

ROLE OF A MIDWIFE IN CERVICAL CANCER PREVENTION BASED ON A STUDY OF THE POPULATION OF WOMEN RESIDING IN THE BIALSKI POWIAT

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A – study design, B – data collection, C – statistical analysis, D – interpretation of data, E – manuscript preparation, F – literature review, G – sourcing of funding

ABSTRACT

Background: Cancer, next to cardiovascular disease, obesity, diabetes, accidents, and mental illness, is one of the most common diseases of the 21st century. In the female population, cervical cancer is most often diagnosed at late stages.

Aim of the study: The goal of the study is to determine the opinions of women who reside in Bialski powiat about midwife participation in cervical cancer screening and prevention.

Material and methods: The study group was recruited from randomly selected patients from two physiotherapy offices in the Bialski powiat, as well as students and employees of the State University Pope John Paul II in Biala Podlaska. The research tool consisted of the author's questionnaire concerning the role of midwives in cervical cancer prevention and consisted of 25 questions.

Results: Almost half of the respondents or 44.2% (76) believe that the role of a midwife in cervical cancer prevention is based on health education given to women about cervical cancer screening and prevention. 27.3% (47) believe that the role of a midwife in prevention is based on the availability of cytological pap smears. Most or 56% (14) respondents from the age group over 55 and 29.2% (7) surveyed in the 18–25 age group knew about the important role of midwives performing cytological pap smear as part of a prevention strategy against cervical cancer.

Conclusions: 1. The knowledge base of the women examined, regarding the role of a midwife in the prevention of cervical cancer, is lacking or insufficient. 2. The role of the midwife in the prevention of cervical cancer is unknown to young women in the 18–25 age group.

KEYWORDS: cervical cancer, midwife, cancer prevention

BACKGROUND

Cancer, next to cardiovascular disease, obesity, diabetes, accidents, and mental illness, is one of the most common diseases of the 21st century [1].

In the female population, cervical cancer is often diagnosed at later stages. The high incidence and mortality among young women with cervical cancer have been a serious problem, not only in Poland, but also globally for many years. The incidence and mortality rates for cervical cancer in Poland are among the highest in the European Union [2].

The data from the National Cancer Registry show that in 2017, in the 20–44 age range, the incidence rate was 6%, while the mortality rate was 10% [2]. Chronic HPV (Human Papillomavirus) infection accounts for

90% of cases. Infections with the HPV virus in countries with a high incidence of cervical cancer are in the range of 10–20%, while in countries with a low incidence, the rate is 5–10% [3]. HPV infection is the most important risk factor for cervical cancer. The main oncogenic type of the virus is HPV 16 (detected in up to 53% of cases of cancer and cervical intra-epithelial neoplasia – CIN1–CIN3), [4]. The second oncogenic type is type 18 (detected in 15% of cases). Probable factors include early sexual intercourse, a large number of sexual partners, a large (> 5) number of deliveries, smoking, low socioeconomic status, cervical dysplasia, use of oral hormonal contraception, a diet low in vitamin C, some reproductive organ infections (chlamydia, gonorrhea, herpes virus, cytomegalovirus), family history

of cancer [5]. Early cervical cancer is asymptomatic, and that's why screening is so important as a prevention strategy [6].

Cancer prevention is the primary goal in the health-care system. The midwife's activities and role in the prevention of cancer, including cervical cancer, should help shape the right attitude of women towards preventive examinations.

AIM OF THE STUDY

The goal is midwife participation in cervical cancer prevention based on a study of the population of women residing in the Bialski poviat.

MATERIAL AND METHODS

Study population

The study group was recruited from randomly selected patients of two physiotherapy offices in the Bialski poviat, as well as students and employees of the State University Pope John Paul II in Biala Podlaska.

Data collection

The study included a group of 172 women, residing in the Bialski poviat. The research was conducted during the period from January to December 2017.

Questionnaires

The research tool was the author's questionnaire on the role of a midwife in cervical cancer prevention,

Table 1. Characteristics of the study group.

Study group		N=172	%
Age	18–25 years	24	6.8
	26–35 years	27	7.7
	36–45 years	55	15.6
	46–55 years	41	11.6
	55+ years	25	14.5
Education	Primary	19	11.0
	Vocational	27	15.7
	Secondary	56	32.6
	Higher	70	40.7
Place of residence	Village	84	48.8
	City below 50,000 of population	54	31.4
	City with over 50,000 of population	34	19.8

consisting of 25 questions. Detailed results are presented in Tab. 1.

Statistical analysis

Obtained results were subjected to statistical analysis performed by the STATISTICA v 10. program using the Pearson Chi-square test. A significance level of $p < 0.05$ was adopted.

RESULTS

The results are shown in the tables. The results of the study presented in Tab. 2 indicate the number of participants in the midwives' health education program

Table 2. Midwife's participation in cervical cancer prevention in the assessment of examined women.

Content of the question	N=172	%	
What do you think the role of a midwife in health education-related to cervical cancer is:	Informational	61	35.5
	Related with a health hazard	77	44.8
	Raising awareness of the risk factors for cancer of the reproductive organs	33	19.2
	I don't know midwife's role	1	0.6
Midwife's role in cervical cancer prevention is:	The possibility of taking a smear	47	27.3
	The smear is only taken by a doctor	15	8.7
	Health education in the field of cervical cancer	76	44.2
	I do not know	34	19.8
The midwife's participation in the prevention of cervical cancer is related to:	Identifying factors that increase the risk of developing cervical cancer	32	18.6
	Taking a smear	22	12.8
	The midwife is not involved in the prevention of cervical cancer	84	48.8
	I don't know	34	19.8
The midwife's role in preventing cervical cancer is:	Encouraging women to eliminate risk factors from everyday life	62	36.3
	Shaping positive attitudes of women towards cytological tests	42	24.6
	Eliminating fear of undesirable health detection	20	11.7
	I do not know	47	27.5
How do you assess the role of a midwife in cervical cancer prevention?	Very well	45	26.2
	Well	68	39.5
	Sufficient	17	9.9
	Insufficient	9	5.2
	I will not give a grade	33	19.2
If you perform a cytological examination in a gynecological office, on whose initiative?	Own	91	52.9
	Doctor	54	31.4
	Midwife	12	7.0
	Friend	15	8.7
Information on factors that increase the risk of developing cervical cancer is obtained from:	Midwife	25	14.6
	Doctor	54	31.6
	Internet	54	31.0
	Medical magazines	30	17.5
	Friend	8	4.7

related to cervical cancer. 44.8% (77) of respondents believe that the role of a midwife is associated with health risk, while 35.5% (61) of respondents believe that the midwife's role is informative, and 19.2% (34) of respondents indicate the role of the midwife is to make women aware of risk factors for reproductive cancer. Only 0.6% (1) of respondents do not know the role of a midwife. Almost half of the respondents or 44.2% (76) believe that the role of a midwife in cervical cancer prevention is based on health education in the field of cervical cancer, and 27.3% (47) believe that the role of a midwife in prevention is based on the availability of performing a cytological smear. Detailed results are presented in Tab. 2.

Tab. 3 presents an analysis of the midwife's participation in the prevention of cervical cancer, stratified by the age group of the examined women.

The results of the research in Tab. 3 show that the highest percentage of respondents or 63% (17) in the age group 26–35 determined that the midwife's participation in health education is associated with health risk.

Most or 56% (14) respondents from the age group over 55 and 29.2% (7) surveyed in the 18–25 age group knew about the possibility of a midwife performing a cytological smear as part of preventive measures. According to more than half of the respondents – 62.5% (15) from the 18–25 age group, believed that the midwife does not participate in the prevention of cervical cancer. A high percentage of respondents in particular age groups indicated that the midwife's role is to encourage women to eliminate risk factors from everyday life and to shape positive attitudes of women towards cytological tests. 44% (18) of respondents in the group over 55 years of age rated the role of a midwife very well, as

Table 3. Comparative analysis of midwife's participation in cervical cancer prevention by age.

Content of the question		18–25 years (n=24)	26–35 years (n=27)	36–45 years (n=55)	46–55 years (n=41)	above 56 years	χ^2	P
What do you think the role of a midwife in health education related to cervical cancer is:	Informational	41.7% (10)	25.9% (7)	45.5% (25)	34.2% (14)	20.0% (5)	22.28	0.0345*
	Related with health hazard	37.5% (9)	63.0% (17)	45.5% (25)	41.5% (17)	36.0% (9)		
	Raising awareness of the risk factors for cancer of the reproductive organs	20.8% (5)	11.1% (3)	9.1% (5)	22.0% (9)	44.0% (11)		
	I don't know midwife's role	0.0% (0)	0.0% (0)	0.0% (0)	2.4% (1)	0.0% (0)		
Midwife's role in cervical cancer prevention is:	The possibility of taking a smear	29.2% (7)	18.5% (5)	14.6% (8)	31.7% (13)	56.0% (14)	20.66	0.0556
	The smear is only taken by a doctor	8.3% (2)	7.4% (2)	12.7% (15)	7.3% (3)	4.0% (1)		
	Health education in the field of cervical cancer	50.0% (12)	40.7% (11)	49.1% (27)	46.3% (9)	28.0% (7)		
	I don't know	12.5% (3)	33.3% (9)	23.6% (13)	14.6% (6)	12.0% (3)		
The midwife's participation in the prevention of cervical cancer is related:	Identifying factors that increase the risk of developing cervical cancer	16.7% (4)	18.5% (5)	18.2% (10)	24.4% (10)	12.0% (3)	12.44	0.4111
	Taking a smear	12.5% (3)	18.5% (5)	18.2% (10)	7.3% (3)	4.0% (1)		
	The midwife is not involved in the prevention of cervical cancer	62.5% (15)	3.0% (10)	49.1% (27)	46.3% (9)	52.0% (13)		
	I don't know	8.3% (2)	25.9% (8)	14.6% (8)	22.0% (9)	32.0% (8)		
The midwife's role in preventing cervical cancer is:	Encouraging women to eliminate risk factors from everyday life	43.5% (10)	33.3% (9)	41.8% (23)	34.2% (14)	24.0% (6)	12.70	0.3912
	Shaping positive attitudes of women towards cytological tests	13.0% (3)	18.5% (5)	27.3% (15)	34.2% (14)	20.0% (5)		
	I don't know	21.7% (6)	11.1% (3)	9.1% (5)	9.8% (4)	12.0% (3)		
	Eliminating fear of undesirable health detection	21.7% (6)	37.0% (10)	21.8% (12)	22.0% (9)	44.0% (11)		
How do you assess the role of a midwife in cervical cancer prevention?	Very well	20.8% (5)	29.6% (8)	14.6% (8)	31.7% (13)	44.0% (11)	16.36	0.4279
	Well	50.0% (12)	40.7% (11)	41.8% (23)	31.7% (13)	36.0% (9)		
	Sufficient	12.5% (3)	7.4% (2)	14.6% (8)	9.8% (4)	0.0% (0)		
	Insufficient	0.0% (0)	7.4% (2)	7.3% (4)	7.3% (3)	0.0% (0)		
	I will not give a grade	16.7% (4)	14.8% (4)	21.8% (12)	19.5% (8)	20.0% (5)		
Information on factors that increase the risk of developing cervical cancer is obtained from:	Midwife	8.3% (2)	3.7% (1)	21.8% (12)	15.0% (6)	16.0% (4)	15.52	0.4871
	Doctor	29.2% (7)	37.0% (10)	25.5% (14)	25.0% (10)	52.0% (13)		
	Internet	37.5% (9)	37.0% (10)	32.7% (18)	30.0% (12)	20.0% (5)		
	Medical magazines	20.8% (5)	14.8% (4)	18.2% (10)	22.5% (9)	8.0% (2)		
	Friend	4.2% (1)	7.4% (2)	1.8% (1)	7.3% (3)	4.0% (1)		

χ^2 – Chi Pearson square test value; * Significant differentiation at $p < 0.05$.

did 50% (12) of those surveyed in the group of 18–25 years old, and 14.6% (8) in the group of 36–45 years old, but the role of the midwife was insufficient in 7.4% (2) of respondents in the 26–35 age group. With regard to learning from a midwife, 21.8% (12) of the respondents in the age group, 36–45, obtained information on factors that increased the risk of developing cervical cancer.

DISCUSSION

The vast majority of the profession of midwives in Poland is associated primarily with their role in the maternity ward. The scope of her duties is much broader, and she is a specialist in healthcare for women, including cancer prevention.

Prevention of diseases begins with understanding an existing health problem. The essence of prevention is also looking for risk factors. Prevention in cervical cancer involves periodic preventive cytological examinations. The best preventive examination for this type of cancer is cervical cytology. In addition, testing for the presence of human papillomavirus (HPV), and administering vaccinations are also preventative [7].

Thanks to the Cervical Cancer Prevention Program, the number of women who report for cytological tests shows an upward trend from 12.7% in 2006 to 42.11% in 2015 [2]. Over half of women in Poland do not have regular cytological tests despite the existence of preventive programs. In Poland, due to low reporting rates for preventive examinations, 5-year survival among patients with cervical cancer did not change during the first decade of the 21st century: 54.1% in 2000–2002 compared to 54.4% in 2003–2005 [2]. There is little research in the literature regarding midwives' role and participation in cervical cancer prevention.

Studies have shown that almost half of those surveyed – 48.8% (85) believe that midwives do not participate in the prevention of cervical cancer. Only 7% (12) of respondents underwent cytological tests, which are the basis for the prevention of cervical cancer, at the midwife's initiative. The results of the study by Jankowska et al. conducted in a group of 135 women

indicated that a cytological examination on the initiative of a midwife was only performed on a small percentage of women 3% (4), [8]. High participation in population screening is necessary for optimal prevention of cervical cancer. Research carried out by Miriam showed that only 16,437 women aged 33–60 (<4%) took part in the HPV testing program (conducted by midwives) from the group of 413,487 women [9].

Research by Kawalek et al. conducted on midwives, who practiced health education among women, showed that the priority in midwives' activities was to promote knowledge about breast cancer prevention and cervical cancer screening and prevention [10]. Focus studies conducted by Koç et al. conducted on 156 women indicate that the reason for ignoring cervical cancer screening was: inadequate knowledge of cytological tests, fear of cancer and death, and the fear of getting bad results [11]. Wiszniewska et al. pointed to the untapped potential of preventive measures and health promotion in Poland and the need to include professionals involved in the prevention of cancer among working women [12]. The cytological examination program in Poland was implemented in 2005. Many public health experts believe that educational activities play a key role in the prevention of cervical cancer. In Poland, no information or educational strategy has been developed to support preventive measures regarding the risk of HPV infection. These types of activities were of local nature and were implemented by non-governmental or private entities [13].

Limitations of the study

There is little research in the literature regarding midwife's participation in cervical cancer prevention.

CONCLUSIONS

1. The knowledge of the examined group of women regarding the role of a midwife in the prevention of cervical cancer is insufficient.
2. The role of a midwife in the prevention of cervical cancer is unknown to young women in the 18–25 age group.

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