Scientific Research Publishing

Open Journal of Nursing, 2016, 6, 911-920
http://www.scirp.org/journal/ojn
ISSN Online: 2162-5344
ISSN Print: 2162-5336

Sociodemographic Characteristics Related to Resistance to Breast Cancer Screening

Carla Nadja Santos de Sousa[1], Cintia Mikaelle Cunha de Santiago[2], Cristianny Samara Miranda de Holanda[3], Jovanka Bittencourt Leite de Carvalho[4], Jéssica Micaele Rebouças Justino[5], Fátima Raquel Rosado Morais[6]

[1]The Vale do Jaguaribe College, The State University of Rio Grande do Norte (UERN), Natal, Brazil
[2]Doutoranda no Programa Bioquímica e Fisiologia da UFPE-PE, The State University of Rio Grande do Norte (UERN), Natal, Brazil
[3]The Federal University of Rio Grande do Norte, Natal, Brazil
[4]The Postgraduate Program in Nursing of the UFRN-RN, Health School, The Federal University of Rio Grande do Norte, Natal, Brazil
[5]The State University of Rio Grande do Norte (UERN), Natal, Brazil
[6]Health and Society of the State University of Rio Grande do Norte, Natal, Brazil
Email: carlanadja@hotmail.com, cintia_mikaelle@hotmail.com, csmhn@hotmail.com, jovanka@es.ufrn.br, jessicajustino_@outlook.com, fraquelrm@gmail.com

How to cite this paper: de Sousa, C.N.S., de Santiago, C.M.C., de Holanda, C.S.M., de Carvalho, J.B.L., Justino, J.M.R. and Morais, F.R.R. (2016) Sociodemographic Characteristics Related to Resistance to Breast Cancer Screening. *Open Journal of Nursing*, **6**, 911-920.
http://dx.doi.org/10.4236/ojn.2016.611088

Received: October 5, 2016
Accepted: November 1, 2016
Published: November 4, 2016

Abstract

Objective: To describe the sociodemographic characteristics of women related to resistance to breast cancer. **Methods:** Cross-sectional study, with a quantitative approach, whose research took place in the Basic Family Health Units of the municipality of Mossoró. The study included 362 women aged between 40 and 69 years. One used a validated questionnaire with questions divided into five blocks. The data were entered in a spreadsheet, transferred to the SPSS software, and subsequently coded to perform the analysis. The Research Ethics Committee of the State University of Rio Grande do Norte, in Opinion No. 356958, approved the project. **Results:** Black women were two times more likely to be resistant when compared to white women (OR = 2.01, 95% CI = 1.12 - 3.69; p = 0.018). Women who have studied up to primary school 122 (58.1%) were two times more likely to be resistant when compared to those 14 (6.7%) who studied up to higher education (OR = 2.69; 95% CI = 1.31 - 5.48; p = 0.012). Women who had first-degree relatives with breast cancer 153 (72.9%) were three times more likely to be resistant. **Conclusions:** The findings show the need for investments in educational practices with a view to public awareness and professionals' training to disseminate information regarding tests used in practice directed to women's health.

Keywords

Screening Programs, Breast Cancer, Health Services, Oncology Nursing

1. Introduction

Currently, breast cancer (BC) is the most often diagnosed malignancy in women worldwide. There is a significant increase in the number of new cases of the disease in both developed as developing countries and, considering only demographic changes, one expects an increase of 55% in the incidence and 58% in the mortality in developing countries by 2020 [1].

The coping strategies of BC follow methods of primary and secondary prevention. The role of primary prevention is to modify or eliminate risk factors and the secondary is part of the early diagnosis and treatment of cancer [2].

It is noteworthy that there is no flawless method regarding primary prevention for BC. However, in secondary prevention, there are three strategies for early detection: the breast self-examination (BSE), the clinical breast exam (CBE) and mammography (MMG). The MMG, for its impact on mortality, is the chosen screening method in population programs [3].

2. Review of Literature

BC early tracking concerns the active search for new cases in a presumably asymptomatic population, looking for individuals who have a potential risk of developing certain cancer, even before signs and symptoms become evident, subjecting them to screening tests to detect cancer (or cancer predecessors lesions) and fully providing a follow-up, organizing referrals for diagnostic confirmation and treatment [4] [5].

Thus, screening programs aims to influence mortality rates, from early diagnosis, and, thus, cause less physical, mental and social damage arising from more aggressive therapies [6]. Therefore, screening programs provide improved prognosis through early detection and treatment providing less mutilating and aggressive effects for women.

In order to make the Breast Cancer Screening (BCS) possible, the care network needs to organize around the Family Health Strategy (FHS), a model based on primary health care. The municipality must also have, in its environment, capacity to perform the necessary MMG examinations [7].

However, apart from the need to organize the care network, it is necessary to reflect other aspects that relate to resistance of women to BCS, as well as lifestyle and sociodemographic characteristics. The resistance of someone or a group is the expression of the internal relationship system that the person or group has with the world and, in turn, interferes with the form of participation in those spaces [8]. While a situation of compromise, resistance tends to provide us with the necessary elements to understand how the subject or the group builds the perception of themselves and their reality, as well as interacts on issues/aspects that are the focus of that resistance.

By understanding the importance of grasping the aspects that hamper the daily flow of action, particularly in the adherence of the users in the practices of services, one decided to develop this study, with the objective of describing the sociodemographic characteristics of women related to resistance to tracking breast cancer.

3. Methods

Cross-sectional study, with a quantitative approach, whose empirical research took place in the Family Basic Health Units (BFHU) in the city of Natal, in the period from June to November 2014.

In order to compose the locus of such research and for better definition of the sample, one observed that, in health area, Mossoro is divided into six zones and 43 UBS, which, in turn, are distributed among urban and rural areas and their neighborhoods. Among the existing BFHU in the city, there was a random selection of four units, one in each zone, namely: Dr. Chico Costa, Vereador Durval Costa, Marcos Raimundo da Costa and Dr. Cid. Salem Duarte. They are located, respectively, in the following districts of the city: Santo Antônio, Liberdade II, Belo Horizonte, Abolição IV.

For the delimitation of the sample, the following inclusion criteria were: being a woman aged between 40 and 69 years, as recommended by the Ministry of Health (MOH), residing in one of the areas covered by the defined BFHU and being registered at the Family Health Strategy (FHS) in one of the neighborhoods of the chosen units. As for the exclusion criteria, they were: women who had performed CBE and MMG in the past year, because the MOH recommends that the average time may not exceed the maximum period of two years; women who were unable to answer the information covered in the questionnaire and who used psychotropic and/or hallucinogenic drugs. In the end, the sample consisted of 362 women.

The used research tool was a structured questionnaire from a doctoral thesis entitled "Early detection of breast cancer: knowledge and practices of women and FHS professionals in Dourados/MS." It is noteworthy that this study used the adapted version of the instrument, with the insertion of block 5 [9].

With the aforementioned addition, there was division of the instrument into five blocks of questions: 1) sociodemographic profile; 2) information about the knowledge and practices related to the BC; 3) information regarding the knowledge and practices related to methods for early detection of BC; 4) information on the use of health services related to BC; 5) characteristics of the woman resistant to BCS.

Among the different issues of the instrument, the questions that best characterized the women as resistant to the BCS were listed, based on the objectives of this research and on the Document that defines the Brazilian strategy for the control of BC [10]. In that document, the MMG and the BCE are the methods recommended for BC screening in routine of comprehensive care to women's health [11]. This study characterized women as resistant to BCS if responses to the block 5 were all negative.

The data were entered in a spreadsheet, and then transferred to the SPSS software (version 22.0, SPSS, Inc., Chicago, IL, USA) subsequently coded to perform the analysis. Several groups were compared, obtaining odds ratio (OR), confidence interval (CI) of 95% and p-value, through the significance determined using Chi-square test ($\chi 2$) and Fisher's exact test. This last test was used when verifying values with expected frequency lower than five. The Research Ethics Committee (CEP) of the State University of Rio Grande do Norte, in Opinion No. 356,958, approved the project.

4. Results

By the cuts that were possible for the theme analysis: women resistance to the BCS, a first comparison was performed (Table 1) regarding sociodemographic characteristics and resistance to BCE among women of this investigation.

Thus, Table 1 results from the univariate analysis, which deal with already-mentioned issues, showing that, among the sample of 362 women, 210 (58.0%) were resistant to tracking the BC at the expense of 152 women (42.0%) who showed no resistance to the BCS. It is noteworthy that we will emphasize the data that showed greater resistance to BCS.

Of the 210 resistant women, 101 (48.1%) lived in Santo Antônio neighborhood, with residence time in Mossoró between 31 - 50 years (43.3%). The women had a mean age of 50.07 ± 8.76 years (mean ± standard deviation). As for education, 195 (92.9%) reported having studied and/or still study. Regarding marital status, 144 (68.6%) women reported having a partner, 135 (64.3%) worked outside the home and 152 (72.4%) had owned housing (Table 1).

Among the 210 women resistant, 101 (48.1%) lived in Santo Antonio neighborhood. Study pointed out that the Santo Antônio neighborhood is the largest of Mossoró, with high incidence of cancer patients in relation to the distribution of patients affected by cancer in the neighborhoods, in addition to having a population with low level of education, low and middle income, so those factors relate to women's resistance [12].

The skin color of 83 women (39.5%) was white and 82 (39.0%), black. Regarding education, 122 (58.1%) reported studying up to elementary school and only 14 (6.7%) had higher education. In terms of the kinship degree, 72 (34.3%) reported having relatives with breast cancer and 107 (51.0%) said they had no relative (Table 1).

Table 2 shows the results of the multivariate logistic regression analysis on the resistance of women related to BCS as the response variable. This table addressed only the results of statistically significant associations related to resistance to the BCS, namely: skin color, education and kinship degree.

Regarding skin color, black womenwere two times more likely to be resistant when compared to white women (OR = 2.01, 95% CI = 1.12 − 3.69; p = 0.018). Statistics show that in the city of Mossoró-RN, where the study was conducted and in private households, 38,081 families have black skin color or belong to the black race, whereas there are 27,702 white families [13] Such characterization demands a different look in the construction of public policies for the region in view of the need to reflect and list the specificities of the groups and, thus, propose action strategies that meet their demands.

5. Discussion

The fact that black women are more resilient may relate to several factors. Black women experience different types of race and gender discrimination, which, when intersect, harm their integration into society as someone who has rights, especially in relation to health inequalities imposed by racism and sexism differentiate women access to health services, as well as in the disease process [14].

Table 1. Sociodemographic characteristics resistant women to the thebreast cancel screening.

Variable	Yes	OR	CI 95%	p-value
Neighborhood				
Santo Antônio	101 (48.1)	1		
Liberdade II	31 (14.8)	0.66	0.37 - 1.18	0.107
Abolição IV	41 (19.5)	1.55	0.82 - 2.93	
Belo Horizonte	37 (17.6)	0.76	0.43 - 1.34	
Residence time				
1 - 31 years	89 (42.4)	1.58	0.86 - 2.91	
31 - 50 years	91 (43.3)	1.37	0.75 - 2.50	0.149¥
Over 50 years	30 (14.4)	1		
Age				
Up to 50 years	112 (53.3)	1.08	0.71 - 1.64	0.704
Over 50years	98 (46.7)	1		
Marital Status				
With partner	114 (68.6)	1.10	0.70 - 1.72	0.670
Without partner	66 (31.4)	1		
Skin color				
White	83 (39.5)	1.43	0.85 - 2.41	
Black	82 (39.0)	2.23	1.28 - 3.88	0.016*
Brown	45 (21.4)	1		
Went to school				
Yes	195 (92.9)	1.21	0.56 - 2.63	0.620
No	15 (7.1)	1		
Education				
Elementary school	122 (58.1)	2.69	1.31 - 5.48	
High school	74 (35.2)	2.87	1.35 - 6.08	0.012*
Higher education	14 (6.7)	1		
Works outside the home				
Sim	75 (35.7)	0.98	0.63 - 1.51	0.927
Não	135 (64.3)	1		
Owned housing				
Yes	152 (72.4)	0.96	0.60 - 1.54	0.892
No	58 (27.6)	1		
Relative with breast câncer				
Yes	57 (27.1)	0.97	0.61 - 1.55	0.918
No	153 (72.9)	1		
Kinship degree with the relative with breast cancer				
1st degree	72 (34.3)	3.30	1.89 - 5.75	
2nd degree	31 (14.8)	1.06	0.59 - 1.90	<0.0001*
Do not have relative	107 (51.0)	1		

Source: Data collected from the users of the health units of Mossoró-RN.

Table 2. Multivariate analysis regarding sociodemographic characteristics resistant women to the breast cancel screening.

Variable	Adjust. OR.	CI-95%	P
Skin color			
White	1.16	0.67 - 2.00	0.594
Black	2.01	1.12 - 3.69	0.018
Brown	1		
Education			
Elementary school	3.20	1.49 - 6.86	0.003
High school	3.85	1.72 - 8.65	0.001
Higher education	1		
Kinship degree with the relative with breast cancer			
1st Degree	3.85	2.13 - 6.98	<0.001
2nd Degree	1.09	0.60 - 1.98	0.767
Do not have relative	1		

Source: Data collected from the users of the health units of Mossoró-RN.

A study published in the Journal Cancer Epidemiology, Biomarkers & Prevention revealed a genetic mutation that affects Afro-descendant families. Specifically, black women are more likely to have breast cancer diagnosis than white women before 40 years. Study addresses that African-American women are prone to a most unpleasant type of breast cancer [15].

Thus, the study shows evidence to explain that resistance in black women, possibly due to genetic differences, disparities in obtaining medical care, receiving inferior treatment or low adherence to prevention methods [15].

Therefore, since people cannot change genetics, black women should pay more attention to the prevention of breast cancer, which includes, besides the preventive exams, maintaining a healthy weight, exercise regularly, limit consumption of tobacco and alcohol, avoid trans-fat and even processed foods, too much salt and sugar in the diet.

Another study also reflects that black women do not receive the same standard of care than white women and, possibly, when taking into account the color indicator, there might be more worrying data related to social inequalities in access to various services, including health [16].

With regard to class and gender indicators, studies also hardly incorporate in their proposals to the specific health of black women. The studies that use the concept of gender to study health and disease are still recent. Those that already exist usually show the social conditions, lifestyle, and how knowledge about health interferes in the health/disease [17].

Women who have studied up to primary school 122 (58.1%) were two times more likely to be resistant when compared to those 14 (6.7%) who studied up to the higher

education (OR = 2.69; 95% CI = 1.31 - 5.48; p = 0.012). As for women who have studied up to high school 74 (35.2%) were two times more likely to be resistant when compared to those 14 (6.7%) who studied up to the higher education (OR = 2.87, 95% CI = 1.35 - 6.08; p = 0.012) (Table 2).

Individuals with higher levels of education tend to be healthier than individuals with lower levels of education. Researches have shown significant correlations between education and mortality, heart disease, cancer, diabetes, lost workdays, smoking, alcohol consumption and self-reported health problems [18].

Therefore, the highest level of education is a determining factor in the search for better living conditions and, consequently, better quality of life. In this respect, it is possible to infer the existence of a relationship between low family income, low education and BC, for those two factors hinder access to information about prevention and treatment, reducing the demand for health services [19].

Education also correlates with the use of preventive care services; individuals with higher levels of education perform more preventive practices, such as flu shots, mammograms, Pap tests and colonoscopies [19].

Thus, knowledge and insight to decision-making, as a rule, relate to the level of education acquired by the individual. If women receive information about prevention methods for the BCS, they will certainly have knowledge and insight to determine their attitudes and practices in the prevention of the disease. Therefore, one observed that the higher education improves the chance of a woman to undergo CBE and MMG [20].

A study developed by Schneider and D'Orsi (2010) points out that illiterate women have risk of mortality from BC is 7.4 times higher than in women with higher education. As for those with incomplete primary education, the risk is 3.76 times greater. Women with higher income and education, who have more knowledge, adhere more often to preventive practices. That research corroborates this fact, because the resistance is directly proportional to the few years of formal study, which suggests that the poor knowledge about cancer contributes in a unique way in the search for preventive practices for cancer and perhaps other diseases [21].

Another dimension that made women more resistant to practice the BCS was the presence of relatives of first degree with BC. There were 153 (72.9%) women who were three times more likely to be resistant when compared to those 107 (51.0%) women who had no relatives of first degree with cancer (OR = 3.30; 95% CI = 1.89 - 5.75; p = <0.0001) (Table 2).

Those findings are worrisome because the most resistant women were precisely those who had first-degree relative with BC. However, those women identified as more resistant, should receive more education and take extra care regarding the adherence to screening practices, because the risk of a woman developing BC is higher among those who had the disease in first-degree relatives (mother, sister or daughter) [22].

Study shows the rarity of cases of certain cancers exclusively by hereditary, family and ethnic factors. In the case of breast cancer, family history, especially in first-degree relatives younger than 50 years, is an important risk factor (4). It points out that the

risk of disease almost doubles; and having two first-degree relatives increases the risk by about three times [23].

In this reading, it is essential that health professionals, as well as the production of policies in the area, reflect those limitations and adopt action strategies to make family members, especially women, aware of the risks and perform preventive practices. Those actions would possibly make women less resistant to BC screening practices. Therefore, the information research during medical and nursing consultations is extremely valuable because the bond built between professionals and users is a great tool for knowledge of the population's real needs and questions.

6. Conclusions

The sociodemographic profile showed that black women, with educational attainment up to elementary school and family with BC were considered resistant to tracking, reinforcing the impact of social determinants on the health of the female population.

Thus, the found data highlight the need for investment in educational practices focused on the population awareness and training of professionals, because the bond built between them characterizes as a tool to disseminate information regarding tests used in practices aimed at woman's health.

Therefore, although being a disturbing and challenging process, it is necessary that the health teams from BFHU ensure adherence of women to preventive care. It is noteworthy that the educational activity with client-professional mutual respect is an important strategy to understand the importance of preventive screening and for women to feel motivated to accomplish it, overcoming any difficulties, such as those identified in the study.

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