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Authors’ contributions

This work was carried out in collaboration among all authors. Authors DDFRB, DDNRDC, VFFDA and IVPP outlined the study, performed data analysis, wrote the protocol and wrote the first draft of the manuscript. The authors SMLS, CROS, LNAN, CSC, IDMS, NDSFDN, SLSC and REARDC collaborated with the bibliographic research. All authors read and approved the final manuscript.

ABSTRACT

Objective: Report the realization of a health education action aimed at the prevention of prostate cancer.

Methodology: This is a descriptive study, with a qualitative approach, of the experience report type, carried out in a Municipal Health Unit (UMS). The activity took place in three main moments:

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Lecture; Conversation round and application of active methodologies. From the IRAMUTEQ, a textual corpus was submitted to similarity analysis.

**Results:** The results show that the participants do not have habits that benefit their health, such as inadequate diet and lack of physical activities, in addition to low adherence to detection tests and demand for health services. They had insufficient knowledge about the neoplasm, pointing out family history as the main risk factor for prostate cancer.

**Conclusion:** It is noted that the elderly has difficulties in adhering to conducts that help prevent prostate cancer, requiring the promotion of actions that provide information related to the benefits of healthy habits and the performance of tests to detect the pathology.

**Keywords:** Prostate cancer; seniors; prevention; nursing.

### 1. INTRODUCTION

Cancer is considered to be one of the leading causes of death worldwide. Estimates identified as malignant neoplasms are expected to affect more than 21 million people by 2030. Cancer mortality is twice as high in cases of complications related to Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome (HIV / AIDS), tuberculosis and Malaria combined [1].

In Brazil, among malignant neoplasms, prostate cancer (PC) is the most prevalent in the male population, second only to non-melanoma skin cancer in all regions of the country. According to data from the National Cancer Institute, there were 13,772 deaths in 2013 and estimates of new cases of prostate cancer for the 2018-2019 biennium were 68,220 [2].

The etiology of prostate cancer is not fully known, presenting the main risk factors for the development of the disease, or aging. This type of cancer is considered the most common in elderly men and one of the main causes of death [3].

The incidence of new cases of cancer is higher in individuals over 65 years of age, who are among the biggest fatal victims of the disease, representing about 70% of cases of deaths from malignant neoplasms. The aging process causes several physiological changes, increasing the vulnerability of tissues to the toxicity of antineoplastic agents. In addition, tumor biology undergoes changes with the aging process, and may show decreased sensitivity to treatment [4,5].

In its initial stage, Prostate Cancer acts silently without showing symptoms and early detection procedures are indicated for the effectiveness of treatment and reduction of mortality cases. Currently, it is recommended to the male population to perform preventive exams such as: Dosage of Specific Prostatic Antigen (PSA), evaluation of the prostate, through rectal examination and transrectal ultrasound. However, it is common to observe resistance in relation to preventive measures, mainly in relation to the "rectal exam", due to the presence of prejudice and deficit of health information for the inherent population [6,7].

Prevention and health promotion actions initiated in Primary Care, the gateway to the Unified Health System, however, it is still possible to find difficulties in addressing men's health with preventive and/or therapeutic strategies. The participation of Primary Care professionals, especially nurses, is extremely important in relation to Prostate Cancer, guiding and clarifying doubts and questions that the patient may have about the disease. This includes educational resources on health, lectures, group formation, psychological support to users and family members [8,9]. Within this context, this study aims to report the development of an educational action on preventive measures for prostate cancer and health care.

### 2. MATERIALS AND METHODS

This is a descriptive study, with a qualitative approach, of the type of experience report, carried out by members of the Academic League of Nursing in Health of the Elderly (LAESI), during their extension activities in a Municipal Health Unit (UMS), located in the municipality of Belém (PA), Brazil, in November 2019. The target audience of the action was an average of 40 elderly people participating in the activities of the Elderly Health Program, developed by UMS, which promoted a multitude of exams of the type PSA and Digital Rectal.

The choice of the theme arose from the experience of the academic league with health
education activities developed monthly. These activities are part of the university tripod (teaching, research and extension). The activity was carried out during the national campaign known as Blue November, which aims to raise awareness about prostate cancer.

The health activity was carried out in three main moments: I - Presentation of the lecture of the Blue Campaign in November and Prostate Cancer, main risk factors, symptoms, ways of prevention, detection and treatment; II - Conversation round to assess the participants' knowledge and their perception on the topic, guided by the following questions: What are the main risk factors for PC?; "Do you maintain healthy habits?"; "What are the types of prevention for PC?"; "Do you perform detection tests for PC?"; and III - Application of methodologies activated for members to reinforce information on teaching-learning for health education.

The interpretative process of health education was based on the speeches and experiences of the elderly observed during an activity on prostate cancer. With the conversation round, participants were provided with a comfortable environment for the elderly who could share their experiences and perceptions about health care practice.

From the interpretation and perception of the speeches of the elderly, the researchers of this study created and categorized the results, allowing the construction of a textual corpus, in which the responses about Prostate Cancer were verified. For data analysis, the textual corpus was subjected to similitude analysis using the IRaMuTeQ software (Interface of R pour les Multi dimensionnelles Analyzes de Textes et de Questionnaires).

A similarity tree allows the organization of the structure of relationships, to obtain better responses of the connection between words, identifying as words with greater frequency and co-occurrence in the body, called central lexical items and also as words related to these items, called items peripheral lexicals.

3. RESULTS

Health education emerges as a health promotion and assistance strategy, allowing interaction between students and participants, favoring or increasing control over their lives, transforming the social and political reality and the focus for deciding on their health.

The activity allowed the elderly to discuss and share their understanding of the PC, in addition to interacting with students, contributing to the teaching-learning process, in which contact with the reality of the community broadened the vision of LAESI participants, contributing to the construction of humanized professionals.

The experience allowed us to observe which risk factors cause doubts among the participants, who believe that prostate cancer (CP) is caused only by genetic factors, accompanied by advanced age, leaving aside factors such as sedentary lifestyle, inadequate diet, smoking and alcoholism. The word “heredity” was frequently mentioned, causing fear, mainly due to the occurrence of family history in several reports, emphasizing that the diagnosis has already been confirmed in adverse conditions, with death being the most recurrent result.

From the researchers' perception, a unique textual corpus was created, through the interpretation of what was observed, based on the frequency and the association between words, as can be seen in Fig. 1. This fact was confirmed by means of the similarity tree, from the most important elements of the experience with the elderly in the meeting.

This type of analysis allows answers to the connection between words and identifies them as words with greater frequency and occurrence in the corpus. The co-occurrences between words and the connection indications between the terms: participants, habits, history, factor and health were identified. According to a co-occurrence tree, the results show participants who do not show symptoms that affect health and report family history as the main risk factor for Prostate Cancer.

When asked about eating habits and physical activities, the vast majority reported having an inadequate diet, rich in fats and industrialized products. The elderly claim that the financial issue directly influences adherence to healthy habits, opting for the consumption of food more accessible to their economic situation. In addition, they reported not practicing physical activities, justified by tiredness due to aging and
existing pathologies. In addition, it was emphasized that there are few spaces that promote quality of life and that these are still an environment with a predominance of women. In relation to smoking and drinking, all those present reported having a history of at least one of the habits and most still maintain the habits and pointed out that they were unaware of their relationship with prostate cancer.

In relation to knowledge about forms of prevention and early detection, those present reported not having the habit of carrying out tests, seeking health services only in cases of emergency and significant discomfort. The elderly still claim to know the PSA and the digital rectal exam, however, they still feel many doubts about them, as much as their performance as discomfort and periodicity.

Regarding the performance of the exams, the majority reported having performed the PSA, especially those with a family history and the minority underwent a digital rectal exam, signaling the resistance still caused by prejudices and taboos about the procedure. Those present justified the low adherence due to the little information provided by the professionals, who do not carry out continuous monitoring, and the actions were promoted mainly in the allusive campaigns. In addition, the delay in referral and the results of the exams discourage participants from performing early detection.

4. DISCUSSION

Family history can increase the possibility of the individual developing disease in relation to the general population from 3 to 10 times, the lifestyle being shared among family members and inherited characteristics are factors that increase the likelihood of being affected by the disease [10]. The family history factor was reported by 23.33% of the participants in a study, signaling the importance of preventive actions such as exams, when performed in advance, can diagnose a disease early and increase the likelihood of cure. Other factors, such as
alcoholism, smoking, food consumption of fats and milk intake were also found in those associated with this neoplasia [11].

A study that evaluated the association between physical activity and incidence of prostate cancer found that physical activity is associated with a lower risk of developing cancer, being considered a protective factor for CP. Adherence to a healthy lifestyle, defined by physical exercise, non-smoking and healthy eating, can be considered a strategy to reduce mortality from CP and, consequently, reduce morbidity and mortality from diseases caused by similar risk factors [12].

Risk factors for prostate cancer may be associated with causes of cardiovascular disease, since obesity, lack of physical activity, unhealthy eating habits or excess calories are shared risk factors for chronic non-communicable diseases. It is also believed that obesity is a risk factor as much as the genetic and environmental factor [13].

It was evidenced in a study on the risk factors for PC that most participants did not practice regular physical activity, had overweight classification and the minority had obesity grades I and II, in addition, more than 50% consumed red meat, milk or dairy products, fat and alcohol [14].

With regard to men's health, in general men live seven years less than women and are more affected by heart disease, diabetes, cancer, hypercholesterolemia and hypertension. This reality is due to the low demand of the male population for health services, especially on a preventive basis, and assistance is already provided in aggravated situations [15].

Among the main tests used to detect CP, digital rectal examination is considered a fast and low-cost procedure, which makes it possible to assess the size, shape and consistency of the prostate, but not in its entirety [1]. The PSA (Prostatic Specific Antigen) test uses the protein dosage produced by prostate cells, measures the PSA value in the blood and the values are reported in nanograms per milliliter (ng/ml), several studies support the clinical utility of this prognostic factor [6].

A study carried out in 2015 showed that the digital rectal exam is low when compared to the percentage of annual consultations with the urologist, suggesting that this exam is not always performed in consultation with the specialist. In an evaluation carried out on the trend of mortality from PC in the central-west region of Brazil, it was concluded that the improvement in the diagnosis for PC is related to a greater offer of health care and availability of diagnostic resources. However, health care, especially in the public service, needs structural and access improvements, so that the diagnosis and, consequently, the treatment for this disease are carried out properly and in a timely manner [16].

It is necessary to know how health education strategies are being used with the elderly, in order to identify gaps related to diseases, such as the lack of studies on activities carried out in health services that meet the needs of the elderly and aimed at health promotion [17].

In a study carried out in Campinas, Brazil, which implemented and analyzed a popular health education program for the elderly, found that the elderly, as educational agents in their process, demonstrated changes in attitude in lifestyle and health. In addition, the authors state that there were changes in the image of old age, with more positive opinions, in addition to an interaction capable of providing a feeling of greater companionship [18].

5. CONCLUSION

Due to the increasing incidence of prostate cancer cases and the vulnerability presented by the elderly male population, Health Education emerges as a way of spreading information and filling existing gaps in public health, providing the interaction of students with the community in order to raise awareness this population about health care.

It was noted that the target audience has little adherence to habits that benefit in the prevention of Prostate Cancer, showing inadequate nutrition, lack of physical activities, resistance in seeking care in the public service and little performance of detection tests. This fact can be answered due to little knowledge about the pathology, which makes it difficult to adhere to protective practices. The taboos and prejudices about detection tests, especially the touch exam, proved to be one of the main factors that contribute to low adherence and, as a result, increasingly late diagnosis and high mortality rates.

Therefore, the need to address men's health is emphasized, seeking to reduce the cases of
morbidity and mortality among this population, as in the case of Prostate Cancer, which represents a serious public health problem in Brazil. Thus, it is up to nursing and other health professionals to promote actions that clarify doubts and taboos and promote access to information related to the benefits of healthy habits and the performance of tests for the early detection of the pathology.

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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