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CHARACTERIZATION OF USERS OF SCREENING AND DIAGNOSTIC MASTOGRAPHY

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ABSTRACT

Introduction: The incidence of breast cancer has increased and there are areas aimed at timely diagnosis and intervention, identifying the screening capacity of the Mexican healthcare system, which is the main area of opportunity. When patients are informed, anxiety decreases and their psychological state improves. Objective: Explore the characterization of users of screening and diagnostic mammography for breast cancer, in the private healthcare area of Mexico. Methods: Data from 150 women were collected in a spreadsheet and analyzed in Stata. Univariate analysis for continuous variables and relative frequencies for qualitative variables were used. The relationship between quantitative variables was explored using scatter plots. Results: The survey found that women scheduled for mammograms, although they have moderate concerns. This shows a strong link between their level of knowledge about the procedure and their concern. Personal and medical characteristics did not significantly affect this concern. Conclusions: Patients with more information about mammography had a lower level of concern.

Keywords: breast cancer, information, mammography, autonomy

INTRODUCTION

In recent years, the incidence of breast cancer has increased, being the most common cancer in women according to the World Health Organization (WHO), representing 16% of all cancers in women (1). It is estimated that 1.38 million new cases are detected each year and this figure continues to increase (2). This condition occurs more frequently in developed countries, possibly due to increased life expectancy, urbanization and changes in lifestyle, but it has a greater impact on the population of developing countries such as Mexico (3). In the country, the situation of breast cancer is not encouraging because it represents the leading cause of death from neoplasms in Mexican women (4).

The WHO states that early detection is a fundamental strategy because through timely diagnosis and appropriate treatment it is possible to reduce the impact of the disease (3). For this reason, preventive campaigns should focus on performing mammograms or, in countries with lower per capita income, on the use of self-examination as a technique for detecting palpable lesions (3). Currently, there is little investment in prevention programs in developing countries and little response from the population due to the lack of training in health personnel and the low awareness of the needs of this at-risk group (5).

One of the main issues in Mexico is the improvement and expansion of screening aimed at promoting early detection of breast cancer. In developed countries, screening programs are applied and have facilitated early detection and timely treatment of breast cancer, giving patients a better quality of life. These campaigns have proven to be highly effective, which is why they have also begun to be replicated in developing countries (6). Available data suggest that only between 5 and 10% of cases in Mexico are detected in the initial stages of the disease (localized in the breast) compared to 50% in the United States (7).

According to the Pan American Health Organization, in 2012 breast cancer was the most common type of cancer in Latin America. By 2030, the same Organization estimates that the prevalence will increase by 46%. In Mexico, breast cancer in women over 20 years of age is the second cause of death (8) and the first cause of cancer-related mortality (9). Most cases are detected in advanced stages, when the probability of 5-year survival with treatment is less than 30%. Additionally, costs to women, their families, and the health system are higher, and treatments are more difficult, more invasive, and less effective (8).

It is important to highlight the role of information and recognize that citizens need to know the risks to which they are exposed in order to act accordingly. Researchers must address gaps in knowledge to generate better practices in health promotion, as well as develop better technologies, programs, in order to establish better policies and clinical care (8). Access to information about breast cancer, accompanied by better medical care, could promote greater survival, as happens in developed countries (10).

Over a 10-year period and for every 1,000 women undergoing mammographic screening, it is observed that between 167 and 251 receive abnormal results and are called for further testing, of which approximately 56 to 64 undergo at least one biopsy. Additionally, between 9 and 26 cases of invasive cancer and three to six cases of ductal carcinoma in situ (DCIS) are detected through screening. Compared with women who refuse screening, a reduction of 0.5 to 2 deaths from breast cancer is observed during this period, depending on the age of the women (11).

Recent increases in the use of mammography have led to a decrease in breast cancer mortality. Likewise, there is evidence that when patients are informed about the diagnosis and the interventions they will have, their feeling of control increases, anxiety is reduced and their psychological adjustment to the disease situation improves (12). One research project assigned women to one of three intervention groups: no educational materials (usual care), standard materials, or adapted and personalized materials. Those in the latter group received materials based on their stage of adoption for mammography. The primary outcome was obtaining repeated mammograms, and women in the group with tailored and personalized materials were found to be more likely to obtain them compared to those in the group without materials (13).

This demonstrates the urgent need for health education to promote early diagnosis of cancer and timely treatment which the basis for improving the quality of care for patients with breast cancer (10, 14). Furthermore, it contrasts with the findings of an analysis of 58 pamphlets revealing that information on mammography often focuses on incidence rather than mortality, which is worrying given that screening reduces mortality, but not incidence, and can increase it by detecting harmless diseases (15).

A study of women in European and American countries examined the understanding of the likely benefits of mammography and found widespread misconceptions. Most women believed that screening prevents or reduces the risk of getting breast cancer, or at least breast cancer mortality is reduced by half. They also believed that 10 years of regular screening will prevent 10 or more breast cancer deaths per 1000 women (16). The greater number of correct answers was positively associated with a higher educational level and negatively associated with having had a mammogram in the last 2 years. The results suggest that a high rate of women overestimate the benefits that can be expected from mammographic screening, raising questions about informed consent procedures in breast cancer screening programs.

The main objective of Health Literacy is to enable individuals to make informed and autonomous decisions about their health. When facing health problems, we look for answers first in those close to us, such as family or friends. However, depending on the topic, broader sources are also used, such as the Internet, which offers a large amount of information (17). The challenge lies in teaching the population to discern between useful information and that which is not, avoiding overinformation or misinformation.

Research found that presenting information about the benefits of cancer screening in different ways affects an individual's decision to accept or reject screening. Respondents were more likely to accept screening when the benefits were presented as a reduction in relative risk, and more likely to reject it when they were presented as the number of screenings needed to save a life (18). Healthcare professionals face the challenge of balancing presenting benefits in a positive way to improve participation rates, with the need to provide information in a balanced way to facilitate informed choice.

There are three measures that seem essential to extend the scope of existing programs for the detection of breast cancer (9): 1. Raise awareness among the population about the growing importance of this problem, 2. Recognize early detection as the key to control. of this disease and 3. Fight against the cultural barriers that prevent its rational approach.

The best practice when reporting is to individualize the information to the patient as much as possible, which requires great skill on the part of the healthcare professional. It is vital that the difficulties when communicating bad news, such as the emotional impact, are recognized (19). Communication and access to information for patients is an excellent strategy to improve promotion, prevention, diagnosis and rehabilitation. So, it is necessary to normalize the use of communication strategies in health environments, considering all levels of intervention to which a person is exposed.

Frequently, it is reported that the personnel in charge of providing care to patients limits themselves to informing them about the basics for performing mammography (20). What's more, patients begin to ask various questions, not only related to the radiographic procedure, but also to other aspects of mammography. They mainly question whether mammography represents a thyroid risk, the level of radiation to which they are exposed, the degree of pain caused by the procedure or if it is really the ideal time to have the study.

Based on what was described above, the objective is to explore the characterization of users of screening and diagnostic mammography for breast cancer, in the private health area of Mexico.

METHODS

The present report arises from a protocol that explored the characterization of users of screening and diagnostic mammography for breast cancer in the private environment, whose results refer to the baseline conditions of the participants regarding the information they had before having been subjected to the intervention. It is a controlled, randomized, non-blinded trial.

Participants

The sample was census type, consisting of 150 women, who came to request a mammogram at a private clinic, in the period from October 14 to December 23, 2016, in Mexico City.

Instrument and procedure

A 14-question questionnaire was designed to evaluate patients' knowledge and doubts about mammography, as well as their main source of information. The first two questions cover sociodemographic aspects such as sex, age, occupation and education, while the remaining 12 cover aspects related to the mammography procedure with multiple choice answers (e.g. yes/no, not at all/a little/regular/a lot, etc.). The variables it measures are: the reason for the procedure, the number of times the procedure has been performed previously, the degree of concern about the procedure, the level of knowledge about the procedure, the main source of information, the number of doubts about the procedure and the type of doubts they had.

The instrument was applied prior to the procedure in the same place where the mammography was performed. The informed consent was read to them and the conditions of privacy, trust and comfort were guaranteed, emphasizing that their participation was voluntary and could be terminated at any time, and would not affect their medical care. In accordance with the guidelines and ethical principles for medical research on human beings recommended by the Declaration of Helsinki (21), they were provided with all the necessary instructions for the proper conduct of the survey and informed that the use of the information collected would be with caution, exclusively for scientific purposes.

Analysis strategies

All data were collected in a spreadsheet for validation and were subsequently exported to the Stata program for statistical analysis. A univariate analysis was carried out by calculating measures of central tendency and dispersion for the variables on a continuous scale, while relative frequencies were obtained for the qualitative variables. The relationship between quantitative variables was carried out using scatter graphs.

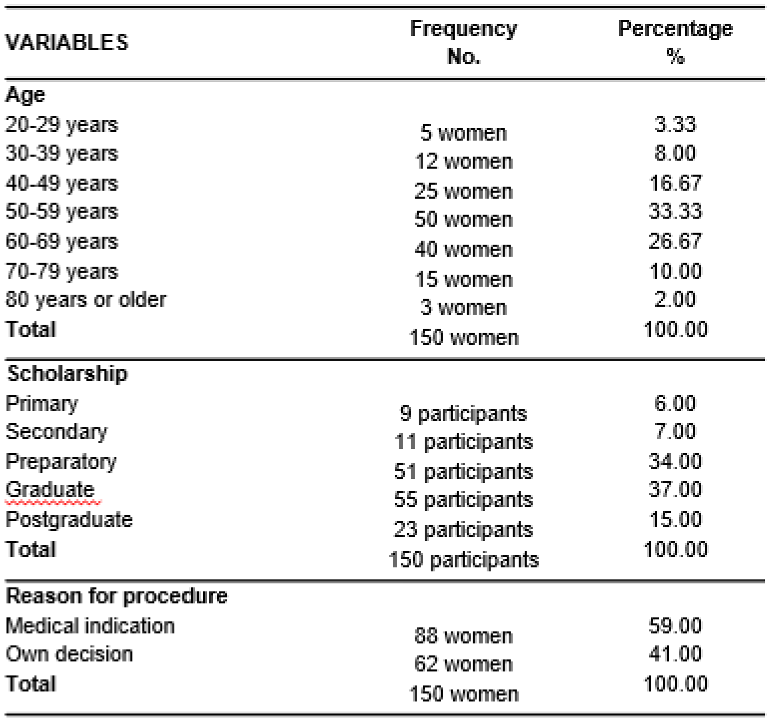
RESULTS

150 women participated with an average age of 53.9 years (SD ± 9.1 years). Regarding education, those with a bachelor's degree predominated (37%), with high school in second place (34%) and postgraduate in third place (15%). A small percentage of patients only had secondary education (7%), or primary

education (6%). Regarding occupation, the majority said they were housewives (53%), while 29% said they were employees and 10% worked as independent professionals. The rest mentioned some commercial or business activity.

Although the percentage of women who came to request mammography due to medical indication predominated (59%), the percentage of women who came by their own decision (41%) is noteworthy. Of the total sample, only 11 women came to request a mammogram for the first time (7.3%). However, in the rest of the participants, the heterogeneity in the number of subsequent occasions when they had taken the test was notable. In this sense, 20 of them reported having had 10 previous mammograms 13.3%, but a small group of women mentioned having had 30 mammograms (2.7%). In fact, a moderate positive correlation (r=0.58) was evident between the number of previous mammograms and the age of the participants. The summary of the sociodemographic data is evident in Table 1 below.

TABLE 1
SOCIODEMOGRAPHIC DATA OF THE PARTICIPANTS

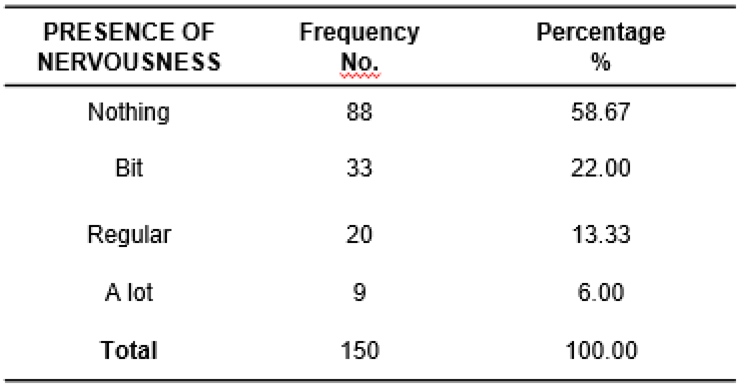


VARIABLES	Frequency No.	Percentage %
Age		
20-29 years	5 women	3.33
30-39 years	12 women	8.00
40-49 years	25 women	16.67
50-59 years	50 women	33.33
60-69 years	40 women	26.67
70-79 years	15 women	10.00
80 years or older	3 women	2.00
Total	150 women	100.00
Scholarship		
Primary	9 participants	6.00
Secondary	11 participants	7.00
Preparatory	51 participants	34.00
Graduate	55 participants	37.00
Postgraduate	23 participants	15.00
Total	150 participants	100.00
Reason for procedure		
Medical indication	88 women	59.00
Own decision	62 women	41.00
Total	150 women	100.00

Source: Questionnaire on patients' knowledge and doubts about mammography

The prevalence of nervousness reported by the women prior to undergoing the mammogram was characterized as not at all according to the 58.67% obtained, followed by a little level at 22%, which is interpreted as absence of nervousness, as observed in the table 2 presented below.

TABLE 2
DISTRIBUTION ACCORDING TO THE PRESENCE OF CONCERN IN WOMEN PRIOR TO PERFORMING A MASTOGRAPHY



PRESENCE OF NERVOUSNESS	Frequency No.	Percentage %
Nothing	88	58.67
Bit	33	22.00
Regular	20	13.33
A lot	9	6.00
Total	150	100.00

Source: Questionnaire on patients' knowledge and doubts about mammography.

Most women have fair knowledge prior to performing the mammography according to the 50.67% obtained, followed by 27.33% with little knowledge and only 4% did not know anything about the procedure, as seen in the table 3. On the other hand, 69.99% had no doubts about the procedure, while 15.33% claimed to have some or very few doubts about it.

When evaluating the relationship between the level of nervousness of women and the knowledge about the procedure they have regarding mammography, a highly significant association was found (p = 0.009) between knowing or not, what mammography is and the level of nervousness that generates them. That is to say, the less knowledge of the procedure the degree of concern increases and vice versa.

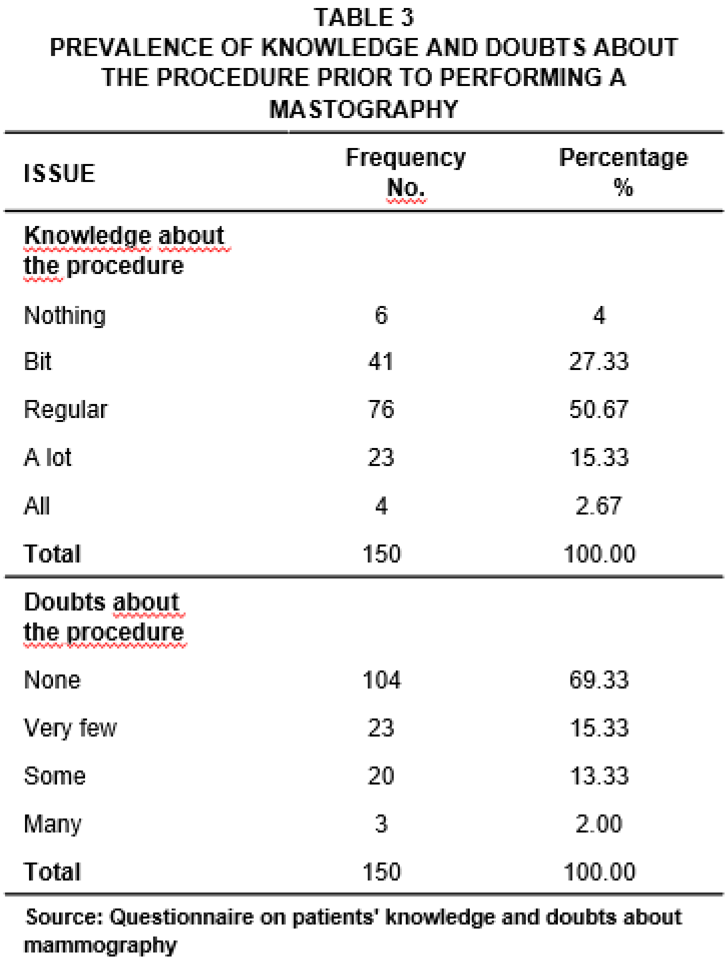


TABLE 3
PREVALENCE OF KNOWLEDGE AND DOUBTS ABOUT THE PROCEDURE PRIOR TO PERFORMING A MASTOGRAPHY

ISSUE	Frequency No.	Percentage %
Knowledge about the procedure		
Nothing	6	4
Bit	41	27.33
Regular	76	50.67
A lot	23	15.33
All	4	2.67
Total	150	100.00
Doubts about the procedure		
None	104	69.33
Very few	23	15.33
Some	20	13.33
Many	3	2.00
Total	150	100.00

Source: Questionnaire on patients' knowledge and doubts about mammography

Table 4 shows the results of the last part of the questionnaire regarding knowledge about the benefits and risks of mammography, as well as the information needs expressed by the participants. Of those interviewed, 83.5% received the information from their treating doctor, 8.25% referred to television, and 4.25% mentioned clinics or hospitals or conversations about the topic with other people. Regarding the amount of information, they reported knowing about the benefits of the intervention, 46.7% mentioned having a lot, 38.7% having regular information, 13.3% having little and 1.3% having little information about the benefits. In contrast, 38.7% mentioned not having any information about the risks of the procedure and only 18.7% indicated having a lot of information about it. Finally, 81.4% requested more information about the benefits and risks of the study without a statistically significant association between the interest in receiving more information and the level of concern.

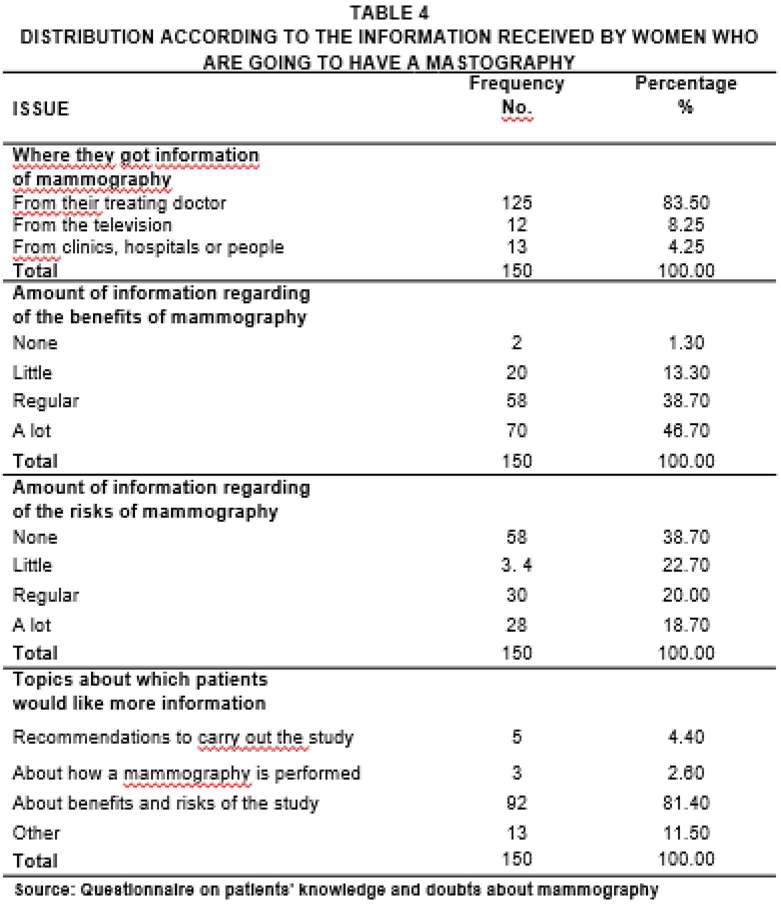


TABLE 4
DISTRIBUTION ACCORDING TO THE INFORMATION RECEIVED BY WOMEN WHO ARE GOING TO HAVE A MASTOGRAPHY

ISSUE	Frequency No.	Percentage %
Where they got information of mammography		
From their treating doctor	125	83.50
From the television	12	8.25
From clinics, hospitals or people	13	4.25
Total	150	100.00
Amount of information regarding of the benefits of mammography		
None	2	1.30
Little	20	13.30
Regular	58	38.70
A lot	70	46.70
Total	150	100.00
Amount of information regarding of the risks of mammography		
None	58	38.70
Little	3. 4	22.70
Regular	30	20.00
A lot	28	18.70
Total	150	100.00
Topics about which patients would like more information		
Recommendations to carry out the study	5	4.40
About how a mammography is performed	3	2.60
About benefits and risks of the study	92	81.40
Other	13	11.50
Total	150	100.00

Source: Questionnaire on patients' knowledge and doubts about mammography

DISCUSSION

The results of this survey allow us to recognize a moderate prevalence of nervousness in women who are going to undergo a mammogram in a private setting. From the sociodemographic perspective, the high educational level predominates. However, the majority of women are dedicated to the work of housewives, a reflection of a socioeconomic status that would favor not only the care of their own health, but also the concern for having information related to health and interventions aimed at disease prevention. An investigation in 2007 found that women who do not undergo regular mammograms show a greater perception of health and a lower feeling of vulnerability to breast cancer, which influences their decision not to comply with the recommended mammographic screening guidelines (22).

Despite this approach, the most important finding was the highly significant association between the degree of knowledge and information about mammography and the level of perceived nervousness. The socioeconomic and demographic characteristics of the patients were not statistically associated with concern, nor was the history of previous mammograms or the reason for requesting the study. The literature indicates that women who do not seriously consider performing mammography, as well as those who meet risk criteria, but do not undergo frequent check-ups, are characterized by having less knowledge about the benefits of mammography and reduced access. to relevant information about breast cancer and early detection (23). This increases when they are older women or from a vulnerable group, and the perceived barriers tend to be higher, they tend to experience more concerns related to pain, cost, logistics or the time required to undergo the test (24).

These results have several implications for healthcare providers. First of all, from an ethical point of view, in any contact of people with health establishments for diagnostic, preventive or therapeutic purposes, dignified treatment must prevail. This must include the provision of all the necessary information to promote joint decision-making for the benefit of the patient, respecting their freedom and idiosyncrasies. This is mainly due to the percentage, although small, of women who receive their information from television according to the data of the present study.

Secondly, insufficient information or misinformation can cause delays in seeking care with undesirable consequences for the health of patients, with negative impacts for health systems, as proposed in the conceptual model of Unger-Saldaña et al (9). Unfortunately, in health systems, both public and private, a "medicalized" paradigm has prevailed where the opinion of the health professional is privileged over the expectations and demands of patients. According to the findings presented, it can be seen that there is a high percentage of women who still want to receive more information about the procedure, which contrasts with the 7.3% who came for the first time. There is talk of a change from the anthropocentric approach to a technocentric one, where pure scientific knowledge has increased, but humanitarian care for the patient has been lost (25).

Along these lines, various studies have investigated different communication strategies. One study reported that telephone counseling may be more effective than tailored print communications in promoting change among nonadherent women, possibly being the preferred intervention for placing these women in the mammography screening program (26). Another study found similar results, although they conclude that women who received adapted printed materials in addition to telephone counseling had greater knowledge and perception of breast cancer risk, and were more likely to undergo mammograms compared to those who received usual care (27). Furthermore, the literature also reports that if the interventions are adapted to the stage where the participant is, the rate of performing mammograms increases (28).

The work of Philip Musgrave brings to the table an interesting reflection contrasting the ideas of “demand” versus “need for health care” (29). “Demand” is what a patient wants and is willing to pay, if there is a price to pay. While the “need” is what the doctor thinks the patient should have. This paradigm can be observed in the participants' reasons for taking the study, with more than half attending on their own initiative and 41% due to medical indication. Logically, doctors can disagree when it comes to diagnoses and treatments, considering that for some conditions there is no effective treatment, so a need for help does not clearly translate into a need for particular medical care. Even so, “need” remains a more objective notion than demand because it is less dependent on the patient's beliefs and tastes.

The literature converges that the “total quality” approach should be implemented from the beginning, ensuring that clear objectives and standards are established (30). Unique national protocols should be established to facilitate comparison of results and identification of trends. Having a clear benchmark, such as a randomized controlled trial, improves the effectiveness of programs.

Therefore, it is not surprising that when planning public health supply, the idea of need is addressed, with little or no attention to demand. However, when hiring standards do not take into account the characteristics of the population and diseases, they cease to have any relationship with need. In addition, the focus on the “need” loses sight of the “demand” and we begin to hear expressions referring to the fact that patients should not know more about mammography, when the important thing is to obtain a diagnosis to save their lives. . Which brings back the importance of patient-centered care, returning to the “demand” perspective and considering non-medical factors that have an impact on prevention, adherence and even treatment results. Factors such as level of knowledge and degree of concern about the procedure.

CONCLUSIONS

The principle of patient autonomy would be fully exercised only in moments when they could make a real decision. To do this, they would have to have the elements to do so. Otherwise, the patient's decision would never be theirs but the health professional’s, who tells them what to do. It is a fact that healthcare agents will always seek treatments or courses of action for the benefit of the patient and never to their detriment, but this does not detract from the fact that the decision belongs to the patient and/or her family. Therefore, it is the duty of the staff to share the necessary information so that the patient and/or their family can recognize the benefits of the plan proposed by their medical team, as well as encourage prevention with clear indications of how it can be achieved so that the patient counts. with the tools that make you an agent of change within your community.

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