$ ,  $p = 0.01$ ); and a strong correlation was observed between SE and the physical ( $r = 0.56$ ,  $p = 0.00$ ) and psychological ( $r = 0.54$ ,  $p = 0.001$ ) domains.

## DISCUSSION

Individual priorities vary according to age and time of life. Older women have a better QoL because they assign a relative value to the breasts and femininity. In addition, there are age-related factors that positively or negatively influence the QoL of women with mastectomies, such as the maturity of older patients and expectations of having children, having to postpone motherhood plans to undergo the proposed treatments, in addition to being exposed to the risk of menopause-related chemotherapy, specifically.<sup>9</sup>

In our study, perhaps because of the mean age at which women already have a defined number of children and are usually in menopause, there was no relationship between the psychological domain and age. This result differs from that found between the environmental domain and age, because there is a belief that older women feel more secure, have more resilience and better resolved subjective issues.<sup>13</sup>

As for education, our results are different from those of other studies.<sup>9,13</sup> In those studies, the higher the education level, the higher the quality of life. In addition, there is a belief that more years of education ensure access to information and that these people would take better care of their health. Health care, as a social practice, is directly influenced by cultural standards and social classes, a complex, united and tripartite (health, disease and care) phenomenon. However, the woman-mother always appears as the primary family caregiver,<sup>14</sup> thereby evidencing the importance of the woman.

With regard to family income, according to the literature, women with a better social status have a faster recovery and cope better with treatment complications than those with a low social status. They may have more opportunities to get social and psychological support, and have better housing conditions.<sup>9,13</sup> However, this fact was also not observed in our results.

Family income was also directly related to the social domain.<sup>13</sup> Women with a better economic condition are assumed to visit other spaces beyond their houses, live with others and discuss various subjects. A woman diagnosed with breast cancer prefers not to talk about the disease, wishing people would address other issues,<sup>15</sup> which demonstrates the importance of social interaction and leisure opportunities.

Still concerning the social domain, yet transcending the economic condition, is the importance of family, social and reli-

gious support for women with breast cancer as a relevant contribution to coping with the disease at all stages.<sup>16</sup>

Care for the ipsilateral limb should be maintained throughout life, as lymphedema, the most common postoperative complication, can occur at any time. It leads to aesthetic and functional damage of the affected limb and represents a physical and emotional discomfort by causing symptoms of depression and anxiety, as well as memories of the cancer itself. Therefore, lymphedema directly affects QoL by changing women's lifestyle and routine, such as changes in the clothing style, difficulties in carrying out everyday tasks, and discomfort in sexual life, which leads to loss of interest in social and personal activities.<sup>17</sup>

In order to prevent lymphedema, one should avoid heavy lifting, sleeping on the operated arm, refrain from performing repetitive movements, and avoid high temperatures and changes in atmospheric pressure. These restrictions limit the performance of certain activities at home and/or at work, leading to the woman feeling incapacitated, which can also negatively interfere with QoL.<sup>10</sup> The less the changes in activities of daily living, the less the impact on QoL.

Women that underwent mastectomy and had high scores in the psychological domain are supposedly related to a lower risk of disease recurrence, which reflects positively on the psychological state.<sup>18</sup> In addition, breast reconstruction also acts positively on sexual identification of women, self-image, SE and QoL.<sup>9,11,12</sup> Other factors are assumed to be involved, such as resilience, social network and changes brought about by the diagnosis and its treatment.

The amputation of an organ such as the breast, which is permeated by important meanings for the physical and psychological aspects of a woman, harms QoL, sexual and recreative satisfaction, body image and sports practice.<sup>9</sup> There were reports during the interviews in our study of women that had a divorce after cancer surgery, never looked at the mirror again, did not show themselves naked to their partners, decreased the frequency of sexual activity, distanced themselves from friends and family, and even did not go out due to fear and shame of people being aware of their mutilation. Many tried to minimize this impact through the use of external prostheses adjusted to the bra, usually made by themselves; however, their SE was not raised according to the results obtained.

The affective and/or sexual partner is of great importance for the psychological and sexual recovery. His emotional and sincere support eases coping with the conflict of acceptance of the surgical procedure, as well as the continuity of the union.<sup>19</sup>

The partner of a woman with breast cancer also has mixed feelings, such as fear, sadness, hope, faith and joy, according to each step experienced. Therefore, support strategies must be created for him in an attempt to maintain a solid family base<sup>20</sup> which will reflect directly on the SE and QoL of these women.

Regarding the type of surgery, the greatest impact on QoL occurred in the environmental domain. The QoL of women

that underwent mastectomy tends to be worse than those that underwent conservative surgery, due to a greater feeling of mutilation and loss of femininity.

Unlike observations in the other domains, women undergoing surgery on the dominant side had high QoL scores. Based on this result, the limitations resulting from the surgery do not have much impact on issues related to physical security, home environment, financial resources, health care, information, recreation and leisure, physical environment or transportation.

Considering that SE can be noticed in verbal reports, behaviors and attitudes, seclusion at home, the reduction of health care and complaints relating to the household environment can be indicative of a low SE. Thus, a low SE can influence not only the woman's perception about herself but also about the things around her.

The disturbances that most often affect women with breast cancer are anxiety, shame, insomnia, feelings of uselessness and personal worthlessness.<sup>1</sup> Thus, in addition to affecting SE, they are reflected in sleep/rest, energy for performing daily activities, and ability to work.

A woman's personality will determine her resilience. Self-confidence, emotional stability, positive affect, self-determination, competence, and self-esteem affect psychological well-being at any stage of life.<sup>1</sup> In addition, a good self-image encourages SE. Thus, women with positive feelings about themselves tend to have higher scores in the psychological domain.

## CONCLUSION

Considering the few studies published on the influence of SE on QoL in women with breast cancer in the late postoperative period, this paper is believed to add, support, identify the affects and/or overcome the needs of these women. In practice, this identification can result in the implementation of nursing interventions, such as the development of groups that seek to maintain high self-esteem and offer support to those with needs still to be met, since the physical and psychosocial rehabilitation does not end with the end surgical procedures.

Thus, we concluded that, although these women had breast cancer surgery at least one year before the interview, we could realize that the impact on their QoL was still evident. The performance of breast reconstruction had a significant positive influence on the woman's ability to perform her activities of daily living and on leisure opportunities; physical and environmental domains, respectively. Also, income influences the social domain, age influences the physical domain, the side of the surgery influences the physical domain, and whether they have stable relationships influences the psychological domain. Finally, an adequate SE is strongly correlated with psychological and physical issues, which reaffirms the importance of positive feeling about oneself in different life experiences.

This study had limitations regarding the lack of inclusion of associated comorbidities in the analysis and a small sample size. We suggest that further studies should be performed addressing these issues, since the results of this study differ from others regarding SE and QoL.

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