

## ORIGINAL ARTICLE

# IMPLEMENTATION OF THE POLISH-UKRAINIAN PROJECT “SELF-DIAGNOSIS OF BREAST CANCER IN YOUNG UKRAINIAN WOMEN” WITHIN THE FRAMEWORK OF THE RITA PROGRAM – CHANGES IN THE REGION AT THE KHARKIV STATE ACADEMY OF PHYSICAL CULTURE

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## ABSTRACT

**The aim:** To prove the effectiveness and necessity of implementation of the Polish-Ukrainian project “Self-diagnosis of breast cancer in young Ukrainian women within the framework of the RITA program-changes in the region (on the example of the Kharkiv State Academy of Physical Culture)”

**Materials and methods:** 200 people took part in the study: 100 students and 100 lecturers and employees of the Kharkov State Academy of Physical Culture, attended lectures on epidemiology and prevention, risk factors and clinical features of breast cancer; took part in practical exercises on visual methods of breast cancer screening and the formation of self-examination skills. Each participant in the project was tested at the beginning and at the end of training, the tests included 20 questions about risk factors and clinical signs of breast cancer and an algorithm for its self-examination. Each question to which the correct answer was given was scored 1 point (the maximum number of points for one test was 20 points)

**Results:** During the testing, it was found that the awareness of applicants and employees of the Kharkiv State Academy of Physical Culture regarding risk factors and clinical features of breast cancer, as well as the self-examination procedure, increased by 68% and 67%, respectively

**Conclusions:** The study confirms that the transfer of Polish experience to the project “Self-diagnosis of breast cancer in young Ukrainian women” contributes to the formation of a culture of disease prevention through self-observation and self-examination of young Ukrainian women, which can save human lives, since raising public awareness and gaining practical knowledge will certainly change the fate of many people

**KEY WORDS:** RITA project, breast cancer, Ukrainian youth, health of the nation

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## INTRODUCTION

Breast cancer occupies a leading place in the structure of cancer incidence among the female population in most countries of the world. This determines the relevance and importance of the search and development of new methods of anticancer treatment. Due to the wide spread in the world and the first place in the structure of malignant neoplasms in women, the problem of breast cancer is one of the most urgent in modern oncology. Recently, an increase in the incidence and mortality of breast cancer has been observed throughout the world. More than 1 million new cases of breast cancer are registered in the world every year [1-5].

Analysis of the dynamics of malignant neoplasms affecting the population of Ukraine indicates an increase in the incidence of breast cancer for the period from 1993-2003. From

40,0 to 60,9 per 100 thousand population, or more than 1,5 times. According to the National Cancer Registry, in 2018, 15,017 cases of breast cancer were registered in Ukraine (14,872 women and 145 men), and 5726 people died as a result of this disease (5679 women and 47 men). The highest incidence rates of breast cancer are among Ukrainian women over 60, although from the age of 30, cases of the disease are significantly increasing. Every fourth woman is diagnosed with breast cancer already at stage III-IV, when the effectiveness of treatment is significantly reduced [6].

The detection of breast cancer during preventive examinations in the country as a whole remains low, and the neglect rate, which is the leading criterion for the quality of diagnostics, on the contrary, is high. The real way to improve the results of treatment of breast tumors is early, and



**Fig. 1.** Teaching models for breast examination within the framework of the Polish-Ukrainian project RITA - Changes in the region "Self-diagnosis of breast cancer in young Ukrainian women", funded by the Polish-American Freedom Foundation

in some cases - preclinical diagnosis. This problem can be solved only if complex diagnostic methods are used. [7-10].

Measures for the early detection of breast cancer are primarily primary and secondary prevention. Early detection of breast cancer is especially important and can speed up the treatment process and reduce mortality.

Awareness of the risks of developing and early detection of breast cancer is the basis for reducing mortality from this disease. Regular breast self-examination is one of the most cost-effective methods for early detection of breast cancer in women. Unfortunately, the practice of self-examination of breast health in Ukraine remains low and requires popularization.

## THE AIM

Purpose of the study is to prove the effectiveness and necessity of implementing the Polish-Ukrainian project "Self-diagnosis of breast cancer in young Ukrainian women" within the RITA program - changes in the region (on the example of the Kharkov State Academy of Physical Culture).

## MATERIALS AND METHODS

The study involved 200 people: 100 students and 100 lecturers and employees of the Kharkov State Academy

of Physical Culture, attended lectures on epidemiology and prevention, risk factors and clinical features of breast cancer; took part in practical exercises on visual methods of breast cancer screening and the formation of self-examination skills. Each participant in the project was tested at the beginning and at the end of training, the tests included 20 questions about risk factors and clinical signs of breast cancer and an algorithm for its self-examination. Each question to which the correct answer was given was scored 1 point (the maximum number of points for one test was 20 points).

## RESULTS

Taking into account the problem of the incidence of breast cancer, a group of Polish and Ukrainian scientists from six higher educational institutions developed an innovative project aimed at increasing the knowledge of Ukrainian students about self-examination and prevention of breast cancer. The project is funded by the Polish-American Freedom Foundation within the framework of the RITA program - "Changes in the Region", which is implemented by the Education for Democracy Foundation [11].

The project "Self-diagnosis of breast cancer in young Ukrainian women" is aimed at transferring Polish experience to professional prevention of breast cancer among women

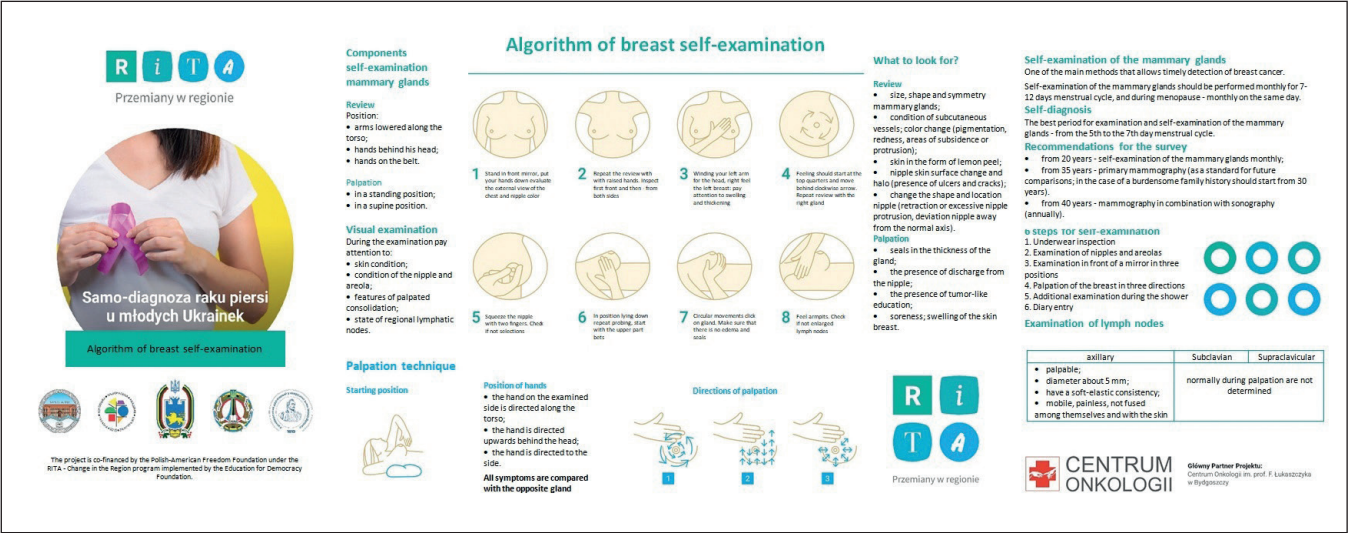


Fig. 2. Teaching materials developed within the Polish-Ukrainian project RITA - Changes in the region “Self-diagnosis of breast cancer in young Ukrainian women”, funded by the Polish-American Freedom Foundation

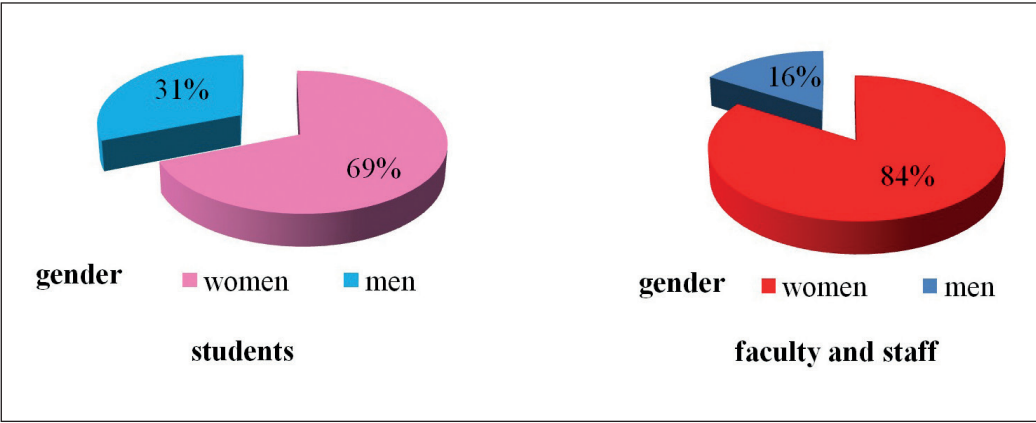


Fig. 3. Gender distribution of persons who took part in the training of breast self-examination within the framework of the Polish-Ukrainian project RITA - Changes in the region “Self-diagnosis of breast cancer in young Ukrainian women”

in Ukraine by self-examination and conducting training sessions for students and staff of five higher educational institutions from different regions of Ukraine. This project aims to demonstrate that civic engagement and scientific collaboration can be very effective and can lead to systemic change. So, introducing in Ukraine the training of self-examination of the mammary glands, it is planned to teach 965 people (students and staff), to introduce such changes in the future and change the culture of self-prophylaxis among citizens of Ukraine [12, 13].

Within the framework of the project, all partner universities, including the Kharkiv State Academy of Physical Culture, received training models (Fig. 1) and training materials (Fig. 2) necessary for conducting training sessions for students and employees.

The training was attended by 200 people: 100 students and 100 scientific and pedagogical workers and employees. Both women and men took part: among applicants for higher education, girls accounted for 69%, and boys - 31%, among teachers and staff, 84% of women took part, and men - 16% (Fig. 3).

Participation in the training of self-examination of the mammary glands took students from 16 to 45 years old, according to different courses and levels of higher education

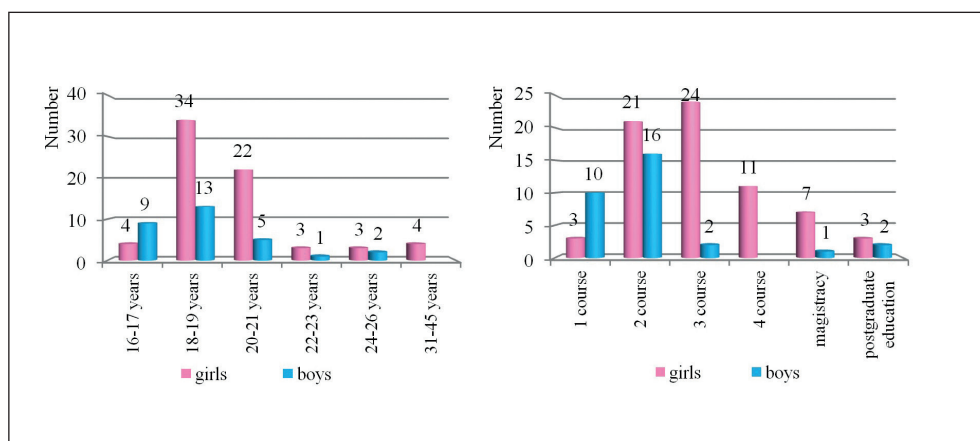
(Fig. 4). The greatest interest was shown by girls 18-21 years old (2-3 courses) and children 16-19 years old (1-2 courses).

Based on the results of monitoring the age and position of scientific and pedagogical workers and employees, it was established that employees of the Kharkov State Academy of Physical Culture from 20 to 73 years old took part in the training of self-examination of the mammary glands (Fig. 5). The most active were associate professors (26 women and 10 men), senior lecturer (19 women) and employees (17 women).

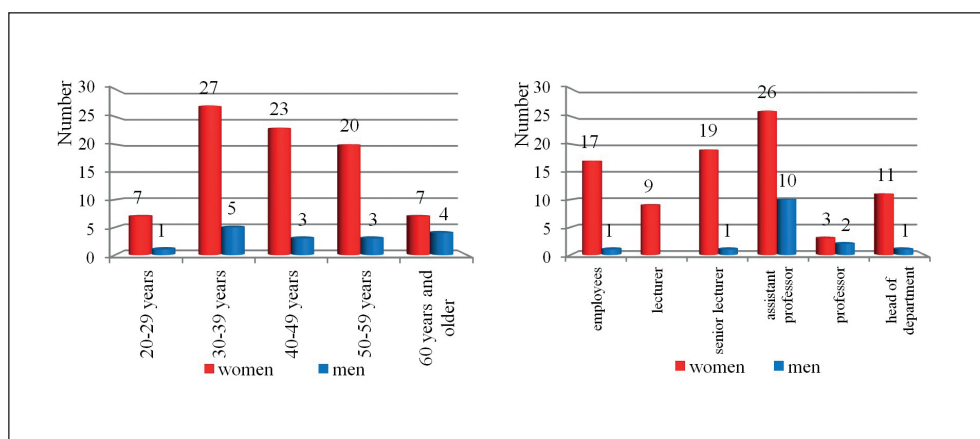
During the testing, it was found that the awareness of applicants and employees of the Kharkov State Academy of Physical Culture regarding risk factors and clinical features of breast cancer, as well as the self-examination procedure, increased by 68% and 67%, respectively (Fig. 6).

Thus, it was found that at the beginning of the implementation of the Polish-Ukrainian project “Self-diagnosis of breast cancer in young Ukrainian women” at the Kharkov State Academy of Physical Culture, the level of awareness of both students and employees regarding risk factors and clinical features of breast cancer, as well as self-examination procedure was low. In the process of attending lectures by students and employees on epidemiology, clinical features and prevention of breast cancer and practical exercises

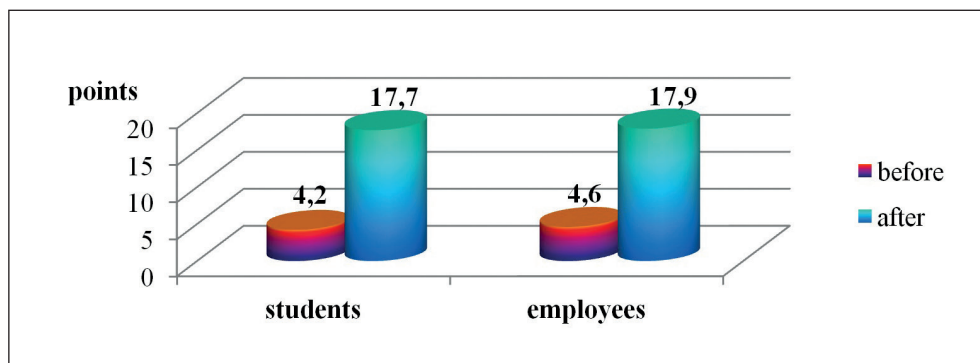




**Fig. 4.** Age and course of students who took part in the training of breast self-examination in the framework of the Polish-Ukrainian project RITA - Changes in the region "Self-diagnosis of breast cancer in young Ukrainian women"



**Fig. 5.** Age and position of employees who took part in the training of breast self-examination in the framework of the Polish-Ukrainian project RITA - Changes in the region "Self-diagnosis of breast cancer in young Ukrainian women"



**Fig. 6.** The results of the assimilation of the material by students and employees of the Kharkiv State Academy of Physical Education regarding risk factors and clinical features of breast cancer in the framework of the Polish-Ukrainian project RITA - Changes in the region "Self-diagnosis of breast cancer in young Ukrainian women" (the maximum number of points for one test was 20 points)

**Table I.** The level of awareness of students and employees of the Kharkov State Academy of Physical Education regarding risk factors and clinical features of breast cancer (the maximum number of points for one test was 20 points)

Persons who took part in the project	At the beginning of training		At the end of training		Evaluation of reliability	
	points	%	points	%	t	p
Students	4,2±2,1	21%	17,7±1,6	89%	5,04	p<0,001
Scientific and pedagogical workers and employees	4,6±1,9	23%	17,9±1,4	90%	5,68	p<0,001

on visual methods of breast cancer screening and the formation of examination skills, the level of knowledge and skills significantly increased, as among students ( $t = 5,04$ ;  $p < 0,001$ ) and employees ( $t = 5,68$ ;  $p < 0,001$ ) (Table I).

Thus, it can be argued that the implementation of the Polish-Ukrainian project "Self-diagnosis of breast cancer in young Ukrainian women" at the Kharkov State Academy of Physical Culture is effective and should have its long-

term continuation to popularize the method and practice of breast self-diagnosis as one of the effective means of cancer prevention breast.

## DISCUSSION

Breast cancer is the most common cancer among women worldwide. There are many studies on breast self-examina-

tion [14-16]. It has been proven that early detection and treatment of the disease reduce the mortality rate [17, 18], but most breast cancer patients learn about their diagnosis at a late stage of the disease, negatively affects the survival rate [19]. Therefore, an early detection procedure is very important, and breast self-examination is one of the best methods for identifying the problem. Especially in low- and middle-income countries where health-related resources are limited and where socio-cultural influences tend to make women more hesitant about breast health issues, empowering women on their own is an important first step to examine them [20-22].

The findings of this study suggest that the implementation of the project "Self-diagnosis of breast cancer in young Ukrainian women" within the framework of the RITA - changes in the region will increase the level of awareness of the risk factors and clinical features of breast cancer, as well as the examination procedure, as the level of knowledge has increased in project participants by 67-68%.

At the third stage of the project, a visit of a Polish group of experts to partner universities of Ukraine is planned (Zhytomyr State University named after Ivan Franko, Kharkiv State Academy of Physical Culture, Communal Institution of Higher Education "Khortytsya National Educational and Rehabilitation Academy", Kherson State University, Lviv State University of Physical culture named after Ivan Bobersky) for holding consolidated and promotional events in the form of an organized "All-Ukrainian marathon of academic days of fighting breast cancer". The problem of breast cancer will be widely publicized through government bodies and the media, and about 10,000 people will become indirect recipients. Such actions can be implemented by other organizations and universities not included in the project, which ultimately consists in significantly accelerating the detection of breast cancer at an early stage, which can reduce mortality from this disease.

## CONCLUSIONS

1. The study confirms that the transfer of Polish experience to the project "Self-diagnosis of breast cancer in young Ukrainian women" will contribute to the formation of a culture of disease prevention through self-observation and self-examination of young Ukrainian women, which can save human lives, since raising public awareness and gaining practical knowledge will certainly change the fate of many people.
2. This project aims to show that civic engagement and collaboration between scientists can be very effective and can lead to systemic change. In Ukraine, where the incidence of breast cancer has one of the highest rates, a number of preventive programs are proposed that largely popularize the methods and practices of breast self-diagnosis as an effective means of prevention.

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