



THE ROLE OF HEALTH AWARENESS FOR PARTICIPATION IN SCREENING FOR BREAST CANCER

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ABSTRACT

PURPOSE is to illustrate the need for increased health awareness of breast cancer (BC). **METHODS:** Documentary and sociological methods. A questionnaire survey was conducted among 811 women between March and April 2024. The questions concerned the presence of health habits, gynecological history and awareness of behavioral risk factors. **RESULTS:** 67% regularly participate in preventive care through clinical examination, and 12% have never had one; 76% have unhealthy habits related to coffee consumption, alcohol consumption, smoking, and insufficient sports activity; 84% declare a gynecological consultation in the last 3 years; 29% follow up their health in the private sector; 49% have had a regular clinical breast examination and 72% an ultrasound; 48% are not regular in having a mammogram; 42% trust the doctor's opinion expressed in talks, TV programmes, advertisements; 41% the internet, specialist platforms and social networks, 59% prefer information in leaflets. **CONCLUSION:** The lack of healthy habits and behaviors can be explained by imperfect knowledge of the benefits and systematic underestimation of the productivity of medical care. Increasing health literacy will make individuals rethink the positive and negative effects of specific behavior, which will affect their participation in screening programs.

Keywords: breast cancer screening, awareness, harmful habits

INTRODUCTION

Breast cancer is one of the main causes of female morbidity and mortality, which in Bulgaria reach 16.5 and 55.5 per 100 000 inhabitants, respectively (5, 8). According to the 2017 National Cancer Registry, breast cancer (BC) is the most common cancer in women and accounts for nearly 27% of all cancers. The five-year survival rate from this disease in Bulgaria is approximately 73% and is 11% lower than the European average.

Screening is an important component in the fight to reduce morbidity and mortality, and an essential support for early detection of malignancy. Women's participation in screening programs for BC is linked to women's health knowledge (3, 4, 6). According to national analyses, low health literacy concerns 60% of Bulgarians (3).

THE AIM of the study is to illustrate the need for efforts and interventions, at national level, to increase the health awareness of Bulgarian women regarding malignant diseases, in particular BC. In order to achieve this goal, the following tasks were formulated:

- To determine the trend of attendance for BC screening in Bulgaria;
- Analyze health behaviors and associated socio-economic and risk factors.

MATERIALS AND METHODS

Documentary and sociological methods were used in the study. A questionnaire survey was conducted in connection with the preparation of a dissertation, among 811 women aged between 20 and 80 years, between March and April 2024. The questions concerned the presence of health habits, gynecological history and awareness of behavioral risk factors.

RESULTS: More than half of respondents (67%) reported regular participation in BC screening through clinical examination (**Figure 1**).

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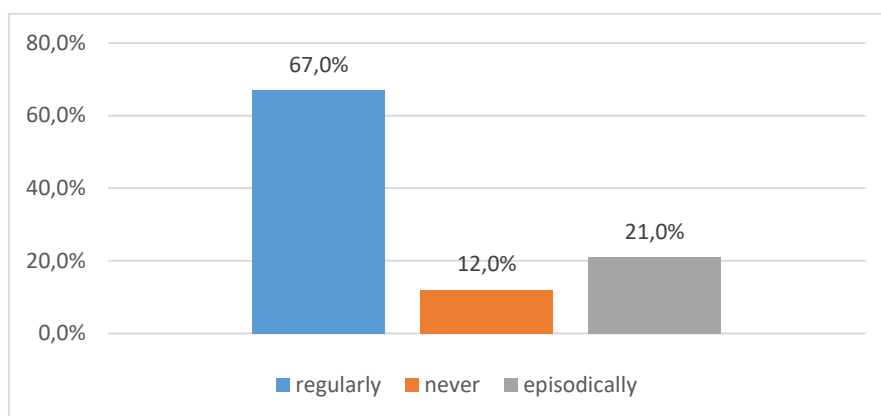


Figure 1. Participation in BC screening

About one-quarter (21%) of the respondents had episodic (occasional) screening, and 12% reported never having a screening.

When asked about the presence of harmful habits and behaviors, the responses are evident from the graph in **Figure 2**.

Smoking	221 (30,2%)
Regular alcohol consumption	139 (19%)
Regular coffee consumption	600 (82,3%)
Regular sports activity	219 (31,8%)

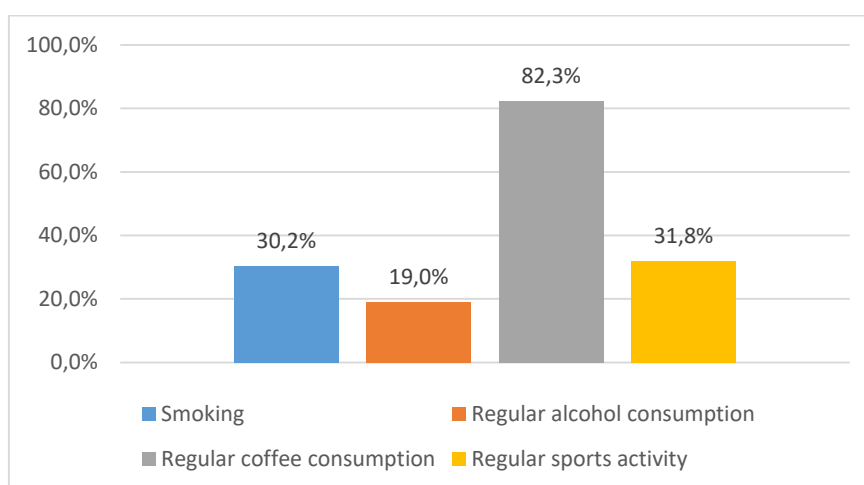


Figure 2. Health habits and behaviors (more than one answer possible)

We found that 732 women, a significant proportion of respondents (76%), reported the presence of harmful habits: frequent coffee consumption (82.3%), tobacco use (30.2%), low level of physical activity (31.8%) and regular alcohol consumption (19%), with the

clarification that regular consumption was considered to be three or more times a week.

Of note is the high percentage of women (95%) who report that the duration of breastfeeding is approximately 6 months.

Breastfeeding up to 6 months	21.9%
Non-breastfeeding	24 (4,5%)
Exclusive breastfeeding over 6 months per child	275 (53,8%)
Exclusive breastfeeding over 12 months per child	101 (19,8%)

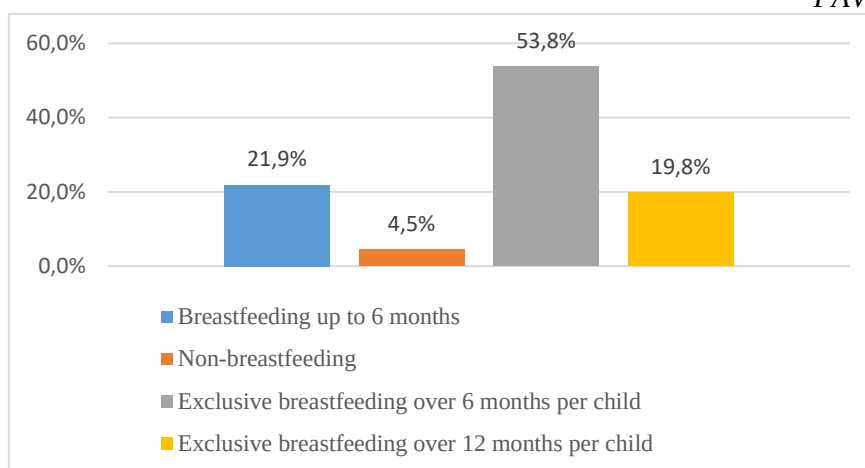


Figure 3. Duration of breastfeeding in months per child

Almost all women (95%) prefer to breastfeed their child, with a small proportion of 4.5% refusing to breastfeed. Women breastfeeding for more than 6 months represent a significant

proportion - 73.6% (53.8% over 6 months +19.8% over 12 months). Those breastfeeding under 6 months accounted for 21.9% and those over 12 months for 19.8%. **(Figure 3)**

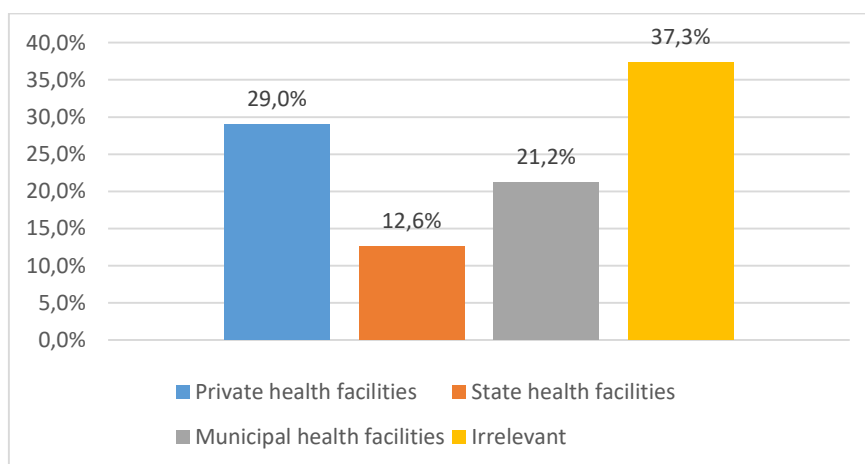


Figure 4. In which health facility do you prefer to perform screening for BC

A little over a quarter of the respondents (29%) preferred to have their breast health follow-up done entirely in the private health sector and 33.7% in municipal and government health

facilities. The proportion of women for whom the ownership of the health facility did not matter was slightly more than one-third (37.3%). **(Figure 4)**

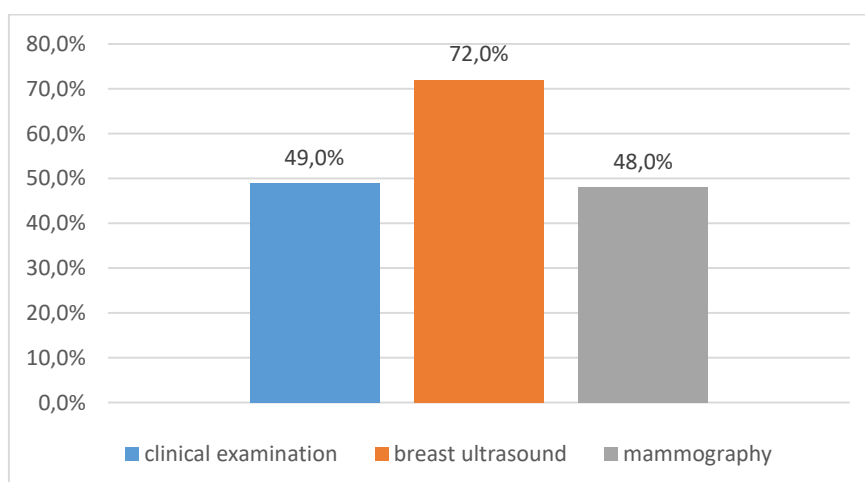


Figure 5. Participation in preventive checkups and breast examinations in the last three years

The relative proportion of women with a regular clinical breast examination was 49%. Breast ultrasound is popular among 72% of them, and 48% report having had a mammogram in the last three years. The results for ultrasound

and/or mammography performed largely depended on the age of the respondents, but it is notable that less than half had a preventive breast examination in the past three years. **(Figure 5)**

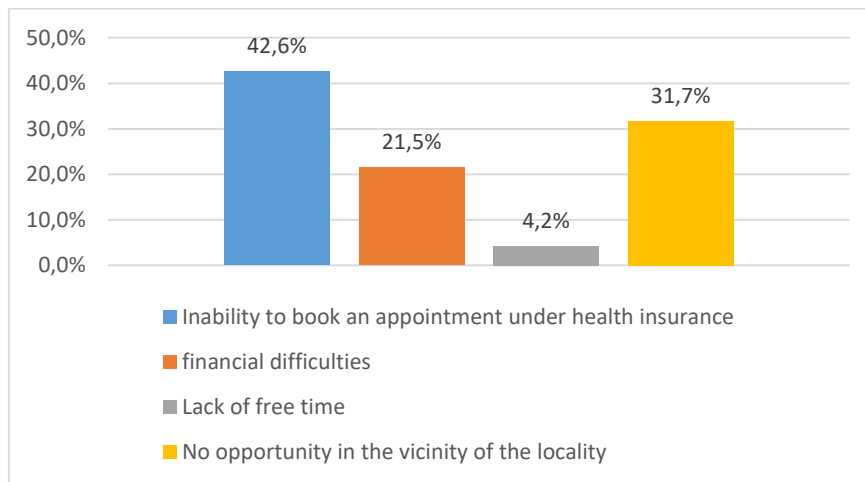


Figure 6. What is the reason for not attending BC screening

When asked about their reasons for not attending BC screening, 42.6% reported that they had difficulty making an appointment for screening under the health insurance scheme within the time frame of the referral validity,

21.5% could not afford the examination and testing for a fee, 4.2% had no free time to do so and 31.7% did not have access to the relevant specialist and medical equipment near their place of residence. **(Figure 6)**

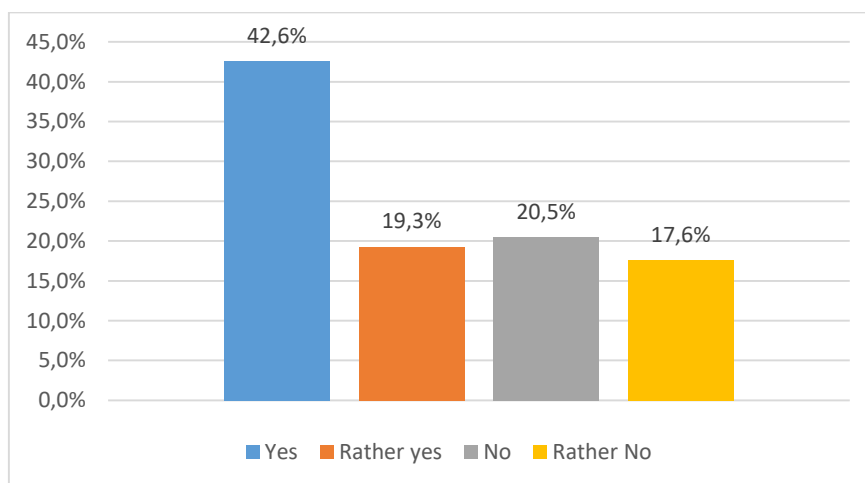


Figure 7. Are you informed about the risk factors for BC

The results on awareness of risk factors for BC showed that the positive (61.9%=42.6 + 19.3%) responses were more than the negative ones (38.1%= 20.5% + 17.6%). Those answering strongly No (20.5%) were twice as less as those answering strongly Yes (42.6%). **(Figure 7)**

Preferred sources of health information show that 42% trust doctors' opinions expressed through talks or in TV programs and advertisements; 41% the internet, specialized

platforms and social networks, 59% prefer written information in leaflets.

Summary

More than half of respondents (67%) participate in screening for breast cancer, but fewer respondents (49%) have had a screening in the past three years. Breast ultrasound was performed by 72% and mammography by 48%. A significant proportion (76%) of women have harmful habits related to smoking, frequent coffee use and immobility.

The majority of women (95%) were positive about breastfeeding, with those breastfeeding for more than 6 months accounting for a significant 73.6%.

There are systemic constraints (42.6% at health insurance appointment and 31.7% deficit of specialist and outpatient facility nearby) making it difficult for women to participate in BC screening.

More than half of the women surveyed were informed about the risk factors for breast cancer, preferring written information in leaflets.

CONCLUSION

The lack of healthy habits and behaviors can be explained by imperfect knowledge of the benefits and systematic underestimation of the productivity of medical care. Increasing health literacy will make individuals rethink the positive and negative effects of a behavior, which will affect their participation in screening programs.

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