

Repercussions of Therapy for Breast Cancer on Woman's Quality of Life

ORIGINAL

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Abstract

Objective: Despite the great advances, the treatment of breast cancer is still aggressive and has implications that affect the quality of life of women, so we intend to evaluate the treatment repercussions for breast cancer in the quality of life of women.

Methods: This is a cross-sectional study, performed in a philanthropic hospital with a sample of 170 women. A characterization instrument of the subject and the Functional Assessment of Cancer Therapy-Breast was used to evaluate the quality of life. The Shapiro-Wilk, Kruskal Wallis H, Linear Correlation of Pearson and Spearman tests were used for analysis. The error margin was 5% and confidence interval 95%.

Results: Among the therapies, surgery was the one that most affected the quality of life of women, and the Functional Domain, the more committed.

Conclusion: The assistance to woman's health should be of excellence and focus on the best quality of life of women.

Introduction

Breast cancer is a major public health problem due to its high incidence [1]. This fact is a reflection of changes in reproductive patterns and lifestyle [2]. The high mortality could be reduced if the provision of screening, diagnosis, and treatment access were not unequal [3]. The breast cancer has several repercussions that affect the quality of woman's lives in many ways [4, 5, 6].

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Keywords

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Despite major advances, therapy is still aggressive and has many negative effects on the quality of life of women, and commits their physical and emotional functions, body image, its prospects [7, 8, 9], their everyday life and social activities [9], significantly affecting the very quality of life [10, 11, 12]. The local therapy treats the tumor, is performed through adjuvant surgery, is performed after the patient is subjected (chemotherapy, hormonal therapy or targeted therapy) to prevent the recurrence of the disease and neoadjuvant is performed to allow a less invasive surgery, such as radiotherapy and chemotherapy [12].

The health care strategies should be directed to the real needs of women who suffer the consequences of the treatment of breast cancer. The study brings contributions recognizing the impact of treatment for breast cancer, the impact of the disease and its treatment of woman's quality of life. Thus, it is believed that to meet the real needs of women, a strategic planning of health care is indispensable. The study aimed to evaluate the therapeutic effects of breast cancer on quality of life of women.

Methods

This is a quantitative, cross-sectional study, performed in the oncology sector of a philanthropic institution of reference, in the North and Northeast Regions, for cancer treatment.

The population consisted of women diagnosed with breast cancer who were in chemotherapy treatment, whether or not submitted to any of these procedures: total or partial mastectomy, unilateral or bilateral; axillary dissection or not; and breast reconstruction or not. The procedures could have been performed on this or other health institution, and the woman could have developed or not metastasis. The patient should also have completed at least the first cycle of chemotherapy and be in mental and cognitive conditions to participate in the study.

The sample size calculation was performed by non-probability sampling techniques by quotas, based on the number of women with breast cancer treated at the hospital between May and October 2014, with 1,944 by the Unified Health System and 125 by insurance or private. 5% margin of error and 95% confidence interval were adopted. The calculation resulted in a sample of 170 women, according to the calculation associated with finite populations. Data collection was carried out between April and June 2015.

A subject characterization form with semi-structured questions was developed by the researchers, consisting of social-economic, demographic data and woman's clinical. After a pilot testing performed with five women and discreet setting, the form was evaluated as reliable and appropriate. The information related to diagnosis, prognosis and treatment were supplemented by medical record data.

To evaluate the quality of life, we used the Functional Assessment of Cancer Therapy-Breast (FACT-B), in its 4 version. It is an instrument that is part of the collection of quality of life questionnaires in chronic diseases, the Functional Assessment of Chronic Illness Therapy (FACT), and was chosen for specifically evaluating the quality of life of individuals with breast cancer. With the regrouping of the subscales of FACT-B, it was possible to identify the scores: Functional Assessment of Cancer Therapy - General (FACT-G) and Trial Outcome Index (TOI).

Divided into five domains, it evaluates different dimensions of well-being: physical, social and familiar, emotional, functional and breast cancer subscale. The FACT-G consisted of 27 questions divided into four main domains (physical, social and familiar, emotional and functional) and used to assess the quality of life in general of any cancer. The TOI is identified through a combination of physical well-being subscales, functional well-being, and breast cancer subscale. Composed by 23 items, it allows checking the influence of breast cancer in the physical and functional aspects of patients.

Interviews were conducted in the individual box of each woman while waiting for the handling and administration of chemotherapy. This approach ensured good adherence, as women, though anxious due to the procedure, were in a comfortable and private place, and proved receptive to the asked questions.

The Shapiro-Wilk test was used to verify the normality of the data, then, to perform the appropriate statistical analysis. For the groups classification with more than three classes, the nonparametric Kruskal-Wallis H test was applied. For the verification of the correlation between the scores of FACT-B questionnaire, the Pearson correlation was applied, and the domains, the Spearman correlation coefficient was applied (used when the data violates parametric assumptions).

The scores of TOI, FACT-G and FACT-B were calculated as guidance to the administration of Scoring Guidelines (FACT-B, FACT-G, and TOI), in its 4 version. According to this score, the higher the score of the sum of the subscales, the better the quality of life. The results were tabulated in a spreadsheet Mi-

crosoft Office Excel and analyzed on The R Project program for Statistical Computing, version 3.2.0.

The development of the study met national and international standards of ethics in research, involving human subjects.

Results

The sample consisted of 170 women with breast cancer, who were under chemotherapy treatment. Of these, 84 (45.8%) were aged between 20 and 49 years old; 92 (54.1%) were married; 121 (71.2%) Catholic; 45 (26.5%) of the housewife; 80 (47.6%) had a monthly income between one and two minimum wages; 59 (34.7%) had incomplete Primary Education; 159 (93.5%) were from the State of *Piauí* cities; and 136 (80%) lived in urban areas.

Table 1 refers to the treatment that women with breast cancer performed, as the type of surgery, time, and purpose of treatment.

Concerning the FACT-B median domains questionnaire, relating to treatment of breast cancer, 106 (62.4%) women in the study had some surgery

Table 1. Median domains relation of the Functional Assessment of Cancer Therapy-Breast (FACT-B) questionnaire for the treatment of breast cancer in women.

Variables	FACT-B Domains				
	Physical	Social	Emotional	Functional	Cancer subscale
Surgery type					
Non-conservative	21.00	19.00	19.00	14.00	26.50
Conservative	21.50	19.00	20.00	17.00	26.00
Unilateral	22.00	19.00	20.00	15.00	26.00
Bilateral	20.00	16.00	21.00	19.00	24.00
With reconstruction	24.00	21.00	20.00	16.00	27.00
Without reconstruction	21.00	19.00	20.00	15.00	26.00
Surgery time, year					
<1	20.00	19.50	19.00	15.00	25.00
1	22.50	19.00	20.00	16.50	27.00
>1	20.00	19.00	19.00	15.00	25.00
Adjuvant treatment					
Yes	20.00	18.00	19.00	15.50	27.50
No	21.00	19.00	20.00	15.00	26.00

Variables	FACT-B Domains				
	Physical	Social	Emotional	Functional	Cancer subscale
Neoadjuvant treatment					
Yes	21.00	19.00	20.00	16.00	26.00
No	20.50	18.50	19.00	14.50	27.00
Palliative treatment					
Yes	17.00	18.00	20.00	14.00	25.00
No	21.00	19.00	20.00	16.00	27.00
Maintenance					
Yes	25.00	19.00	20.00	16.00	29.00
No	20.00	19.00	20.00	15.00	26.00

in the breast, and in 51 (47.7%), it was the non-conservative surgery; in 102 (95.3%), the unilateral; and in 86 (80.4%), without breast reconstruction; those who performed the surgery, 44 (42.7%) did it 1 years ago. About the aim of the treatment, 64 (37.6%) were in adjuvant therapy, 52 (30.6%) neoadjuvant, 37 (21.8%), palliative and 17 (10%) on maintenance therapy.

Table 2 contains the distribution of means, and standard deviation, and the range and scores of FACT-B.

Regarding the quality of life of women with breast cancer, the non-conservative surgery has brought more negative impact on functional domains (mean 14.0 points), social (average of 19.00 points) and emotional (average 19.00 points). The unilateral surgery brought more commitment in the functional domain (mean of 15.00 points), followed by social (average of 19 points). The non-breast reconstruction was more committed in functional domains (averaging 15.0 points) and social (mean score of 19). The time less than 1 year of surgery has more committed the functional domain (mean 15.0 points) and emotional (averaging 19.0 points). The best quality of life was observed among women who underwent breast conservative surgery, undergoing breast reconstruction, with 1 year of surgery time and that were in maintenance therapy.

Table 2. Distribution of means, standard deviation and range of domains and scores of the Functional Assessment of Cancer Therapy-Breast (FACT-B) questionnaire.

	Mean ± standard deviation	Amplitude
Domains		
Physical	19.91±5.39	6-28
Social	18.40±4.90	5-28
Emotional	18.83±3.97	6-24
Functional	15.42±5.15	2-28
Cancer subscale	26.35±5.41	10-38
Scores		
TOI	61.68±12.76	27-89
FACT-G	72.56±14.20	32-106
FACT-B	98.91±18.07	42-139

TOI: Trial Outcome Index;
FACT-G: Functional Assessment of Cancer Therapy. General.

By applying the linear correlation of Pearson, it was found a strong significant relationship between all the FACT-B scores. The quality of life was more affected mainly in the physical and functional domains. The Spearman correlation coefficient (rho) showed a strong correlation between all domains of quality of life ($p < 0.001$), and the Pearson correlation coefficients showed a highly significant relationship between all the FACT-B scores.

Discussion

This study allowed to evaluate the therapy's effects on breast cancer in the quality of life of women with the use of an instrument, and puts the importance of professionals that have the capacity and ability to use these resources to evaluate the quality of life, that seek to identify individual needs and develop effective and efficient health care strategies. Studies have shown that there is a need to realize the scenario of care with the woman, which is dynamic and influenced by different paradigms, which alter thoughts, knowledge and attitudes [6, 9].

To evaluate the quality of life related to therapy, it was noted that surgery was the one that brought greater repercussions for woman's lives, and not conservative surgery and not breast reconstruction were the most committed to the quality of life. The found results are consistent with the results of other research that also showed that mastectomy and non-breast reconstruction, portray the lowest scores for quality of life [4, 8, 10]. In fact, breast reconstruction has been incorporated into a better concept of quality of life, integrity and preservation of self-image [12, 13]. Since the best quality of life has been observed among women, who underwent more conservative surgery, as quadrantectomy [4], which matches the result found in this research.

It can be perceived that the greater the impairment of cancer, more aggressive treatment is, and the greater the impact on the lives of women, who have difficulties in carrying out the activities of daily life and take care of the home, dressing, grooming, caring for the home, shopping, use public transport [5, 8]. In this sense, the rehabilitation activity and care for the affected limb are important, and that help not only the functionality but also the best quality of life [8]. Health professionals, especially nurses, should be able to identify the needs that are intrinsic to each and to seek strategies to improve woman's quality of life, that have their quality of life compromised in several domains.

One aspect little discussed in the performed studies is the influence of time of surgery on woman's quality of life. In the performed study, women with surgery time of less than 1 year, had a more impaired quality of life, especially in the functional aspect. In performed studies, it has been perceived that breast cancer brings several implications in the woman's life, who suffers from the feeling of mutilation and loss, and still suffer with low self-esteem and changes in their body image [8, 9, 10]. The more compromised quality of life among women with shorter surgery time must be probably by the fact that in the early days of surgery, the woman suffers from the pain of surgery and the loss of a part of their body. But in the long term, the woman usually has a good quality of life, in general [9]. Some authors have stated that regardless of the time of surgery, in some domains, women suffer due to the effects of the disease and its treatment [11]. While others, counter that the quality of life can improve as the side effects of therapy are controlled or avoided, and gives importance to knowledge and adherence about complementary therapies, which have helped in coping and treatment of the disease [11].

In the performed study, the domains of more compromised quality of life were the functional and social, however, in other developed research, the quality of life was most affected in the physical [12], social and sexual aspects [13]. The best quality of life was detected in the emotional domain. It is noticed that the studies have shown conflicting results [10, 11]. In this situation, reaffirms the need and relevance of assessing the individual thinking in one and not the collectivity because the being must be evaluated in the context in which is inserted, taking into account their needs, the variables involved in their lives and their daily lives. In performed studies, it is perceived that the best quality of life was observed among those who participated in woman's support groups [12, 13, 14] and became essential for coping the disease and treatment [13]. This may have contributed to the result of this study

since the women in this sample participated in the Chest Friends support group, coordinated by the psychology service of the institution. In this group, fortnightly meetings are held, developing various activities to help women in the coping process of the disease.

The affirmation that women have their quality of life compromised in many ways is sustainable, what happens from diagnosis and extends during therapy, and extends the periods of coping, recovery and survival. Breast cancer and its treatment may cause less negative impact on woman's quality of life if some health care strategies were most effective, such as early diagnosis, treatment in a timely manner, greater accessibility to physiotherapy service, breast reconstruction and external prosthesis as well as the implantation/implementation of support groups and adherence to complementary and integrative practices.

Conclusion

The treatment of breast cancer brought negative impacts on woman's quality of life in many aspects and the functional domain with greater commitment. Given the results obtained in the research, it was noticed the need of professionals to insert into the healthcare practice, complementary and integrative therapies, which should be supported and encouraged by the institutions and health professionals. Although the quality of life is a widely discussed theme, it is noted that the use of methods/strategies in the routine to improve it, is still limited.

Faced with the aforementioned discussions, we note the need to deepen the analysis and evaluate the actions and services for the health-disease-care process of women diagnosed with breast cancer. From the professionals perspective, this overwhelming disease requires a specific and humanized attention to the vulnerable patients by fear of the unknown, death and loneliness. Prejudice, stigma,

lack of professional training, breaks bonds of trust and distance the woman with cancer from health services.

Given so many challenges at the end of therapy, the woman is still terrified by the social isolation from friends and family. From the perspective of society, whether it be the will to fight the disease, whether the panic of relapse, fear should be considered as legitimate when courage. Finally, it emphasizes the need for greater integration between the various segments of the health services, professionals, family to improve the quality of life of women with breast cancer, to become effective instruments to promote the health by ensuring self-esteem from diagnosis to recovery after illness.

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