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Poland's Breast Self-Exams: Empowering Awareness

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Abstract

Introduction and purpose: Breast cancer poses a significant global health challenge, especially in Poland, where it is the most prevalent cancer among women. Despite advancements in medical technology, individual awareness and proactive health practices, such as Breast Self-Examination (BSE), are crucial for early detection. This study focuses on BSE practices in the Tarnów district of Poland, a small city facing unique healthcare challenges, to understand the prevalence, knowledge, and attitudes toward BSE. The aim of study was to comprehensively investigate BSE practices among women in the Tarnów district, considering socio-demographic factors.

Material and Methods: Anonymous questionnaires assessed socio-demographic characteristics, attitudes toward BSE, frequency of BSE performance, knowledge on BSE, and sources of information. The survey involved 100 Polish women in gynecologist and general practitioner offices in Tarnów County. Results were analyzed in relation to age, education, and place of residence.

Results: While 90% of women were familiar with BSE, 10% had never heard of it. While 29% performed BSE monthly, 18% never conducted the examination. Knowledge gaps were identified, particularly regarding optimal BSE practices. Information sources included the Internet (44%) and gynecologists (28%). Notably, 65% expressed a willingness to participate in BSE training.

Conclusions: In conclusion, the study provides valuable insights into BSE practices among women in the Tarnów district, emphasizing the need for targeted interventions to encourage regular BSE. Knowledge gaps and the willingness of women to participate in training present opportunities for healthcare initiatives. The study also highlights the need for broader health

education campaigns to dispel myths and enhance awareness, particularly regarding breast cancer affecting both genders. Limitations include a small sample size and geographic specificity to Tarnów district.

Keywords: breast cancer; breast self-examination; cancer prevention

Introduction:

Breast cancer remains a significant public health concern worldwide, demanding continuous efforts to enhance early detection and improve survival rates. In Poland, as in many other countries, breast cancer is the most common cancer among women, with a rising incidence over the years[1,2,3,4]. While advancements in medical technology and healthcare infrastructure have undoubtedly improved diagnostic capabilities, the importance of individual awareness and proactive health practices cannot be overstated.

For the detection of breast cancer in its earliest stages, regular screening of all women is recommended. There are three methods of screening: breast self-examination (BSE), clinical breast examination and mammography[5,6].

Mammography in Poland is free of charge for women aged 50–69, performed once every two years[7,8,9]. Participation rate in this screening test is among the lowest in the European Union (EU), and the percentage of women in Poland screened in 2021 (of the total number of women invited personally that year) was 30.20%. In 2021, the top three countries with the highest breast cancer screening rates for women aged 50 to 69 years, who had received a mammography within the previous two years, were the Nordic EU countries: Denmark (83.0%), Finland (82.2%) and Sweden (80.0%)[10,11,12].

Breast self-examination is an easy, economic, non-invasive method for all women aged 20 and older[13,14]. The purpose of BSE is for a woman to learn the topography of her breast, know how her breast normally feels and to be able to identify changes in the breast should they occur in the future. BSE consists of two basic steps: visual examination in the standing position and tactile examination carried out lying down and standing up. This examination should be performed frequently by menstruating women, preferably 2–3 days after each menstruation, and by post-menopausal women once a month on a chosen day[15,16,17,18].

This method is considered adequate when performed at least once per month[19,20,21], and should be used in combination with mammography and clinical examination[15,22]. When performed, BSE increases breast cancer awareness which means knowledge of the personal/family history, risk factors for breast cancer, and anatomical structure and appearance of one's own breast [23,24]. When performing BSE, women have an opportunity to observe and feel their breast, to be familiar with the texture of their normal breast tissue, and how it changes at different times of the month and with age, report changes without delay, and attend for breast screening when aged 50 and over[25,26].

Purpose:

This article delves into a critical aspect of breast cancer awareness and prevention—Breast Self-Examination (BSE)—with a specific focus on its practice in the context of small cities in Poland—more specifically Tarnów district. Small cities often face unique healthcare challenges, including limited access to specialized medical facilities and lower levels of health awareness compared to their urban counterparts. Exploring the prevalence, knowledge, and attitudes toward BSE in these settings is vital for designing targeted interventions to empower women in the pursuit of their own health.

Material and methods

The study used an anonymous questionnaires addressing the following issues:

- socio-demographic characteristics of the study subjects
- the attitude towards BSE
- the frequency of BSE performance
- the age at which one should start BSE
- the time of its performance in the menstrual cycle
- the knowledge on how to perform BSE including specific breast anatomical topography and proper body position for examination
- the source of information on BSE
- the knowledge on breast cancer including question about gender in which breast cancer may occur
- incidence of breast cancer among the study participants
- incidence of breast cancer among family of the study participants

The survey was performed on 100 Polish women. The study was conducted in a gynecologist's and general practitioner's office in Tarnów County with a population of approximately 20000 residents. The results were elaborated in regard to female age, education and place of living (Table 1) (Figure 1).

Age range	From <19 years to >60 years
Education:	Amount:
Primary	3.0
Vocational	22.0
Secondary	48.0
Higher	27.0
Place of living:	Amount:
<2000 residents	53.0
2000-20000 residents	37.0
20000-100000 residents	7.0
>100000 residents	3.0

Table.1. Characteristics of the surveyed group of women

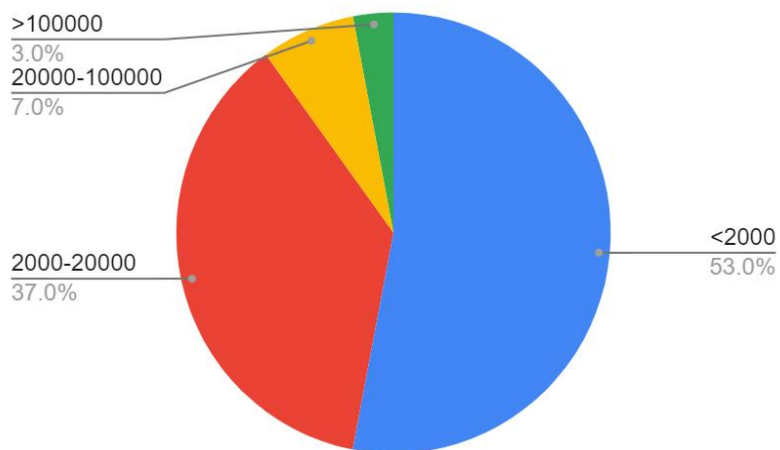


Figure 1. Distribution of respondents based on the residential area.

Results

Attitude towards BSE

The vast majority of women were familiar with the concept of breast self-examination(90%), but unfortunately 10% never heard about it. Most of the respondents (19%) rated their knowledge on a scale of 1-10 as 5, while the median was 7.5 (Figure 2).

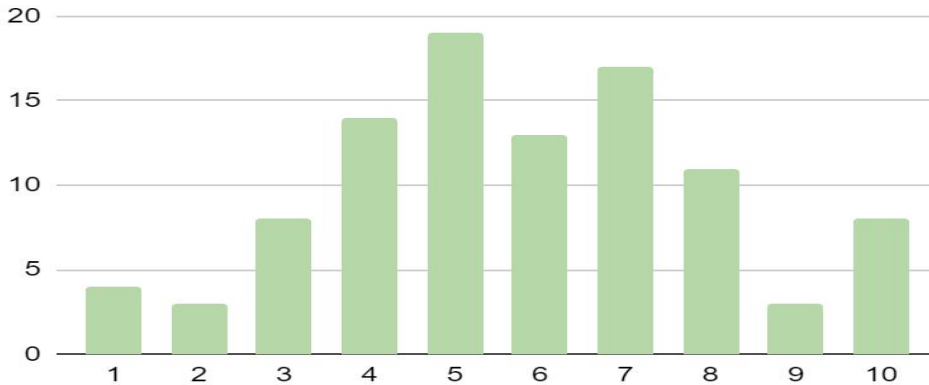


Figure 2. Respondents' knowledge on breast self examination on a scale of 1-10.

29% of women claim to perform breast self-examination (BSE) once a month, while a significant portion does BSE less frequently, and unfortunately, as many as 18% do not perform the examination at all (Figure 3).

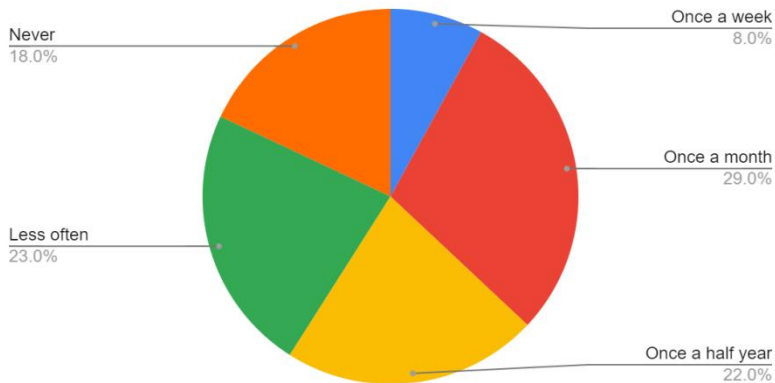


Figure 3. Frequency of performing breast self-examination.

The knowledge on BSE

Surveyed women, when asked about the age to start breast self-examination, in a significant percentage (49%) selected the correct answer (Figure 4). However, 79% of women provided the wrong answer when asked about the specific time in their menstrual cycle to conduct BSE (Figure 5). A considerable number (42%) knew that the examination should be performed in both a sitting and lying position (Figure 6). Unfortunately, only 19% of respondents knew which segment of the breast to focus on the most during breast self-examination (Figure 7).

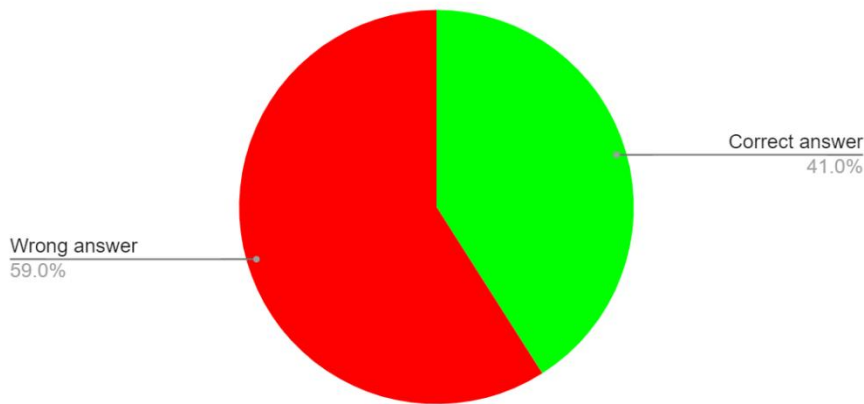


Figure 4. The age at which breast self-examination should begin.

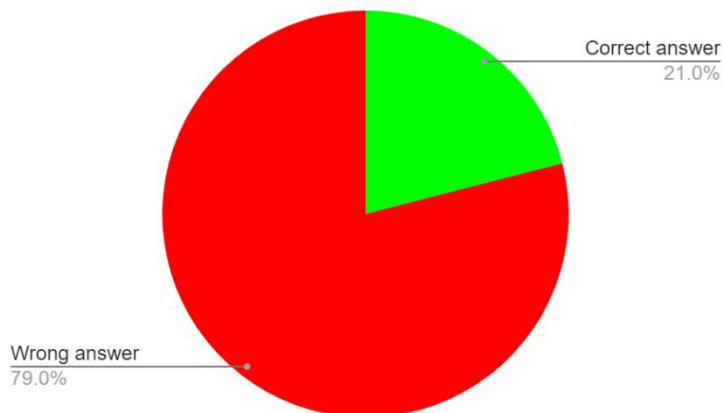


Figure 5. The specific time in menstrual cycle to conduct BSE.

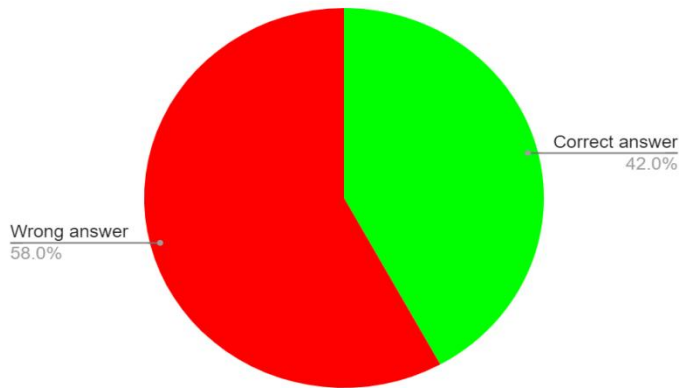


Figure 6. The position in which BSE should be conducted.

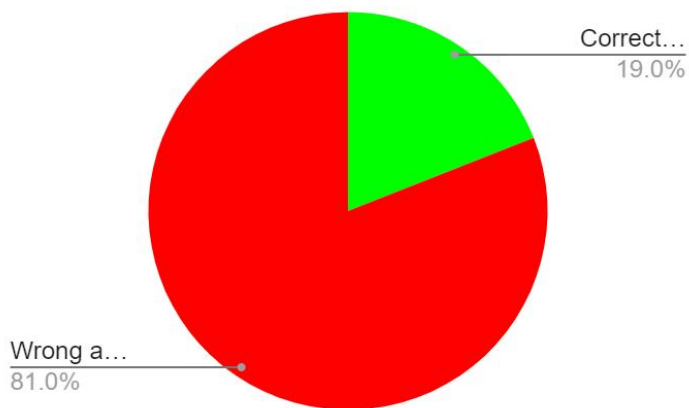


Figure 7. The breast segment on which attention should be primarily focused during BSE.

The source of information on BSE

Many respondents learned about the extremely important role of BSE by independently seeking information on the Internet (44%). Additionally, a trusted source of information for women was their gynecologist (28%). Less frequently, information was obtained from family, friends, a general practitioner doctor, oncologist, or midwife (Figure 8).

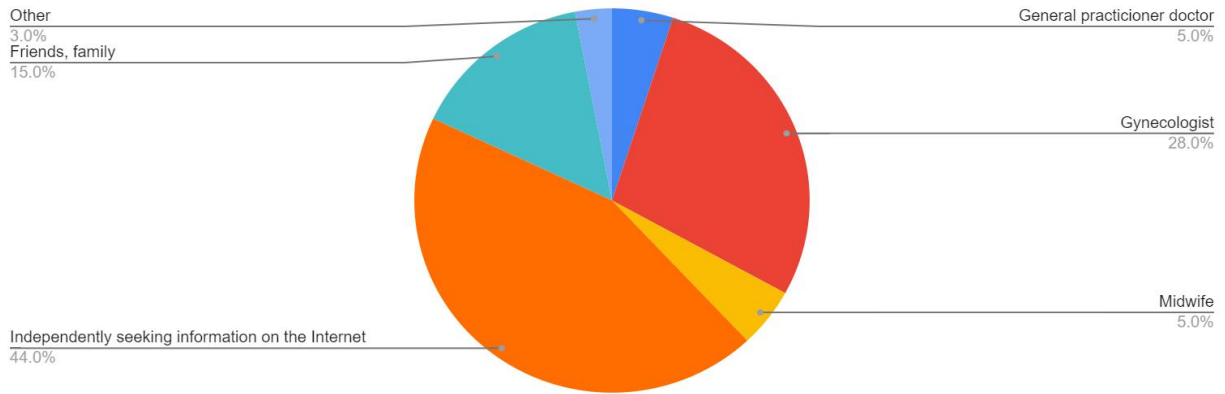


Figure 8 . The source of information about the importance of breast self-examination.

Certainly, a significant portion of the surveyed individuals obtained instructions for BSE through their own information search on the Internet (38%), but also during visits to the gynecologist (22%) (Figure 9). Alarming information is the fact that 20% of women have not been instructed in any way. Despite a significant portion obtaining information, as many as 65% of the surveyed individuals expressed a willingness to participate in training on breast self-examination (Figure 10).

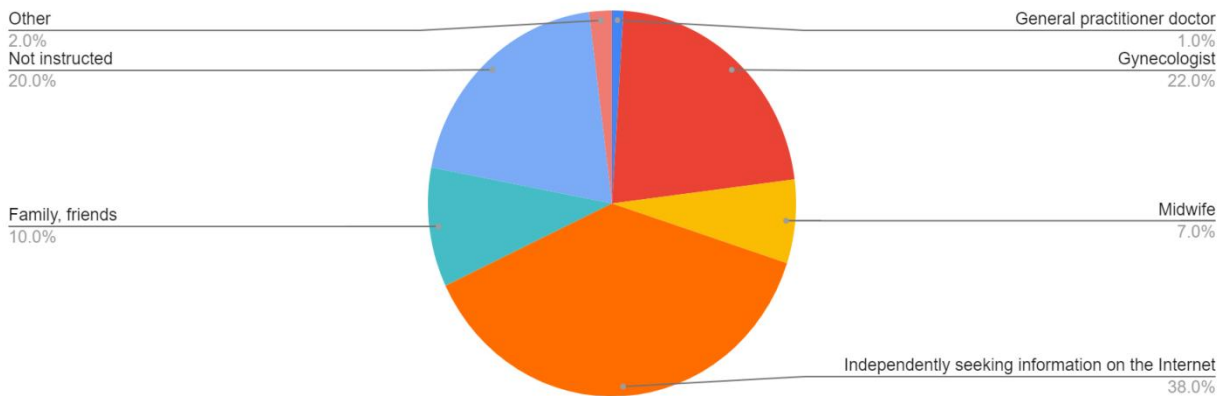


Figure 9 . The source of instruction on performing BSE.

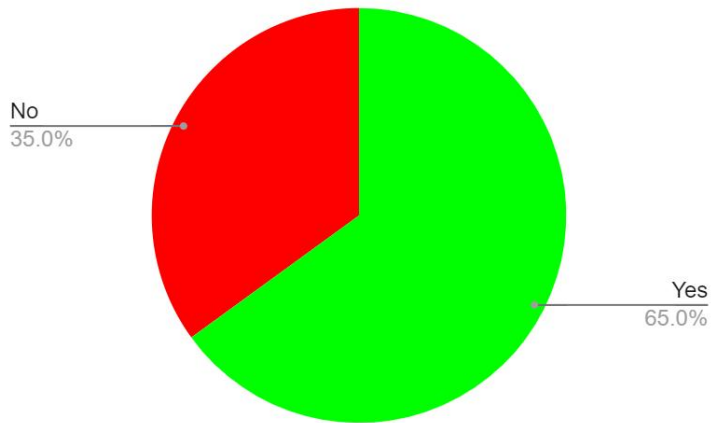


Figure 10. The willingness to participate in training on breast self-examination.

The knowledge on breast cancer

As many as 55% of women were unaware that breast cancer can affect both women and men (Figure 11). Only one respondent had a family member with breast cancer, while none of the women had been personally affected by breast cancer.

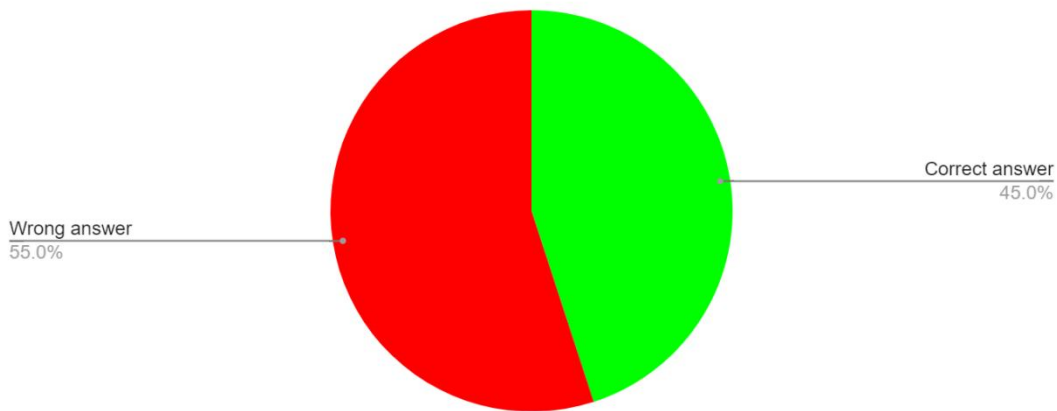


Figure 11 . The awareness that breast cancer can occur in both genders

Discussion

The presented study offers valuable insights into the current landscape of breast self-examination (BSE) practices among women in small cities, with a specific focus on the Tarnów district in Poland. The findings underscore both positive aspects and areas that demand immediate attention in the realm of breast cancer awareness and prevention.

One notable positive aspect is the commendable level of awareness about BSE among the surveyed women, with 90% reporting familiarity with the concept. However, the study also highlights a concerning pattern in the frequency of BSE performance, with 18% of women admitting to never conducting the examination. A study conducted in the Podkarpackie Voivodeship with a similar population size demonstrated that 70% of women were familiar with the concept of breast self-examination, but less than half of them actually performed it [27]. This emphasizes the need for targeted interventions and education campaigns to encourage regular BSE practices, particularly in small cities where access to specialized healthcare facilities may be limited. Another study conducted at the University of Riyadh, Saudi Arabia, showed that, among the participants, 52.2% of the respondents had adequate overall knowledge toward BSE and only 18% of all participants performed it.[28]

The gaps in knowledge identified in the study, such as the optimal timing during the menstrual cycle and the specific breast segments to focus on during examination, highlight areas where education campaigns can be refined. Improving understanding in these aspects can enhance the effectiveness and accuracy of BSE practices. Furthermore, the revelation that 20% of women had not received any instruction on BSE underscores the need for healthcare providers to play a more active role in patient education. The study's emphasis on the role of information sources in shaping awareness is noteworthy. The Internet emerged as a predominant source, indicating the importance of leveraging online platforms for disseminating accurate and accessible health information. However, the finding that 20% of women had not received any instruction on BSE from healthcare professionals suggests a gap in healthcare provider-led education. This highlights the need for improved communication between healthcare professionals and patients to ensure comprehensive and consistent information.

The positive aspect of the study is the willingness of 65% of surveyed individuals to participate in training on breast self-examination. This presents a valuable opportunity for healthcare initiatives and community programs to bridge knowledge gaps, empower women with essential skills, and foster a proactive approach to breast health. Initiatives that capitalize on this willingness can have a significant impact on improving BSE practices and overall breast cancer awareness. A great example of the importance of organizing breast self-examination training is a

study conducted in Turkey (in Ankara), where training dramatically changed the participants' knowledge about risk factors, signs and symptoms, and the methods of early diagnosis. At least half of the participants became competent in all BSE steps [29].

Finally, the study exposes a lack of awareness regarding the possibility of breast cancer affecting both genders, with 55% of women being unaware of this fact. This emphasizes the importance of broader health education campaigns that dispel myths and provide accurate information to enhance overall breast cancer awareness. In conclusion, while the study highlights positive aspects of awareness, it also identifies critical areas that require targeted interventions and improvements in healthcare provider-led education. By addressing these gaps, it is possible to empower women in small cities to take proactive steps in their breast health, ultimately contributing to the early detection and prevention of breast cancer.

Conclusion

In conclusion, this comprehensive study sheds light on the current state of breast self-examination (BSE) practices among women in small cities, specifically within the Tarnów district of Poland. The findings underscore both encouraging aspects and areas requiring urgent attention in the realm of breast cancer awareness and prevention.

The study revealed a commendable level of familiarity with the concept of BSE among the surveyed women, with 90% reporting awareness. However, the frequency of BSE performance presented a concerning pattern, with 18% of women admitting to never conducting the examination. This emphasizes the need for targeted interventions to encourage regular BSE practices among women in small cities, where access to specialized healthcare facilities may be limited.

While a significant number of respondents demonstrated knowledge about the age to commence BSE, there were notable gaps in understanding the optimal timing during the menstrual cycle and the specific breast segments to focus on during examination. Education campaigns should address these gaps to ensure more effective and accurate BSE practices.

The study also highlighted the pivotal role of information sources in shaping women's awareness

of BSE. The Internet emerged as a predominant source, indicating the importance of leveraging online platforms for disseminating accurate and accessible health information. However, the concerning revelation that 20% of women had not received any instruction on BSE suggests a gap in healthcare provider-led education, underscoring the need for improved communication between healthcare professionals and patients. Unfortunately, a study conducted at “Certus” Medical Center in Myslenice (Malopolska Province) among 808 women also demonstrated that only 24% of them obtained information about breast self-examination from a doctor [30].

A noteworthy aspect of the findings is the willingness of 65% of surveyed individuals to participate in training on breast self-examination. This presents a valuable opportunity for healthcare initiatives and community programs to bridge knowledge gaps, empower women with essential skills, and foster a proactive approach to breast health. Despite the high incidence of breast cancer in Poland [31], particularly among women, the study exposed a lack of awareness regarding the possibility of breast cancer affecting both genders. This emphasizes the importance of broader health education campaigns that dispel myths and provide accurate information to enhance overall breast cancer awareness.

Author's contribution:

Conceptualization: A.K.; methodology: A.K., P.S.; software: S.Z., M.S.; formal analysis: J.T., M.D., Ł.S., K.Ż., A.B., K.K.; investigation: A.B, A.K., P.S., S.Z., M.S., J.T., M.D., Ł.S., K.Ż., K.K.; resources: A.B, A.K., P.S., S.Z., M.S., J.T., M.D., Ł.S., K.Ż., K.K.; data curation: A.B, A.K., P.S., S.Z., M.S., J.T., M.D., Ł.S., K.Ż., K.K.; writing - rough preparation: A.B, A.K., P.S., S.Z., M.S., J.T., M.D., Ł.S., K.Ż., K.K.; writing – review and editing: A.B, A.K., P.S., S.Z., M.S., J.T., M.D., Ł.S., K.Ż., K.K.; visualization: A.B., A.K., P.S.; supervision: Ł.S., K.Ż., S.Z., K.K.; project administration: P.S., M.S., J.T., M.D.

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Institutional Review Board Statement: The study was conducted in accordance with the guidelines of the Helsinki Declaration.

Ethical review and approval for this study were waived due to the implementation of full anonymity during survey responses, ensuring that there is no possibility of linking any of the study participants to the provided answers.

Informed Consent Statement: Informed consent was obtained from all individuals participating in the study.

Data Availability Statement:

https://docs.google.com/spreadsheets/d/1kRwkPXE5ywXoAy62Px-zZc6PVpz7nmXSqrABJ_82iHw/edit?usp=sharing

Conflicts of Interest: The authors declare no conflict of interest. All authors have read and agreed to the published version of the manuscript.

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