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Awareness about breast cancer prevention and the practice of self-examination among users of the public health system

Consciência sobre prevenção do câncer de mama e prática de autoexame entre usuárias do sistema público de saúde

Conciencia sobre prevención del cáncer de mama y práctica de autoexamen en usuarios del sistema público de salud

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This article aimed at finding information regarding the habit of breast self-examination (BSE), by evaluating the frequency and the time it takes to be conducted by users of the public service basic health care, in a city in the State of São Paulo, Brazil. The sample was composed by 398 women, divided through the 36 basic units of the municipality. The habit to perform the BSE was mentioned by 68.2% of the women in the sample, and from these, 59.2% state that they have been doing it for more than 10 years. The regularity in the conduction of the exam has greatly varied among the participants. Most of them (62.6%) do it sporadically, when they remember; one third (29.6%) stated that they do the exam monthly. There was a negative association with the age (p=0.001), ethnicity (p=0.001) and marital status (p=0.001). Self-care regarding breast cancer was performed by a majority of the participants of the study, which are white, older than 30, married and educated. The clinical exam conducted by gynecologists was the main source of knowledge regarding the BSE, which highlights the important role of health care professionals in the dissemination of new guidelines.
Descriptors: Neoplasms; Women's health; Health education; Breast Self-Examination.

Este estudo teve como objetivo conhecer o hábito do autoexame de mamas (AEM), através da avaliação da frequência e do tempo de sua realização por usuárias do serviço público de atenção básica de saúde, em um município do interior do estado de São Paulo, Brasil. A amostra de 398 mulheres foi estratificada entre as 36 unidades básicas de saúde do município. O hábito de realizar o AEM das mamas foi referido por 68,2% da amostra, e destas, 59,2% afirmaram que o praticam há mais de dez anos. A regularidade na realização do exame variou muito entre as participantes, com a maioria (62,6%) o fazendo esporadicamente, quando se lembram; um terço (29,6%) informou que realiza o autoexame mensalmente. Houve associação significativa com idade (p=0,001), etnia (p=0,001) e estado civil (p=0,001). O autocuidado relativo ao câncer de mama foi majoritário entre as participantes do estudo, que são caucasianas, maiores de 30 anos, casadas e escolarizadas. O exame clínico realizado pelos ginecologistas foi a principal fonte de conhecimento sobre o AEM, o que destaca a importância dos profissionais de saúde na difusão das novas diretrizes.
Descritores: Neoplasias; Saúde da mulher; Educação em saúde; Autoexame de mama.

Este estudio tuvo como objetivo conocer el hábito de autoexamen de mamas (AEM), a través de la evaluación de la frecuencia y del tiempo de su realización por usuarios del servicio público de atención primaria de salud, en un municipio del interior del estado de São Paulo, Brasil. La muestra de 398 mujeres fue estratificada de las 36 unidades básicas de salud del municipio. El hábito de realizar el AEM de las mamas fue referido por 68,2% de la muestra, y de estas, 59,2% afirmaron que lo practican hace más de diez años. La regularidad en la realización del examen varió mucho entre las participantes, con la mayoría (62,6%) haciéndolo esporádicamente, cuando recuerdan; un tercio (29,6%) informó que realiza el autoexamen mensualmente. Hubo asociación significativa con edad (p=0,001), etnia (p=0,001) y estado civil (p=0,001). El autocuidado relativo al cáncer de mama fue mayoritario entre las participantes del estudio, que son caucasianas, mayores de 30 años, casadas y escolarizadas. El examen clínico realizado por los ginecólogos fue la principal fuente de conocimiento sobre el AEM, lo que destaca la importancia de los profesionales de salud en la difusión de las nuevas directrices.
Descriptores: Neoplasias; Salud de la Mujer; Educación en salud; Autoexamen de mamas.

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INTRODUCTION

Breast cancer is the most incident in the female population, both in Brazil and worldwide, and it is the second most common type of cancer in the world; it is also the main cause of death by neoplasms among women[1]. Its occurrence, as well as its treatment, entrails serious physical and psychological consequences to women[2,3]. It is considered a serious public health problem due to its growing incidence and high mortality, and a challenge for the Brazilian public health system, whose objective is to grant universal access to diagnosis and treatment[4]. National estimates suggest that 58 thousand new cases will have happened in 2016, and the projection for 2017 is the same[1].

The proportional mortality for breast cancer in Brazilian women in 2013 was 2.72%, to a total of nearly 14,206 deaths[5].

The impact that the mortality and morbidity related to the disease have on the female population and on society as a whole demands from the authorities the establishment of effective measures, aimed at the reduction of such indicators. The history of public actions and policies in the country dates back to the 1980s. All of them were constituted upon the tripod of tracking programs, that included breast self-examination (BSE), breast clinical examination (BCE) and mammography (MMG) for women in age groups in which breast cancer is more frequent. These strategies were defined as guidelines, and established by the National Institute of Cancer, a body attached to the Brazilian Ministry of Health. Ever since, they guided the actions of public policies in oncology.

In this context, the technique to conduct the BSE was widely publicized in the media, by civil organizations and health professionals, to raise awareness among women of the main signs and symptoms of breast cancer, as well as to implement actions to track the disease. These actions remained active until studies published from 1990 on started questioning their efficacy in the reduction of mortality and in the precocious detection of the disease[6,7].

Following the path of countries like England[8], New Zealand[9], France[10], Germany and Austria[11], the most recent revision of the Brazilian guidelines for the precocious detection of breast cancer was divulged in the beginning of 2015, no longer recommending the BSE as a tracking measure. The guidelines still highlight self-palpation as one of the strategies to raise awareness and reach early diagnoses, but its main objective is to make women more aware of the normal aspect their breasts have and acquire along their life cycle, and of the variations, also normal, that happen during the menstrual cycle.

The change in the guidelines make it unnecessary to teach a specific breast palpation technique. The educative actions can focus on the observation of the body to develop awareness regarding physiological changes, not to mention signs and symptoms that might indicate breast cancer. This is generally referred to as "breast awareness"[12].

Therefore, breast self-examination remains as an educative strategy that encourages knowledge about one's own body, and contributes to the habit of observing oneself in a broader sense; not only the breasts, but also the skin, the body posture - all in the process of that searching to know oneself and accompany the changes that the body goes through as it ages. According to the guidelines, self-observation at any time and period of life is not only a measure to recognize the normality of one's own body, as it also helps in the detection of abnormalities, thus leading to the search for information at health services, and to the potential discovery of a conclusive diagnosis in case of suspicion of disease.

Therefore, and especially because it does not add extra costs nor does it stimulate awareness of care, encouragement to breast self-palpation must be maintained among the guidelines for health professionals in the primary care services[13].

The practice of BSE and the conduction of BCE during medical consultations were associated in a study that showed that women who underwent BCE are more likely to practice BSE; women capable

of conducting the BSE monthly acquire knowledge regarding the changes in their breasts, and are more likely to look for medical assistance faster[14].

In Brazil, the BCE is not always conducted during periodical consultations, especially in the public sector. A recent study has shown that in 38.6% of gynecology consultations there was no BCE[15], strengthening the suggestion that the maintenance and the incentive to self-palpation is a strategy to increase the demand for gynecological consultations.

A close correlation was found between the habit of performing the BSE, confident attitudes, and the perception of one's own body[16]. That corroborates the importance of the practice of BSE in the deconstruction of the fear when faced with a diagnosis of cancer. Women with the disease diagnosed in the phases III and IV - stage of the disease in which there is no possibility of cure - still report fear and shame regarding the disease[17].

The commitment to periodical exams, and the perception of physical changes in oneself that indicate the disease favor the development of a closer look on health, as well as the willingness to self-care, and the adoption of healthy lifestyles, including the abandonment of practices which are harmful to one's health. All of that converges to the theory by Orion, regarding care and self-care[18,19].

Self-care is conceived as a set of practices of care adopted by a person to maintain her own health and wellbeing. It is the performance of actions directed to oneself, aimed at strengthening the aspects of a healthy life[18,19], or even to perform specific actions as a strategy in the preventing of illnesses.

In order to analyze self-care regarding breast cancer, this study aimed at getting to know the habit of self-palpation, through an evaluation of the frequency in which the exam is conducted, and for how long. The study involved users of the public health primary care service, in a city in the State of São Paulo, Brazil.

As it is widely divulged and know by women, the expression "breast self-examination" was used in the questionnaire of this research with the same meaning of self-palpation. That was done because the main focus of this observation is finding of how frequent it is performed, and not the technique with which it is conducted.

METHOD

This is a descriptive and sectional study, conducted with the 20 or older female population of users of Primary Health Care Units (USF/UBS) of the Unified Health System (SUS), who live in a city with approximately 400 thousand people, near the capital of the State of São Paulo.

The sample was calculated with the software Epi Info 7, based on the female population who lived in the municipality in 2014 - 148,970, as estimated by the Brazilian Institute of Geography and Statistics (IBGE). It was considered that 70% of them were users of the SUS (104,279 women); the confidence interval was 95%, and the highest prevalence, 50%.

The sample (n=398) was stratified between the primary care units in the city, and eleven participants were chosen from each one. The study included women with no current or prior history of cancer; who were at the health service in the day of collection; who were not waiting or had been through a gynecologic consultation that day.

The data collection instrument was a structured questionnaire, elaborated specifically for the research and applied by the researchers in the period from December, 2014, to January, 2015, in days and times that alternated among the units. The users who accepted to participate in the research signed the Free and Informed Consent Form.

The data went through a statistical analysis, using the software SPSS and the Pearson test to calculate Chi-square.

The research respected all recommendations established by the Resolution MS/CNS nº 466/12 and the Helsinki Declaration, and was approved by the Committee of Research Ethics of the

Jundiaí Medicine College, under the protocol 037949/2014.

RESULTS

The age average of the 396 participants of the study was 44.8±16.6 years old (20 to 87), and the age group between 30 to 39 years of age was predominant (24.0%), followed by the group of 60 years old or more (22.5%).

Regarding ethnicity, 70% of the participants declare themselves to be white, 28.8% to be African descendants (black or brown skinned) and 1.2% to be natives or Asian. More than half (62.6%) of the participants state they are married or live with partners, 19.7% were single, and 17.7% were divorced or widowers.

The average family income of the participants was R$2.046,60±R$1.526,98, that is, about three minimum wages of the year 2014 (R$ 678,00), varying from R$67.00 to R$13.000,00. 1.3% of the families (5/370) lived with an income below one minimum wage, while 14.0% lived with more than five. 26 participants did not report their income.

The percentage of women with paid professional activities (39.9%) was slightly higher than that of women who did not (36.4%); 16.4% were retired or lived on pensions. 29 women (7.3%) stated they were farmers, without formal work contracts.

59 women (14.9%) did not have children, and among those who did (337), the median of the number of children was 2 (0-11 kids).

165 woman declared to have entered high school (41.7%), and 164 elementary school (41.4%), including those who did not finish these educational levels. The number of illiterate participants (seven - 4.3%) should be highlighted.

The habit to perform the BSE was mentioned by 68.2% of the women in the sample, and from these, 59.2% stated that they have been doing it for more than 10 years. However, the regularity in the conduction of the exam has greatly varied among the participants. Most of them (62.6%) do it sporadically, when they remember; one third (29.6%) stated that they do the exam monthly.

The preferred moment to conduct the BSE was in the bath (79.2%). Among those who did not practice the BSE, 35.7% reported that they forget; 47.6% mentioned other reasons, and 13.5% said not to know the procedure.

47 women (11.9%) said not to know how to perform the BSE. Among those who said they know, 57.3% stated that they learned in gynecology consultations, 36.7% in media campaigns; 5.3% said that they learned with friends, family, or other sources.

The association between the habit of conducting the BSE and the sociodemographic variables was significant for age group (p=0.001), skin color (0.001) and marital status (p=0.001). The habit becomes more present in the life of women as they age. Women who are 30 or older are the group who perform BSE the most frequently, especially after 50, when breast cancer is more incident. Among women who are younger than 30 years of age, most had never performed the BSE.

Regarding skin color, the results indicate that the habit of conducting the BSE is more commong among white women (72.6%), while among African and Asian descendants, most women did not perform the exam (34.5%). In the correlation to marital status, the BSE was more frequent among married women (71.8%) and less frequent among single women (41.7%) (Table 1).

Table - Frequency of BSE per age group, skin color and marital status. City of the state of São Paulo, Brazil, 2014.

Do you perform BSE?							
	Yes		**Never did**		**Used to do**		**P-value**
Age group	N	%	n	%	N	%	0.001
20 to 29	37	43.0	41	47.7	8	9.3	
30 to 39	68	71.6	17	17.9	10	10.5	
40 to 49	35	68.6	11	21.6	5	9.8	
50 to 59	65	86.7	5	6.7	5	6.7	
≥ 60	65	73.0	15	16.9	9	10.1	
Skin color							0.001
White	201	72.6	48	17.3	28	10.1	
Black and Brown	69	58.0	41	34.5	9	7.6	
Total	270	68.2	89	22.5	37	9.3	
Marital Status							0.001
Single	38	48.7	32	41.0	8	10.3	78
Married	178	71.8	48	19.4	22	8.9	248
Divorced or widow	54	77.1	9	12.9	7	10.0	70
Total	270	68.2	89	22.5	37	9.3	396
Occupation							0.723
Retired	49	75.4	12	18.5	4	6.2	65
In the job market	110	69.6	33	20.9	15	9.5	158
Farmer	20	69.0	6	20.7	3	10.3	29
Not in the job market	91	63.2	38	26.4	15	10.4	144
Total	270	68.2	89	22.5	37	9.3	396
Family Income (R$)							0.053
< 1.000	54	65.9	26	31.7	2	2.4	82
1,000 to 1,999	77	65.8	27	23.1	13	11.1	117
2,000 to 2,999	63	75.0	13	15.5	8	9.5	84
≥ 3.000	65	74.7	14	16.1	8	9.2	87
Total	259	70.0	80	21.6	31	8.4	370
No. children							0.105
No children	34	57.6	18	30.5	7	11.9	
1 son	59	60.2	24	28.9	9	10.8	
2 children	78	69.6	26	23.2	8	7.1	
3 children	61	79.2	8	10.4	8	10.4	
≥ 4 kids	47	72.3	13	20.0	5	7.7	
Total							
Educational level							0.053
Up to Elementary school	127	70.2	36	19.9	18	9.9	
High School	103	62.4	48	29.1	14	8.5	
Higher Education	40	80.0	5	10.0	5	10.0	

The habit of undergoing gynecology consultations was mentioned by 98.5% of participants, though 14.3% stated to only schedule consultations when they have complaints; six participants said to never have been through a gynecology consultation.

Regarding the frequency with which they conduct the breast clinical exam in the gynecology consultations, 61.3% state that the procedure is conducted in every consultation, 19% that it happened in at least one, and 19.7%, that they were never examined.

In the primary health care services of the city in which the study was conducted, half the 36 health units is a family health unit,

and the gynecology consultations undergone by these women might have been conducted by general physicians or nurses, who keep a weekly schedule to conduct activities related to the programs of breast uterine cancer prevention.

Regarding the correlations between the frequency of consultation and the sociodemographic variables, significant ones were found with age group (p=0.001) and marital status (p=0.002). Women who were 40 years old or older use to go through gynecology consultations twice a year; as they get older, the frequency of consultations diminishes, becoming annual, especially among women from 40 to 49 years old (68.6% - 35-51); consultations are sporadic among women who are 60 or older. The frequency of consultations has also varied according to marital status; single women generally go to consultations every semester; married women, every year; widows and divorced women never or sporadically undergo gynecology consultations (Table 2).

Table 2 - Frequency of gynecology consultations per age grou and marital status. City of the state of São Paulo, Brazil, 2014.

Gynecology consultation								
	Every six months		**Annual**		**Never/other**		**Total**	**P-value**
	N	%	N	%	N	%		
Age group								0.001
20 to 29	25	29.1	45	52.3	16	18.6	86	
30 to 39	29	30.5	54	56.8	12	12.6	95	
40 to 49	7	13.7	35	68.6	9	17.6	51	
50 to 59	10	13.3	49	65.3	16	21.6	75	
≥ 60	5	5.6	53	59.6	31	34.8	89	
Total	76	19.2	236	59.6	84	21.2	396	
Marital Status								0.002
Single	20	25.6	41	52.6	17	21.8	78	
Married	44	17.7	163	65.7	41	16.5	248	
Divorced-widow	12	17.1	32	45.7	26	37.1	70	
Total	76	19.2	236	59.6	84	21.2	396	

DISCUSSION

The breasts of each women have their own characteristics, that can be perceived through inspection (outline) and palpation (texture), and these vary with time, from adolescence to adulthood, and into senescence. Occasional self-observation and self-palpation can contribute for women to know more accurately what is normal, and thus perceive potential changes. Changes, such as a persistent nodule or a recent nodule on the armpit. should be recognized, and deserve immediate medical evaluation, as well as some other changes, as skin bulging or retraction, persistent erythemas or edemas, changes in the shape and the presence of papillary discharge[12].

During the last four decades, breast self-examination was encouraged by media campaigns and health professionals, and these educational actions have contributed to raise awareness, among the female population, of the main signs and symptoms of breast cancer. The expression remained in the collective unconscious as a recommended practice to reach an early diagnosis of the disease.

The BSE, by definition, is the procedure in which the woman observes and touches her own breasts and their anatomic accessory structures, to identify changes or abnormalities that might suggest cancer. There are variations in the BSE technique, which is suggested to be performed once a month, one week after the end of menstruation for women in the reproductive period, both standing and laying down, preferably in front of a mirror[20].

The two main studies that subsidized the change in the Brazilian guidelines, not only did not prove the efficacy of teaching the BSE as a tracking measure for the reduction of general and specific mortality through breast cancer in women between 31 and 64 years of age, as they also pointed out some health risks offered by the modality, such as an increase in the number of biopsies with negative results and treatments of cases of the disease that might have never developed[21,22].

The lack of evidences justified the recommendation of the exclusion of BSE as a tracking measure, and the eventual breast self-palpation continued to be recommended, but now unlinked from any specific technique, to be conducted at any point of a woman's routine. The self-examination lost its periodic character, and became part of a group of strategies aimed at learning about one's own body[12].

After the new guidelines were edited, no mass media campaign was aired nationwide to sensitize the female population regarding the awareness of their own body, especially their breasts.

The expression "breast awareness" is still unknown by the Brazilian population, and even by many health professionals. Therefore, it could be argued that a change in the conduction of health educational actions should not occur in a way that invalidates the previous recommendations of self-exam, which involved a specific technique; otherwise, it could generate confusion and undermine the trust of the patients on the guidance provided by health professionals. That is also justified by the fact that the technique is not bad for the detection of abnormalities; what changed was the evaluation about its efficacy as a tracking measure.

The fact that one third of the women in this study had the habit of conducting the breast self-examination with regularity suggests that the educational actions widely divulged in the last decades had a positive impact in the development of an attitude of self-observation among women. That legacy, as well as the acquired habit, do not go against any recommendation - and should not be disincouraged[21].

In spite of potential health hazards[22], self-palpation can detect breast abnormalities and nodules bigger than 20 mm[14]. A Swiss study, involving 1054 patients diagnosed with BC between 1990 and 2006, has shown a statistically meaningful association between the size of tumors detected in the CBE and the SBE; in both techniques, the tumors had 21mm[23]. Another study showed that 37% of women under 40 years of age, and 39% of those older than 41, identified signs of the disease by conducting the BSE, and their findings were later confirmed[24].

It is also noteworthy that the reinforcing of educational actions of incentive to self-palpation of the breasts is even more important due to the difficult in the access of mammography's in certain regions of Brazil. An example of that is a study conducted in the State of Maranhão, in which 45% of women who were 34 years old or older conducted BSE, and most (75.6%) had never undergone a mammography[25].

It should be noted, on the other hand, that the change in the orientation of educational strategies broadens the focus of the theme, and demands the health professionals to be further qualified, as this approach extrapolates their ability in executing the BSE technique. Acting in the perspective of self-care implies encouraging the individual to have pro-active attitudes and adopt deliberate practices in certain situations of their lives, whether those are related to themselves or their environment - as long as these are to the benefit of their own health[16].

Self-care is based on the paradigm that understands health as a totality or integrity that includes the body, emotional relationships, mental development, attitudes and reason. Considering this conception, the health of the individual is analyzed through the integrity of this set of factors, which is dynamic, changes constantly, and can be expressed in the way people see themselves regarding others, their values, their

worldview, and their knowledge regarding what is the object of self-care[16].

Self-care comes from the notion of caring, which has been with human beings throughout their existence, and involves the importance that one person has to the other. It happens when the existence of someone shows itself to be important for another, to the point that the first one will dedicate themselves to the second one, esteeming and appreciating them, seeking their well-being[19,26].

With this understanding of care, the actions one directs towards oneself express the self-care of someone who lives in a society, that is, a subject who creates social and affective ties, people that care for themselves only because they see themselves as important in the process of relating to others. That exposes the political-philosophical aspect of self-caring.

The concept of caring for oneself, as the new guideline suggests, seems to go in this direction. It implies a political act of self-determination, of developing an awareness of the right to live and to have a certain lifestyle; encouraging the reflexion on the condition of women in society, the right to health, the domain of her body in her relations with the other and a State that, through public policies, emits guidelines directed at the collective, regarding specific health-sickness themes.

The self-care approach regarding breast cancer will demand new competences from the mediators, as it influences the process of being and living healthy, and requires sensitivity, and a humanistic education from the health professional[27].

In this study, women who performed breast self-palpation, using or not a specific technique, with or without regularity in its execution, show an activity of caring about their own health. They regularly go to gynecology consultations, and have learned from these professionals how to perform the self-examination - which diverges from other studies, that point the media as the main source of information[28,29].

The results reinforce the role of mediators that health professionals have in educational activities, their commitment to receive the spontaneous demand generated through these practices, to find a space in their schedule for medical attention, and to refer these patients to specialized services when needed[12].

The results of this study indicate that educational actions with an expanded approach for health self-care are necessary and timely, since a high frequency of gynecology consultations were only found in women under 40 years of age. The frequency diminishes as the age increases, and these consultations are sporadic among elder women; the frequency was also greater among single and married women, when compared to widowed and divorced ones. Such a frequency profile suggests a demand of health services guided towards well-being, although the knowledge regarding the health-illness process indicates that these individuals still associate the consultations to illness, and resort to them only when they perceive it to be necessary.

The frequency of gynecology consultations from patients under 40 is higher, coinciding with the reproductive stages of women, in which the search for consultations is generally guided by the occurrence of pregnancies or by necessities linked to sexual activity, or even due to gynecologic complaints. The disease or the presences of a symptom are mentioned in studies that analyzed the demand of gynecology consultations. Among the factors related to the absence in these consultations, according to a previous research, the lack of apparent diseases is highlighted[30]. Another investigation shows that more than half of the women cared for in a gynecology consultation had as their motivation some complaint, such as pelvic pain, itching or vaginal discharge[31].

The change in the focus of educational actions, which are now targeted at the sensitization of the female population and to self-care, will require communication techniques with different approaches, in order to reach all social strata. Indian researchers have shown that, the higher the educational level of women, the more they

adhere to the BSE[32]. That supports the findings of this study, where 68.2% of women were found to have the habit of conducting the BSE, and 95.7% were found to have at least elementary education - that is, nine years of studies or more. However, there was no statistically significant connection among the variables. A low functional literacy in health may be related to self-care, and it also may be influenced by low educational levels, as these imply in a lack of abilities that allow for one to understand and make decisions targeted at the management of one's own heatlh[33].

The meaningful associations of the habit of conducting BSE and the skin color, the marital status and the age group, suggest that white, married women, older than 30, are the most careful to the signs and symptoms of the disease, and show attitudes compatible with self-care regarding breast cancer.

The result corroborates the profile of the female population from the South and Southeast regions, as in these regions there is a greater number of white women. In Brazil, a country that still lives with high levels of social inequality, black women are mostly found in the lower social/financial layers of the population; they are more vulnerable to violence, are less common among the elder female population, have less access to health services and social infrastructure. Those factors, possibly, are negative contributions for their health self-care[34]. They are also the strata with the smaller educational levels and the worst chance to access gynecology consultations, as a study conducted in the capital of the State of Minas Gerais has shown[35].

In the Brazilian context, the substitution of the expression "breast self-exam" should be highlighted in educational actions, as it is historically attached to the specific and periodic technique of breast palpation. It should be replaced by some other expression that manages to contain all the meanings of self-care regarding the disease. A successful replacement will depend on the opportunity to build a discourse that has enough rhetoric force and is easy to assimilate by most of the population, especially due to the fact that a broader approach of the health-illness process is being sought. The expression should also take into account ethical and moral reflections, considering women as subjects with conscience over their own bodies.

CONCLUSION

Self-care regarding breast cancer, here verified through the habit of conducting breast self-examinations, was a majority among white, married, women, older than 30 and with good educational levels.

Health professionals were the main source of knowledge of women regarding breast self-examinations, which highlights the role of these professionals as disseminators of the new guidelines, and mediators of educational activities with the population.

Considering this prominent role, it is recommended for these professionals to pay closer attention to the messages they send in welfare activities, be it in situations in which a procedure is being conducted, or in the deliberate clarification of health education topics.

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All authors contributed equally in the design of the study, its analysis, and in the final writing.

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