THE NEED TO IMPROVE PREVENTION OF BREAST CANCER IN RURAL AREAS

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ABSTRACT

INTRODUCTION: The incidence of breast cancer in European countries is growing steadily, which is due to the demographic trends of the aging population. This is the most common malignancy among women in the world. The high percentage of late diagnoses, high mortality and low five-year survival rate for our country confirmed the need for prophylactic examinations and early diagnosis of breast cancer.

AIM: To analyze the health knowledge and behavior of women in rural areas in regard to the prevention of breast cancer.

MATERIALS AND METHODS: A direct anonymous questioning with a personally developed questionnaire form was conducted. The surveyed were 1,102 women at the age of 20-65, residents of the districts of Varna, Dobrich, Silistra and Shumen. About 1/3 of them live in rural areas. The study covers the period from January 2013 to March 2015 and documentary, sociological and statistical methods were used.

RESULTS AND DISCUSSION: It was discovered that there is an important difference in the awareness among women for annual medical check-ups ($\chi^2=90.62$; $p<0.001$), with women from the cities being more informed (85.50%) compared to those in rural areas (59.50%). Women of the cities initiate visits to the doctor for prophylaxis of the breast more often (54.90%). Depending on the type of the populated area, those surveyed in the cities had mammography studies conducted more frequently (30.20%) compared to respondents from the villages - 19.80% ($\chi^2=12.88$; $p<0.001$). Nearly half (49.60%) of the respondents indicated that they had difficulties in conducting preventive examinations of the breast. The results show that respondents from rural areas (57.40%) do not know of breast self-examination. Urban residents are much more informed about the risk factors associated with breast cancer.

CONCLUSIONS: The remoteness of the rural areas from the cities and there difficulties that dwell therein require a focus on seeking solutions to address the problems. The low level of information affects the active participation of women from villages in the prevention of breast cancer. Organizing mobile groups of multidisciplinary teams would lead to positive results in this regard.

Keywords: cancer, breast, women, prophylactic, village

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INTRODUCTION

The incidence of breast cancer (BC) in European countries is growing steadily due to the demographic trends of an aging population (1,2,3).

This is the most common malignancy among women worldwide (4).

The high proportion of late diagnoses, high mortality and low five-year survival for our country, confirmed the need for preventive examinations and early diagnosis of breast cancer. The chances of full recovery are increasing by establishing an early diagnosis and conducting timely treatment. The first symptoms at the onset of BC often go unnoticed, which requires the need for women to follow the recommendations for screening for this disease. It involves periodical check-ups, monthly self-examination of breasts, advice on risk factors related to BC (5,6).

Self-examination, clinical examination and mammography have been adopted as standard methods of screening of BC (7).

The above-mentioned methods are combined for greater reliability. It is recognized that each method has its advantages and disadvantages (8).

Mammography has the highest specificity and sensitivity (7).

Self-examination is considered an important part of the measures for early diagnosis of BC in the world. Approximately 80-90% of women with BC alone detect the tumor, most commonly accidentally, when it is already relatively large (7,8).

Regular self-examination is based on the experience that the woman acquires from the appearance of her breasts and palpation in search of emerging changes. The benefits of self-examination are the focus of the care for the body, and in particular the chest, as well as the fact that it offers continuous monitoring (8).

A number of shortcomings of self-examination that are commented by some authors can be avoided by raising the level of health knowledge and awareness in women. It is necessary to pay special attention to ongoing prevention in small settlements, due to factors that impose the search for new approaches to tackle the problems.

Clinical examination of the breasts is a basic diagnostic method that needs to be performed once per

year after the age of 35 years. For women at risk, the American Cancer Society (ACS) recommends more frequent examinations - every four months (7,9).

In the fight against BC, prevention remains the most important and most reliable weapon. The success of oncotherapy and the extent of remission are greater when the cancer is detected on time (10).

In many countries of the world the BC mortality rate was reduced by about 30%, namely by screening and effective treatment. For this to be achieved, it requires the participation of women in screening to be over 75%. In our country the major role is played by the family doctors, with all preventive measures being taken to achieve the participation of more women in such programs (11).

AIM

To analyze the health knowledge and behavior of women from rural areas in regard to the prevention of breast cancer.

MATERIALS AND METHODS

A direct anonymous questionnaire was developed. The respondents were 1102 women at the age of 20-65, residents of the districts of Varna, Dobrich, Silistra and Shumen. About 1/3 of them live in the countryside. The study of women covered the period from January 2013 to March 2015. Sociological and statistical methods were used. The data were statistically processed by SPSS v. 20.0 and are presented in graphical form.

RESULTS AND DISCUSSION

The respondents were women from the districts of Varna, Dobrich, Shumen and Silistra. About 1/3 of them (30.70%) live in rural areas and 69.30% indicated that they live in cities (Fig. 1).

Fig. 1. Places of residence of women

Every year on the territory of our country, BC prevention campaigns and prophylactic exams of different scale are organized. Oftentimes the population faces a series of difficulties that hinder active participation in them. Poor awareness proved to be one of the reasons hampering the prevention of BC. Information is the power that enables anyone to make a choice. This is a strong enough motive to work with that part of the population that is in dire need of increasing health knowledge and forming health habits.

More than $\frac{3}{4}$ of female respondents indicate that they know they must conduct annual check-ups for BC (Fig. 2).

Fig. 2. Awareness of having to carry out preventive examinations for BC each year

A relatively high percentage of women (77.50%) know about the ongoing annual breast check-ups, but for us it was important to establish what percentage of them live in small settlements. This information could help in identifying some of the problems.

Fig. 3. Awareness of annual check-ups based on residence

The results presented in Fig. 3 show that there is a significant difference in awareness among women about annual check-ups according to place of residence ($\chi^2=90.62$; $p<0.001$), with women from the cities being more informed (85.50%) compared to women in the villages (59.50%).

The resulting data could be explained by the fact that based on migration, village populations are composed mostly of elderly people who are often poorly educated. Also, rural women are engaged mainly in agricultural work from early spring to late autumn, which limits their free time and access to key information sources (TV and radio). This does not mean that respondents do not feel the need to be informed of the prevention of BC. Further involvement of the respondents in prevention stems from this awareness.

Prevention of BC has been conducted by 47.50 percent of the respondents.

A significant difference in conducting medical check-ups in terms of residence was found ($\chi^2=54.25$; $p<0.001$), with women from the cities initiating visits to the doctor for BC prevention more often (54.90%) (Fig. 4).

Fig. 4. Relative share of preventive examinations for breast cancer according to the area of residence of the women

The results by residence show that women in cities undergo clinical breast examinations more often (27.20%) than those in rural areas - only 16.60% ($\chi^2=14.61$; $p<0.001$) (Fig. 5).

Depending on the type of settlement, women from the cities undergo mammography studies more

Fig. 5. Relative share of conducted clinical examinations for breast cancer by residence

frequently (30.20%) compared to women from the villages – 19.80% ($\chi^2=12.88$; $p<0.001$) (Fig. 6).

Fig. 6. Mammograms according to place of residence

The area of residence is essential to the number of check-ups. Across all areas, particularly in those most remote district centers, there is a number of problems: poor infrastructure (bad roads, lack of transport); lack of health service; adverse socio-economic status of the population (unemployment, lack of funds); little motivation to protect their own health. These are some of the reasons that hamper the respondents when it comes to early diagnosis of BC. These are probably the reasons why the women from villages are willing, but not able to participate in ongoing prevention.

Low awareness, distance from cities, the lack of funds and a number of other reasons largely hinder women from small villages and lead to deterioration of their involvement in prevention. The reasons given confirm the need for mobile groups in villages to help women participate in BC prevention.

Nearly half (49.60%) of respondents indicated difficulties in conducting preventive examinations for BC.

The main problem is the lack of information indicated by 17.90% of the women surveyed, followed by time lost in waiting for 14.20%. A total of 12.90 percent of respondents indicated that they live in a village far from the city, and that their personal doctor comes on certain days, which hinders their participation in BC prevention (Fig. 7).

Fig. 7. Difficulties encountered by women regarding prophylactic examinations

To improve BC prevention in rural areas it is necessary to organize preventive BC campaigns, which are available to every woman. Teams of specialists involved in the campaigns can also conduct a training of the population on issues related to early diagnosis of BC and risk factors. This would help to overcome a number of difficulties that respondents say they face in regard to BC prevention.

Surveys conducted globally establish a causal relationship between risk factors and BC proving a number of harmful influences.

In the survey just over half of the respondents (57.50%) indicated that they know the risk factors that are linked to BC.

A significant difference was observed in the awareness of risk factors in terms of residence ($\chi^2=92.62$; $p<0.001$), with women from the cities be-

Fig. 8. Awareness of risk factors for breast cancer and place of residence

ing familiar to a higher degree than those from rural areas (Fig. 8).

Better awareness of women in the cities than in those from smaller settlements was established. Lack of knowledge about factors that could have negative effects on the body and subsequently lead to breast cancer development are of particular importance. Awareness of the damage and its impact should be a primary task of the teams engaged in BC prevention. Knowing the risks women will be more likely to participate in the fight against breast cancer by protecting their own health.

A significant difference was observed in the presence of knowledge about self-examination for women from urban and rural areas ($\chi^2=104.60$; $p<0.001$), with women from the cities being more familiar with the ways of self-examination than women from the villages. The results show that 57.40% of women from small towns do not know of breast self-examination (Fig. 9).

Fig. 9. Awareness of breast self-examination and place of residence

Just over half of the women (59.20%) examine their own breasts, which is a relatively low number. The result is due to the limited knowledge of the method of some of the groups surveyed.

There is a significant difference between the number of self-examining women in cities and vil-

Fig. 10. Breast self-examination and place of residence

lages ($\chi^2=85.84$; $p<0.001$). Again, a higher percentage (68.40%) of women who live in cities examine their own breasts than those living in rural areas (38.60%) (Fig. 10).

The place of residence should not be the reason for the lower percentage of respondents from small towns who perform breast self-examination because this is the most convenient and simple method for early BC detection that every woman should know of and be able to do at home. The result might be influenced by the relatively low respondent awareness of the method, a lack of health knowledge and deteriorating prevention practices in the rural areas.

RESULTS

1. A high percentage (77.50%) of surveyed women know about the conduction of annual check-ups for BC. More women who live in urban areas are aware of these procedures (85.50%).
2. Women from urban areas initiate visits to the doctor for BC prevention more often (54.90%). They are more likely to attend ongoing preventive campaigns than those living in small settlements.
3. Conducting clinical breast examinations by a doctor is carried out significantly less often (16.60%) and mammography is performed in only 19.80% of rural residents compared to women from cities.
4. Significantly higher is the percentage of women from small towns (57.40%) who do not know of breast self-examination. Therefore, only 38.60 percent examine their own breasts.
5. Nearly half (49.60%) of the women experience difficulties in conducting BC prevention, the most important ones are lack of information and poor organization of the ongoing screening.
6. Urban residents are aware of a higher degree of risk factors for BC, compared to women from small towns.

CONCLUSION

The remoteness of the cities from many of the rural areas and difficulties in obtaining primary and specialized medical care should be the reason to focus on seeking solutions to address the problems. One could say that this hampers the residents' access to information and indirectly affects the active

participation of women in the ongoing campaigns for prevention and early diagnosis of BC. Organizing mobile groups of multidisciplinary teams would lead to positive results in this regard.

REFERENCES

1. Kerekovska A, Petrova P, Feschieva N. Development and modern trends in the management of breast cancer screening programs in Europe. *Health Management*. 2006; 6: 56-61.
2. European Parliament. Report on breast cancer in the European Union. 2003 (RR-497647EN.doc).
3. Sparrt J, Donegan W. *Cancer of the Breast*. Elsevier Science-Saunders (USA); 2002:111-133.
4. Parvanova V, Timcheva K. Breast cancer - early detection and modern treatment. Foundation „Centre for Research and Policy for Women“. Sofia; 2006: 5-185.
5. <http://www.nmgenomix.com/bg/rak-na-gurdata-statistika>
6. <http://eco.iarc.fr/EUCAN/>
7. Baichev G. Diagnosis and management of diseases of the breast. Sofia: Neda; 1999: 27-41.
8. McGine KA, Heylok PJ. Cancers in women: how to prevent them! How to treat them! How to defeat them. Sofia: PH Trud; 2007: 20-216.
9. O'Grady LF, Rippon MB. The high-risk patient. In: O'Grady L, Lindfors K, Howell L, Rippon M, editors. *A practical approach to breast cancer*. Little, Brown and comp., USA; 1995: 173-182.
10. Olshuler NL, Gazel KA. *The complete guide to cancer. Integrative approach to prevention, treatment and recovery*. 3rd ed. Sofia; 2011: 49-402.
11. The foundation for „Fighting Cancer“. Breast cancer - recommendations for the family doctor. Sofia; 2002:1-5.