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Knowledge, attitudes and practices of cervical cancer prevention

Wiedza, postawy i praktyka w profilaktyce raka szyjki macicy

Andrea Obročníková, Ľudmila Majerníková

Department of Nursing, Faculty of Health Care, University of Prešov, Slovakia

CORRESPONDING AUTHOR/AUTOR DO KORESPONDENCJI:
Andrea Obročníková
Faculty of Health Care in Prešov, University of Prešov
ul. Partizánska 1, 080 01 Prešov, Slovak Republic
tel. +421 51 756 24 60
e-mail: andrea.obrocnikova@unipo.sk

STRESZCZENIE

WIEDZA, POSTAWY I PRAKTYKA W PROFILAKTYCE RAKA SZYJKI MACICY

Wprowadzenie. Rak szyjki macicy jest najbardziej powszechnym nowotworem narządów płciowych oraz jednym z wiodących przyczyn zgonów wśród kobiet w Słowacji. Obecnie tak umiejscowionemu nowotworowi można zapobiec jeśli kobiety regularnie poddają się badaniom przesiewowym w kierunku raka szyjki macicy. Wiedza kobiet dotycząca tego rodzaju badań, ich postawa oraz praktyczne uczestnictwo zostały poddane ocenie.

Materiał i metody. Badanie przekrojowe pomogło w dokonaniu ewaluacji wiedzy, postaw i praktyki dotyczących profilaktyki raka szyjki macicy oraz badania przesiewowego służącego jego wczesnemu wykrywaniu. Próbie poddano 239 kobiet między 18 a 64 rokiem życia. Dane uzyskano dzięki przeprowadzeniu kwestionariusza w okresie od stycznia do kwietnie 2015 roku.

Wyniki. Uczestniczki badania wykazały się przeciętną wiedzą dotyczącą raka szyjki macicy, czynników ryzyka oraz wczesnych objawów choroby, jednak ich świadomość odnośnie badań przesiewowych była zadawalająca. Pomimo faktu, iż osoby uczestniczące w badaniu wyrażały właściwe nastawienie do takich badań, poziom faktycznego w nich uczestnictwa był niski (64% uczestniczyło w ginekologicznych wizytach kontrolnych, 43% poddawało się badaniu cytologicznemu w przeciągu roku a 44% w przeciągu trzech lat). W niniejszym badaniu zaobserwowano lepsze rezultaty u kobiet z wyższym wykształceniem jeśli chodzi o chorobę ($p < .001$). profilaktykę ($p < .001$) oraz zachowanie grożące ryzykiem.

Wnioski. Świadomość kobiet w Słowacji dotycząca raka szyjki macicy jest ograniczona. W związku z tym widoczna jest potrzeba propagowania i promowania takiej świadomości wśród kobiet aby zredukować zachorowalność i umieralność na tę chorobę.

Słowa kluczowe: rak szyjki macicy, badanie przesiewowe, profilaktyka, opieka nad chorym

ABSTRACT

KNOWLEDGE, ATTITUDES AND PRACTICES OF CERVICAL CANCER PREVENTION

Aim. Cervical cancer is the most common genital malignancy and one of the leading causes of death among female population in Slovakia. At present, this location of cancer is preventable disease visible in screening for premalignant lesions if the women use and participate in such screening regularly. We assessed the knowledge on the cervical cancer screening, the attitude towards it and its utilization among women in Slovakia.

Material and methods. A cross-sectional study evaluated the knowledge, attitude and practice of cervical cancer prevention and screening among women. The sample was composed of 239 women aged 18-64 years. Data collection was conducted by self-administered questionnaire in a period from January to April 2015.

Results. Respondents exhibited an average knowledge of cervical cancer, about risk factors and early signs, but awareness of cervical cancer screening was satisfactory. Despite the fact that respondents expressed good attitude to cervical cancer screening, their level of practice was low (64% participation in preventative gynaecology check-ups and 43% in Pap smear tests within one year and 44% within three years). In the study we could observe better results in women with higher education when it comes to an illness ($p < .001$), its prevention ($p < .001$) and risk behaviour ($p < .001$).

Conclusions. The awareness of cervical cancer among women in Slovakia is limited. In the future there is a need to educate and promote awareness of cervical cancer among women to reduce the burden of morbidity and mortality.

Key words: cervical cancer, screening, prevention, nursing

INTRODUCTION

Cervical cancer is one of the leading causes of morbidity and mortality amongst the gynaecological cancers worldwide. The highest incidence of the disease has been repeatedly recorded in the less developed countries, such as Mozambique (75.9/1000 000) and other countries of central and eastern Africa. Conversely, the lowest incidence of the disease is in western Asia, than in Europe, for example in Switzerland. About half million of new cases are seen worldwide each year, most occurring in developing countries and as many as 274,000 deaths are associated with cervical cancer [1]. In Slovakia it is the second most common disease among women after breast cancer. In the National Cancer Registry of Slovakia, we annually register 600 – 620 new cases and 200 – 220 deaths [2]. It is diagnosed predominately in women aged 35-45 years [3]. At present we know that cervical cancer has positive association with infection of human papillomavirus (HPV), and repeated or persistent HPV infections increase the risk of developing the disease. Primary prevention strategies for HPV infection and cervical cancer are effective prophylactic HPV vaccines which only protect against 70% of the disease and are only effective for those not yet exposed to the virus. Besides that, several factors contribute to the high burden of disease such as tobacco smoking, long-term use of hormonal contraceptives, promiscuity, Chlamydia trachomatis infection, herpes simplex virus type 2, HIV, immunosuppression, certain dietary deficiencies, but also poor knowledge, lack of participation in cervical cancer screenings significantly affect the attitude of women towards their own health [4].

The screening method of the conventional cervical cytology is a secondary prevention strategy for cervical cancer which allows an early detection and treatment of cervical precancerous lesions. Smears are taken by gynaecologists and evaluated by approved cytology laboratories in Slovakia. Target population are women aged 23 – 64 years. The screening intervals are 1 – 1 - 3 years. During the first two years, the screening is cytology taken annually. Screening interval is prolonged to 3 years if the two consecutive cytological findings were negative. The screening is discontinued in women aged 64 years, whose last 3 consecutive smears were negative [5,6]. Practice in many countries of Europe confirmed that organized cytological cervical cancer screening can reduce the incidence of this serious disease by 80%. However, such an efficiency can be achieved by inviting the target population, ensuring high participation in the screening, which can reassure the professional public's and especially target population' permanent awareness. Obviously, the epidemic of cervical cancer can be reduced with the proper awareness and practice of cervical cancer prevention measures.

AIM

The present study was carried out to assess the knowledge, attitude and practice of cervical cancer prevention measures among women in Slovakia.

MATERIAL AND METHODS

A quantitative, cross-sectional descriptive design was used. The questionnaire-based study was conducted from January to April 2015. Data was collected personally at the respective outpatient clinics in Slovakia (Banská Bystrica, Vranov nad Topľou, Košice) with prior consent from gynaecologist and respondents. In the waiting room of outpatient clinics, the nature and purpose of survey were being explained to women. Respondents who agreed to participate received a self-administered questionnaires with closed questions. The questionnaire consisted of 23 various items including demographic indicators, basic facts about cervical cancer and screening, women's access to gynaecological care, identification of risk behaviour in relation to the oncogenesis of cervical cancer. The processing of questionnaires was based on the current knowledge in the field of cervical cancer research, from the legislation applicable in the Slovak Republic and scientific review articles relating to the issue. The questionnaires were distributed to 265 respondents, but 239 were fully completed and therefore analysed . A total of 239 respondents were aged 23-64 years. The data was entered into MS Excel and analysed using SPSS (version 15.0.) computer software. In the analysis, some appropriate frequencies were generated and descriptive results were presented by using absolute frequency (n), relative multiplicity (%). We used the nonparametric Spearman correlation coefficient to determine relations between variables.

RESULTS

The results were summarised in the tables. The survey sample consisted of 239 women. The women varied in age from 23 to 64 years, while the largest group consisted of respondents aged 23 – 40 years (70%). Respondents achieved largely secondary (54%) and tertiary education (41%). Most of the respondents were married - 52% and 34% were single.

Tab. 1. Distribution of respondents by age, educational status, marital status.

Age	frequency	%
23-30	78	33%
31-40	88	37%
41-50	53	22%
51-64	20	8%
Educational status	**frequency**	**%**
primary	11	5%
secondary	129	54%
tertiary	99	41%
Marital status	**frequency**	**%**
single	80	34%
married	125	52%
divorced/ separated	24	10%
widowed	10	4%

Tab. 2. Sources of information about cervical cancer.

Sources of information	n	%
gynaecologist	101	42%
nurse	16	7%
leaflets, brochures	66	28%
friend	37	15%
media (TV, radio)	115	48%
Internet	122	51%
not interested in getting information	10	4%

The most popular source of information on cervical cancer are the Internet, media and gynaecologist.

Tab. 3. Knowledge about preventability of cervical cancer and its preventive procedures.

Preventability of cervical cancer	n	%
it is preventable	200	84%
it isn´t preventable	15	6%
don´t know	24	10%
Preventive procedures	**n**	**%**
preventive gynaecological examination	215	90%
HPV vaccination	78	33%
Pap smear (cytology test)	198	83%
Suitable time for HPV vaccination	**n**	**%**
before the first sexual intercourse	144	60%
after the sexual intercourse	7	3%
after the age of 18	37	16%
don´t know	51	21%

Most respondents (84%) considered cervical cancer as a preventable disease. The high number of women considered the preventive procedures as the preventive gynaecological examination (90%), and Pap smear (83%). Suitable time for HPV vaccination is, according to 60% of respondents, before the first sexual intercourse.

Tab. 4. Knowledge of cervical cancer.

Risk factors	n	%
smoking	94	23%
immunosuppression	83	35%
HPV infection	150	63%
alternation of sexual partners	127	53%
early onset of sexual cohabitation	52	22%
absence on cervical cytology	47	20%
high number of births	16	7%
recurrent / chronic cervix diseases	113	47%
don´t know	18	8%
Early signs of cervical cancer	**n**	**%**
bleeding between menstrual periods	102	43%
vaginal discharge	115	48%
discomfort and pain during sexual intercourse	79	33%
post-coital bleeding	63	26%
don´t know	39	16%
Transmission of HPV infection	**n**	**%**
sexual intercourse	171	72%
with their hands	2	0%
don´t know	66	28%

Respondents considered HPV infection (63%), alternation of sexual partners (53%), recurrent/chronic cervix diseases (47%) as significant risk factors of cervical cancer. Awareness of the early signs of cervical cancer was average. The most often recognized by respondents signs were vaginal discharge (48%), bleeding between menstrual periods (43%) and discomfort and pain during sexual intercourse (33%). As many as 28% of respondents had no knowledge about transmission of HPV infection.

Tab. 5. Participation in preventative gynaecologic check-ups and Pap smear test.

Frequency of preventive check-ups	n	%
once per year	153	64%
twice per year	16	7%
once per 2 years	27	11%
once per 3 years	9	4%
at persisting health difficulties	34	14%
Participation in Pap smear test	**n**	**%**
within the past year	102	43%
within 3 years	106	44%
above 4 years	9	4%
never	10	4%
don´t know	12	5%

64 % of respondents participate in preventive gynaecological examination once a year, 14% of respondents visit a gynaecologist only in case of health problems. 87% of respondents undergo Pap smear test of the cervix in the legislatively specified intervals (43% during the past year, 44% - 3 years ago).

Tab. 6. Risk behaviour of respondents (selected risks of life style).

Risk behaviour	n	%
smoking	62	26%
use of hormonal contraceptives	75	31%
number of sexual partners:		
no partners	4	1%
1-2 partners	143	60%
3-4 partners	52	22%
5 and more partners	40	17%

Looking at risk behaviour, 26% of respondents smoked, 31% of respondents used oral contraceptives and 17% of women had five or more sexual partners.

Tab. 7. Correlations between demographic factors and knowledge, attitudes and practices of cervical cancer prevention.

	Age	Education. status	Marital status	Information	Participation prev. gynaecology	Knowledge about preventability	Knowledge of cervical cancer	Risk behaviour
Age	1.0							
Educational status	0.217	1.0						
Marital status	-0.144	-0.172	1.0					
Information	0.351	0.235	0.276	1.0				
Participation in preventative gynaecology	0.421	1.0	-0.072	0.321	1.0			
Knowledge about preventability	0.489	0.893***	-0.133	0.485	0.352	1.0		
Knowledge of cervical cancer	0.378	0.895***	-0.139	0.012	0.214	0.114	1.0	
Risk behaviour	0.258	0.895***	-0.216	0.235	0.341	0.214	0.236	1.0

* p < .05; ** p < .01; *** p < .001

From the perspective of correlation relationships, we have confirmed the relationship between the level of education and the knowledge about prevention, about cervical cancer and risk factors (p <.001). In terms of other demographic data (age and marital status), we did not confirm the dependence between the observed variables.

DISCUSSION

According to the latest scientific findings, it is obvious that cervical cancer is a preventable disease of public health. An invasive cervical cancer is the second most common cancer in women worldwide, but we try to protect them against it by adherence to preventive measures. For the correct protection against cervical cancer three prerequisites are important: the relevant information, the right attitude to own health, motivation to practice prevention.

The major sources of information about the cervical screening in this study were electronic media and health professionals (mostly gynaecologists).

84% of respondent consider cervical cancer as preventable disease and perceive preventive gynaecological examination and Pap smear test as effective preventive procedures, but HPV immunization is perceived this way only by 33% respondents. According to Rob [7], the vaccination against HPV infection in women has the highest effect before the beginning of sexual life when it is proved to have 100% protection against types 16 and 18. In some countries with long-standing organized screening a decline of disease by 80% was observed if the population of immunization against HPV infection, increased up to 94% [8,9]. We assume that the low rating of HPV vaccination is associated with the beginnings of HPV vaccination since 2007 in Slovakia and no experience with the vaccine as it is more suitable for young virginal girls and also because of the high price of the vaccines.

Knowledge about causes and early signs of disease amounted to less than average results. The relatively low percentage was recorded in risks such as smoking (23%), early onset of sexual cohabitation (22%), absence on cervical cytology (20%) and multiparity (7%). Among the early signs we have seen low values of discomfort and pain during sexual intercourse (33%), post-coital bleeding (26%). Better knowledge has been recorded in the area of prevention, disease and its risk factors in women with higher education. These adverse findings require to intensify an awareness of the disease through various means to provide relevant professional information.

Although the respondents are aware of the benefits of preventive gynaecological examination and Pap smear, most of them don´t regularly participate in them. The low percentage (64%) of the respondents have undergone preventive check-up once per 1 year and 87% Pap smear test within 3 years, while the legislative norm's periodicity of cervical cancer screening in asymptomatic women aged 23-64 years is the following frequency 1 - 1 - 3 year. 29% of respondents neglect preventive checks in gynaecologist. In several studies, the most frequent reasons for the preventive examination neglect were lack of time and embarrassment / shame of examinations [10,11,12].

Responsibility for health is part of the prevention in terms of civilization diseases. Their occurrence is conditioned mainly by lifestyle. Generally, smoking is not only active but also passive, and has a significant influence on the incidence of cervical cancer. Carcinogenic substances contained in tobacco are released and concentrated in the cervical mucus, which is responsible for long term persistence of the increase in the proliferation of cervical cells, being the combined effect of HPV infection susceptible to malignant transformation degenerative [13]. According to The International Agency for Research on Cancer [14], women who have ever smoked have an increased risk of cervical cancer, but in the smokers of 15 or more cigarettes a day, the positive finding of HPV are around twice more likely. It also describes three times higher risk of developing cervical cancer in women taking oral contraceptives for 5-9 years compared to women who have never used contraception [15]. A higher number of sexual partners predisposes a woman to more exposure to the human papilloma virus [16]. Hlavatá [17] states that in women who have never had sexual intercourse, cervical cancer never develops. The disease also occurs less frequently in women using barrier contraceptive methods. Drolet et al. [18] in their study highlighted the causal relationship between the occurrence of cervical cancer and low

socio-economic status and alternating large number of partners. In our study, we have been more responsive in the case of college-educated women.

In the view of cervical cancer risk, we found that the respondents preferred unhealthy habits such as smoking (26%), use of contraception (31%), or alternation of sexual partners (17%). In this area, it is desirable to integrate and support some information campaigns. In addition to health professionals and media, the communication with parents, girls and schools play a decisive role.

CONCLUSION

Based on the results of the study we propose the following recommendations:

- to increase public awareness of cervical cancer and to improve the attitude of women to their own health through the mass media and educational campaigns,
- to create educational materials (leaflets and posters) containing information about cervical cancer and its possible prevention prepared by care professionals, that would be placed in waiting rooms and outpatient clinics of general practitioners, gynaecologists, paediatricians, but also in the inpatient clinics/ departments,
- to distribute leaflets and brochures about the benefits of vaccination against HPV infection in primary care outpatient clinics for children and adolescents,
- for community nursing (school nurse): to organize educational seminars on the topic of cervical cancer, risk behaviour, HPV vaccination, prevention of sexually transmitted diseases,
- in cooperation with gynaecologists to invite women to preventive gynaecological examinations in regular intervals through the „invitations",
- to explain the benefits of HPV vaccination for female population and to improve the availability of vaccines in relation to the cost of the vaccine, in collaboration with health insurance companies (financially favourable conditions for women who regularly undergo preventive gynaecological examinations).

Irreplaceable in primary and secondary prevention is just a nurse who plays the role of first contact in the outpatient clinics. The highly erudite nurse knows patients and their family members so in the case of the cancer incidence in the family, first-degree relatives should recommend screening tests (smear test and colposcopy) for prevention of cervical cancer.

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