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Research on the knowledge of women about the risk factors for cervical cancer

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Abstract:

Introduction: Cervical cancer (CC) is currently the eight most common cancer among women and the seventh leading cause of cancer-related death in women in Poland. Early, non-invasive cervical cancer may develop over the years without clinical symptoms. Also, given the fact that early forms are treatable effectively, it's important to get preventive examinations. It is especially important in the group of women at high risk of developing CC.

Purpose: The aim of the study is to assess women's knowledge of the risk factors for cervical cancer.

Material and method: Women's knowledge of cervical cancer risk factors was verified with an anonymous online questionnaire. The obtained results were analysed and checked on the basis of scientific literature.

Results: The vast majority of respondents consider family history of cancer as a risk factor for CC. 75.9% of women consider infection with HPV a risk factor. Chronic vaginal infections were chosen by over half of the women. The onset of intercourse at an early age was considered a risk factor by only 24.6%, while a large number of sexual partners by 45.4%.

Conclusions: The results of the conducted research indicate that the knowledge of women from the studied group about the risk factors for cervical cancer and methods of prevention is average. In order to improve the epidemiological situation of cervical cancer in Poland, efforts should be intensified to increase the education of women in this field.

Key words: cervical cancer, risk factors, prophylaxis, knowledge, HPV screening

Introduction:

Cervical cancer (CC) is the 8th most common cancer in women. Malignant neoplasms of the cervix constitute 4% of cases in women. The incidence of CC in Poland is slowly but steadily decreasing. In 2017, the incidence in Poland was 2,502, while mortality – 1609 (which places cervical cancer in 9th place among all cancers in women). About 60% of cases occur between the ages of 45 and 64. The risk of developing cervical cancer increases with age until the end of the sixth decade [1].

Cervical cancer, in its non-invasive (in situ) form, can last for many years without clinical symptoms. Also, given the fact that early forms are treatable effectively, it's important to get preventive examinations. Regular gynaecological examination and cytology collection is essential. Currently there are two types of diagnostic tests for cervical cancer screening: Papanikolaou test and HPV test [2]. There is a cervical cancer screening program in Poland. It includes women aged 25-59 who have not had Pap smear screening in the last 3 years. The aim of the program is to reduce the female mortality rate from cervical cancer to the level achieved in the European Union countries and increasing the knowledge of women about the prevention of cervical cancer and the introduction of a uniform model of diagnostic procedures throughout the country [3]. Prophylaxis is especially important in the group of women at high risk of developing CC.

Persistent human papillomavirus (HPV) infection is the most important factor development of the CC [4]. It can be spread through sexual contact.

For this reason, risk factors include the onset of sexual activity early, a large number of multiple partners, and infrequent use of condoms [2]. Other risk factors that increase the likelihood of developing the disease are: smoking, multiple natural births, use of oral contraceptives by women who smoke simultaneously, a positive history of sexually transmitted diseases, certain autoimmune diseases and chronic immunosuppression [5].

Purpose:

The aim of the study was to analyse the opinions of 1,260 women on the risk factors for cervical cancer.

Material and methods:

The research was conducted on the group of 1,260 survey respondents, who filled out the Internet questionnaire. The study was conducted from 7th July 2019 to 17th September 2020. Participation in the experiment was voluntary. The results were analysed and checked on the basis of scientific literature. The results were statistically processed using for this program Microsoft Office Excel.

Results:

1260 people answered the survey questions. Most of them (84.6%) were between 18 and 35 years old. The largest groups of people lived in the city over 100.000 residents (37.6%) and in the countryside (36.5%). 57.2% of the respondents graduated from a university. The vast majority were sexually active (76.5%) and usually had 1 to 3 sexual partners (62.4%) [Table 1].

Variable		N	(%)
Age (years)	< 18	10	0.8%
	18-25	782	62.1%
	26-35	283	22.5%
	36-45	83	6.6%
	46-65	74	5.9%
	> 65	28	2.2%
Place of residence	The city over 100.000 residents	474	37.6%
	The city 20-100.000 residents	222	17.6%
	The city below 20,000 residents	103	8.2%
	Village	460	36.5%
Education	Higher	720	57.2%
	Secondary	480	38.1%
	Vocational	27	2.1%
	Primary	32	2.5%
Sexual active	Yes	962	76.5%
	No	295	23.5%
Number of sexual partners	None	202	16%
	1-3	785	62.4%
	4-10	202	16%
	>10	70	5.6%

Table 1. Characteristics of the study group.

The women were asked what they thought were risk factors for cervical cancer [Figure 1].

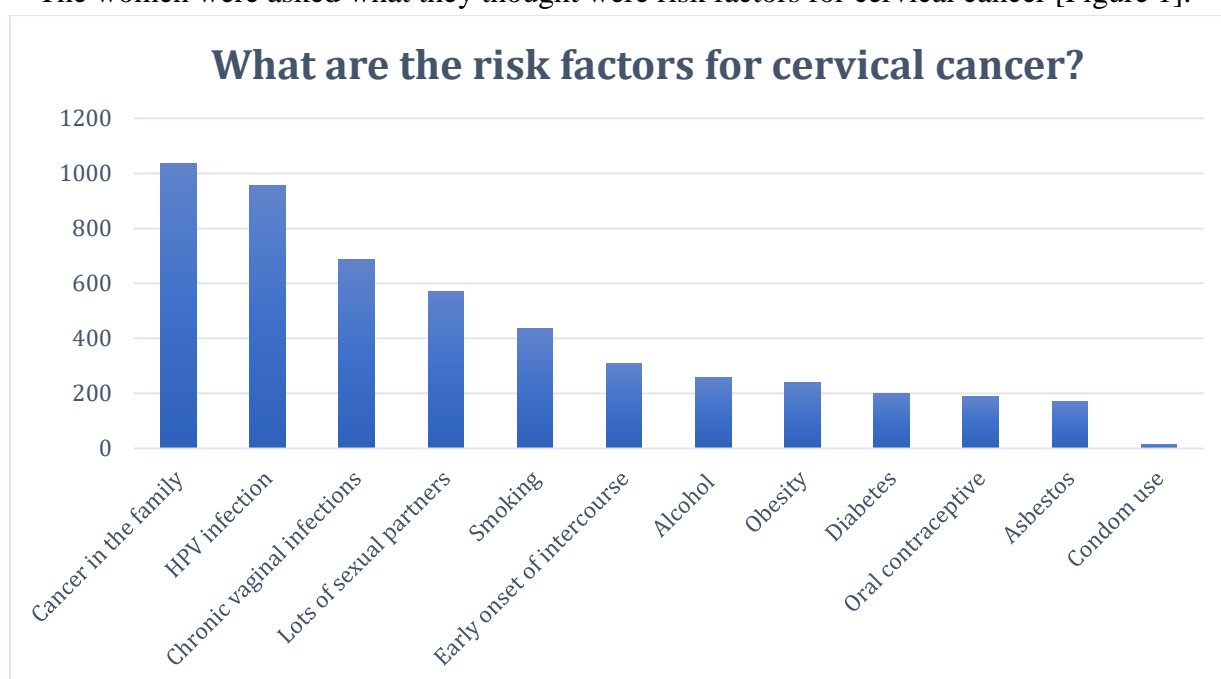


Figure 1. Cervical cancer risk factors according to respondents.

The vast majority of respondents (82.1% n=1035) consider family history of cancer as a risk factor for CC. 75.9% (n=956) of women consider infection with HPV a risk factor. 73% (n=929) of women knew about the HPV vaccination. Chronic vaginal infections were chosen by 54.5% (n=687) of respondents. The onset of intercourse at an early age was considered a risk factor by only 24.6% (n=310), while a large number of sexual partners by 45.4% (572). Smoking cigarettes has been found to increase the risk of CC by 34.8% (n=438) of women and the consumption of alcohol by 20.4% (n=257). Obesity was considered a risk factor by 19% (n=239) of respondents, and diabetes by 16% (n=202). 15.1% (n=190) believe that taking oral contraceptive pills has an influence on the development of CC.

Discussion:

The analysis of the answers given by the respondents in the questionnaire made it possible to assess the level of knowledge about the risk factors for cervical cancer.

Persistent HPV (human papillomavirus) infection is the most important factor in the development of cervical cancer [5]. So the good information is that it was chosen by 76% of the respondents. The presence of CC is associated with the prevalence of HPV in a given population [5]. High Risk HPV (HR-HPV) are associated with 90% to 99.7% cases of cervical carcinoma. Two oncogenic and most common types of the virus: HPV16 and HPV18 are responsible for the development of as many as 70-80% of global cases of cervical cancer [6].

In 2013, a study of the knowledge of female students about the risk factors for cervical cancer was conducted [7]. Half of the respondents did not know about HPV infection as the main risk factor for cervical cancer, the correct answer was given by only 43% of the respondents. In the study group, 15% of female students did not know about the existence of the HPV vaccine. 85% of women knew about the HPV vaccination [7].

In 2012, a questionnaire survey examining the knowledge of women and men on the prevention of cervical cancer was conducted [8]. According to women, the main factors increasing the risk of the disease were chronic infections with a highly oncogenic type of HPV and a large number of sexual partners. According to men - a large number of sexual partners and frequent untreated inflammation of the vagina [8].

Ulman-Włodarz et al. [9] showed that 49% of women know that HPV is the main factor in the development of cervical cancer. Every second woman knows that this virus is transmitted through sexual contact and direct genital skin contact [9].

Czechowska [10] analysed the factors that contribute to the development of CC. 65% of the surveyed women indicated HPV infections as a risk factor, and 86% - the early age of sexual initiation. On the other hand, research conducted by Iwanowicz-Palus et al. showed that 66.7% of women who had children did not know that early sexual intercourse had an impact on the development of cervical cancer [11]. However, as many as 65.5% of women do not had children, found that early sexual initiation did not affects the development of cervical cancer [11].

Sexual lifestyle is significantly related to the incidence of cervical cancer. The risk of developing cervical cancer is much higher in women who started sexual initiation before the age of 16 than in women who started it after the age of 20 [12]. Unfortunately, only 24.6% of the women in our study rated early intercourse as a risk factor for CC.

A significant number of sexual partners are conducive to the development of cervical cancer. Women who have 10 or more sexual partners are 3-times more likely to develop this cancer than women who have one sexual partner [13]. 45.4% of women chose a large number of sexual partners as a risk factor in our study. 5.6% of the respondents had more than 10 sexual partners.

Worryingly, most women consider the presence of cancer in the family as a risk factor, not other factors that can be modified such as preventing HPV infection, not smoking, treating vaginal infections.

Conclusions:

The results of the conducted research indicate that the knowledge of women from the studied group about the risk factors for cervical cancer and methods of prevention is average. There are known risk factors for developing cervical cancer. By using appropriate pro-health behaviours, avoiding risk factors and vaccinating against HPV, and additionally applying the principles of secondary prophylaxis, i.e. self-observation, regular pap smear tests, women are able to avoid developing cancer. In order to improve the epidemiological situation of cervical cancer in Poland, efforts should be intensified to increase the education of women in this field. It is important to make women aware that it is not a family predisposition that is most important in the development of CC.

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