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Original article

Breast cancer screening: aspects associated with medical performance

Rastreamento do câncer de mama: aspectos associados à atuação médica

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Abstract

Objective: recognizing the role of physicians in breast cancer screening in countryside city. **Methods:** a descriptive study with a quantitative-qualitative approach carried out in a city in the countryside of the State of Minas Gerais. Participants were 20 physicians working in traditional Basic Health Units, Family Health Units and/or doctor's offices. For data collection, a questionnaire with open and closed questions was used. Data from closed questions were analyzed using simple descriptive statistics. The information obtained in the open questions was organized and analyzed according to the subjects addressed by the participants. **Results**: of the participants, 65% stated that they performed the clinical breast examination (MCE) in the health services; 90% related screening with higher chances of cure and 100% with decreased mortality; 80% said they trusted mammography reports; and 75% in the quality of mammographs. When there is a positive family history for breast cancer, 50% reported requesting an annual mammogram for women over 35 years old. The participants' reports indicated that the amount of mammography available in the public health unit may be a limiting factor in breast cancer screening. **Conclusion**: in medical practice, there was recognition of the importance of MCE and mammography for breast cancer screening and, consequently, for increasing the possibilities of cure and reducing morbidity and mortality.

Keywords: breast neoplasms; screening programs; women's health; physicians.

Resumo

Objetivo: conhecer a atuação dos médicos no rastreamento do câncer de mama em um município interiorano. **Métodos:** estudo descritivo com abordagem quanti-qualitativa realizado em um município do interior do Estado de Minas Gerais. Participaram 20 médicos que atuavam em Unidades Básicas de Saúde tradicionais, Unidades de Saúde da Família e/ou consultórios particulares. Para a coleta de dados, utilizou-se questionário com perguntas abertas e fechadas. Os dados oriundos das perguntas fechadas foram analisados por meio da estatística descritiva simples. As informações obtidas nas perguntas abertas foram organizadas e analisadas de acordo com os assuntos abordados pelos participantes. **Resultados**: dos participantes, 65% afirmaram realizar o exame clínico das mamas (ECM) nos serviços de saúde; 90% relacionaram o rastreamento com maiores chances de cura e 100% com diminuição da mortalidade; 80% afirmaram confiar nos laudos das mamografias; e 75% na qualidade dos mamógrafos. Quando há histórico familiar positivo para câncer de mama, 50% referiram solicitar a mamografia anual para mulheres com mais de 35 anos. Os relatos dos participantes apontaram que a quantidade de mamografia disponível na unidade de saúde pública pode ser fator limitante no rastreamento do câncer de mama. **Conclusão**: na prática médica, houve reconhecimento da importância do ECM e da mamografia para o rastreamento do câncer de mama e, consequentemente, para o aumento das possibilidades de cura e diminuição da morbimortalidade.

Palavras-chave: neoplasias da mama; programas de rastreamento; saúde da mulher; médicos.

Introduction

Breast cancer can be defined as malignant breast neoplasms[1], characterizing itself as a disease of dynamic behavior[2]. In Brazil, it is the cancer that most affects women after non-melanoma skin tumors and leads many to death[2]. For early detection of breast cancer, mammography appears as the main imaging method[3].

Mammographic screening is performed through radiological examination performed by the mammograph, a specific device to evaluate the breast tissue that, through technological advances, has enabled faster examinations, with lower doses of X-rays and better images[4]. Mammography therefore contributes to the decrease in breast cancer mortality[3].

If the tumor is less than one centimeter at the time of diagnosis, the possibility of breast cancer cure may be greater than 95%[5]. Thus, measures to encourage cancer screening are important to avoid late diagnosis and interventions[6].

In Brazil, the Ministry of Health recommends, for asymptomatic women between 50 and 69 years old, biennial screening with mammography[7]. The Brazilian College of Radiology and Diagnostic Imaging (CBR), the Brazilian Society of Mastology (SBM) and the Brazilian Federation of Gynecology and Obstetrics Associations (Febrasgo) recommend annual screening for women between 40 and 74 years old at usual risk, aiming at early diagnosis and better prognosis[8]. Also referring to the usual risk, mammographic screening is recommended for women over 75 years old with a life expectancy of more than seven years, based on comorbidities[8].

In addition to mammography, clinical breast examination (CBE) appears as a possibility for detecting breast changes[3]. It is important for the early diagnosis of breast cancer and may enable more specific conducts in a timely manner[9]. The CBE, as screening, is a routine examination in women who do not present suspected signs and symptoms of breast cancer, performed by a trained health professional, usually a doctor or nurse[10].

Regarding the CBE for breast cancer screening in asymptomatic women, there is no recommendation (contrary or favorable) from the Brazilian Ministry of Health, with the justification of an uncertain balance between possible damages and benefits[7]. Brazilian medical societies recommend that CBE be done annually by physicians or nurses in women from the age of 25.

From this perspective, the understanding is that, about breast cancer, screening can bring positive repercussions, translated into early diagnosis, better prognosis, and reduction of mortality[11]. However, the literature points to discrepancies in the screening recommendations[12], as occur in Brazil between the Ministry of Health and medical societies, also regarding the methods used.

Thus, considering that, to reduce breast cancer mortality, screening programs are the main strategy to be implemented[11] and that the clinical practice of the health professional requires constant reflection and decision-making[12], becoming important to recognize the possible factors involved in medical practice related to breast cancer screening.

In this sense, the following question emerged: "How is the medical performance in breast cancer screening at the municipal level?". Therefore, the aim of this study was to recognize the role of physicians in breast cancer screening in a countryside city.

Materials and Methods

This is a descriptive study with a quantitative-qualitative approach carried out in the city of Passos, State of Minas Gerais, Brazil. Descriptive studies seek to identify characteristics and relationships of a given phenomenon, also in the presence of the frequency of its occurrence[13].

The research universe was composed of 47 physicians, of which: 27 public health professionals active in traditional Basic Health Units (UBS) and/or Family Health Units (FHU); 16 doctors from the private network, who had private gynecology and/or mastology offices; and 4 doctors who worked both in the public network and in private practices in the city studied. Of the 47 professionals invited to participate in the research, 20 accepted the invitation. The main reason reported by those who refused the invitation was the unavailability of time to respond to the data collection

instrument.

Thus, the participants of the research were 20 physicians who worked in traditional UBS, FHU and/or private medical offices. Data were collected from May to October 2018 using a questionnaire with open and closed questions related to the theme under study. The questionnaire is an instrument that presents a set of questions, being completed by the research participant himself[13]. Due to standardization, precise answers are obtained from closed questions, while open questions allow greater variety in the information collected[13].

The data from the closed questions of the questionnaire were entered in Excel spreadsheets, analyzed using simple descriptive statistics, by means of percentages. Tables and graphs were used in the presentation of the results. The information obtained in the open questions was entered in Word file, organized, and analyzed according to the subjects addressed by the participants.

This study was submitted to the Ethics and Research Committee of the University of the State of Minas Gerais (UEMG), Passos Unit, and was approved with Opinion NO 2,755,732.

Results

In a brief characterization, the participants of the research were predominantly male (60%). Regarding training, 45% were general practitioners, 25% gynecologists and 30% gynecologists and mastologists. In relation to the sector, 45% worked in the public network, 35% in the private network and 20% in both.

The material collected, through the detailed analysis of the questionnaires answered by the participants, was organized in five tables according to the subjects addressed, being: (1) professional who performs the CBE in the health service; (2) criteria for requesting annual mammography for women with a positive family history for breast cancer; (3) number of mammograms available in the public health unit per month; (4) confidence in mammogram reports; and (5) quality of mammographs. And a graph, showing the relationship between screening, chances of cure and breast cancer mortality. In addition to the quantitative data shown in the tables and graph, there are also the answers of the participants to the questions of the qualitative part of the study, which are together with the tables and the graph, according to the relationship between the subjects.

Table 1 presents the training of the health professional who performs the CBE in the health units.

Table 1. Professional who performs the clinical examination of the breasts in the health service.

Professional	**%**
Only by the medical professional	65
By the doctor and the nurse	35
Total	100

Source: Prepared by the authors themselves.

Through the data presented in Table 1, it is perceived that, in the health service, the CBE is performed predominantly (65%) by the medical professional. The performance of this examination by the nurse was also mentioned by the study participants.

Table 2 shows the criteria used to request mammography annually for those women with a family history positive for breast cancer.

Table 2. Criteria for requesting annual mammography for women with a positive family history for breast cancer.

Criteria %	
Women over 35 years old	50
Early screening method	35
Women over 35 years old and as early screening	15
Total	100

Source: Prepared by the authors themselves.

The data in Table 2 indicate that, when there is a positive family history for breast cancer, 50% reported requesting annual mammography for women over 35 years old. The request for annual mammography as an early screening method was also cited by a significant percentage of participants (35%).

Of the 20 participants in the research, thirteen work in the municipal public network. Table 3 shows the amount of mammography available per month in the public health units in which these research participants work.

Table 3. Number of mammograms available in the public health unit per month.

Number of mammograms	(%)
Less than 25 mammograms	88,9
From 25 to 50 mammograms	11,1
Total	100

Source: Prepared by the authors themselves.

According to data from Table 3, it is observed that the amount of less than 25 mammograms available per month in public health units in the municipality studied was predominantly mentioned (88.9%) by the study participants.

When asked if the amount of mammography available meets the existing demand in the area covered by the health unit, the participants stated that they did not. In addition, they reported that this number of mammograms is a limiting factor in breast cancer screening, as it can directly affect early diagnosis and prognosis.

Graph 1 shows the relationship indicated by the research participants between screening, chances of cure and breast cancer mortality.

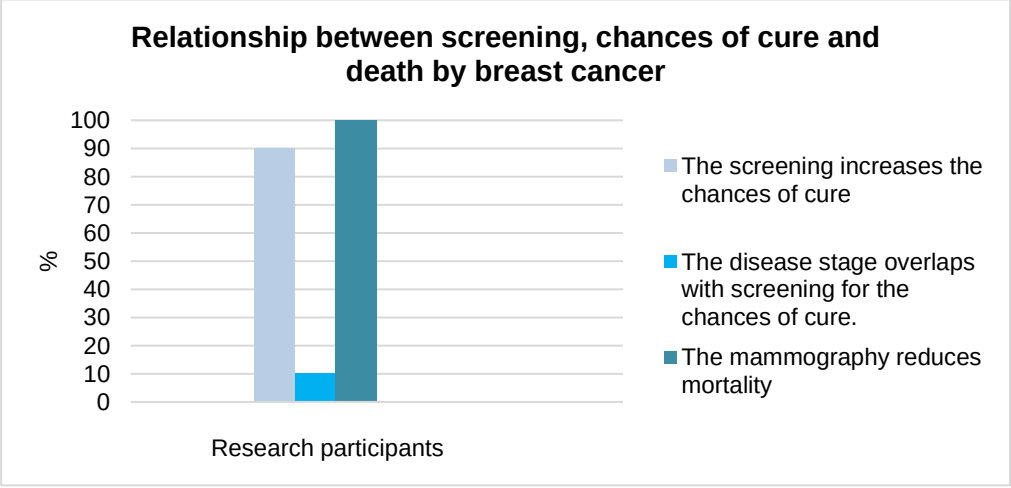

Figure 1. Relationship between screening, chances of cure and breast cancer mortality pointed out by research participants. **Source**: Prepared by the authors themselves.

It is observed in Graph 1 that the participants chose, mainly, the alternatives that stated that screening increases the chances of cure (90%) and decreases mortality (100%) by breast cancer. When questioned, the participants stated that they believe that screening increases the possibility of an early diagnosis, with possible reflexes in healing and decrease in mortality.

In addition to mammography and CBE, the participants of this study also mentioned ultrasound, breast self-examination, and magnetic resonance imaging for breast cancer screening.

Table 4 presents the view of the research participants on the reports of the mammograms they receive.

Table 4. Participants' view of the mammographic reports received.

View on mammographic reports %	
Rely on mammograms reports	80
Do not trust mammogram reports	10
They did not respond	10
Total	100

Source: Prepared by the authors themselves.

When analyzing the data in table 4, it is noted that the research participants rely on the mammography reports (80%). Only 10% say they do not trust the reports they received. When asked about conducts, one participant reported that he only checks the exam report, without observing the images. When asked about only observing the strip (colored strip) attached to the envelope and, through it, conducting the conducts (request for other examinations, referrals, for example), all stated that they do not practice such an act. Table 5 shows the opinion of the research participants on the quality of mammographs.

Table 5. Opinion of the participants of the research on the quality of mammographs.

Opinion on quality of mammographs %	
Good quality of mammographs	75
Poor quality of mammographs	10
They did not respond	15
Total	100

Source: Prepared by the authors themselves.

Table 5 shows that most participants in the study believe in the quality of mammographs (75%). For 10%, the devices have poor quality. When asked if there are differences in the quality of the examination requested in the public network with the requested in the private network, the reports focused on the understanding that there is no difference between them. In addition, the participants stated that they can visualize the altered exams and differentiate the good from the bad mammograms.

It is also important to highlight, in tables 4 and 5, the significant percentage of absence of responses from the participants of the research, being 10% and 15%, respectively.

Discussion

The results of the study made it possible to identify mammography, CBE, ultrasound, breast self-examination and magnetic resonance imaging as screening possibilities for breast cancer.

For screening in asymptomatic women, the Brazilian Ministry of Health does not recommend the use in isolation or complementary to mammography, ultrasound or magnetic resonance imaging.[7] In addition, for screening, breast self-examination is also not recommended.[7] CBR, SBM and Febrasgo, for screening at usual risk, recommend, for women

with dense breasts, to consider ultrasound adjunct to mammography.[8] Regarding magnetic resonance imaging, they report that there are no data that support the screening of women at habitual risk.[8]

In this scenario, divergences between the Brazilian Ministry of Health and medical societies regarding breast cancer screening are perceived. Here, it is important to highlight that women's care should seek the guarantee of the right to health and care for their needs.

Another data obtained in this study was regarding the training of the health professional who performs the CBE, with predominance of the medical professional. There is a wide disparity of women who have their breasts examined by the health professional between regions of the country, and factors such as income, schooling and living with a partner also interfere with this issue.[14] During the CBE, physicians and nurses have the possibility to practice a health education action, addressing, for example, the changes in the breast that occur over the years and risk factors for breast cancer.[15]

The number of mammograms available per month in public health units in the municipality studied, the participants pointed out insufficient quantity to the demand, which may appear as a limitation of women's access to screening.

Recognizing that, in the State of Minas Gerais, the mammogram ratio for women aged 50 to 69, in 2011, was 0.15 – lower than the target of 0.16 that had been agreed[16] - and that there is a disparity between Brazilian regions, and the largest amounts of devices by demand are present in the South and Southeast regions[17] , the need to discuss issues related to equity in access to mammographic screening[18] in health services. In this scenario, knowledge of these factors can support the construction of effective strategies.[19]

Efficient mammographic screening requires actors who occupy the most diverse social roles, including women, health professionals and managers, since in addition to the availability of the exam, women need to be aware of the importance of performing it. In addition, the need for quality of the mammographs and the reports of this examination. In this study, it was observed that most participants believe in the good quality of mammographs and mammography reports.

Quality control of mammographic screening is an important issue to consider.[20] On the quality control of exams and reports, the National Cancer Institute José Alencar Gomes da Silva (Inca) and the CBR have been developing, over the years, programs that aim to provide relevant information aimed at the development of actions to control the radiation dose, image quality and mammography reports.[21] Like this mammography quality control is essential and should be implemented in health services, seeking standardization for breast cancer diagnosis.[18]

At this juncture, factors associated with breast cancer mammographic screening, such as mammography machine availability and exam production[22], mammography quality and image interpretation[23], should be identified by health managers.

Moreover, considering that breast cancer can cause different impacts on a woman's life[24], and that if diagnosed early may have a good prognosis[18], the women's health care network should be organized, with actions turned to screening and ensuring access to the necessary procedures and treatments.[16]

As limitations of this study, it is possible to point out the significant percentage of refusal of physicians to participate and to perform in only one municipality, with the impossibility of generalizing the results found.

It is believed that this study may contribute to the expansion of the look on medical practice focused on breast cancer screening in health services. It is also believed in the need for other studies aimed at identifying the perceptions of different actors, such as health managers and service users, about breast cancer screening.

Conclusion

In medical practice, there was recognition of the importance of CBE and mammography for breast cancer screening and, consequently, for increasing the possibilities of cure and reducing morbidity and mortality. Within this context, the insufficient number of mammograms available per month in some public health units was pointed out as a limiting factor for breast cancer screening in the municipality studied.

Conflict of interest: The authors stated that there was no conflict of interest.

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