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Do we need to improve breast cancer education? Attitude towards breast self-examination and screening programmes among Polish women

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ABSTRACT

Introduction. Breast cancer is a global health threat which requires systematic basic health education and increasing the public attention and awareness. Therefore, breast self-examination (BSE), however controversial, was largely promoted in many countries including Poland. Moreover, the national breast screening programmes (BSP) were made available to general public.

Aim. The study investigated the attitude towards BSE, BSP and breast cancer as a health threat among Polish women in relation to age, education, place of living and economical status.

Material and methods. An anonymous questionnaire was completed by 751 Polish women. The results were statistically elaborated.

Results. The majority of women declared to know how to perform BSE but only a small part (older females) practiced it regularly (once a month). National BSP were acknowledged by most of surveyed. The higher awareness of BSP was found for women with higher education and economical status whereas the lowest – for women inhabiting small villages and performing BSE rarely or never. Medical doctors and other medical staff were an insignificant source of BSP. Most of responders recognized breast cancer as a serious health threat in Poland.

Conclusion. The general awareness of BSP and BSE among Polish women is satisfactory, yet the percentage of females performing BSE on regular basis remains too low. There is a need to increase the contribution of medical staff in breast cancer education and control activities.

Keywords: breast cancer, breast self-examination, public awareness, cancer prevention.

Introduction

Breast cancer represents a global health problem with over 1.6 million cases and 522,000 deaths reported globally in 2012 [1]. Such a high prevalence enforces a need to gain public awareness and implement effective methods of prevention. Many countries offer breast screening programmes (BSP) to females between 50 and 70 years old, which relies on X-ray mammography [2–4]. This method has been proven to be highly sensitive and accurate but it cannot be used in younger women with dense glandular breasts, in whom the reported sensitivity usually does not exceed 50% [5, 6]. There is, however, a suite of other diagnostic tools, including optical mammography, shear wave elastography or ultrasonography, which can be helpful in detection of breast lesions at a younger female age [7–9].

Apart from medical imaging of breasts, the great emphasis has been put on the promotion of breast self-examination (BSE), which according to recommendations should be performed once a month, regardless of the female age [10]. It was, however, demonstrated that despite earlier detection of breast cancer,

BSE does not to reduce the mortality and additionally, generates a significant number of false-positive results [11, 12]. Moreover, it was even criticized for increasing the number of unnecessary biopsies and generating economical costs [11]. It was, however, shown that in women with BRCA1 and BRCA2 mutations, the BSE increases the sense of control and safety [13]. Contradictory to this, the other study found that in some women, BSE can increase depression level, anxiety and fear of cancer [14]. Some authors argue that BSE is an act of awareness and that there is no moral right to take away such inexpensive and always available tool from females [15]. Nevertheless, the BSE is not any longer recommended by many health authorities as a universal method of breast screening [16]. World Health Organization states, however, that BSE is advised to women at higher cancer risk [17]. As this risk can arise, inter alia, from genetic predispositions (mutations), large group of females, particularly in developing countries or nations with economical disproportions, may be unaware of them due to limited access to molecular genetic screening.

Despite the ongoing discussion on BSE usefulness, it was largely promoted (and still is) in many countries, as a part of health education [18]. In Poland, it was previously reported that women are aware of BSE but only one third of them actually perform it – the result concluded as unsatisfactory [19]. It can be predicted that young women performing BSE may reveal higher degree of health prevention and in future, be more keen to participate in national BSP based on X-ray mammography.

The present study aimed to investigate the current frequency of BSE among Polish women and factors which may influence it. Participation and awareness of national breast screening programmes and attitude towards the breast cancer as a health threat were also assessed. The results of this study characterize the current status of basic breast cancer education among Polish women and highlight the need for further improvement.

Material and methods

The study used an anonymous questionnaires addressing the following issues:

- the knowledge on how to perform BSE,
- the frequency of BSE performance,
- the awareness of national BSP,
- the source of information on BSP,
- the attitude towards breast cancer as a health threat.

The survey was conducted between 2012 and 2014 and was completed by total of 751 Polish women. Characteristics of the studied group were given in **Table 1**. The results were elaborated in regard to female age, education, economical status and place of living. The statistical analyses were performed with Statistica v.10.0 (StatSoft, Poland). Relations between indicated responses and age (normally distributed data) were assessed with parametric T-Student test. Comparison in the frequencies of given answers among different groups was assessed with Pearson's chi square test. $P < 0.05$ was considered as statistically significant.

Table 1. Characteristics of the surveyed group of women

Age	
(mean ± SD)	33.0 (±15.5)
range	18–84 years
Education (%)	
primary	75.5
secondary	23.9
higher	0.7
Place of living (%)	
village	14.5
< 100,000 residents	26.1
100,000–500,000 residents	7.1
> 500,000 residents	52.3
Economical status (%)	
very poor	1.1
poor	3.1
fair	43.5
good	44.6
very good	7.7

Results

Attitude towards BSE

Most of surveyed women declared to know how to perform BSE (79.6%) and from this group large percentage (88.0%) indicated to practice it but only one third (34.0%) did it regularly (once a month). The rest admitted to perform BSE rarely. Women performing BSE regularly were older than these performing it rarely (mean 30.7 vs 41.1 years old; $p < 0.001$). No significant differences in the attitude towards BSE were noted between women with higher and secondary education ($p > 0.05$). The economical status and place of living were also not found to be associated with knowledge and performance of BSE nor regularity of it ($p > 0.05$ in all cases).

Attitude towards BSP

The majority of surveyed women heard about BSP (87.3%). The main sources of this information includ-

ed TV and Internet. Medical doctors and other medical staff (nurses and midwifes) were rarely indicated as a source of information in that matter (**Figure 1**). Women performing BSE regularly heard about BSP significantly ($p < 0.05$) more often (92.9% of responders) than those who did it rarely (87.1%) or never (82.6%). Female education, place of living and economical status were not associated with the BSP awareness ($p > 0.05$).

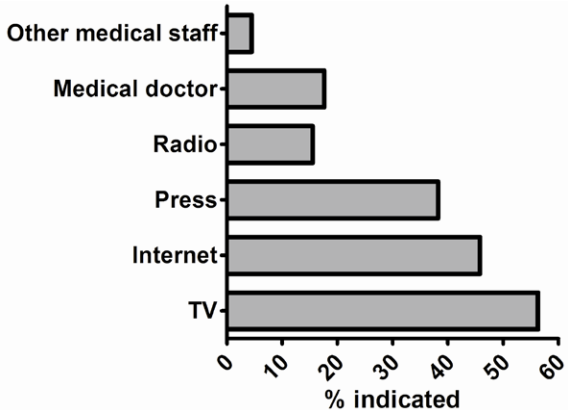

Figure 1. Sources of information on BSP among the surveyed group of women

Attitude towards breast cancer

Most of responders (89.7%) indicated that breast cancer is a significant health threat in Poland. This view was represented more often by women with higher education and better economical status, and with the lowest frequency by those who never performed BSE and inhabited villages and areas of less than 100,000 residents ($p < 0.05$ in all cases).

Discussion

The breast cancer educational programmes should be followed by systematic evaluation of public awareness and attitudes to highlight the points which may require improvement in gaining public attention and develop proper health prevention and cancer control activities. The results of present study indicate that surveyed group of Polish women were generally aware of health treats associated with breast cancer, knew how to perform BSE and were informed about BSP. On the other hand, only a small part of women practiced BSE regularly. The irregularity in BSE performance by Polish women was already reported in previous studies [19, 20] and highlights the continuous necessity to encourage female to self-monitor their breasts more frequently (idealy once a month). Women performing BSE regularly were reported to have significantly higher self-efficacy and increased health motivation [21]. Importantly, in our study, the group performing BSE regularly was more aware of national BSP and more often indicated that breast cancer represents a serious health threat. Altogether, even if BSE is disregarded as a medical procedure, it still has a value as a tool through which women can take charge of their health and develop desired health behavior. It is likely that women practicing BSE will more likely attend national BSP, gain knowledge on risk factors, discuss the limitations of screening methods with health professionals and generally, reveal pro-healthy activities. In that meaning, the function of BSE far exceeds its role as an inexpensive screening method, particularly in countries with lower economical status.

There are several reasons for which the women may not perform BSE regularly, the main being the fear for finding malignancy [21–23]. Moreover, some women find unnecessary to perform it due to no history of breast cancer in their family [24]. The genetic predispositions and heredity are among the most frequently recognized breast cancer risk factors by surveyed women [25–27]. There are, however, many other known factors that may increase risk of cancer development such as age, early menstruation, late menopause, dense breasts, diet rich in saturated fats, sedentary lifestyle, obesity, long-term use of hormone replacement therapy, alcohol abuse and exposure to radiation and chemical contaminants [28, 29] In fact, the direct cause of any individual breast cancer is unknown and may be a complex function of several co-occurring factors.

The health preventing programmes such as BSP should be promoted through a variety of sources including TV and radio advertisements, online and printed materials [30]. There is no doubt that medical staff should be actively involved in educating women about cancer risk factors, and to initiate screening programs aimed at early detection and intervention [31], yet the present study demonstrated that its role in BSP promotion is insignificant. Studies conducted in other countries, e.g. Turkey, United Arab Emirates, Jordania, demonstrated that health professionals play significantly greater role than in Poland (but still not a key one) through which women acquire information on breast cancer prevention [21, 32, 33]. This along with recent report on very low level of public trust in Polish physicians [34] raises serious concerns. Much effort should be put forward to improve the communication between patient and health professionals and to educate women, including those below the age of

increased breast cancer risk, on the screening methods and their limitations.

Conclusion

Polish women are generally aware of BSE and BSP, and recognize breast cancer as a serious health threat. Most of women, however, do not perform BSE regularly. The greater involvement of medical doctors and other professional staff in health education towards breast cancer prevention is necessary.

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Conflict of interest statement
The authors declare that there is no conflict of interest in the authorship or publication of contribution.

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