



Educational Intervention on Breast Cancer in a Family Medical Office

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Abstract

An educational intervention was carried out with the aim of increasing the level of knowledge on the prevention of breast cancer in patients belonging to the Office 106 of the Department of Health Baire, Province of Santiago de Cuba, during the period September 2012 to August 2013. The universe consisted of all patients (92) over 15 years of either sex, after applying simple random sampling, I am a sample of 59 individuals (37 females and 22 males) which were divided into two groups, one of 20 and 39. As a result another postoperatively 52 people completed with suitable knowledge for 88.14%, resulting only 7 with inadequate general knowledge; It was achieved significantly increase general knowledge with a coefficient of variability of 86.00.

Keywords: Breast Cancer; Breast Self-Exam; Breasts

Introduction

The breast is a synonym for humanity beauty, protection and food, but also the women attribute most exploited by plastic, literature and trade in all times and cultures.

Numerous pathological processes both benign and malignant that can affect breast tissue, being continuous pattern of consultations in females, and the family doctor the first link where the woman begins to walk for help, being breast cancer one of the first cause of death in female sex.

Breast cancer is a complex, systemic disease, and although it has similar features in all patients, it is important host-tumor relationship and other environmental factors surrounding the host, it is to the patient. 80% are benign, so no need to fear his detection [1,2].

the cause or causes that may cause breast cancer is still unknown, but it is known that there are certain risk factors associated with the disease such as age (over 40 years but increasingly appear in younger age), family factors hereditary front, history pathological breast cancer, previous breast disease, early menarche, menopause late, nulliparity after first birth of 35 years, obesity, hormonal treatments, diet rich in animal fat, alcohol, not breastfeeding, radiation and others [3].

Suspect disease to the mismatch in shape and size of the breast, skin changes, redness (erythema), nodules or abnormal growths in the breast tissue, lymph node, abnormal discharge from the nipple or reduction its volume [4].

With regard to the detection of tumor in the breast, the MRI is more effective show that mammography, the most common exam,

with earlier warnings of carcinomas, according to a study conducted in Germany among 6,000 women to compare the two systems. MRI got 40% of lesions undetected by mammography, 78% of them in the most aggressive category. These results were confirmed by biopsies. The mammography detected accumulation of calcium around the lesions while the resonance can see abnormal growth of vessels sanguineous [5].

Breast cancer begins in cells of the breast in women and men. Worldwide, breast cancer is the second most common after lung cancer (10.4% of all cancer incidence, both sexes) and the fifth most common cause of cancer death. In 2005, breast cancer caused 502,000 deaths worldwide (7% of cancer deaths; almost 1% of all deaths). The incidence of breast cancer in men is about 100 times less common than in women, but men with breast cancer is considered to have the same statistical survival rates women [6].

In the United States of America is the second leading cause of cancer-related mortality among women and produces about 43 000 deaths annually; Breast cancer is the most common malignancy in white women above 40 years of age. 75% of these carcinomas occur in women over 50 years, the incidence of breast cancer is 72 x 100,000 and it is estimated that 12.5% of women suffer this cancer at some point in their lives, of which 3.5% die annually. In Mexico, the frequency of breast cancer is the second malignancy in women, only surpassed by cervical cancer. The incidence is 18.3 x 100 000 women and the average age of onset is 48 years. Chile ranks fourth in South America, with a mortality rate standardized by age of 12.51 per 100. 000 women and an incidence rate standardized by age of 37.97 per 100,000. It is estimated that 22,735 women die annually (mortality rate of 14.77 per 100,000) and new

69.924.casos occur (incidence rate of 45.14 per 100,000) in this continent [7,8].

In the United States in the year 2007 178.480 new cases were diagnosed died 40.460 [9].

In Cuba there is a National Program of Cancer Control which guides women without symptoms to breast self-examination performed monthly, examine their breasts with her family doctor once a year and mammogram between the ages of 50 and 64 every three years. Any alteration in the breast should lead women to consult their doctor without loss of time [10].

Cuba in 1996 had a rate of incidence and mortality of 32.4/100,000 more women in 1995 was 27.4 and in 1998 represented 17.5% of cancer deaths in this sex. It has shown that one of every 14 or 16 women may make breast cancer at some point in their lives to the closure of 2006 the rate was 21.5/100,000 women [11].

In recent years with the implementation of the program of early diagnosis it has managed to detect a greater number of new cases, but still the results are not expected. In Santiago de Cuba province in the year 2007 290 cases were diagnosed 5.51% under 35 years, only 37% Stage 0 - 1 with 172 cases in stage II (Control Panel on cancer in Santiago de Cuba by Dr. Perera in Scientific Meeting Prevention, Control and Treatment of cancer held in February 1, 2009), indicating these statistics that breast cancer remains a health problem because they are still high mortality rates for this cause because diagnoses are not being made in initial stay.

The choice of cancer as an object of study is directly related to the prevention of disease, and finds justification and support in several facts that have strong roots and social impact. Among these are the following:

- The place of cancer as a cause of death in developed countries and some who, like Cuba, are developing.
- The trend to increased morbidity and mortality from cancer worldwide.
- The dramatic fact that a large proportion of patients, especially in countries of the Third World, are not diagnosed or they are already in incurable stages of the disease.
- The global deterioration that causes the disease in self-esteem and quality of life, both the patient and his family, with consequent suffering for everyone.
- The absence of national programs to alleviate cancer pain, symptom control and palliative care in many countries of the world, as well as the incomplete implementation of such programs, for various reasons in some places where they are implanted.
- Evidence growing of physiological and psychological consequences for the patient the pain that is not relieved,

among which include insomnia, anorexia, damage to the immune system, the difficulty of movements, anxiety, depression, feelings of hopelessness and helplessness.

The level of knowledge on the prevention of breast cancer is low, which is confirmed in the educational diagnosis made in the office so the research problem is given by insufficient knowledge on the prevention of breast cancer in the population corresponding 106 at the office of the Health area Baire, Contramaestre municipality, Santiago de Cuba Province.

Objective

Assess changes in knowledge about the prevention of breast cancer.

Methods

Medical bioethics

The ethical approach to science and humanistic foundations of society in Cuba, leading to the inevitable fulfilment of bioethical precepts in research with human beings, and its principles respect for human life, self-determination of the individual, charitable and maleficence, and justice including freedom, rights, equality and equitable distribution of health care and health services.

Pre-authorization research people were asked to carry out this work and explained what it was the same. They were also informed that participation in the research was voluntary, it was not risk or harm to their health, which did not represent any commitment and had complete freedom to accept or not; but that it was important and necessary for conducting research. It was requested permission from the Council of Scientific Activities.

The rules raised in the Declaration of Helsinki were handled for the development of the informed consent.

General characteristics of research

An investigation of educational intervention was made to increase the level of knowledge about prevention and control of breast cancer in patients belonging to the Office 106 of the Department of Health Baire, municipality Contramaestre, Santiago de Cuba Province, during the period September 2012 to August 2013 by group techniques, which ensured interactive participation in the acquisition of knowledge through an educational program for doctors Ligia B. Barrueco Botiel and John E. Burgos Pineda¹¹ to achieve the proposed objectives, taking into account elements of the National Education Program and the National Cancer Screening Program for Breast Cancer.

Universe

It consisted of all patients (92) over 15 years of both sexes belonging to the Office 106 of the Department of Health Baire, municipality Contramaestre, Santiago de Cuba Province, during the September 2012 period - August 2013.

Shows

After applied the inclusion criteria, simple random sampling was used, being constituted by the same 59 individuals (37 females and 22 males) which were divided into two groups of 20 and one of 39.

The research consisted of three stages: diagnosis, intervention and evaluation.

In the diagnostic step it was performed:

- Meeting with people in a conference on the content of the topics that would be explained, in order to sensitize and motivate them to cooperate with the investigation all of which was prepared with an appropriate language for its full understanding was given.
- Collection of information from the survey conducted individually as well as qualification of the same to measure knowledge about breast cancer.

Main variables measuring responses

The variables were communicated by the level of knowledge before and after application of educational intervention generally and with respect to questions made considering: Suitable general knowledge, in the case of the patient reaches 70% or more of the correct answers.

General knowledge inadequate, in the case of the patient reaches less than 70% of the correct answers.

Adequate knowledge was also considered inappropriate in a particular way and depending on the answers to the questions, which took into account the knowledge on the following topics:

1. Knowledge about breast cancer.
2. Risk factor's.
3. Warning signs.
4. Breast self-examination.
5. Early diagnosis methods.
6. The prevention and cure of breast cancer.

Questions corresponded to the themes of the educational program.

They were assessed individually:

- Right: When the answer was rated excellent and acceptable.
- Inadequate: When the response was assessed as poor.

Intervention stage

The actual intervention in a first phase by working 6 sessions over a period of 3 weeks, each week two subjects were given by the author of the work was developed.

People were divided into the 3 subgroups above and received the same program separately, part-time, 50 minutes each session.

Own activities were performed educational techniques and explanatory method was used - Demonstration and propaganda graph to disclose selected topics.

The program of educational activities "Watch your breast", which had already been tested to determine its reliability and validity, doctors Ligia B. Barrueco Botiel and John E. Burgos Pineda¹¹, who gave permission for the application is applied of the same. This ensured that everyone take part in participatory techniques and receive knowledge of the 6 selected topics.

In a second phase, the meeting 7, the consolidation of the knowledge imparted developed in previous meetings as well as to evacuate the doubts they had to respect.

Educational program: "Take care of your breast"

Authors: Dr. Ligia B. Barrueco Botiel., Dr. John Edward Burgos Pineda.

Meeting 1:

Introduction

- Presentation of the coordinator.
- Presentation technique to activate the potential of the group.

Goals

- Create group cohesion and motivation activities.
- Achieve the framing of activities.

Developing

The driver of the program is related to two of the characteristics that identify his personality, each participant does the same one by one, highlighting repeated in several of the participants characteristics, which characterizes the group to achieve confidence and cohesion. They explained the need for the application of the questionnaire; proceeding to collect the expectations that leave the same. It was explained the intervention program and methodology.

The problem of breast cancer is shown with a brief introduction to the subject and encouraging an active part in meetings to convert to the end of the same health promoters in preventing breast cancer.

Farewell to the group until the next meeting.

Meeting 2:

Topic 1: General Elements breast cancer.

Introduction

Brief commentary and simple breast cancer as a disease that affects all populations of the world and in Cuba frequency is relatively high.

Goals

- Specify conceptual elements relative to breast cancer.
- Know that the group define what is breast cancer, how and where you can get information respect.

Developing

It was released to the group that cancer is a wild new cell formation process, affects any living and where neo cells formed non-woven resemble source with infiltration properties to the normal surrounding tissue and capacity transplantable to other regions of the individual, this is called metastasis.

Comments were made as

- Cancer is a preventable disease if risk factors thereof are controlled and regular breast examination is performed.
- Breast cancer can be cured if diagnosed early and puts timely treatment.
- For any questions or need information on the subject should contact your doctor, nurse family, who have the proper preparation professional respect.

Then slides were shown on an overhead projector of people affected by breast cancer in different locations to promote debate and reflection, people expressed their views on the observed and dismissed the group to the next activity.

Session 3

Topic 2: Risk factors for breast cancer.

Introduction

He waved to the group asking for a volunteer to expose what he remembered of the previous meeting, wrong is corrected, was reaffirmed correct, ushering in the subject.

Objective

- The group is able to recognize the risk factors for breast cancer.

Developing

They were written on the blackboard sentences incomplete for the group's completed together but in an organized way as follows: was asked to be listed alternately with numbers 1 and 2, the numbers 1 should say the word believed correct blank individually, and the numbers 2 should give your judgment whether it was right or wrong.

They were made known risk factors related to breast cancer such as:

- Early onset of menstruation before 12 years of age.
- Late onset of menopause after age 55.
- Never having had a pregnancy to term.
- First full term pregnancy at an advanced age, after 31 years.
- Family history of breast cancer observed in the mother, sisters or daughters of women. This risk increases further if the family member contracted cancer before menopause.
- Personal history of breast cancer: increased risk of cancer from coming back in the remaining breast tissue.
- Radiation Exposure
- A high fat diet, obesity, excessive alcohol intake and long-term estrogen therapy. For now, these associations are debatable.

Key messages

- Moderate consumption of alcoholic beverages.
- Eat a balanced diet, prioritize vegetables and fruits.
- Did you know that those who have a relative with a history of breast cancer may be more likely to get cancer?
- If you notice a nodule (s), please appears in the breast (s) to go early to your doctor.
- Become more responsible for their health, and take care.

Meeting 4

Item 3: Warning signs of breast cancer.

Introduction

He greeted people, volunteers were asked to say 3 risk factors for breast cancer, was corrected or reaffirmed the answer, the problem of signs and warning signs asking what they thought could be introduced.

Goals

- Participants are able to identify the warning signs for breast cancer.

Developing

They were given to know the warning signs of breast cancer such as:

- Unilateral palpable mass or thickening. The possibility that a palpable breast mass is malignant relative to older, menopause and post the following physical examination: nodule upper outer quadrant, firm consistency, solid appearance, rough edges, little movement on the skin, costal region or surrounding tissue, unilateral, painless and the presence of axillary lymph nodes.
- Nipple discharge. There is increased risk of malignancy in the case that the residues containing secretion is associated hematologic and ground.
- Cutaneous symptoms. Retractions of the skin or/and the nipple, color changes, skin orange peel.

They received more information through a slideshow made in Microsoft Office PowerPoint 2007, in a microcomputer showing different warning signs for breast cancer, which promoted the discussion in the group. People were laid off until next activity.

Meeting 5

Item 4: Breast self-examination and early diagnosis of breast Cancer.

Introduction

He greeted the group asking for a volunteer to expose what he remembered of the previous meeting, he amended or corrected wrong and reaffirmed the right thing, was presented the topic of breast self-examination by asking who knew about it and knew.

Goals

- The group known elements related to breast self-examination and the importance of this as a method of early diagnosis.
- Participants know how and when to perform breast self-examination.

Developing

They were released theoretical elements regarding breast self-examination taking into account the following basic messages:

- Process simple, efficient and to the reach of all.
- It is between the 5th and 10th day after the last day of menstruation.
- It must be done in a room with good lighting, facing the mirror standing and sitting on a hard surface taking certain positions of the arms:
 - **Standing**
 - Arms to the sides of the body.
 - Arms raised.
 - Hands on hips.
 - **Sitting**
 - Leaning forward.
 - Pressing hands hips.
 - **During the bath, standing under the shower or sit in the bathtub, when the skin is moist and hands to move easily over the breast**
 - Use your right hand to examine the left breast, while raising his left arm over his head, to expose more amount of breast tissue.
 - Do the opposite for consideration of the right breast.
 - **Lying**
 - Place a small pillow, or blanket, below the shoulder on the side to be examined, with the arm up, the elbow flexed to 90 ° and the forearm or hand on the head or below it, for better exposure of the breast tissue.
 - Use your left hand to examine your right breast and vice versa.
 - Be careful, palpating fingers in a circular shape from the center to the periphery. Palpate also breast tissue extending armpit.
 - Finally, squeeze the nipple to check for any discharge.
- If there are any changes of the skin, a hard lump or any clear or bloody discharge from the nipple, taking into account the warning signs that were exhibited at the last conference you should inform your doctor immediately.

It then calls on a volunteer pass the front to show the realization of the self based on the foregoing, showing normal breast structures such as the areola, the nipple, breast tissue covered by the skin and always emphasizing the need to go to the qualifying in doubt or suspicion of a nodule or changes in the size or characteristics of the skin personnel. Then called breast self-examination

is performed to check if learned properly, they were told to do it once a month and annually should go to the family doctor so that they conduct a review as to avoid cancer breast timely diagnosis is essential. It fired the group.

Meeting 6

Item 5: Methods of early diagnosis of breast cancer.

Introduction

Are greeted people are asked for a volunteer to perform breast self-examination as a reminder. To reaffirm the knowledge a brief summary on the subject, because of the importance it assumes in the early diagnosis of breast cancer was made.

Objective

- The group learn and be able to identify methods for early diagnosis of breast cancer.

Developing

Cancer is a major health problem worldwide. With the real possibilities of prevention, early diagnosis and proper treatment of this disease, the World Health Organization recommended in 1985 to its member countries implementing National Programs for Control of Cancer, with the intention of organizing the fight against it. In Cuba, where the scourge this is the second leading cause of death, with a tendency to increase both the incidence and mortality, some control measures were being taking shape since the early sixties. Program Reducing Cancer Mortality was implemented in 1987 and later, better defined, organized and taking into account the objectives, purposes and guidelines of the Ministry of Public Health of Cuba until 2000, It became the National Cancer Control Program. This includes actions in the public health education, prevention, early diagnosis, effective treatment and care to the patient without possibility of healing and pain. the importance of the activities of family doctors and primary care team on the success of the program stresses that develops throughout the national territory, and is applied in all instances where medical care is provided.

Volunteers are sought for the staging of several issues among them

A 56 year old patient who was cited work field expressed have pain and feeling a lump in her right breast, on your exam is found a nodule 2.5cm regularly, hard, painless, not adhered to soft tissue in the upper outer quadrant, no discoloration of the skin or retractions, or lymphadenopathy, in unison the doctor performs the examination where the manifest patient that her grandmother died of cancer unspecified location by disown also menarche at age 11 and menopause at age 53, in obstetric history G0 P0 A0. The doctor told the patient the need for breast ultrasound and mammography to reach a more accurate diagnosis, which were specified and implemented.

At the end of the week the patient came to the examinations which reports on ultrasound cystic image of 2.4 cm, the doctor decides that because of the findings in the interrogation and diagnostic impression ultrasound inter consultation requested in breast pathology for biopsy fine needle aspiration (FNA) and cytology.

The goes patient consultation and the doctor the nodule is removed by FNA ultrasound-guided by a simple operation, a week's visit in the field and the patient tells him that the results were negative for malignant cells and to be followed titrating the CMF area of health, thank you to the doctor your help and concern.

Second case

50 year old patient with a history of health which states that the left breast is bigger than the other and although no pain goes to the doctor; to questioning the patient reports in obstetric history: menarche 11 years, G1 A0 P1 after cesarean section 36 years and since that time ingested oral contraceptives which sees menstruation regularly denies family history, a physical examination is not determines node, so the doctor requesting a mammogram of both breasts. A week later the patient comes with mammography reports speculated that image with signs of calcification of 0.6 mm in diameter, only right breast so inter consultation you decide to breast pathology by image suggestive of malignancy, the doctor explains to the patient the importance of having detected the injury in early stages and the need to further that image by specialists who will guide the best respect to the finding. The following inter consultations with specialists breast lumpectomy surgical procedure is decided; which was done without complications and the patient progressed satisfactorily.

The discussion was promoted in the group and fired.

Meeting 7

Item 6: Prevention and cure of breast cancer.

Introduction

Greeted the group, called for a volunteer to expose to the present methods of early diagnosis for breast cancer to remember the previous activity, corrected or rectified wrong, reasserting the right thing, it stresses the importance of diagnosing time breast lesions to prevent and timely cure cancer.

Goals

- Participants aware of the steps to take to prevent breast cancer.
- Participants know that breast cancer has favorable development and improves prognosis with early diagnosis and appropriate treatment.

Developing

They were announced preventive measures to prevent breast cancer, and different aspects related to the favorable evolution and healing of cancer when diagnosis is early.

Key messages

- The techniques used for early diagnosis are self-exam, exam-clinical, ultrasound and mammography.
- Perform breast self-examination once a month.
- The full examination of the breast annually by the doctor, it is one of the most effective measures to prevent breast cancer.
- To request the physician conducting the examination and

mammography to patients who are at risk for breast cancer.

- Reduce food intake although not act, nor it is established the cancer link directly if they can relate to diseases such as fibrocystic breast disease is a risk factor for developing breast cancer, including coffee and chocolate.
- Radiation exposure.
- A high fat diet, obesity, excessive alcohol intake and long-term estrogen therapy, although these associations are debatable.

Meeting 8

Consolidation.

Content: Consolidation of the topics covered.

Objective

- Reaffirm knowledge taught in different subjects.

For output to the consolidation of knowledge taught at previous meetings it was employed an educational game.

He asked the group split into quartets educational game for integrating issues of intervention. opinions were heard about the activity, and the group is fired wishing educational intervention for the prevention and control of breast cancer serve to increase knowledge on the subject and become active health promoters.

Integrators game: Game parchís modified

Author: Dr. John Edward Burgos Pineda, Dra. Ligia B. Barrueco Botiel.

Materials

- Traditional ludo board on which they are painted marks and admiration in scattered boxes.
- Two dice.
- Four tabs (one red, one green, one blue, and yellow).
- A group of cards with questions marked on the back with a question mark, and a group of cards with reflections marked with exclamation point.

Game rules

- Players stand with its listing on the corresponding output color and discussed with dice, which falls out the highest number.
- When a player lands on a square marked with a question mark must answer a question of marked cards that sign, if the answer is wrong walks 10 squares back, on the other hand you have the right steps forward. If in a checked box with exclamation a reflection of the corresponding group card is read.
- The player who first reaches the goal.

Meeting 9

(6 months)

Introduction

Pedagogical test with the same characteristics to which was applied to the initiation of the investigation was conducted.

Goals

- Identify the opinion of the group on the research conducted.
- Identify people who stood out.

Developing

It was directed discuss the positive and/or interesting effects, negative that could be detected throughout the educational intervention.

She was selected most outstanding people collectively and better use during the intervention, which were given a diploma designed for this intervention (Appendix 3).

He encouraged everyone for having actively participated in the educational intervention.

The activity is concluded.

Resources and methods used for learning

- **Oral exposure:** Is the use of language (the word) to explain a topic or activity to develop. This is in charge of the author and is used in the introduction, part of the development and the way to integrate knowledge.
- **Interrogation:** The use of questions to obtain information, viewpoints or verify what they learned, was used to awaken the central concern, tension and reflection of important aspects.
 - **Care:** To ask the question to the group and not directly question the participant.
 - **Usage:** After the presentation of the subject headings and summarized it.
- Demonstration is to run against an individual or group that we are explaining and repeat until your understanding.
 - It allows you to check some aspect of learning and support opinions. With this participation of the members of the group is encouraged.
 - **Use**
 - The activity is explained to be performed.
 - Step by step, emphasizing the central aspects and clarifying any questions you may activity is repeated.
 - It invites participants to repeat the procedure and errors are corrected.
 - It is reinforced right.
- **Skit:** This is the dramatization of a problem before a group in which participants have an opportunity to analyze tasks in circumstances similar to those presented in everyday reality.
 - **Use**

- Delimit the subject to represent.
- Setting the scene preferably with volunteers.
- Dramatization is interpreted.
- Discussion of positive or negative behavior is encouraged.
- Conclusions are drawn with the help of the group.

- **Participatory techniques:** This involves the realization by assistants specific tasks, guided by the coordinator of the group to promote cohesion, reflection, discussion on a given topic.

Use

- Dynamic animation and exercises during the training sessions with the aim of consolidating expertise in the topics covered.

They are used for the purpose of achieving

- Animation and presentation.
- Cohesion.
- Reflection.
- Consolidation of knowledge.

- **Educational game:** Exercise during a training session, to augment knowledge about the topics covered.

Observation means

- Mural with all updated in education, promotion and prevention of breast cancer.
- Sheets mural depicting how to perform breast self-examination.

Evaluation stage

A survey was conducted with similar characteristics to the stage of diagnosis and knowledge were evaluated purchased by individuals 6 months after applied intervention to check the assimilation of basic health messages, as well as the acquisition of new knowledge They were discussed through topics covered.

With this increase was achieved assess knowledge in people participated in the research.

Thus, the assessment carried out before and after the intervention stage, possible to assess changes in knowledge, which were considered as the effect or the result of the educational work carried out in people participated in the research.

It was directed discuss the positive and/or interesting effects, negative that could be detected throughout the educational intervention, which identified the opinion of the group on the investigation.

Selected the most outstanding and best use during surgery and health workers declared themselves of the Care Program your mom, which were given a diploma designed for this intervention.

He encouraged everyone for having actively participated in preventive intervention.

Techniques and procedures

Gathering and collecting information

Obtaining information.

For this investigation a comprehensive literature review was conducted of the subject under study in the Information Center of Medical Sciences through HINARI data base; EBSCO; PUBMED; LILACS and MEDLINE.

Information collection

The information was collected through surveys of the work of Dr. John E. Burgos11, which did not need to be pilot tested to corroborate the validity and understanding of their development as they had already been implemented.

Processing and analysis

A database was created in SPSS for Windows 12 application on a microcomputer Dual Core. The data were taken to a spreadsheet developed in that application and processed by programmed calculations. The Information was poured into contingency tables double entry. As a summary measure the percentage used.

The coefficient of variation was calculated to determine the percentage increase knowledge on each topic, the formula was used:

$$CV = \frac{\text{Initial Value} - \text{Final Value}}{\text{Initial Value}} \times 100$$

Initial value: Number of participants with inadequate knowledge before investigation.

Final value: Total of participants with inadequate knowledge after the investigation.

The procedure was considered useful in all cases where the result of the coefficient of variation was greater than 70%.

For comparison of the results before and after training and statistical validation, McNemar test was used and worked with a degree of confidence of 95% and $\alpha = 0.05$. The presentation was made by pictures.

Discussion and Synthesis

After analysis and discussion of results performed they were compared with those of other authors via an inductive-deductive method which allowed achieve the objectives and to make findings and recommendations.

Analysis and Discussion of Results

According to current knowledge and considering the therapeutic availability to cure breast cancer, the only measure that can increase rates of curability is diagnosed at an early stage of any histopathologic types that develop in this important area human kind structure [12].

The importance of the study of breast cancer is supported by statistical records of morbidity and mortality in our country which occupies a place relevante [13,14].

In the world only 40% of the population have information on cancer mortality, while only 15% have reliable information about their incidencia [15].

| Knowledge | After | | | | | | |
|-------------------|-------------|----|-------------|---|--------|----|--------|
| | Suitable | | In adequate | | Total | | |
| | Do not | % | Do not | % | Do not | % | |
| Before | Suitable | 11 | 18.64 | 0 | 0.00 | 11 | 18.64 |
| | In adequate | 41 | 69.49 | 7 | 11.86 | 48 | 81.36 |
| | Total | 52 | 88.14 | 7 | 11.86 | 59 | 100.00 |
| CV=85.42; p> 0.05 | | | | | | | |

Table 1: Knowledge of the sources who comes to get the information. Office # 106. Polyclinic Baire. September 2012 - August 2012.

In Cuba there are programs to promote health education, however, it is unrewarding community do not already know the sources of information about breast cancer.

In Table 1, preoperatively 48 people for a 81.36% had inadequate knowledge of the source to which to turn for information, subsequently amended that figure obtaining a 11.67%, with only 7 people for a coefficient variation of a 85.42% increase knowledge, slightly lower than those found by Burgos [11], Moreno [16] results, and Mondeja [17] which speaks in favor of the effectiveness of the educational intervention.

Current knowledge demolish claims that cancer is a matter of chance, that will not heal, can not be prevented, which is a tributary of the elderly. Investigations should be aimed to demonstrate not only the people but many professionals curing cancer is a reality that will increase as more effective prevention.

There are many media that make promotion of breast cancer and risk factors for this cancer. These include Cuban magazines, newspapers, radio, television and the Internet, the free encyclopedia Wikipedia will have aspects related to the subject, but is still insufficient so necessary is increasing shares of health education directly at clinics doctors familia [18].

The story in the fight against cancer has demonstrated that there are basic actions that allow significantly reduce morbidity and mortality from cancer in general and breast cancer in particular by increasing and implementation of work with risk approach, improving health education, influencing people to the perception of individual, collective and environmental risks allowing the intervention on risk factors.

In Table 2, initially 52 patients for 88.14% had little knowledge of the risk factors of breast cancer that was modified after the intervention where only 4 participants had difficulties in identifying risk factors. These results were highly significant (P> 0.05).

Ignorance in our communities about the risk factors, lead to reflection on the importance of educational interventions to enable people to appropriate knowledge that will allow an increase in the fight for the prevention of breast cancer. Touch to primary health care lead to ways in fact all guidelines the Ministry of Public Health on promotion and disease prevention in Cuba [18].

| Knowledge | After | | | | | | |
|-------------------|------------|----|------------|---|--------|----|--------|
| | Suitable | | Inadequate | | Total | | |
| | Do not | % | Do not | % | Do not | % | |
| Before | Suitable | 7 | 11.86 | 0 | 0.00 | 7 | 11.86 |
| | Inadequate | 48 | 81.36 | 4 | 6.78 | 52 | 88.14 |
| | Total | 55 | 93.22 | 4 | 6.78 | 59 | 100.00 |
| CV=92.31; p> 0.05 | | | | | | | |

Table 2: Knowledge of risk factors for breast cancer.

Among the risk factors for breast cancer are genetic and hereditary, obesity, age, Nulliparity, treatments prolonged estrogen (10 or older), diet containing high fat, excessive alcohol intake, menarche early, late menopause, later first birth at age 35, no breast-feeding, radiation, etc. [19,20].

Inheritance is one of the elements most currently discussed. Thus we have established three categories in relation to the hereditary nature of this disease: the character sporadically the apparently without genetic or hereditary relationship, familial cancer which features carcinogens from all locations and/or breast exist but inbreeding far and Finally hereditary cancer that affects first- and second order of consanguinity and the same localization [21].

Some authors [22] report that one of the information needs expressed by patients, refers to the knowledge of risk factors.

| Knowledge | After | | | | | | |
|--------------------|------------|----|------------|---|--------|----|--------|
| | Suitable | | Inadequate | | Total | | |
| | Do not | % | Do not | % | Do not | % | |
| Before | Suitable | 5 | 8.47 | 0 | 0.00 | 5 | 8.47 |
| | Inadequate | 51 | 86.44 | 3 | 5.08 | 54 | 91.53 |
| | Total | 56 | 94.92 | 3 | 5.08 | 59 | 100.00 |
| CV= 94.44; p> 0.05 | | | | | | | |

Table 3: Knowledge of the warning signs of breast cancer.

Knowledge and handling of the warning signs of breast cancer by the population is of great importance for early diagnosis and therefore for timely treatment of the same, achieving positive increases in knowledge on this subject, as seen in Table 3, where 54 people, for 91.53%, had inadequate knowledge preoperatively and only 3% for 5.08 kept thereafter, reaching an increase of 94.44% knowledge. These results are similar to those of Burgos [11] and Moreno [16] in their speeches.

Various studies report that most patients diagnosed with breast cancer, and treated with surgical procedure, were accompanied by painless lump in the breast and of these the location most frequent was in the upper outer quadrant, accompanied by a good percentage of visible changes skin, found a physical examination before a mirror, so it is vitally important to train our people to discover the signs of alarm as abnormal change or palpable tumor exploration to reach diagnosed in stages early pre injuries - and/or malignant to be treated in stages tempranas [23-25].

Breast nodule is the main symptom of disease of the breast, is a warning for the seasoned clinician the first to suggest the possibility of a breast neoplasm regardless of the age of the patient

[17]. Hence the importance of achieving the woman auto examine their breasts monthly and in the over 30 years to get to his office they come annually for breast examination by the team of the basic health team.

Most people do not attach importance to breast self-examination, much less perform the technique, so it is a weakness of the screening program for breast cancer, suggesting that should increase educational actions to promote the need for the procedure performed monthly.

| Knowledge | After | | | | | | |
|--------------------|------------|-----------|------------|---|--------|----|--------|
| | Suitable | | Inadequate | | Total | | |
| | Do not | % | Do not | % | Do not | % | |
| Before | Suitable | 10 | 16.95 | 0 | 0.00 | 10 | 16.95 |
| | Inadequate | Four Five | 76.27 | 4 | 6.78 | 49 | 83.05 |
| | Total | 55 | 93.22 | 4 | 6.78 | 59 | 100.00 |
| CV= 91.84; p> 0.05 | | | | | | | |

Table 4: Knowledge regarding the breast self-examination.

In Table 4, we find that the only intervention before 10 people know how to perform successfully, while as to the end 55 people (93.22%) dominated its implementation, results of statistical significance. (P> 0.05). Moreover, Mondeja Águila [17] in its intervention revealed that preoperatively the 88.81% did not dominate the art and secondary to this the 96.27% received adequate knowledge to perform breast self-examination, which infers the need to insist on the realization of a suitable breast [26].

Virella Castillo [27] concerns us that the beginning of his research considered important breast self-examination the 28.33% and 8.33% it was performed. The 53.33% of respondents started the self-examination after the educational intervention performed, demonstrating increased awareness of the importance of the examination.

With knowledge of normal and modifications can address the methodology for breast examination; which should be a common procedure in our medical work (breast exam) should not necessarily be done by a trained physician but by any subject, and requires more resources than the provision of a few minutes, the presence of a mirror and It is a useful maneuver and supplement all screening program for breast cancer.

Breast self-examination for some authors considered a method with low detection sensitivity, others indicated that the diagnosis is earlier in women who autoexploran [28], currently [29] different authors raise the effectiveness of breast self-examination, so it is the first element of the National Program for Early Diagnosis of breast Cancer, where 80% of breast lumps are diagnosed by the woman herself, followed by annual clinical examination performed by the family doctor and finally mammography women over 50 years of edad [30].

Teaching breast self-examination correctly can not be treated as a purely cognitive matter, but requires energetic and effective methods to make aware to the patient, breast cancer, diagnosed early can be cured or improved prognosis lifetime. Breast self-ex-

amination should be taught by the doctor or nurse of the family, not just one occasion in which women are taught to achieve change their behavior; these educational actions must be consistent.

A look like the disclosure is done through different communication channels is not enough, so strategies should be to change attitudes and knowledge of the public about this health problem.

Breast cancer remains one of the most common malignancies in Cuba and worldwide, due to the existence of screening programs today most cases are diagnosed in stage I and II than before. Prognostic factors have arisen new and modern less invasive therapeutic regimens that increase survival rates higher quality of life in women apply affectedest [31].

| Knowledge | After | | | | | | |
|--------------------|-------------|----|------------|--------|--------|----|--------|
| | Suitable | | Inadequate | | Total | | |
| | Do not | % | Do not | % | Do not | % | |
| Before | Suitable | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | Inad-equate | 48 | 81.36 | eleven | 18.64 | 59 | 100.00 |
| | Total | 59 | 100.00 | eleven | 18.64 | 70 | 118.64 |
| CV= 81.36; p> 0.05 | | | | | | | |

Table 5: Knowledge of methods for early diagnosis breast cancer.

Table 5 before application of the no participant educational program had adequate knowledge of methods for early diagnosis of breast cancer, so an increased knowledge of 100% is then achieved the same as the 59 people They dominated this. Several authors show similar results in their studies [27,32].

Early diagnosis of pre malignant lesion or malignant not only allows the patient complete remission of their disease at best and/or better prognosis, but also their full incorporation into social life, besides saving to the country thousands of dollars not having to apply these patients chemotherapy treatments and radiations [33].

| Knowledge | After | | | | | | |
|------------------|-------------|----|------------|---|--------|----|--------|
| | Suitable | | Inadequate | | Total | | |
| | Do not | % | Do not | % | Do not | % | |
| Before | Suitable | 6 | 10.17 | 0 | 0.00 | 6 | 10.17 |
| | Inad-equate | 46 | 77.97 | 7 | 11.86 | 53 | 89.83 |
| | Total | 52 | 88.14 | 7 | 11.86 | 59 | 100.00 |
| CV 86.79 p> 0.05 | | | | | | | |

Table 6: Knowledge preventing the breast cancer.

In Table 6, knowledge about preventing breast cancer, found that before surgery only 6 people had adequate knowledge of this entity (10.17%), which was subsequently amended on getting 52 people obtain good knowledge with educational intervention, demonstrating the benefits of intervention McNemar test (p> 0.05) and increased knowledge in a 86.79%, results that match those of white Paz [32].

Latest information attest that both primary and secondary prevention, with early diagnosis of pre - injury and/or malignant are the most important weapons in the crusade against breast cancer.

Primary prevention is based on health promotion, to the more healthy lifestyles promotion of life as well as reducing the risk of trying by all means reducing exposure to environmental factors which play a crucial role basic health team, specifically the physician and family nurse, which was demonstrated in the interventions provided.

| Knowledge | After | | | | | | |
|---------------------|-------------|----|------------|---|--------|----|--------|
| | Suitable | | Inadequate | | Total | | |
| | Do not | % | Do not | % | Do not | % | |
| Before | Suitable | 10 | 16.95 | 0 | 0.00 | 10 | 16.95 |
| | Inad-equate | 44 | 74.58 | 5 | 8.47 | 49 | 83.05 |
| | Total | 54 | 91.53 | 5 | 8.47 | 59 | 100.00 |
| CV= 89.80; p> 0.05. | | | | | | | |

Table 7: Knowledge healing the breast cancer.

In the assessment in Table 7 knowledge about the cure of breast cancer we could see that preoperatively 49 people (83.05%) felt that it was not curable, and leading inevitably to death, however the implementation of the program education was achieved the 91.53% modify your criteria achieving an increase of 89.80% knowledge in a Cure breast cancer depends on its variety, spread at the time of diagnosis and treatment, a cure and others not. After considerations endogenous and exogenous factors as triggers of this condition must internalize that its appearance is multifactorial cause and to the extent that we can reduce risk factors, including toxic habits, and take care of a balanced diet and poor fat will be achieved prevent or delay its appearance being the best way to treat cancer: preventing. Suspecting must specify the characteristics of premalignant lesions, which are conditioned as lesions or neoplastic conditions. The premalignant lesion is a morphological alteration where higher chance of cancer occurring there, which in its normal counterpart.

Early cancers in stage I and II breast are highly curable with surgery and radiotherapy, according to the cosmetic and functional results provided in the treatment and therapy resources and experience of the surgeon. Surgical excision of the lesion, with good safety margin to avoid the patient and his family's long and painful agony of this sad disease.

| Knowledge | After | | | | | | |
|--------------------|------------|----|------------|---|--------|----|--------|
| | Suitable | | Inadequate | | Total | | |
| | Do not | % | Do not | % | Do not | % | |
| Before | Suitable | 9 | 15.25 | 0 | 0.00 | 9 | 15.25 |
| | Inadequate | 43 | 72.88 | 7 | 11.86 | 50 | 84.75 |
| | Total | 52 | 88.14 | 7 | 11.86 | 59 | 100.00 |
| CV= 86.00; p> 0.05 | | | | | | | |

Table 8: General knowledge of breast cancer.

In the Table 8; preoperatively, 50 Patients had inadequate general knowledge, however postoperatively 52 people completed with suitable knowledge for 88.14%, resulting only 7 with general knowledge inadequate; was achieved significantly increase general knowledge with a coefficient of variability of 86.00 [34-41].

Conclusion

Educational intervention proved to be effective to achieve significantly increase the knowledge on the prevention and control of breast cancer in patients belonging to the office 106 of the Health Area Baire, Contramaestre municipality, Santiago de Cuba Province.

Recommendations

- Propose the generalization of this educational intervention and the implementation of the educational program to other cancer sites.
- Disseminate the results of this work to achieve motivation in Primary Health Care for educational interventions that promote healthier life styles.

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