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ORIGINAL ARTICLE

METHODS FOR DETECTION OF BREAST CANCER AMONG HEALTH PROFESSIONALS

MÉTODOS DE DETECÇÃO DO CÂNCER DE MAMA ENTRE PROFISSIONAIS DA SAÚDE

MÉTODOS PARA LA DETECCIÓN DEL CÁNCER DE MAMA ENTRE LOS PROFESIONALES DE LA SALUD

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ABSTRACT

Objectives: identifying the methods for detection of breast cancer and the risk factors in health professionals. ***Method:*** an exploratory and descriptive study with quantitative approach, carried out with 96 health professionals of a public hospital in João Pessoa/Paraiba/northeastern Brazil. The data were collected with a questionnaire, then consolidated quantitatively through descriptive statistical procedures, using simple frequency and the percentage with the software SPSS (Statistical Package for Social Science for Windows) version 20, analyzed and discussed in the literature. All this occurred after the approval of a research project by the Research Ethics Committee, CAEE n. 02070512.5.0000.5183. ***Results:*** it was found that 91% of professionals perform some method of preventing breast cancer; however the type and frequency don't match the recommendations of PPCM-INCA. ***Conclusion:*** Although the health professionals meet the detection methods, the participants presented risk of neoplasia. ***Descriptors:*** Women's Health; Public Health; Breast Cancer.

RESUMO

***Objetivos*:** identificar os métodos de detecção do câncer de mama e os fatores de risco em profissionais da saúde. ***Método*:** estudo exploratório, descritivo com abordagem quantitativa, realizado com 96 profissionais da saúde de um Hospital público em João Pessoa/PB/Nordeste do Brasil. Os dados foram coletados com um questionário, em seguida consolidados quantitativamente por meio de procedimentos da estatística descritiva, utilizando a frequência simples e o percentual com o software SPSS (Statistical Package for Social Science for Windows) versão 20, analisados e discutidos com a literatura. Tudo isso, após a aprovação do projeto de pesquisa pelo Comitê de Ética em Pesquisa, CAEE n° 02070512.5.0000.5183. ***Resultados*:** constatou-se que 91% das profissionais realizam algum método de prevenção do câncer de mama, todavia o tipo e periodicidade não condizem com as recomendações do PPCM-INCA. ***Conclusão*:** apesar de as profissionais da saúde conhecerem os métodos de detecção, as participantes apresentaram risco de desenvolver a neoplasia. ***Descritores*:** Saúde da Mulher; Saúde Pública; Câncer de Mama.

RESUMEN

Objetivos: identificar los métodos para la detección del cáncer de mama y los factores de riesgo en profesionales de la salud. ***Método:*** estudio exploratorio, descriptivo con enfoque cuantitativo, llevado a cabo con 96 profesionales de la salud de un hospital público en João Pessoa/Paraíba/Noreste de Brasil. Los datos fueron recogidos con un cuestionario y luego consolidaron cuantitativamente a través de procedimientos estadísticos descriptivos, con frecuencia simple y el porcentaje con el software SPSS (Statistical Package for Social Science for Windows) la versión 20, analizado y discutido con la literatura. Todo esto, tras la aprobación de un proyecto de investigación por la Comisión de Ética de Investigación, CAEE n ° 02070512.5.0000.5183. ***Resultados:*** se encontró que el 91% de los profesionales realizan algún método para prevenir el cáncer de mama, sin embargo, el tipo y la frecuencia no coinciden con las recomendaciones del PPCM-INCA. ***Conclusión:*** aunque los profesionales de la salud encuentran los métodos de detección, los participantes presentan risco de desarrollo de la neoplasia. ***Descriptores:*** Salud de la Mujer; Salud Pública; Cáncer de Mama.

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INTRODUCTION

With regard to studies about cancer, the literature defines it as one that represents chronicity in a set of over 200 diseases having in common a disordered growth of abnormal cells in different parts of the body and can occur at any age, both in childlike in adults.[1-2]

In Brazil, the thematic shows that tumors are the second most common cause of death among Brazilian women, while the breast cancer is in the first place, followed by lung cancer, colon and rectum and cervix.[3] In 2012, the estimate for new cases of breast cancer was a 52.680 estimated risk of 52 cases for every 100 thousand women, with the municipality of João Pessoa with the high incidence in 21,4% per annum.[4]

Among the neoplasms, breast cancer has a representation for women that transcends the biological damage, being relevant to consider the psychological aspects that affect the perception of sexuality and self-image. The mammary neoplasia causes more impact to female figure from diagnosis until the established treatment, which is often mangled due to the aggressiveness of the disease and the late diagnosis.[5-6]

For breast cancer, are defined risk factors, and among these are considered mainly: old age (above 50 years old), reproductive characteristics, personal or family history of breast cancer; obesity, especially among postmenopausal women or after the 60 years; hormone replacement therapy because of the female hormones estrogen and progesterone; alcoholic beverage use.[2,7] Include still other factors, such as: gynecological history, early menarche (the 11 or older), late menopause (55 or older); history of benign proliferative breast disease; nulliparity; and first late gestation (after 30).[8]

As for signs and symptoms of this cancer include presence of lump in the breast and/or armpit, breast pain and changes in the skin that covers the breast, as cambers or retractions with orange peel-like aspect, secretion of fluids, whether bloody or not, should also arouse attention, especially if it occurs in only one of the tits.[8]

To diagnose breast cancer, the most effective ways are: clinical examination of the breast (ECM) and mammography; the self-examination of the breasts (AEM) detects the disease in commonly advanced stage, even when indicated, perform breast ultrasound and MRI. The diagnosis is confirmed by biopsy.[9]

Mammography is the first technique of choice for the breast cancer population screening in asymptomatic women, being the first imaging technique indicated to evaluate most changes mammary clinics. Studies show that there is a wide agreement that the mammographer tracking reduces mortality from breast cancer.[1,8-9]

The Protocol for the prevention of breast cancer from the National Cancer Institute (INCA-PPCM) recommends that the ultrasound is the method of choice for imaging assessment of tangible injuries in women younger than 35 years, while those aged 35 years or more, mammography.[10] from this perspective, the aim is to develop actions to reduce the high rates of mortality, because the actions for its control rely on simple and inexpensive techniques such as AEM technological actions for the diagnosis and treatment of changes detected, allowing healing of cases diagnosed at an early stage.[2]

Although women with cancer are increasingly discovering the disease early and starting treatment when the cure is still possible, others still have fear of examinations for discovery, because the breast is associated with femininity and sexuality, decreasing the chance of cure.[11] so it is imperative that awareness actions that promote early detection of cancer, being educational campaigns a great incentive to female community.

Justified interest in the subject matter on the assumption that the academic training that guides the fundamental goals of health professionals is the provision of care holistically, based on the theory of basic human Needs, realizing that not always these professionals take care of your own health.

This study aims to:

- Identify the methods for detecting breast cancer used by health professionals.
- Identify the risk factors for the development of breast cancer in health professionals.

METHOD

An exploratory and descriptive study, with quantitative approach.[12] This is a study that is part of a research project << Educational Technology: methods for detection of breast cancer and uterine cervix >>.

The investigation was developed in a large hospital, accredited by the unified Health System (SUS), in the city of João Pessoa/Paraiba/Northeastern Brazil. The sample was retrieved from random way and for accessibility, where each Member of the

population had the same probability of being chosen. For the selection of the sample were adopted the following inclusion criteria: be acting at the moment of data collection in one of the units of medical clinic, Pediatric Clinic, Surgical Clinic and Clinic an infectious and contagious disease of the institution, and have availability to participate in the research. Based on these criteria the sample consisted of 96 professionals.

Study participants were informed about the goals and purposes of the survey, allowing their participation through the signing of an Informed Consent.

The data were collected in the clinics of the hospital by the researchers involved in the study, in November 2012 to January 2013, by means of a questionnaire consisting of 14 questions, structured as follows: a) socio-demographic data to characterize the sample; b) risk factors associated with breast cancer; c) methods for detection of breast cancer.

The data collected have been consolidated quantitatively through descriptive statistical procedures, using simple frequency and the percentage with the software SPSS (Statistical Package for Social Science for Windows) version 20, then analyzed and discussed on the basis of the literature.

The study was developed taking into consideration ethical aspects required in Resolution 466/2012 of the Ministry of health[13], and approved by the Research Ethics Committee – CEP/HULW/UFPB with CAEE n° 02070512.5.0000.5183

RESULTS

To characterize the sample were used the following variables: age, marital status, family income and education level, as shown in Table 1. It is observed that 69,8% is more than 40 years old, 56,3% are married, 40,6% receiving more than 6 minimum wages, and 52,1% have postgraduate degrees.

Table 1. -Demographic characterization of health professionals of a Hospital. João Pessoa-PB, 2013. (n = 96)

Variables	Results			
Age	20 to 24	25 to 30	31 to 39	>40 years old
	21%	11,5%	16,7%	69,8%
Marital status	Married	Single	Stable Union	Other
	56,3%	22,9%	6,3%	14,6%
Family income	1 a 2 SM*	3 a 4 SM*	5 a 6 SM*	> 6 SM*
	2,5%	31,3%	15,6%	40,6%
Schooling	High school	Superior	Postgraduation	
	22,9%	25 %	52,1%	

*Minimum wages

Considering that the term risk is used to define the likelihood of a healthy person, exposed to environmental factors or inheritable to acquire a disease, in this study were identified among the interviewed, the factors associated with increased risk of developing breast cancer, among them stood out: menarche among 10 to 12 years old 49 (51%); initiated sexual activity between 17 to 21 45 (46,9%); use as the hormonal method for contraception 20 (20,8%); don't realize physical activity 57 (59,4%); and, does not maintain a healthy nutrition 46 (47,9%).

Table 2. Identification of risk factors related to breast cancer among the health professionals of a Hospital. João Pessoa-PB, 2013.(n = 96)

Variables	Results			
	n %	n %	n %	n %
Menarche	10 to 12	13 to 14	15 to 16	Does not remember
	49 – 51%	38 – 39,6 %	07 – 7,3%	02 – 2,1%
Initiated sexual activity	12 to 16	17 to 21	> 21 years old	Does not remember
	04 – 4,2%	45 – 46,9%	39 – 40,6%	08 – 8,3%
Number of children	1 to 2	3 to 4	More than 4	Does not have
	55 – 57,3%	18 – 18,8%	03 – 3,1%	20- 20,8%
Contraceptive Methods	None 48 - 50%	Hormonal 20 – 20,8%	Preservative 19 – 18,8%	Natural 9 - 9,4%
Breastfeeding	Yes	No	-----	-----
	70 – 72,9%	25 – 26%		
Healthy Eating	Yes 50 – 52,1%	No 46 – 47,9%	-----	-----
Physical Activity	Yes	No	-----	-----
	39 – 40,6%	57 – 59,4%		
Alcoholism	Yes 7 – 7,3%	No 89 – 92,7%	-----	-----
Smoking	Yes 5 – 5,2%	No 91- 94,8%	-----	-----

Regarding the detection methods used by health professionals, as well as the knowledge of the existence of such methods and periodicity of realization, as advocated by the Ministry of Health (MS), got that 37 (38,5%) sometimes perform self-examination of the breasts; 28 (29,2%) never held mammogram; 45 (46,9%) often performs ultrasound breast; and 30 (31,3%) never held consultation with the mastologist.

Table 3. Method for detection of breast cancer among the health professionals of a Hospital. João Pessoa-PB, 2013.(n = 96)

Variables	Results									
	Never		Sometimes		Almost always		Often		No answer	
	n	%	n	%	n	%	n	%	n	%
Self-examination	9	9,4	37	38,5	12	12,5	36	37,5	2	2,1
Mamography	28	29,2	17	17,7	10	10,4	38	39,6	3	3,1
Breast ultrasound	15	15,6	24	25	12	12,5	45	46,9	0	0
Mastologist Consultation	30	31,3	29	30,2	6	6,3	25	26	6	6,3

About the family history of breast cancer, got that 53 (55,2%) did not have nor have such cases of cancer in the family, but 43 (44,8%) had or have in family cases of breast cancer.

DISCUSSION

With regard to socio-demographic data, in the analysis of the variable age group, it is observed in table 1 prevalence of women over 40 years old (69,8%). This result indicates that these women are in the age of risk, whereas the incidence of breast cancer is more common above 35 years old, being diagnosed and affecting mainly women between 40 and 60.[14]

As regards the marital status variable, it is observed that most of the women interviewed 56,3% are married, 22,9% single, 6,3% are in stable and 14,6% have another type of relationship, for example, are divorced.

With respect to family income, it is observed that 40,6% receiving more than six minimum salaries this is due to the fact that women have greater access to information through the media, looking for doctors and interpersonal interest.[15] It is estimated that participants with a high level of income and education have more knowledge and recognize the importance of prevention and detection of this type of neoplasia.

So, conform the level of income it was noted that the level of education, the majority of participants (52%) possess postgraduate course, 25% have higher education and 23% Complete High School. This denotes that the participants must have knowledge about the importance and use of methods of prevention and early detection of breast cancer, reduce mortality from this neoplasia.[15]

With regard to risk factors, the analysis of table 2, it has a low content of smokers (5,2%), meaning that 94,8% of women interviewed do not smoke. This represents a favorable estimate, since tobacco is alone a risk factor for any type of cancer that risk is proportional to the number of cigarettes smoked per day and added to smoking early.[16]

As for the alcoholism can highlight that 92,7% say do not make use of alcoholic beverages, considering this fact as favorable estimate, this being a risk factor only for part of the women interviewed. HM warns that alcohol intake is a risk factor for breast cancer, because there is evidence that ethanol can act as carcinogenic or mutagenic and may increase serum levels of estrogens by raising the action of this hormone in response to cell.[17]

It was found that 59,4% of participants do not practice any kind of physical activity, being essential for women adopting this daily habit, considered a protective factor for breast cancer, promoting delay of menarche and reduction of serum estrogen, aiding in weight control, immune function, the sensitivity to the action of insulin and also protects the woman after the menopause.[1,18]

With respect to the type of feed, it was found that 52,1% maintains healthy eating, while 47,9% are unable to adopt any kind of restrictive diet on the workday. The literature States that animal fat and red meat intake are risk factors for the emergence of breast neoplasm, and must maintain a high fiber diet as protection factor.[19]

As regards the age of menarche, showed that 51 percent of women interviewed initiated the menstrual cycle between 10 and 12 years old, 38 between 13 and 14, 7,3% between 15 and 16 and 2,1% did not remember. The studies show that women who have early menarche linked to a regular cycle are at increased risk of developing breast cancer, compared with those who started the menstrual cycle belatedly and with long irregular cycles. This indicates that the regular ovulatory cycle increases the chance of developing a mammary neoplasm, since estrogen levels are higher during the normal luteal phase, and the cumulative exposure index to estrogen is greater.[18,20]

As for the beginning of sexual activity most participants 46,9% started between 17 and 21; 40,6% above 21 years old and only 4,2% had their first sexual intercourse between 12 and 16. The data obtained it appears that large number of interviewed initiated sexual activity at the end of adolescence, therefore are not in the range of risk, whereas the early onset of sexual activity and nulliparity are risk factors for breast cancer, since they are related to the stimulus of the hormone estrogen, so the longer the time of exposure to this hormone, the greater the risk of developing breast cancer.[6]

As regards the number of children, the data showed that 57,3% have from 1 to 2 children; 18,8% had 3 to 4 children; 3,1% have more than 4 children and 20,8% have no children. The literature shows that the larger the number of children, the greater the protection against breast cancer, since estrogen exposure shall be reduced in each pregnancy.[2]

It was that 72,9% of women breastfed their children. Breastfeeding is a protective factor for breast neoplasm, since sex hormones are reduced during this period and the period of postpartum amenorrhea, but there is still no consensus in the literature about the minimum time of breastfeeding to purchase this protection, it is suggested that at least six months. In addition, apoptosis and exfoliation of mammary epithelial cells can reduce the risk of the emergence of breast cancer through the Elimination of cells that have suffered some kind of damage to your DNA.[21]

A study revealed that the hormonal method is using, but the same has a high risk for mammary neoplasia, this is due to the presence of estrogen and progesterone that promote a spur extending from the mammary ducts hormones.[22]

Finally, in the sample studied, the data obtained concerning means of tracing and detection of breast cancer, reveal that 9,4% of health professionals never performed the AEM. The data show that a large proportion has 1°degree of kinship with people who have developed this neoplasia, thereby being exposed to this genetic risk factor, increasing the chances of developing cancer.

Although the INCA did not stimulate the AEM as isolated strategy for early detection of cancer, one realizes that this method has helped women in the knowledge of your body, thus can identify minor changes visible on the breast. It is necessary for the physical exam is performed by a health professional (doctor or nurse) qualified for this activity, to obtain an accurate diagnosis and decrease negative psychological impacts.[22]

As for the mammography examination, although most women who beheld this research are above 40 years old (69,8) and 44,8 with a family history of cancer is checked a small number of women who perform mammography often. According to the law of mammography (11.664 Act of 2008) the examination shall be performed by all women from the age of 40 (forty) years old for each 2 years if they do not have any abnormality, and when it comes to women with a family history of mother, sister or daughter who developed the disease before 50, mammography should be conducted from the 35 years old, annually.[22]

Breast ultrasound is not used as a tracing method, since it is not able to detect micro-calcifications and has no accuracy in identifying tumors smaller than 1 cm located deep in the breast; it is often a method complementary to the mammogram. Can be performed in young women after the clinical examination if the doctor notices any abnormality.[11] However, research shows that this method is very requested by doctors not to be invasive and an aid in the diagnosis, since 45 (46,9%) of respondents perform breast ultrasound.

With regard to consulting the mastologist there has been a significant part of the sample never held a consultation. Worth noting that, the mastologist is the professional better enabled for tracing and treatment of breast cancer, and the recommendation is that women aged between 40 and 69 years old should be evaluated by this expert, showing thus that there is a deficit of professionals who seek for this specialty.[23]

CONCLUSION

Most health professionals understood the age group at risk for developing breast cancer, being above 40 years old and submit other factors that show high risks of developing it as: heredity, early menarche, not maintain a healthy diet, among others.

You can check also that 91% of the respondents used some method of preventing breast cancer; however the type and frequency does not match the recommendations relevant to literature, making it necessary to adopt preventive measures, as healthy habits of life, respecting the periodicity for carrying out the preventive examinations recommended by the PPCM-INCA; promoting thereby a trace and early detection which may contribute to the

reduction of morbidity and mortality for neoplasm, ensuring better health for these professionals who deal constantly with the health of the general public.

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