

MARIA ZADARKO-DOMARADZKA¹, EDWARD TLAŁKA¹, MAREK SOBOLEWSKI²

Realizacja zaleceń profilaktyki nowotworowej przez kobiety aktywne zawodowo

The implementation of the anticancer recommendations by professionally active women

Streszczenie

Wstęp. Częścią wspólną edukacji zdrowotnej i profilaktyki jest świadome korzystanie ze świadczeń prewencyjnych oferowanych w ramach profilaktyki. Mammografia, USG, samobadanie piersi i badanie cytologiczne są najczęściej rekomendowanymi metodami służącymi do wczesnej detekcji zmian nowotworowych u kobiet.

Cel. Ocena realizacji zaleceń profilaktyki nowotworowej wśród kobiet zatrudnionych w oświacie, a także kobiet pracujących w służbie zdrowia.

Materiał i metody. Badanie za pomocą anonimowego kwestionariusza ankiety przeprowadzono w siedmiu miastach południowej i południowo-wschodniej części Polski w drugiej połowie 2009 roku. Pytania zawarte w ankiecie dotyczyły częstości wykonywania samobadania piersi, korzystania z badań USG i mammograficznych oraz badań cytologicznych, a także wiedzy na temat czynników zwiększających ryzyko zachorowanie na raka piersi. Istotność analizowanych zależności badano za pomocą testu niezależności χ^2 .

Wyniki. Do regularnego, comiesięcznego badania piersi przyznaje się 26,3% badanych kobiet. Prawie 18% respondentek nigdy nie poddało się badaniu cytologicznemu, a 6,2% miało wykonane badanie 4 lata temu i więcej. Wiek kobiety jest czynnikiem, który okazał się mieć znaczący wpływ na stosowanie profilaktyki. Znaczące są różnice w częstości wykonywania badań cytologicznych wśród pracowników oświaty i służby zdrowia. Zdecydowanie częściej wykonywane są one przez pielęgniarki.

Abstract

Introduction. The common part of the health education and prophylaxis is the awareness of using services offered by the preventive programs. Mammography, ultrasonography, breast self-examination and cytology are the most recommended methods of early detection of cancer symptoms.

Aim. The assessment of the implementation of anticancer recommendations among women employed in education and health service.

Material and methods. The survey by means of an anonymous questionnaire was carried out in seven towns of south and south-east Poland, in the second half of 2009. The questions concerned the frequency of: breast self-examination, mammography, ultrasonography and cytology, moreover the knowledge of the breast cancer risk factors. The statistical significance of analyzed relationships was calculated using χ^2 test.

Results. Regular, every month breast self-examination is confirmed by 26.3% of the questioned women. Almost 18% had never cytological examination and 6.2% had it 4 years before and more. The age is a factor which turned out to be of meaningful importance on preventive behaviours. Cytological examination is more often done by nurses and the difference is statistically significant.

Słowa kluczowe: edukacja zdrowotna, profilaktyka, rak piersi, rak szyjki macicy.

Key words: health education, prevention, breast cancer, cervical cancer.

¹ Faculty of Physical Education, Department of Human Biology and Health Education, Rzeszow University

² Department of Quantitative Methods in Economics, Rzeszow Technical University

INTRODUCTION

Health promotion is a complex overlapping three closely connected spheres: health education, prevention and health protection [1]. The goal of health education is to provide people with information and knowledge concerning health and to influence the attitudes and behaviour of an individual. The prophylaxis is a set of means and procedures to prevent a disease development, among other things. This prevention may be done on three levels called the prophylaxis of the 1st, 2nd, 3rd stage [2]. The common part of both (education and prophylaxis) is to patronize the services offered within the confines of the second stage prophylaxis – its domain is to prevent disease by early detection and diagnosis. The third sphere refers to the legislation and regulations aimed at positive enhancing of well-being, e.g. smoke-free public places [1].

Mammography, ultrasonography and breast self-examination are the most recommended methods of the early detection of precursor lesions [3]. Net portals, leaflets in health centers, posters and media campaigns run information devoted to preventive programs, breast self-examination instruction, age ranges correlated with recommended type of examination [4]. All this to encourage women to take care of their health, assuming that the proper level of the oncological education will allow them to develop the habit of regular examination even without clinical symptoms. Does this information have recipients? If so, among which group of women?

AIM

The attempt at answering the following questions: do women professionally involved in education and health service have sufficient knowledge of the risk of cancer and do they comply with the rules of the anticancer prophylaxis, has been accepted as the aim of this research.

MATERIAL AND METHODS

The research was carried out by means of an anonymous questionnaire in 7 towns of south and south-east Poland (Żywiec, Nowy Targ, Dębica, Rzeszów, Nowa Dęba, Jarosław, Przemyśl) in the second half of 2009, among women (N=353) teachers (68%), with higher education and nurses (32%), part-time students in the middle of completing their licentiate. Besides from the education the survey questionnaire included questions concerning the age and the frequency of breast self-examination, mammography, ultrasonography and cytology, questions concerning the knowledge of breast cancer risk factors as well. The statistical analysis was carried out using chi-square test.

RESULTS

Women in the third and forth decade of life were in the largest number. The mean value of age was 40 years (Table 1). The number of persons in the other age intervals are in Table 2.

TABLE 1. Age of respondents.

Age	Me	c ₂₅	c ₇₅	$\bar{x} \pm s$
	40.0	34.0	46.0	40.0±8.3

TABLE 2. Number of persons in age intervals.

Age group	Number	Percent
20-29	37	10.5%
30-39	139	39.4%
40-49	129	36.5%
50 or more	48	13.6%

Almost 11% (10.8%) of respondents declare the incidences of breast cancer and almost 9% of cervical cancer in their families. Most of them did not indicate such cases (86.7 and 84.1% respectively), the others did not know. Among breast cancer risk factors the surveyed mentioned genetic factors (72%), smoking (22.7%), lack of medical control (22.4%) and no breast-feeding (12.7%). Among the mentioned factors there were also: stress (8.2%), childlessness (6.8%), age (6.2%) and improper diet (5.7%). Almost 14% of the respondents had not any knowledge on this subject.

Women were questioned about the frequency of breast self-examination and medical control encompassing mammography, ultrasonography and cytology. More than half of the analyzed group – 58.9% – declare breast self-examination but sporadically; regular, every month examination is declared by 26.3%. Almost 15% do not do that, 10% among them because of the lack of knowledge and skills. In case of using mammography as well as ultrasonography the greater percentage of surveyed give the answer “I do not know”, 76.5% and 61.5% respectively. The opinion of not being at proper age is stated by 37.1% there is no need – this is the opinion of 11% of respondents. Almost 18% had never done cytological examination (Pap smear), 6.2% did it 4 years before or more (Table 3).

TABLE 3. Percentage of the surveyed vs cytology.

Last cytology	N	%
Never had	63	17.8%
This year	102	28.9%
1 year ago	91	25.8%
2 years ago	58	16.4%
3 years ago	17	4.8%
4 and more	22	6.2%

The influence of age and professional status on the preventive behaviour was examined. The chi-square test was used to evaluate the statistical significance of differences. The age turned out to be of statistical significance as the factor influencing pro-health behaviour (Table 4-7).

The breast self-examination is practiced regularly, every month by women at the age of 40-49 (34%) and only 19% at 20-29. Mammography and ultrasonography are used first of all by women at fifty and more – 56% and 52% respectively. More than half (51%) of respondents of the youngest age group – 20-29 – had never done the cytological examination.

The influence of age as the factor was also examined in connection with professional status. Table 8 below shows that the number of person in the age groups is quite diverse – women employed in education are younger. Thus the analysis may be carried out within the limits of individual age group or using two-way analysis. Because of the small

number of nurses in age groups 20-29 and 50 and more two groups only – under 40 and over 40 were taken into account.

In case of breast self-examination no statistically significant difference depending on the profession was found (Table 9).

Teachers use mammography more often – the difference is significant for women under 40 (Table 10). The profession does not influence the use of ultrasonography (Table 11).

The difference statistically significant was found in the frequency of cytological examination (Pap smear) (Table 12). Nurses do this definitely more often – in case of the younger and the older group as well.

TABLE 4. Percentage of breast self-examining women depending on age.

Breast self-examination	Age (p=0.0357*)				Total
	20-29	30-39	40-49	50 and more	
No	10 (27%↓)	24 (17%↓)	11 (9%↓)	7 (15%↓)	52
Yes, regularly, every month	7 (19%↓)	29 (21%↓)	44 (34%↓)	13 (27%↓)	93
Yes, sporadically	20 (54%↓)	86 (62%↓)	74 (57%↓)	28 (58%↓)	208
Total	37	139	129	48	353

TABLE 5. Percentage of mammography depending on age.

Mammography	Age (p=0.0000***)				Total
	20-29	30-39	40-49	50 and more	
No	34 (92%↓)	129 (93%↓)	86 (67%↓)	21 (44%↓)	270
Yes	3 (8%↓)	10 (7%↓)	43 (33%↓)	27 (56%↓)	83
Total	37	139	129	48	353

TABLE 6. Percentage of ultrasonography depending on age.

Ultrasonography	Age (p=0.0033**)				Total
	20-29	30-39	40-49	50 and more	
No	30 (81%↓)	93 (67%↓)	71 (55%↓)	23 (48%↓)	217
Yes	7 (19%↓)	46 (33%↓)	58 (45%↓)	25 (52%↓)	136
Total	37	139	129	48	353

TABLE 7. Percentage of cytology depending on age.

Cytology	Age (p=0.0000***)				Total
	20-29	30-39	40-49	50 and more	
Never	19 (51%↓)	18 (13%↓)	15 (12%↓)	11 (23%↓)	63
This year	7 (19%↓)	46 (33%↓)	42 (33%↓)	7 (15%↓)	102
One year ago	7 (19%↓)	39 (28%↓)	32 (25%↓)	13 (27%↓)	91
At least 2 years ago	4 (11%↓)	36 (26%↓)	40 (31%↓)	17 (35%↓)	97
Total	37	139	129	48	353

TABLE 8. Number of persons in age groups vs profession.

Profession	Age group				Total
	20-29	30-39	40-49	50 and more	
Teacher	35 (14.6%↓)	93 (38.8%↓)	72 (30.0%↓)	40 (16.7%↓)	240
Nurse	2 (1.8%↓)	46 (40.7%↓)	57 (50.4%↓)	8 (7.1%↓)	113
Total	37	139	129	48	353

TABLE 9. Percentage of breast self-examining women depending on age and profession.

Breast self-examination	Under 40		Over 40	
	Profession (p=0.0727)		Profession (p=0.4035)	
	Teacher	Nurse	Teacher	Nurse
No	30 (23%↓)	4 (8%↓)	14 (13%↓)	4 (6%↓)
Yes, regularly, every month	24 (19%↓)	12 (25%↓)	35 (31%↓)	22 (34%↓)
Yes, sporadically	74 (58%↓)	32 (67%↓)	63 (56%↓)	39 (60%↓)
Total	128	48	112	65

TABLE 10. Percentage of mammography vs age and profession.

Ultrasonography	Under 40		Over 40	
	Profession (p=0.1909)		Profession (p=0.1579)	
	Teacher	Nurse	Teacher	Nurse
No	115 (90%↓)	48 (100%↓)	62 (55%↓)	45 (69%↓)
Yes	13 (10%↓)	0 (0%↓)	50 (45%↓)	20 (31%↓)
Total	128	48	112	65

TABLE 11. Percentage of ultrasonography vs age and profession.

Ultrasonography	Under 40		Over 40	
	Profession (p=0.1909)		Profession (p=0.1579)	
	Teacher	Nurse	Teacher	Nurse
No	93 (73%↓)	30 (63%↓)	64 (57%↓)	30 (46%↓)
Yes	35 (27%↓)	18 (38%↓)	48 (43%↓)	35 (54%↓)
Total	128	48	112	65

TABLE 12. Percentage of cytology vs age and profession.

Cytology	Under 40 lat		Over 40	
	Profession (p=0.0007***)		Profession (p=0.0000***)	
	Teacher	Nurse	Teacher	Nurse
Never	34 (27%↓)	3 (6%↓)	25 (22%↓)	1 (2%↓)
This year	29 (23%↓)	24 (50%↓)	17 (15%↓)	32 (49%↓)
Previous year	37 (29%↓)	9 (19%↓)	29 (26%↓)	16 (25%↓)
At least 2 years ago	28 (22%↓)	12 (25%↓)	41 (37%↓)	16 (25%↓)
Total	128	48	112	65

DISCUSSION

Breast cancer is the most common type of malignant disease among women. Early detection and proper treatment give a great chance to survive. Unfortunately, Poland beside Slovakia and Estonia is the EU country with the lowest percentage of five-year survival rate [5]. The late detection is the main reason, in case of cervical cancer as well. Poland is among the countries with the average morbidity rate but the percentage of women surviving five years after detection is among the lowest in Europe [6,7]. The prophylaxis of these cancers is currently one of ministerial priorities concerning health protection. Ministry of Health has prepared the decree controlling obligatory examinations: mammography and cytology within the confines of initial and periodical medical examinations. Working women will be examined every other year: at the age of 25-59 – cytology, at 50-69 – mammography. This was planned to start at the beginning of 2010 but the project is still under debate [8].

Within the frames of the project “Europe Against Cancer” 100 experts have worked out the third version of “European Code Against Cancer”. Among 11 recommendations, two refer exclusively to women. One of them concerns women aged over 25 years who should be screened for cervical cancer. The second, addressed to women aged over 50 years recommends screening for breast cancer [9].

Results of our research show that the participation of Polish women in preventive programs is still a great problem for them even when this is an activity depending on themselves – breast self-examination: they dislike it or do not know how to manage. Eighteen percent – almost one fifth – had never done cytology. Ostrowska et al (2008) report 30% of Polish women without this type of examination. Taking into account that our research concerns professional groups which should set a good example and/or educate, results are disturbing. According to Michałowska [10] every person professionally involved in the education of youth should have the thorough knowledge of health education. First of all teachers are concerned but health service staff is also of great importance in this field. The credibility of educator is the basis in education. Only 26% of the surveyed declare regular breast self-examination. The research of Wypych et al (11) indicates that early detection of cancer results very often from self-

examination. In that case one can draw a conclusion that a woman should get knowledge of her breasts, their changeability depending on age and phases of menstrual cycle.

She can achieve it by the regular self-examination. Ultrasonographic examination is recommended for women under 35 years but not many are interested in it: 19% aged 20-29 and 33% aged 30-39. For older women mammography is recommended: once – for aged 35, 39 twice – for 40-49 and once a year for 50-60 old. Our results show the increasing with age tendency but numbers are still not satisfactory: 7. 33 and 56% respectively.

As long as cancer does not concern us, our relatives or friends this is an abstract, distant problem. The preventive programs are not on our mind because of lack of any symptoms. This is confirmed by results of our research. Thus obligatory medical examinations seem to be a good solution.

CONCLUSIONS

1. Recommendations of anti-cancer prevention.
2. Cytology is definitely more often done by nurses than teachers.
3. Young women aged 20-29 are not interested in preventive activities to the large extent.
4. Obligatory medical examinations like cytology and mammography are advisable.

REFERENCES

1. Tannahill A. Health promotion: the Tannahill model revisited. Public Health. 2009; 123:396-99.
2. Korczak C. Profilaktyka i edukacja prozdrowotna młodzieży w XXI wieku. Zdr Publ. 2001;111(1):70-2.
3. Łuszczynska A. Zmiana zachowań zdrowotnych. Gdańsk: GWP; 2004. p.20-1.
4. Portale internetowe: www.rakszyjki.pl, www.kwiatkobieceosci.pl, www.rakpiersi.pl, www.amazonki.com.pl
5. Mould RF. Statystyka zachorowań na nowotwory ze szczególnym uwzględnieniem raka prostaty, okrężnicy i odbytnicy, płuca oraz piersi i szyjki macicy. Nowotwory. Journal of Oncology. 2008;58(3):213-20.
6. World Health Organization. Comprehensive cervical cancer control. Switzerland 2006.

7. Ostrowska A. Gujski M. Walka u rakiem szyjki macicy w Polsce. Perspektywy, szanse i rekomendacje dla polityki państwa. Raport u sesji naukowej. Warszawa 2008.
8. Sikora D. Pracujące kobiety bez obowiązkowej mammografii <http://www.gazetaprawna.pl/>
9. Europejski kodeks walki u chorobami nowotworowymi <http://www.kodekswalkizrakiem.pl>
10. Michałowska D. Koncepcje zdrowia i choroby jako podstawy konstruowania podejść do edukacji zdrowotnej. Przegl Terapeutyczny. 2008. www.ptt-terapia.pl
11. Wypych A. Zejda JE. Modest of detection of breast cancer and their diagnostic relevance in urban area of Katowice, Poland. Probl Hig Epidemiol. 2006;87(2):108-11.

Informacje o Autorach

Dr n. biol. MARIA ZADARKO-DOMARADZKA – adiunkt, kierownik, Zakład Biologii Człowieka i Edukacji Zdrowotnej, Wydział Wychowania Fizycznego, Uniwersytet Rzeszowski; dr n. przyr. EDWARD TLALKA – starszy wykładowca, Zakład Biologii Człowieka i Edukacji Zdrowotnej, Wydział Wychowania Fizycznego, Uniwersytet Rzeszowski; dr n. ekon. MAREK SOBOLEWSKI – adiunkt, Katedra Metod Ilościowych, Politechnika Rzeszowska.

Adres do korespondencji

Zakład Biologii Człowieka i Edukacji Zdrowotnej,
Wydział Wychowania Fizycznego Uniwersytet Rzeszowski,
ul. Towarnickiego 3, 35-959 Rzeszów
tel. 017 872 18 64
e-mail: mzadarko@univ.rzeszow.pl