

HEALTH EDUCATION: A STRATEGY FOR ACTION AGAINST BREAST CANCER

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ABSTRACT

The objective was to evaluate the effectiveness of educational intervention on breast cancer with users of the Family Health Strategy (FHS), through pre-and post-test comparisons. A quasi-experimental study, developed with 84 women from 18 years-old. The collection occurred in the Family Health Units of the municipality of Sirinhaém - Pernambuco, in the period from May to September in 2013, through three stages: application of pre-test, realization of the activity of health education about the subject and application of post-test. The intervention was significant, being observed the understanding of women regarding breast cancer to be a curable disease and means of prevention, as well as in the association of women who are over 50 years-old, as a risk factor for neoplasm; in both variables it was obtained a value of $p < 0.001$, through the comparison of pre and post-test. Thus, the strategy employed served as the foundation for the acquisition of knowledge by the participants.

Keywords: Primary Health Care. Health Education. Breast Neoplasms.

INTRODUCTION

Because of epidemiological, social and economic magnitude, nowadays the cancer has been characterized as one of the major public health problems. In this scenario, the breast cancer is the third most frequent type of cancer in Brazil and the highest incidence among women, whose estimates for the biennium 2014-2015 indicate the occurrence of approximately 57,000 new cases of the disease, with an estimated risk of 56 cases per 100 000 women⁽¹⁻²⁾.

Importantly, despite breast cancer etiology has not been fully clarified, some risk factors predispose to tumor development in the region. Besides the female gender, age remains one of the most important factors, with increased incidence up to 50 years-old. There are, however, some phenomena related to the woman's reproductive life that also contribute to

the development of cancer, concomitant family history, changes in some genes such as BRCA1 and BRCA2, and the high density of breast tissue⁽²⁾.

As they relate to the potentially modifiable risk factors, studies show overweight, sedentary lifestyle, absence or short periods of breastfeeding, smoking, daily alcohol consumption and exposure to radiation⁽³⁾.

In this context it is worth mentioning that by controlling the above factors, about a third of the population affected annually could be delayed and even prevented the appearance of this neoplasm⁽⁴⁾.

Accordingly, the development of educational practices about risk behaviors and early detection of the tumor are of relevance for promoting individual and collective population health⁽⁵⁾. Therefore, it is imperative to expand the dissemination of information on the subject, allowing for more active participation of the community in order to contribute to the adhesion

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of a healthy lifestyle to transform the current landscape⁽⁶⁾.

Although this dimension it is emphasized that health education can be seen as an integral part of the shares of primary care, in which the health promotion stands out on the healing practices⁽⁷⁾. Moreover, socially vulnerable regions such as the Brazilian Northeast have high rates of mortality in relation to breast cancer; this fact is associated with low knowledge of women about preventive measures and the difficulty of access to screening services⁽⁸⁾.

It is worth so, the reorientation of services, whereas governments have an important role for the purpose of adopting strategies to enable public policies that include health promotion and early detection of breast cancer. That way, it is possible to ensure full attention to the woman, while preserving their independence and dignity, and providing favorable conditions so she can take care of herself⁽⁹⁾.

Given the fragility of records on breast cancer in the studied city, it is reiterated the importance of research in order to contribute to the identification of groups at risk for that cancer, also enabling the empowerment of users to self-care, in addition to supporting interventional nature programs from the results obtained by insertion of educational practice in primary care.

Given these considerations, the aim of this study was to evaluate the effectiveness of educational intervention on breast cancer in women users of the Family Health Strategy, through comparisons of the pre- and post-test.

METHODOLOGY

This is a study of quasi-experimental, which women were subjected to a pre-assessment, pre-test and then they were exposed to an intervention and post-tested. The initial findings were compared with the following results. For this, a research was conducted between the months from May to September 2013, seven Family Health Units (FHS) in the municipality of Sirinhaém, Pernambuco, located 90Km from the capital Recife.

In a meeting with the Manager of Primary Care it was agreed that the activities take place on the days set for each FHS, according to the availability of the service, leaving the

Community Health responsible for inviting the female population, they were enrolled in the coverage area of Strategy Family Health, to participate in the action. Thus, for convenience, the sample used in the study was the result of women from the 18 years-old who previously reported attended the Units in the days of team performance.

For obtaining the information the survey was divided into three stages. Initially, the research took place through a structured questionnaire developed for the survey. This instrument, identified as pre-test, consisted of the purpose of the study relevant issues, such as socio-demographic characteristics of the participants, variables characterizing the knowledge of women users of USF Sirinhaém about breast cancer, the factors risk associated with this neoplasm, preventive practices, diagnosis and treatment. In the second phase, activity in health education was held on the theme. Finally, to verify the effectiveness of the educational intervention, the instrument was re-applied in the first stage, the stage of the post-test.

For expanding knowledge of the female population enrolled by the public health service of Sirinhaém, they were selected work strategies for intervention development. The main ones were: dialogued exposures, using different visual aids, to provide input for discussions; construction of exhibition frames on risk and protective factors for breast cancer; theater of self-examination; dynamics of communication for exchange experiences and knowledge.

The data treatment sought to compare the results of pre- and post-test as the final survey results obtained from the use of the questionnaire. Data were stored in a Microsoft Office Excel 2013 spreadsheet and tabulated with the aid of the Statistical Package for Social Sciences (SPSS) version 21.

In the analysis, absolute and percentage distributions were obtained, and the statistical measures: mean, standard deviation and median. We chose to also use the chi-square test of Mc-Nemar, with a margin of error of 5%.

The study was elaborated in line with Resolution 466/2012 of the National Committee of Ethics in Research - CONEP and it was submitted to the Ethics Committee (CEP) of the Hospital Universitário Oswaldo

Cruz/Emergency Hospital of Pernambuco - HUOC/PROCAPE and approved from CAAE protocol 04226612.5.0000.5192/2012 and opinion No. 51627.

RESULTS AND DISCUSSION

The study included 84 women. In The table 1 is presented the demographic profile of the participants. The age ranged from 18 to 75 years-old with a mean of 37.07 years-old, SD = 14.25 years-old and a median of 34.50 years-old.

With regard to education, it could be identified that 70.2% (59) of users of FHS had not completed high school. Low educational levels found in the study functions as a possible barrier in inequity of access to health information⁽¹⁰⁾.

Regarding the organization of the service offered from the Primary Health Care, it is evident that the majority of respondents have resided in the countryside, result of the distribution guided by the principle of equity of access to health services in the territory, for the seven FHS included in the study five are located in the countryside.

Table 1 - Distribution of users of the Family Health Strategy, by socio-demographic characteristics. Sirinhaém, PE, 2013.

Socio-economic variable	N	%
Age Group		
18 to 29	30	35,7
30 to 39	23	27,4
40 to 49	13	15,5
50 or more	18	21,4
Education		
Illiterate	7	8,3
Elementary School (1 th to 4 th grades)	23	27,4
Middle School (5 th to 8 th grades)	20	23,8
High School (Incomplete)	9	10,7
High School (Complete)	24	28,6
Graduation (Complete)	1	1,2
District		
Rural	46	54,8
Urban	38	45,2
Total	84	100

Sequentially on Table 2 the comparative data is related to the percentage of women's knowledge of breast cancer. At this stage, the dynamics of communication for exchange of experiences was used, in which two mediators encouraged the participants to verbalize their knowledge on the subject: What is breast cancer? Through this dynamic it was possible to reconstruct a coherent thought on the subject, enabling the expansion of human knowledge.

Through the findings we found significant differences in the responses after the completion of the intervention and implementation of the post-test, especially in

favorable statements about the topic. It was identified a value of $p = 0.001$ for the alternatives of genetic disease and disease that can be cured and with means of prevention.

Initially during the pretest 7.1% (6) of respondents reported not knowing anything about the disease, while the post-test 1.2% (1) they gave the same answer. Therefore, it is necessary to consider the characteristics of each community loco-regional because the associations between vulnerable socioeconomic indicators and the lack of guidance on protective measures for health⁽¹⁰⁾.

Table 2 - Knowledge of women about breast cancer in pre- and post-test. Sirinhaém. PE, 2013.

Breast cancer is:	Evaluation				Value of p
	Pre		Post		
	N	%	N	%	
Incurable disease with no means for prevention					
Yes	6	7,1	2	2,4	$p^{(1)} = 0,125$
No	78	92,9	82	97,6	
Genetic Disease					
Yes	52	61,9	75	89,3	$p^{(1)} < 0,001^*$
No	32	38,1	9	10,7	
Disease that can be cured and with means of prevention					
Yes	68	81	81	96,4	$p^{(1)} < 0,001^*$
No	16	19	3	3,6	
It does not matter when the disease is discovered, there is always cure					
Yes	19	22,6	19	22,6	$p^{(1)} = 1,000$
No	65	77,4	65	77,4	
Do not know about the disease					
Yes	6	7,1	1	1,2	$p^{(1)} = 0,125$
No	78	92,9	83	98,8	
Total	84	100	84	100	

(*) Significant difference at 5.0%. ⁽¹⁾: By using Chi-square test of McNemar.

The data in Table 3 refer to the knowledge of the participants about the risk factors for breast cancer; expressiveness of responses between the findings of the pre- and post-test was evidenced, so that p (P value) filed less value than 0 05 in almost all comparisons.

For the construction of learning at this stage, a surprise box used as an educational proposal was used. Objects of representation to the theme were placed in a closed box, then the women were asked to remove the objects and think about their correlation with breast cancer. In the dynamics there were: a breastfeeding bottle highlighting the benefits of breastfeeding for both mother and child; a cigarette wallet to inform its association with various cancers; a beer addressing excessive alcohol consumption and damage to health, including cancer; an apple to highlight the importance of healthy eating; gym pants as a way to encourage physical activity, it is considered a protective factor for breast cancer⁽¹¹⁾.

Furthermore, in order to strengthen the expansion of knowledge of the participants on a prominent theme in women's health, it was held the activity of an expository context. During the intervention, the women were instructed to build two frames with the use of the bondable figures the protector and risk. For the realization of the task images with representation about neoplasia in the study were chosen, among them there is the "women who are over 50 years-old", "obesity", "smoking", "alcohol", "sedentary lifestyle", "breastfeeding", "genetic chain", "oral contraceptives", "radiation", "physical exercise" and "healthy eating".

Although not all risk factors are modifiable, it is essential that the female population receives information about the risks to which they are exposed, as the strategy allied to develop a positive attitude and conscious in relation to breast cancer⁽¹²⁾.

In this sense, the actions of health education needs to be re-planned and re-viewed for professionals in primary care, in order to

contribute to the adoption of measures to minimize the risks for the development of neoplasia, mainly to serve the population with limited information on the topic. Although it is not possible to estimate the impact of each factor in the genesis of the disease, its minimization can somehow contribute to a healthier life⁽¹³⁾.

The rates of incidence and mortality from breast tumor increase with age. According to the American Cancer Society 79% of new cases and 88% of deaths from breast cancer occurred in women 50 years-old or older⁽¹¹⁾. From the data obtained in the study, it was observed that the phase of pre-test, 35.7% (30) of respondents

were unaware of the association of age above 50 years-old with the appearance of the tumor in the breast region, while in the post-test, 86.9% (73) of the participants revealed knowing the influence of age as a risk factor for neoplasia.

The research also identified that prolonged breastfeeding was reported as a risk factor in the pre-test 21.4% (18) of the women, which reveals ignorance on the part of some, regarding the subject. Therefore, the Primary Health Care should value the importance of breastfeeding as a health promoter because of the advantages that will occur for the mother-son ratio⁽¹³⁾.

Table 3 - Knowledge of respondents about the risk factors for breast cancer in pre- and post-test. Sirinhaém, PE, 2013.

Risk factors	Evaluation				Value of p
	Pre-N	%	Post-N	%	
Age over 50 years-old					
Yes	54	64,3	73	86,9	$p^{(1)} < 0,001^*$
No	30	35,7	11	13,1	
Sedentary lifestyle					
Yes	49	58,3	65	77,4	$p^{(1)} = 0,005^*$
No	35	41,7	19	22,6	
Exposure to radiation					
Yes	42	50	71	84,5	$p^{(1)} < 0,001^*$
No	42	50	13	15,5	
Prolonged breastfeeding					
Yes	18	21,4	3	3,6	$p^{(1)} = 0,001^*$
No	66	78,6	81	96,4	
Smoking					
Yes	71	84,5	81	96,4	$p^{(1)} = 0,013^*$
No	13	15,5	3	3,6	
Oral contraceptives					
Yes	38	45,2	70	83,3	$p^{(1)} < 0,001^*$
No	46	54,8	14	16,7	
Family historic in neoplasia					
Yes	58	69	67	79,8	$p^{(1)} = 0,150$
No	26	31	17	20,2	
High fat diet					
Yes	62	73,8	74	88,1	$p^{(1)} = 0,036^*$
No	22	26,2	10	11,9	
Total	84	100	84	100	

^(*): Significant different to the level of 5,0%. ⁽¹⁾: By using chi-square test of McNemar.

It was interesting to note that the oral contraceptive showed changes in the pattern of response. Despite investigations have not

revealed sufficient data on the subject, it is well known that the group of a huge risk for tumor development in the mammary region, due to the

use of hormonal contraceptives are those who initiate its use early, prolonged and before the first pregnancy⁽¹⁴⁾.

In regard to the projection of breast cancer on women's health, there is the need to talk about public policy proposals which are relevant to the identification of problems that allow an expanded look of the interdisciplinary team and allowing sharing of knowledge, with the purpose of that the disease is detected in a stage of possible recovery, increasing the likelihood of healing, pain and preventing mortality⁽⁹⁾.

Among the investigations of the study, it was revealed that 89.2% (75) of respondents have performed the breast self-examination, and among these, 42.8% (36) have practiced self-examination at least once a month in the past six months prior to the survey. Although it is not encouraged as an isolated method for diagnosing, self-examination is recommended as action of education for the recognition of changes in the region, offering a good opportunity for early detection of cancer. However, women should be informed about the potential benefits, limitations and damage, especially the possibility of a false-positive result, associated with breast self-examination⁽¹⁵⁾.

To guide the population to the learning of self-examination a play was performed in a ludic way, so that the inspection of the breasts was guided by the lifting of the arms with the phrase "hands to the head that is a robbery"; hand in the waist with the guidance "pose for the photo"; and compression waist was compared with the "Hulk's strength." After that time we taught how to perform palpation of the breast and nipples expression.

Regarding knowledge about mammography, among the surveyed, 46.4% (39) reported that the examination must be started after 40 years-old and 4.8% (4) stated that after 50 years-old. The participants received guidance through conversation that the National Cancer Institute José Alencar Gomes da Silva (INCA) recommended further clinical breast exam annually from the age of 40 years-old, while mammography should be ensured to all women after age 50 years-old, with a maximum interval of two years. When referring to a woman at high

risk, the combination of the two examinations annually shall be ensured after 35 years-old⁽¹⁶⁾.

About the prior knowledge of the respondents about the existence of the treatment for cancer in the study, 95.2% (80) stated in the pre-test they know about it. But from these, 50% (42) reported they do not know the therapeutic modalities. At posttest, the surgical procedure was referred to treatment proposal by 84.5% (71) participants, 60.7% by radiotherapy (51), chemotherapy by 84.5% (71) and the use of medication by 51.2% (43).

For many years, the surgical treatment of breast cancer is based, as one option, on the total removal of the breast. Over time, important advances in the management of breast tumor have enabled the development of technologies that led to the reformulation of surgical techniques with the combination of effective drugs for systemic therapy. The disease has to be treated within an individualized, multidisciplinary approach, and not oriented only by the extent of the tumor, but also in the biological characteristics of the patient⁽¹⁶⁾.

With the aim to awaken critical thinking and reflection on the role of therapy in the recovery process of breast cancer, a didactic and pedagogic presentation with information about the types and functions of each treatment was performed through exhibitions dialogued with the use of audiovisual features slides. The approach ensured a significant learning experience for everyone involved. Thus, to reapply the initial questionnaire, 100% (84) women reported having knowledge of the existence of treatment of this tumor.

Thus, it is important to emphasize that there is not a limited age for gynecological care, and advising that this should be continuous, varying from intervals depending on the medical history of each woman⁽¹⁷⁾.

In search of an education model that includes the other in its complexity, the principles of Paulo Freire were seen as a framework for guiding the construction of learning, supported in a dialogue, solidarity, linking scientific knowledge with the knowledge of the other. This method favors the creation of a collective work, facing the ethical commitment. Therefore, the dissemination of information related to the reality of the population can recreate knowledge,

expanding knowledge and allowing the conduct of a critical awareness of a particular issue⁽¹⁸⁾.

At study end, 36.9% (31) of the participants revealed that the risk for developing breast cancer is considered. In justification, the most prevalent factor was family history of cancer, mentioned by 25.8% (8) women.

It is evident the importance of awareness for humans, with the possibilities of transforming problems that tend to affect society, such as the construction of a coherent thought on the prevention of breast cancer by the female population. For this, there is need to adopt priorities that become active policies for protection against this disease, especially for people in a position of greater economic vulnerability, making it possible to prepare a trajectory of care within the women's health⁽¹⁹⁾. Articulated and continuous efforts which involve government and other segments of society are essential, so that results and progress can be tracked and recognized in the medium and long term⁽²⁰⁾.

Despite the findings are relevant, this study has limitations in the absence of a control group, convenience sampling, and women with different age groups. However, the investigation was performed with the proposed objective through a simple technique, low cost and practice. Nevertheless, the survey can be used as

a proposal to be easily performed by the public health system.

CONCLUSION

It is estimated that the educational intervention which was developed in the city of Sirinhaém was effective because when the pre- and post-tests were being prepared, the changes were observed in patterns of responses related to breast cancer is a genetic disease that can be cured with means of prevention as well as in the association of age above 50 years-old as a risk factor for neoplasia. There were also learning about the main risk factors and therapeutic modalities engaged.

The survey pointed to a poor understanding on the subject of women who have been attended by the Family Health Strategy of Sirinhaém. For this reason, it is important to plan public policies for the implementation of educational activities emphasizing the promotion of women's health.

Therefore, the study sought to contribute to the dissemination of relevant information on breast cancer, in order to expand the knowledge of the female population of Northern interior for a prominent theme for Brazilian public health. The strategy has served as the foundation for the conduct of interventional activity, by directing women to acquire knowledge.

EDUCAÇÃO EM SAÚDE: UMA ESTRATÉGIA DE INTERVENÇÃO FRENTE AO CÂNCER DE MAMA

RESUMO

O objetivo foi avaliar a efetividade da intervenção educativa sobre câncer de mama com usuárias da Estratégia de Saúde da Família (ESF), mediante comparações do pré e pós-teste. Estudo quase-experimental, desenvolvido com 84 mulheres a partir dos 18 anos. A coleta ocorreu em Unidades de Saúde da Família do município de Sirinhaém – Pernambuco, no período de maio a setembro de 2013, através de três etapas: aplicação do pré-teste, realização da atividade de educação em saúde acerca da temática e aplicação do pós-teste. A intervenção foi significativa, sendo observada a compreensão das mulheres no tocante ao câncer de mama ser uma doença curável e com meios de prevenção, assim como na associação da idade acima dos 50 anos, como fator de risco para a neoplasia, em ambas as variáveis obteve-se um valor de $p < 0,001$, mediante comparação do pré e pós-teste. Dessa forma, a estratégia empregada serviu de alicerce para a aquisição do conhecimento pelas participantes.

Palavras-chave: Atenção Primária à Saúde. Educação em Saúde. Neoplasias da Mama.

EDUCACIÓN EN SALUD: UNA ESTRATEGIA DE ACCIÓN CONTRA EL CÁNCER DE MAMA

RESUMEN

El objetivo fue evaluar la efectividad de la intervención educativa sobre el cáncer de mama con los usuarios de la Estrategia de Salud de la Familia (ESF), a través de comparaciones de la pre- y post-prueba. Un estudio cuasi-experimental, desarrollado con 84 mujeres a partir de 18 años. La colección se produjo en las Unidades de Salud de la Familia del municipio de Sirinhaém-Pernambuco, en el período de mayo a septiembre de 2013, a través de

tres etapas: aplicação de pre-test, realização de la actividad de educación para la salud sobre el tema y aplicación del post-test. La intervención fue significativa, observándose la comprensión de las mujeres en relación con el cáncer de mama ser una enfermedad curable y con medios de prevención, así como en la asociación de la edad mayor de 50 años, como un factor de riesgo para el cáncer, en ambas variables se obtuvo un valor de $p < 0.001$, a través de comparación pre y post-test. Por lo tanto, la estrategia empleada sirvió como base para la adquisición de conocimientos de los participantes.

Palabras clave: Atención Primaria de Salud. Educación en Salud. Neoplasias de la Mama.

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