International Medical Society
http://imedicalsociety.org

International Archives of Medicine
Section: Psychiatry & Mental Health
ISSN: 1755-7682

2016
Vol. 9 No. 184
doi: 10.3823/2055

Quality of Life and Depressive Signs and Symptoms of the Elderly Women with Breast Cancer

ORIGINAL

Nathacha Adriela Lima de Carvalho[1], Maria do Livramento Fortes Figueiredo[2], Chrystiany Plácido de Brito Vieira[3], Jaqueline Carvalho e Silva Sales[3], Maria Helena Barros Araújo Luz[2], Lídya Tolstenko Nogueira[2], Anderson Zampier Ulbrich[4], Fernando José Guedes da Silva Júnior[3], Claudete Ferreira de Souza Monteiro[2]

Abstract

Background: Breast cancer is an event that affects woman physically and psychologically. The treatment can cause distress for women and contribute for the appearance of depression. Objective: To investigate the association of depressive signs and symptoms with the quality of life of elderly women with breast cancer.

Method: An analytical, cross-sectional study with 52 elderly. There were applied home interviews using tool for socio-demographic data and family support, Geriatric Depression Scale questionnaire and World Health Organization Quality of Life-Bref. For analysis, there was applied the chi-square test for comparison and association of binary logistic regression analysis.

Results: 30.8% of participants had depressive signs and symptoms. The areas most committed to the participants were the Physical and Environmental. There was no association between the domains and the presence of depressive symptoms.

Conclusion: Regarding the perceptions of elderly women with breast cancer about quality of life and satisfaction with health. There were observed significant differences between the groups with and without depressive symptoms for good and satisfied perceptions

Keywords
Nursing; Old People; Breast Neoplasms; Quality of Life; Depression.

1 Nurse. Master in Nursing. Nursing teacher at Associação de Ensino Superior do Piauí.
2 Nurse. PhD Professor in Nursing, Post-Graduate Program in Nursing, Federal University of Piauí.
3 Nurse. Doctoral student at the Nursing Graduation Program of the UFPI. Nursing teacher at UFPI.
4 Physical educator. Phd Professor of Medicine Department of the Federal University of Paraná.

Contact information:

Fernando José Guedes da Silva Júnior.

Address: Universidade Federal do Piauí Campus Universitário Ministro Petrônio Portela. Bairro: Ininga. Teresina, PI, Brazil. ZIP code: 64049-550

fernandoguedesjr@gmail.com

Introduction

Breast cancer is the second cause of death from cancer in developed countries, behind only lung cancer and the leading cause of death by cancer in developing countries. In Brazil, in 2014, it is believed that occurred 57.120 new cases of breast cancer, with estimated risk of 56.09 cases every 100.000 women [1].

The increase of incidence of breast cancer associated with the scarcity of early detection programs and the difficulty of access to specialized treatment results in disproportionate fatality rate observed in developing countries [2]. Therefore, the concern with the introduction of measures that may reduce mortality and the cost of treatment of the disease seems to be suitable to the Brazilian reality [3].

The age remains one of the most important risk factors and incidence rates increase quickly until 50 years old. In Brazil, about four out of every five cases occur after this age [1]. So, as the above 60 years of age is the main risk factor, raised in the epidemiological statistics this kind of neoplasia, the problem of breast cancer in women over the age of 60 years old is relevant [4], considering the accelerated aging process of the elderly population in Brazil that represents approximately 12% of the total population [5].

Breast cancer is an event that affects the woman physically and psychologically. The treatment can cause fatigue, nausea, pain, in addition to changes in physical appearance, which affects the self-image, and may reduce opportunities for social interactions and limit the ability of these women to continue their normal lifestyle, leading to deficits in the quality of life [6]. So, depression is the most common psychiatric disorder in patients with cancer, due to issues related to the severity of the disease and the side effects of the treatments, being related to greater morbidity and mortality, the increase of costs of assistance and negative impact on quality of life [3]. Moreover, there are gaps in scientific production on this theme lacking, therefore the production of new knowledge related to interface between breast cancer and symptoms depressives [7].

Given the above, the objective was to investigate the association between depressive symptoms and signs with the quality of life of elderly women with breast cancer.

Method

This is an analytical study of cross-sectional delineation, held from August to November 2014, the elderly home with breast cancer, registered in 2013 in the only referral hospital in Oncology from the city of Teresina-PI, Brazil.

In 2013 there were 76 elderly women registered and from the survey of the addresses by means of charts, contact with these women for scheduling home visits. Those who participated in the study met the inclusion criteria: age greater than or equal to 60 years old, with a diagnosis of breast cancer (ICD 10, C 50), who resided in Teresina-PI, Brazil, without cognitive limitations on the Mini Mental State examination (MMSE) and to respond to all the issues of data collection instruments. Of the 76 elderly registered five died three refused to participate in the study and six were not found. Seven were excluded if they were not in Teresina in the data collection period and that three had cognitive limitations on the MMSE.

For MMSE, using the cut-off points [8], 13 were illiterate, 18 to low (1 to 4 years of study incomplete) and average schooling (4 to 8 years of study incomplete) and 26 for high schooling (8 or more years of study). For the elderly be selected, so the response scores should be above 13, 18 or 26, as the level of schooling.

The evaluations were carried out in the form of private interviews, in residence and as the elderly availability. The application of instruments had an average duration of 30 minutes for each participant.

The form was applied for sociodemographic data and supportive family who owned the following va-

riables: age, marital status, education, work, and family income, number of people who live at home and have an own caregiver.

As a result, the Geriatric Depression Scale (EDG-15) [9], it has 15 affirmative and negative questions that check for signs and symptoms of depression, in which the score between 0 and 5 is considered normal, 6 to 10 indicates mild to moderate depression and 11 to 15 severe depression.

Finally, the questionnaire was applied World Health Organization Quality of Life-Bref (WHOQOL-Bref), abridged version in Portuguese of the WHOQOL-100, also validated in Brazil. The instrument consists of 26 questions, having two initial questions about general life quality and the remaining answers follow a five-point Likert scale (the higher the score the better the quality of life). The instrument has as outcome four domains: physical (mobility, energy, fatigue and work capacity); psychological (self-esteem, positive and negative feelings); Social relations (sexual activity, personal relationships and social support); Environment (financial resources, home environment, health and social care) [10].

The manual calculation for each domain was applied, which resulted in a gross score, which was converted into a transformed score. The processing method converts the raw scores on a scale of 4 to 20, comparable to the WHOQOL-100, and on a scale of 0 to 100, in which zero represents 100 and best qualities of life [9]. The cut-off point used to define the perception of quality of life and satisfaction with health among the elderly was ≥60 [11].

The instrument is self-applicable, but due to the difficulty of reading and to the low level of education common in the studied population, was applied by researchers with all the participants of the study, redoubling the careful not to interfere and prevent the influence on the answers given.

The data were analyzed in the program Statistical Package for the Social Sciences (SPSS) for Windows (version 18.0). It was observed the normal data. For descriptive analysis of continuous data, we used the t test of Design or Mann Whitney test (U). The Chi-square test (X^2) was used to compare the socio-demographic variables and family support with the older groups with and without depressive symptoms. The association analysis, based on the analysis of binary logistic regression, was to identify the possible influences of the WHOQOL-Bref domains with the presence of depressive symptoms, i.e. the dependent variable. For all the analyses, it was considered a significance level of $p \leq 0.05$.

This article is part of a macroproject entitled "Evaluation of quality of life of older mastectomies: a contribution to nursing", approved by the Ethics Committee of the Federal University of Piauí, as Protocol 649.342. The ethical aspects were respected, according to Resolution No. 466/12 of the National Health Council, the Ministry of Health.

Results

Using the EDG-15 for signs and symptoms of indicative for depression in the elderly, among the 52 participants, 36 (69.2%) did not present signs and symptoms of depression. However, in 16 (30.8%), the result was positive, these being classified as mild to moderate depression, being obtained from the average of 4.7 points.

With regard to sociodemographic characteristics of the elderly, it was found the middle ages 67.9 ± 5.9 years old general, most without partner (73.1%), with low/medium education (65.4%) and family income of minimum wage (40.4%). In relation to the characteristics of the family support, a large portion (57.7%) possessed caregiver, being mainly the sons assumed this role (66.6%). When checked the association among the groups (with and without depressive symptoms), none of the variables presented significance **(Table 1)**.

In **Figure 1**, the perceptions of the elderly on quality of life **(Figure 1A)** and satisfaction with health **(Figure 1B)**, in accordance with application of WHOQOL-Bref, being significant differences between the

Table 1. Socio-demographic characterization and family support of the older groups with and without depressive symptoms (n=52). Teresina, PI, 2015.

Variables	Depressive symptoms		X^2	p
	Without	With		
	n (%)	n (%)		
Age (years old)				
60 - 70	25 (48.1)	7 (13.5)	3.090	0.079
>70	11 (21.2)	9 (17.3)		
Marital situation				
Single/separated/widow	26 (50)	12 (23.1)	0.043	0.835
Married/stable union	10 (19.2)	4 (7.7)		
Schooling				
Without schooling	1 (1.9)	2 (3.8)	4.282	0.118
Low and middle schooling	22 (42.3)	12 (23.1)		
Higher education	13 (25)	2 (3.8)		
Work				
Yes	9 (17.3)	1 (1.9)	2.507	0.113
No	27 (51.9)	15 (28.8)		
Family income (minimum wage)				
1	14 (26.9)	7 (13.5)	0.134	0.935
2 - 3	14 (26.9)	6 (11.5)		
> 4	8 (15.4)	3 (5.8)		
Number of people living together				
≤ 3	18 (34.6)	12 (23.1)	2.836	0.092
≥ 4	18 (34.6)	4 (7.7)		
Chief of home				
The own person	22 (42.3)	7 (13.5)	4.694	0.196
Spouse	8 (15.4)	2 (3.8)		
Son(daughter)	5 (9.6)	5 (9.6)		
Another Family member	1 (1.9)	2 (3.8)		
Caregiver				
Yes	18 (34.6)	12 (23.1)	2.836	0.092
No	18 (34.6)	4 (7.7)		
Caregiver[#]				
The children	10 (33.3)	10 (33.3)	2.569	0.277
Private caregiver	5 (16.7)	1 (3.3)		
Other	3 (10)	1 (3.3)		

[#]: Analysis for the 30 elderly who had caregiver; X^2: Chi-square statistical test; p: level of significance.

Figure 1: Comparison between the groups (with and without symptoms) of the elderly respondents perceptions about the quality of life and satisfaction with health for each item of reply. Teresina, PI, 2015.

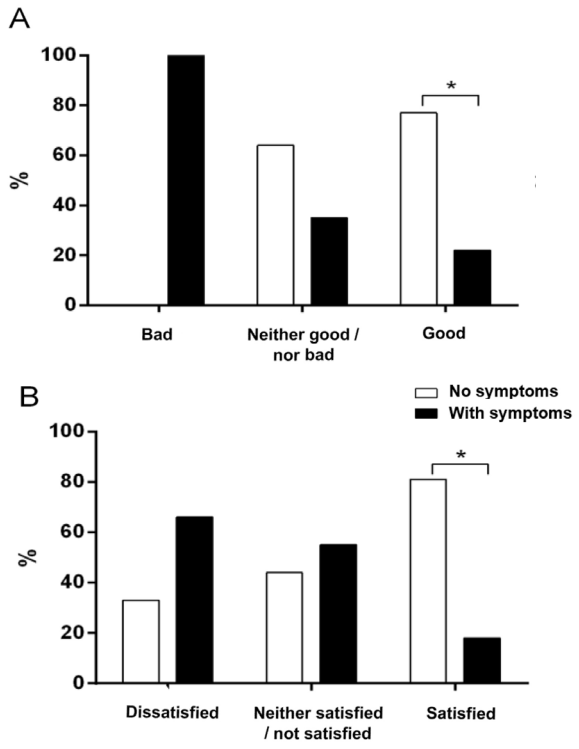
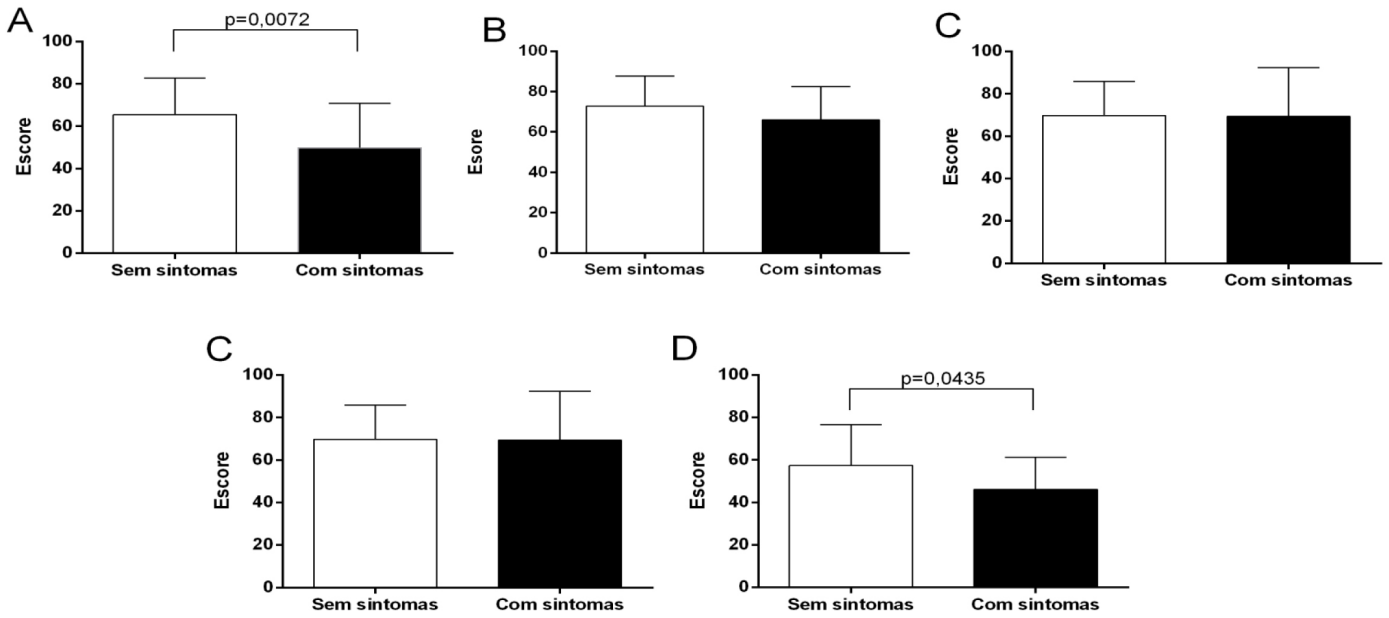


Table 2. Total scores of the domains and the quality of life for groups (with and without symptoms), second the WHOQOL-Bref. Teresina, PI, 2015.

Domains	Depressive symptoms	
	Without	With
	x (±SD)	*x* (±SD)
Physical domain	65.3 (±2.8)	49.7 (±5.2)
Psychological domain	72.8 (±2.4)	65.8 (±4.1)
Social Relationships domain	69.6 (±2.7)	69.2 (±5.7)
Environmental domain	57.3 (±3.2)	46.1 (±3.7)
General Quality of Life	66.3 (±2.2)	57.7 (±3.9)

x: average; SD: standard deviation.

Figure 2: Comparison between the groups (with and without symptoms) of the elderly respondents, perceptions about the quality of life and satisfaction with health for each item of reply. Teresina, PI, 2015.



Caption: A) Physical Domain; B) Psychological Domain; C) Domain Social Relationships; D) Domain Environment; And) Quality of Life.

groups (with and without symptoms) to good perceptions (X^2 = 10.314; p=0.001) and satisfied (X^2 = 14.297; p=0.000).

The scores obtained using the WHOQOL-Bref are described in **Table 2**. It was observed that the quality of life was considered good, with an average of 66.3 (± 2.2) to the elderly group without depressive symptoms. The most committed were the Physical and Environmental domains, in both groups. The most preserved in the group without depressive symptoms was the Psychological domain, showing the average of 72.8 (± 2.4) and in the group with symptoms, was the domain social relationships, with an average of 69.2 (± 5.7).

In **Figure 2**, it is observed that the most committed to the participants without depressive symptoms, compared with those who presented symptoms were the Physical domain (U = 2.801; p = 0.0072) and domain Environment (U = 2.071; p = 0.0435). For other areas, there were no differences.

Table 3 presents the odds ratio of older present depressive symptoms when compared to older women without depressive symptoms, by means of the domains of the WHOQOL-Bref. However, no association was observed between the domains, and the presence of depressive symptoms.

Table 3. The presence of depressive symptoms association with the domains of the WHOQOL-Bref (n=52). Teresina, PI, 2015.

Domains	OR* (IC95%)	p
Physical	0.967(0.916-1.021)	0.227
Psychological	1.015(0.926-1.114)	0.744
Social Relationships	1.044(0.976-1.117)	0.213
Environment	0.967(0.892-1.050)	0.427
	*: Value of binary logistic regression	

Discussion

The predominant age group of 60 to 70 years old and the average age of 67.9 years old from par-

ticipants with breast cancer are according to the literature [6, 12], this is the age of a higher incidence of this further, with the risk of developing cancer increases with age, due to aging, as well as greater exposure to carcinogens [1]. In addition, the age group is singled out as one of the main prognostic factors to be assessed in relation to malignant tumors of the breast, when the worst prognosis is in cases of age group less than or equal to 35 years old and for those whose diagnosis will be established on the basis of 75 years old [13].

In relation to marital status, elderly without companion, were similar to that found in other studies [14, 15]. This data is of great importance, since having companion has key role in women's adjustment to diagnosis, which facilitates the acceptance of the conditions by the patient and his better adherence to the proposed treatment [16]. Add to this that the spousal support is associated to the physical and emotional improvement, therefore, the well-being and quality of life [6].

Regarding education, the majority of participants presented lower education and lower family income, as found in studies that investigated factors associated with realization of secondary prevention and early diagnosis of breast cancer [17, 18]. This situation may have influenced the practice of health care, particularly in early diagnosis, since socioeconomic status is determinant of access to gynecological consultation and, consequently, to other pipelines in the secondary prevention of this aggravation, and low educational level may be responsible for the deficiency of knowledge about the clinical examination of the breasts, mammography and receiving guidelines of health professionals [17].

Note that the deficiency in the health system may result in an inequity in relation to the prevention of breast cancer in women who belong to the lower strata of society end up having less and less mammography offer clinical examinations of the breasts performed by doctor or nurse. Women, regardless of their socioeconomic class, should receive equal manner, opportunities for early diagnosis, especially in the age group most at risk of developing breast cancer [18].

In the process of aging and illness, there may be a need for family involvement, a fact evidenced in this survey, all of the interviewed mentioned do not live alone and most claimed to have a caregiver. In most cases were the children. The growing number of elderly in the population is associated with the increase in cases of chronic degenerative diseases, often found in these individuals, which can cause greater functional incapacity, since the aging process itself entails the gradual decline of functions, like language, perception, motor skills and executive functions, undermining small tasks relating to activities of daily living [19].

The rates of depression in patients with breast cancer are between 10% and 25%, and the risk of depression is more evident in the first year after diagnosis [20, 3]. On application of EDG-15, the average points obtained in a study of older people with cancer was 3.93 (no change), corroborating with the average of 4.7 of this study [21].

Factors may explain the prevalence of depression in elderly women with cancer, in addition to diagnosis, as the fact of being a woman and elderly, present greater sensitivity to traumatic experiences in childhood and adolescence, domestic violence, anxiety, overload of functions and social roles and greater vulnerability to stressful events, as well as the influence of widowhood and family losses [22].

When comparing the older groups with and without depressive symptoms, it was found, according to the WHOQOL-Bref instrument, that the elderly without depressive symptoms perceived quality of life as good and most claimed to be satisfied with their health, being statistically significant differences between the groups for these perceptions, which shows that the presence of depressive symptoms can worsen the quality of life and satisfaction with their own health.

It reinforces the importance of the presence of signs and symptoms indicative of depression in elderly women affected by breast cancer, because it is known that this injury is poorly investigated and sub-diagnosed in the elderly population, being the active recognition and treatment of depressive frames relevant parts of care to the individual with cancer and may contribute positively to improve attitudes in the face of illness and improve the quality of life [3]. It is therefore important to evaluate the quality of life of these women, since the diagnosis in many cases brings anguish, suffering and anxiety, as well as the aggressiveness of the treatment and the various complaints related to the symptoms [6].

With regard to those areas, it was observed that the more committed in elderly with and without depressive symptoms were the physical and environment; there is no difference between the groups for the other domains. The diagnosis of breast cancer, due to the speed of the changes that must occur in the immediate period (tests, surgery and treatments) cause great impact on a woman's life, changing the relationship of this family and the environments in which they live, factor that requires more attention on the part of the people and institutions which assist women [23].

It was found in this study that the domain more preserved in the older group without symptoms was the psychological. This can be explained by the fact that individual priorities vary according to age and the moments of life, and older women feature better quality of life, by assigning relative value to tits and to femininity, so should be more psychological preserved in this population, since these are old ladies who feel safer and with subjective issues well resolved [24].

On the other hand, the group of elderly with depressive symptoms, the most affected area was the Social Relations. Social support has been identified as health protection and, in particular, to reduce the pain related to cancer, and is associated with better adaptation to disease and better quality of life [6, 25].

To analyze the association of WHOQOL-Bref domains with the presence of depressive symptoms, be noted that the presence or absence of these symptoms increases the odds ratio of having worse or better quality of life and vice versa. Although the literature point to the diagnosis of breast cancer can bring physical and psychological damage [3, 6], reverberating over time negatively on quality of life. However, study claims that better social support at the moment of diagnosis of this disease provides better physical and mental quality of life [6, 26].

Conclusion

In the studied sample it showed the presence of signs and symptoms indicative of depression in 30.8% of the interviewed. As for perceptions of the elderly on quality of life and satisfaction with health, significant differences were observed between the groups with and without symptoms for good perceptions and satisfied. The general quality of life score of interviewed without depressive symptoms showed average 66.31 (± 2.2), which represents good quality of life.

The most committed to the participants with and without depressive symptoms were the physical and environment, however not observed that the presence of depressive symptoms increase the odds ratio of having worse or better quality of life.

The limitation of this study is presented in relation to the size of the sample, which considered the only referral hospital for cancer treatment in the State, making it difficult to generalize the results. In this way, urge greater and more detailed investigations of signs and symptoms in elderly women with breast cancer and its influence on quality of life, in the face of accelerated aging process.

In terms of contribution to the practical results reinforce the need for greater awareness of health

professionals to the subject. This in turn will contribute to the early diagnosis of depressive signs and symptoms, which, in turn, can improve attitudes toward the disease and improve the quality of life of this segment of the population.

References

1. Instituto Nacional de Câncer José Alencar Gomes da Silva. Coordenação de Prevenção e Vigilância. Estimativa 2014: Incidência de Câncer no Brasil [Internet]. Rio de Janeiro: INCA; 2014 [citado 2014 dez. 10]. Disponível em: http://www.inca.gov.br/estimativa/2014/estimativa-24042014.pdf
2. Lourenço TS, Mauad EC, Vieira RCA. Barriers in the breast cancer screening and the role of nursing: an integrative review. Rev Bras Enferm. 2013; 66(4): 585-91. Disponível em: http://www.scielo.br/pdf/reben/v66n4/v66n4a18.pdf
3. Tiezzi DG. Câncer de mama: um futuro desafio para o sistema de saúde nos países em desenvolvimento. Editorial. Rev Bras Ginecol Obstet. 2010; 32(6):257-9.
4. Küchemann, BA. Envelhecimento populacional, cuidado e cidadania: velhos dilemas e novos desafios. Soc Estado. 2012; 27(1): 165-880.
5. Instituto Brasileiro de Geografia e Estatística. Diretoria de Pesquisas. Coordenação de População e Indicadores Sociais. Estimativas da população residente no Brasil e Unidades da Federação com data de referência em 1º de julho de 2015 [Internet]. 2015. [citado 2015 set 10]. Disponível em: ftp://ftp.ibge.gov.br/Estimativas_de_Populacao/Estimativas_2015/estimativa_dou_2015.pdf. Acesso em: 10 set. 2015.
6. Leung J, Pachana NA, McLaughlin D. Social support and health-related quality of life in women with breast cancer: a longitudinal study. Psycho-Oncology. 2014; 23: 1014-20.
7. Carvalho CMRG, Brito CMS, Nery IS, Figueiredo MLF. Prevenção de câncer de mama em mulheres idosas: uma revisão. Rev. bras. enferm. 2009;62(4):579-82. Disponível em: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0034-71672009000400014&lng=en.
8. Bertolucci PHF, Brucki SMD, Campacci SR, Juliano Y. O Mini-Exame do Estado Mental em uma população geral: impacto da escolaridade. Arq Neuropsiquiatr. 1994; 52(1): 1-7.
9. Paradela EMP, Lourenço RA, Veras RP. Validation of geriatric depression scale in a general outpatient clinic. Rev Saúde Pública. 2010; 39 (6): 918-23.
10. Fleck MPA. O instrumento de avaliação de qualidade de vida da Organização Mundial de Saúde (WHOQOL – 100): características e perspectivas. Ciênc Saúde Coletiva. 2000; 5(1): 33-8.
11. Silva PAB, Soares SM, Santos JFG, Silva LB. Cut-off point for WHOQOL-bref as a measure of quality of life of older adults. Rev Saúde Pública. 2014; 48(3): 390-7.
12. Reis LA, Brito AQ. Caracterização das condições sociodemográficas e de saúde de mulheres idosas com câncer de mama. Revista E-Psi. 2014; 3(2): 60-9.
13. Nunes BAP, Siqueira SL, Pereira SM, Pacheco TJ, Pessanha TO, Mendonça SB. Perfil epidemiológico dos pacientes diagnosticados com câncer de mama em Campos dos Goytacazes (RJ), Brasil. Rev Bras Mastologia. 2012; 22(4): 117-23.
14. Hansen D. Qualidade de vida de idosas submetidas ao tratamento de câncer de mama. FisiSenectus. 2013; 1(1): 13-24.
15. Nicolussi AC, Sawada NO. Qualidade de vida de pacientes com câncer de mama em terapia adjuvante. Rev Gaúcha Enferm. 2011; 32(4): 759-66.
16. Leite FMC, Bubach S, Amorim MHC, Castro DS, Primo CC. Mulheres com diagnóstico de câncer de mama em tratamento com Tamoxifeno: Perfil Sociodemográfio e Clínico. Rev Bras Cancerol. 2011; 57(1): 15-21.
17. Bim CR, Pelloso SM, Carvalho MDB, Previdelli ITS. Early diagnosis of breast and cervical cancer in women from the municipality of Guarapuava, PR, Brazil. Rev Esc Enferm USP. 2010; 44(4): 940-6.
18. Matos JC, Pelloso SM, Carvalho MDB. Fatores associados à realização da prevenção secundária do câncer de mama no Município de Maringá, Paraná, Brasil. Cad Saúde Pública. 2011; 27(5): 888-98.
19. Virtuoso Junior JS, Guerra RO. Incapacidade funcional em mulheres idosas de baixa renda. Ciênc Saúde Coletiva. 2011; 16(5): 2541-8.
20. Santichi EC, Benute GRG, Juhas TR, Peraro EC, Lucia MCS. Rastreio de sintomas de ansiedade e depressão em mulheres em diferentes etapas do tratamento para o câncer de mama. Psicol Hosp. 2012; 10(1): 42-67.
21. Lera AT, Miranda MC, Trevizan LLB, Antonangelo DV, Zanellato R M, Tateyama LTC et al. Aplicação do instrumento termômetro de estresse em pacientes idosos com câncer: estudo piloto. Rev Bras Clin Med. 2011; 9(2): 112-6.
22. Grover S, Dutt A, Avasthi A. An overview of Indian research in depression. Indian J Psychiatry. 2010; 52(1): 178-88.
23. Carvalho PL, Vilela Júnior GB, Martins GC, Rocha TBX, Manzzato L, Grande AJ et al. Qualidade de vida de mulheres em tratamento de câncer de mama. J Health Sci Inst. 2013; 31(2): 187-92.

24. Gomes NS, Soares MBO, Silva SR. Autoestima e qualidade de vida de mulheres submetidas à cirurgia oncológica de mama. Rev Min Enferm. 2015; 19(2): 120-6.
25. So WK, Leung DY, Ho SS, Lai ET, Sit JW, Chan CW. Associations between social support, prevalent symptoms and health-related quality of life in Chinese women undergoing treatment for breast cancer: a cross-sectional study using structural equation modelling. Eur J Oncol Nurs. 2012; 4: 442–8.
26. Ferreira DB, Koifman R, Bergmann A. P2-78 quality of life in Brazilian women with breast cancer: association with the social environment. J Epidemiol Community Health 2011; 65: A241.