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Original Article

Breast cancer prevention in women treated at Primary Care Unit

Prevenção do câncer de mama em mulheres atendidas em Unidade Básica de Saúde

Prevención de cáncer de mama en mujeres atendidas en Unidad Básica de Salud

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Objective: to describe the profile of women treated at Primary Care Unit and identify the attitudes toward early detection of breast cancer. **Methods**: exploratory and descriptive research conducted with 40 women aged over 20 years, after nursing consultation. **Results**: it was verified that a share of participants presented risk factors for breast cancer, especially menarche before age 12, 57% (n=23); no breast examination during the consultation, 70% (n=28); and never have done breast examination, 57.5% (n=23). As for performing the self-examination, 80% (n=32) of women said they knew how to do it, of which 65.5% reported performing it monthly, 12.5% never did it, and 23% of women over 40 years did not undergo mammography. **Conclusion**: we highlight the need to develop effective educational interventions addressing the risk factors and early detection of breast cancer in the health services.
Descriptors: Nursing; Breast Neoplasms; Women's Health; Breast Cancer Prevention.

Objetivo: descrever o perfil de mulheres atendidas em Unidade Básica de Saúde e identificar as atitudes relacionadas à detecção precoce do câncer de mama. **Métodos:** pesquisa exploratória e descritiva, realizada com 40 mulheres com idade acima de 20 anos, após a consulta de enfermagem. **Resultados:** evidenciaram que parcela das participantes possuía fatores de risco para o câncer de mama, principalmente menarca antes dos 12 anos 57% (n=23), em 70% (n=28) as mamas não foram examinadas no momento da consulta e 57,5% (n=23) informaram nunca o ter realizado. Sobre a realização do autoexame, 80% (n=32) das mulheres disseram saber fazer, dessas 65,5% afirmaram realizá-lo mensalmente, 12,5% nunca o ter realizado e 23% das mulheres acima de 40 anos não realizaram mamografia. **Conclusão:** destaca-se a necessidade do desenvolvimento de intervenções educativas efetivas direcionadas aos fatores de riscos e detecção precoce do câncer de mama nos serviços de saúde.
Descritores: Enfermagem; Neoplasias da Mama; Saúde da Mulher; Prevenção de Câncer de Mama.

Objetivo: describir el perfil de mujeres atendidas en Unidad Básica de Salud e identificar actitudes relacionadas a la detección precoz del cáncer de mama. **Métodos**: investigación exploratoria y descriptiva, con 40 mujeres mayores de 20 años, después de la consulta de enfermería. **Resultados**: parte de las participantes poseía factores de riesgo para el cáncer de mama, especialmente menarquia antes de 12 años 57% (n=23), en 70% (n=28) los senos no se examinaron en la consulta y 57 5% (n = 23) informaron nunca a haberlo hecho. Acerca del autoexamen, 80% (n = 32) de las mujeres afirmaron saber hacer, éstos 65,5% indicaron que hacían mensualmente, 12,5% nunca habían hecho y 23% de las mujeres mayores de 40 años no se sometieron a mamografía. **Conclusión**: hay necesidad de desarrollar intervenciones educativas eficaces dirigidas a los factores de riesgo y detección precoz del cáncer de mama en servicios de salud.
Descriptores: Enfermería; Neoplasias de la Mama; Salud de la Mujer; Prevención de Cáncer de Mama.

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Introduction

Cancer or neoplasm consists of abnormal, uncontrolled and autonomous cell proliferation, that is, beyond the control of mechanisms that regulate cell multiplication, in which cells reduce or lose the ability to differentiate because of changes in the genes that control cell growth and differentiation[1]. Breast cancer is probably the most feared by women due to its high incidence and especially the psychological effects that influence the perception of sexuality and self-image[2].

Cancer development process is usually slow and may take some years for a cell proliferation, originating a palpable tumor. This process has some stages, initiation being the first, where genes suffer carcinogenic factors; the second is promotion, consisting in the action of cancer-causing agents in the altered cell; and the last phase is progression, defined by uncontrolled and irreversible cell proliferation[2].

Breast cancer is the second most common type in the world and the most common among women, accounting for 25% of new cases each year. In Brazil, 57,120 new cases were estimated, with an estimated risk of 56.09 cases per 100,000 women in 2014. With the exception of non-melanoma skin cancers, breast cancer is the most common among women in the country, except in the North Region, where cervical cancer is the leading one[3].

The main risk factors for the development of breast cancer are related to age, women's reproductive life, family history, alcohol consumption, overweight, physical inactivity, exposure to ionizing radiation, and high density of breast tissue[3].

It is worth mentioning that strategies such as conducting clinical breast exam and annual mammography, when necessary in women aged over 40 years, can enable the early detection of this disease. Moreover, we highlight the importance of breast cancer screening in women at higher risk, who should also receive guidance on conducting breast self-examination for early detection of breast cancer. Nevertheless, in developed countries this practice is seldom considered because it does not affect mortality. In Brazil, however, such action represents a women's awareness instrument[4]. Study verified that the great majority of women have knowledge of the exams for early diagnosis, however a significant share forget to perform self-examination[5].

For this reason, it is important to educate women about the signs and symptoms of cancer. A study conducted revealed the need of interventions focusing on comprehensive care, in other words, the implementation of effective strategies that not only encourage the correct performance of self-examination, but also other preventive methods and especially the public awareness of the adoption of practices toward early diagnosis in initial stages, thus increasing the chances of a successful treatment[6-7].

Considering the severity of breast cancer, the role of health professionals is essential to guide women on the frequency of gynecological consultations and the importance of conducting regular screening tests such as mammography, clinical breast exam, and self-examination[8].

Given the above, it was recognized the need to know the profile, identify the risk factors for the development of breast cancer and the attitudes of women treated at the Family Health Strategy of Primary Care Unit concerning the early detection of breast cancer.

For this purpose, we used the following questions: Who are the women treated at the outpatient primary care unit for breast cancer prevention? Do they present risk factors for developing breast cancer? And what are their attitudes toward early detection of breast cancer?

In this context, this article aimed to describe the profile of women treated at primary care unit and identify the attitudes toward early detection of breast cancer.

Method

Exploratory descriptive study conducted in primary care unit of a municipality in the south region of Maranhão, Brazil, which has three Family Health Strategy teams. It took place as part of the extension project entitled "Women's Health: breast cancer prevention in Primary Care Unit, Imperatriz, Maranhão". Data collection occurred after nursing consultation for collection of cytology screening exam for cervical cancer, since this is one of the moments indicated for searching signs and symptoms of breast cancer.

The population comprised the users assisted from August to October 2013 in the primary care unit studied. To determine the study subjects, the following inclusion criteria were applied: women aged over 20 years, in the primary care unit for performing the cervical cancer prevention exam, and who were psychologically and/or emotionally able to answer the questionnaire. Women diagnosed with breast cancer were excluded, hence there was no case in this study. During the collection in primary care unit, 112 women were treated, however after applying the inclusion and exclusion criteria, 40 women composed the study.

Data collection occurred through a questionnaire with open and closed questions with personal information (age, occupation, education, and family income), risk factors (body mass index, number of daily meals, excessive alcohol consumption, and physical activity), risk factors related to the women's reproductive cycle (menarche, prolonged use of contraceptives, nulliparity, first pregnancy after age 30, and number of medical or nursing consultations), and attitudes toward early detection (clinical breast exam, mammography, and self-examination).

After collection, the data were organized into a database in Microsoft Excel for Windows (version 2007), and the absolute and percentage frequency were calculated.

The ethical aspects of research were respected and the project was submitted to the Research Ethics Committee of the Universidade Federal do Maranhão, which approved it under protocol No. 472,929/2013.

Results

The predominant age group was between 31 and 59 years, with 27 women (67.5%). There were 24 (60%) with secondary education and 13 (32.5%) with basic education. As for occupations, we identified 18 (45.0%) homemakers, 3 (7.5%) students, and 17 (42.5%) with formal employment, with special reference to house cleaners, sellers and self-employed workers, totaling three each.

Fifteen (37.5%) had a family income below one minimum wage, and 24 (60%) up to two minimum wages, considering the minimum wage equivalent to US$ 339.00.

Table 1 shows the risk factors for the development of breast cancer.

Table 1 - Risk factors for the development of breast cancer

Variables	n(%)
Body Mass Index (weight)	
Low	2(5.0)
Normal	17(42.5)
Overweight	11(27.5)
Class I obesity	4(10.0)
Class II obesity	6(15,0)
Number of daily meals	
2 – 3	23(57,5)
4 – 5	14(35,0)
6	3(7.5)
Alcohol consumption (times per week)	
No consumption	29(72.5)
1	5(12.5)
2	3(7.5)
Rarely	3(7.5)
Physical activity (times per week)	
No practice	21(52.5)
> 2	3(7.5)
> 3	11(27.5)
Everyday	5(12.5)
Medical or nursing consultations (times per year)	
None	4(10.0)
1 – 3	29(72.5)
> 4	6(15.0)

As verified in Table 1, 21 (52.5%) women were overweight and the majority (57%) had 2 to 3 meals a day. Among the participants, 11 (27.5%) consumed alcohol, 21 (52.5%) did not perform physical activities, and 35 (87.5%) attend to medical or nursing consultation one to three times a year.

Table 2 corresponds to information about the risk factors related to the reproductive cycle identified in women for the development of breast cancer.

Table 2 - Risk factors related to the reproductive cycle for the development of breast cancer

Risk factors	n(%)
Menarche before age 12	
Yes	23(57.5)
No	17(42.5)
Use of oral contraceptives at the time	
Yes	8(20.0)
No	32(80.0)
Number of children	
0	8(20.0)
1 – 2	18(45.0)
3 – 4	14(35.0)
First child after age 30 (n=32)	
Yes	4(12.5)
No	28(87.5)

It was identified that eight (20%) women had menarche before age 12 and were using oral contraceptives. Four (10%) had no children and 12.5% reported having given birth to her first child after age 30.

Table 3 shows the attitudes of women regarding the early detection of breast cancer.

Data in Table 3 show that 28 (70%) women did not perform the clinical breast exam during the consultation and 23 (57.5%) reported never having performed it prior to consultation.

Table 3 - Attitudes of women regarding clinical exam, self-examination, and mammography

Answers	n(%)
Clinical breast exam during consultation	
Yes	12(30.0)
No	28(70.0)
Performed the clinical breast exam	
Never	23(57.5)
In some point in life	17(42.5)
Performs self-examination	
Yes	32(80.0)
No	8(20.0)
Frequency of breast self-examination (n=32)	
Weekly/monthly	21 (65.5)
Annually/rarely	11(34.5)
Pain during breast palpation (n=32)	
Yes	3(9.3)
No	29(90.7)
Perception of lumps/discharge (n=32)	
Yes	2(6.2)
No	30(93.7)
Women aged over 40 years who performed mammography (n=13)	
Yes	10(77.0)
No	3(23.0)

With regard to self-examination, 32 (80%) reported knowing how to perform it, and four (12.5%) never did it. Nevertheless, 21 (65.5%) perform it weekly or monthly, of which three (7.5%) reported pain to palpation at some point and two (5.0%) noticed lump or discharge. It was observed that 10 (77%) women aged over 40 years have performed mammography at some point.

Discussion

For controlling breast cancer, it is crucial to implement actions for prevention, health promotion and early diagnosis of the disease[6] conducted in ideal

age, in other words, as early as possible. In this study, the majority of women seeking gynecological care were aged over 31 years, the perfect time for early detection. Similar study verified that 72.5% of young women sought health services from one to three times a year, while older women sought it less, even in developed countries[9]. When looking for the health service, it is important that women receive guidance about the risk factors and the appropriate procedures for early detection of breast cancer.

Low family income along with low education levels represent risk factor for the health-disease processes, including breast cancer. It is also believed that they influence the women's demand for health services, in the pursuit of self-care and adoption of preventive measures for this type of cancer[10]. In this study, 60% of participants received up to two minimum wages and had secondary education.

Furthermore, eating-related factors can contribute to a third of cancer cases in developed countries, making them the second foreseeable risk factor for the disease, after smoking. Obesity can also constitute a risk factor, in addition to eating habits, with regard to low intake of fruit and vegetables, high salt intake, and insufficient number of daily meals. Such factors are controllable, thus contributing to reduce the incidence of breast cancer and other diseases[11]. In this study, 52.5% of women were overweight, hence requiring the inclusion in care of information about healthy eating and weight control.

It is known that with technological developments, individuals start to adopt a more sedentary lifestyle, becoming more and more physically inactive. Epidemiological study demonstrated the association between active lifestyle with lower chances of mortality and risk of cancer. In this context, physical activity is a form of preventing and reducing the incidence of chronic diseases, including breast cancer[11]. Nevertheless, this study identified that 21 (52.5%) women did not perform physical activities, which reflects the need for educational interventions aimed at physical activity practices in primary care units.

As regards the risk factors related to the reproductive cycle, we highlight nulliparity, menarche before age 12, first pregnancy after age 30, and prolonged use of oral contraceptives[2-3]. In this study, 23 (57%) women had menarche before age 12, 20% were nulliparous, among those who had children, 12.5% did it after age 30, and 8 (20%) were using contraception at the time of collection. It is observed that the women assisted presented risk factors, especially menarche before age 12. Such factors are more difficult to control, but can be monitored in order to identify the need to perform clinical breast exam, mammography, and self-examination as soon as possible.

With regard to the clinical breast exam, 28 (70%) women reported not having performed it during consultation. Confirming this finding, a study identified a 3.4% rate of clinical breast exam, thus raising questions concerning the women's demand and access to health services or the negligence of professionals in its implementation[6]. In this study, this procedure was conducted in 42.5% of women at some point in their lives, similar to the study that identified 49% of women with clinically examined breasts[9]. Clinical breast examination should be performed in all women seeking health care, regardless of age, and especially in women with a family history of breast cancer, who must also perform a mammography every year after age 35[2].

The results on the implementation of breast self-examination reveals that the majority, i.e. 32 (80%) women, affirmed knowing how to perform it, of which 21 (65.5%) reported performing it at the recommended frequency. It is noteworthy the divergence between knowledge and practice of breast self-examination, since 34.5% of respondents claimed never to have done it or rarely do it, a similar result to that found in a study where nearly all participants identified the purpose of self-examination, but less

than a third performed it[6]. Non-performance may occur due to lack of stimulation or training the proper palpation technique and/or forgetfulness[5,12]. Among the participants who perform self-examination, only 9.3% felt pain during palpation and 6.25% felt a lump or noted discharge. In this context, health education becomes important, taking advantage of the contact with women in order to sensitize them to adhere to the practice of self-examination[6].

It is worth mentioning that breast self-examination becomes an isolated method for detecting breast cancer, recommended only as health education actions for women to contemplate the knowledge of the body. Therefore, self-examination does not replace the clinical breast exam performed by a qualified health professional (physician or nurse)[3].

Mammography is the only method for early diagnosis of breast cancer, since it identifies cellular changes even before the clinical presentation, thereby reducing mortality from breast cancer. It is recommended to perform this test annually after age 40[2,13]. In this study, 77% of participants performed the mammography at the recommended age, demonstrating the need for health professionals to develop educational activities to clarify doubts and identify the difficulties for its conduction.

Considering the profile presented by women and the attitudes related to procedures for early detection of breast cancer, there is need for effective actions of health professionals and services in order to secure the women's access to early diagnosis of this neoplasm.

As regards the disease prevention, nursing professionals play a key role in nursing care for women and in the development of actions related to screening and early detection of breast cancer[14-15]. For this reason, it is important to inform about breast cancer, self-examination, clinical breast exam, and the need for mammography at the right age or whenever there is suspicion or presence of nodules.

Conclusion

Data collected from the profile of women treated at primary care unit and the attitudes related to the early detection of breast cancer revealed that women do not perform early detection procedures, thus hindering the diagnosis.

In this context, it is necessary to implement effective strategies that not only encourage the correct use of self-examination, but also the identification of risk factors and especially the public awareness of the importance of the clinical breast exam and mammography to ensure early diagnosis of breast cancer.

This study is limited for involving only one primary care unit of the municipality, thus we consider it as one more contribution to research in women's health and a stimulus for the development of future studies in this area. Thus, there is need to conduct further research on the theme of early detection of breast cancer, including the reasons why health professionals (physicians and nurses) do not conduct the clinical breast exam and why women do not perform self-examination and mammography.

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Collaborations

Arruda RL and Ferreira AGN contributed to the design, field data collection, analysis, data interpretation, and drafting of the article. Teles ED, Machado NS, Oliveira FJF and Fontoura IG contributed to the design and final approval of the version to be published.

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