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ORIGINAL ARTICLE

Self-reported preparation of Polish midwives for independent performance of prophylactic activities within the scope of women's diseases and obstetric pathologies

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Abstract

Objective. The objective of the study is an attempt to recognize self-reported preparation of midwives for an independent performance of prophylactic activities within the scope of women's diseases and obstetric pathologies.

Material and methods. The study was conducted in a representative all-Polish population sample of 3,569 midwives, by the method of a diagnostic survey using a questionnaire technique. The research instrument was a questionnaire form designed by the author containing items concerning the characteristics of respondents and the object of the study, constructed based on the 5-point Liker scale. The relationships between the variables were verified using chi-square test (χ^2) of independence. The p values $p<0.05$ were considered statistically significant.

Results. Analysis of results allows the presumption that in the opinions of midwives the majority of them are prepared for the independent performance of prophylactic activities in the area of women's diseases (84.28%) and obstetric pathologies (77.95%). However, nearly every tenth midwife, irrespective of the region of Poland where she lives, age, and participation in post-graduate training, is not prepared for an independent performance of the prevention of women's diseases. In turn, the lack of preparation for carrying out prevention of women's diseases was admitted mainly by midwives from the northern and central regions of Poland, aged 31–40, possessing post-secondary school education, who did not participate in any form of post-graduate training.

Conclusions. The results of studies and analysis of the relevant literature indicate that it is necessary for midwives to improve their qualifications in the area of prophylaxis of women's diseases and obstetric pathologies through participation in various forms of post-graduate education.

Key words

pregnancy complications, female urogenital diseases, breast diseases, prophylaxis, midwife

INTRODUCTION

Prophylaxis, i.e. the prevention of diseases, covers actions aimed at counteracting negative phenomena which are hazardous for health by strengthening and maintaining the health of both individuals and the entire population due to, among other things, promotion of health and health promoting behaviours or disinfection [1, 2]. It is an important fact that prophylaxis is considerably more successful and cost-effective economically than control of the negative consequences and effects of a disease [1]. Therefore, prophylaxis plays a very important role in the activities undertaken by health services, including the occupational practice of midwives. The performance of an occupational role by a midwife consists in the completion of occupational tasks within occupational functions, among which the prophylactic function occupies a special position. Within this function, a midwife cooperates with individuals and institutions engaged in the programmes of prevention of diseases considered as a social problem, including women's and infants' diseases, and cooperates with the recipients of her services and their families within the prevention and limitation of the risk of diseases and/or complications [3]. The wide cope of preventive activities performed by a midwife is based on adequately provided perinatal, postnatal, and perioperative care. Among the tasks performed by a midwife is education concerning health promoting life style, which reduces the risk of arterial hypertension in pregnancy, obesity, breast cancer, episiotomy, stress urinary incontinence, pelvic organ prolapse, preparation of a woman and her family for self-observation, and undertaking actions in order to detect and eliminate cancer risk factors (mammography, cytology) [4, 5, 6, 7]. According to the recommendations of the Act in the Matter of the Occupation of Nurse and Midwife of 15 July 2011, a midwife provides a complex gynaecological-obstetric care of a woman, and also provides prophylaxis of women's diseases and obstetric pathologies [8].

Objective. The objective of the study was an attempt to recognize the self-reported preparation of midwives for an independent performance of prophylactic activities within the scope of women's diseases and obstetric pathologies.

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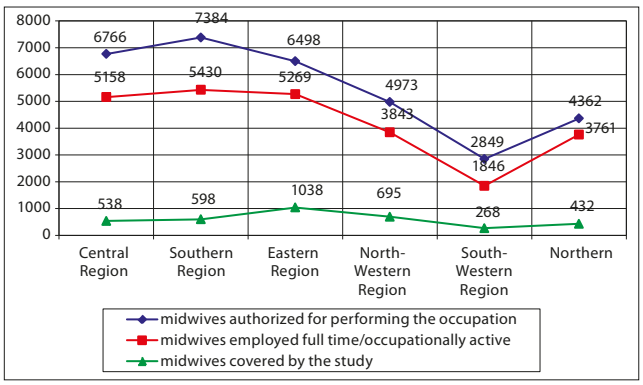
MATERIALS AND METHOD

The basic study was conducted during 2006–2007, preceded by a pilot study which allowed verification of the author-constructed section of the questionnaire, among a representative all-Polish population sample of 3,569 midwives, and thus included 17.13% of the total number of midwives employed full-time in Poland. The study covered 13.35% of occupationally active midwives from the central region of Poland, 14.03% from the southern region, 24.00% from the eastern region, 20.67% from the north-western region, 20.90% from the south-western region, and 14.25% from the northern region (Fig. 1). The division of the country into six regions was performed in accordance with the Regulation in the Matter of Implementation of Nomenclature of Territorial Units for Statistical Purposes, which came into being on the day the Republic of Poland joined the European Union [9].

The method of two-stage cluster sampling was used with stratification into occupationally active midwives, according to the scheme of multiple stage cluster-individual sampling. The size of the sample was determined considering the four most important factors: size of accepted measurement error, scope of variability of the measured characteristics in the population, the assumed confidence interval, and population size.



Legend:
Central Region – Regions of Łódź and Warsaw
Southern Region – Region of Kraków and Katowice
Eastern Region – Regions of Lublin, Rzeszów, Kielce and Białystok
North-Western Region – Regions of Poznań, Szczecin and Zielona Góra
South-Western Region – Regions of Wrocław and Opole
Northern Region – Regions of Toruń, Olsztyn and Gdańsk

Figure 1. Midwives authorized to perform the occupation, employed full-time in Poland, acc. to the status on 31 December 2005, and covered by the basic study.

The study was performed by the method of a diagnostic survey with the use of a questionnaire technique. The research instrument was a questionnaire form constructed by the author, which covered items concerning the respondents' characteristics and the objective of the study, designed based on a five-point Likert scale. Questions concerning the object of the study were prepared based on the updated midwives' occupational legislature. The participating midwives were informed about anonymity and that the use of information is for scientific purposes only.

The research material was analyzed using computer software: UPSA_Plus (AltaSoft S.C. Software Development Company, Katowice, Poland), and STATISTICA 6.1 (StatSoft, Polska – Kraków, Poland). The relationships between the variables were verified using chi-square test (χ^2) for independence. The p values $p<0.05$ were considered statistically significant.

RESULTS

Among the 3,569 midwives in the study, 29.08% were inhabitants of the Eastern Region, 48.02% were aged 41–50, and 87.55% had post-secondary school education. As many as 84.88% of the midwives had not participated in specialization courses, 73.63% in qualification courses (a form of post-graduate education aimed at acquiring by a midwife knowledge and skills to provide specified health services within the scope of the domain of nursing or a domain used in health care), 59.69% in specialist courses, and 54.15% participated in improvement courses – a course aimed at expanding and up-dating both the knowledge and skills of a midwife (Tab. 1) [8].

Table 1. Respondents' characteristics

Socio-demographic data		N	%
Age	<30	225	6.30
	31-40	1163	32.60
	41-50	1714	48.02
	>50	467	13.08
Education level	University	344	9.65
	University vocational	100	2.80
	Post-secondary school	3123	87.55
Region of Poland	Central	538	15.07
	Southern	598	16.76
	Eastern	1038	29.08
	North-Western	695	19.47
	South-Western	268	7.51
	Northern	432	12.1
Specialization	does not hold specialization	2986	84.88
	holds at least one specialization	532	15.12
Completion of qualification course	has not completed any course	2586	73.63
	completed at least one course	926	26.37
Completion of specialist course	has not completed any course	2129	59.69
	completed at least one course	1389	40.31
Completion of improvement course	has not completed any course	1634	45.85
	completed at least one course	1930	54.15

Midwives who definitely declared that they were prepared for the independent performance of prophylactic activities of women's diseases, compared to the all-Polish group, highly significantly statistically prevailed among the respondents living in the South-Western Region (45.90%) and Eastern Region of Poland (45.47%), were aged over 50 (54.18%), had university education (51.45%), and had participated in post-graduate education, i.e. specialization courses (50.38%), qualification courses (46.76%), and improvement courses (45.34%).

Midwives who reported the lack of preparation for independent performance of prophylactic activities of women's diseases, compared to the all-Polish group, highly statistically dominated among respondents living in the Northern Region (8.56%), were aged 31–40 (7.57%), had post-secondary school education (7.85%), and had not participated in post-graduate education – in specialization courses (7.71%), qualification courses (7.64%), and improvement courses (8.24%) (Tab. 2, 3).

Table 2. Midwives' preparation for independent performance of prophylaxis of women's diseases according to region, age, education level, participation in post-graduate training- specialization, specialist and qualification courses

Regions of Poland	Self-reported preparation				
	definitely Yes	rather Yes	I have no opinion	rather No	definitely No
	%	%	%	%	%
Central	42.38	43.87	5.76	6.13	1.86
Southern	38.13	46.99	8.53	5.35	1.00
Eastern	45.47	40.56	7.42	4.91	1.64
North-Western	42.73	36.40	12.66	5.90	2.30
South-Western	45.90	39.18	8.96	4.85	1.12
Northern	39.58	44.68	7.18	6.48	2.08
χ^2=45.131 df=20 p=0.0011					
Age					
< 30	34.67	36.46	10.22	5.33	1.33
31–40	36.46	46.26	9.78	6.45	1.12
41–50	44.57	39.56	8.40	5.31	2.16
> 50	54.18	35.12	4.71	4.28	1.71
χ^2 =63.489 df=12 p=0.0000					
Education level					
university	51.45	37.79	7.56	2.62	0.58
university vocational	51.00	34.00	12.00	2.00	1.00
post-secondary school	41.31	42.40	8.45	5.99	1.86
χ^2=26.009 df=8 p=0.0011					
Specialization					
no specialization	41.19	42.38	8.73	5.96	1.75
at least one specialization	50.38	37.97	6.95	3.20	1.50
χ^2=19.147 df=4 p=0.0007					
Completion of qualification course					
has not completed any course	41.09	41.92	9.35	5.75	1.89
has completed at least one course	46.76	41.14	5.94	4.97	1.19
χ^2 =17.428 df=4 p=0.0016					
Completion of specialization course					
has not completed any course	41.62	42.00	9.20	5.35	1.83
has completed at least one course	43.95	41.31	7.37	5.84	1.53
χ^2=5.401 df=4 p=0.2485					
Completion of improvement course					
has not completed any course	39.29	42.77	9.70	6.04	2.20
has completed at least one course	45.34	40.83	7.41	5.13	1.30
χ^2=19.446 df=4 p=0.0006					
Total number of midwives in the study	42.56	41.72	8.46	5.55	1.71

Table 3. Midwives' preparation for independent performance of prophylaxis of women's diseases and obstetric pathologies according to region, age, education level, participation in post-graduate training-specialization, specialist and qualification courses

Regions of Poland	Self-reported preparation				
	definitely Yes	rather Yes	I have no opinion	rather No	definitely No
	%	%	%	%	%
Central	40.89	39.96	8.92	7.25	2.97
Southern	34.78	44.65	10.54	7.53	2.51
Eastern	35.93	40.75	10.98	8.77	3.56
North-Western	34.96	39.28	14.68	7.19	3.88
South-Western	44.03	39.55	8.58	6.34	1.49
Northern	37.04	40.74	11.11	8.80	2.31
χ^2=31.419 df=20 p=0.0499					
Age					
< 30	25.33	50.22	13.78	8.89	1.78
31–40	31.73	45.14	12.55	8.17	2.41
41–50	39.21	39.38	10.62	7.35	3.44
> 50	47.97	31.48	8.35	8.35	3.85
χ2 =68.334 df=12 p=0.0000					
Education level					
university	48.55	35.76	9.59	4.94	1.16
university vocational	42.00	36.00	16.00	4.00	2.00
post-secondary school	35.61	41.63	11.18	8.29	3.30
χ^2=32.143 df=8 p=0.0001					
Specialization					
no specialization	35.99	41.42	11.36	8.07	3.16
at least one specialization	43.05	37.97	9.96	6.58	2.44
χ^2=10.237 df=4 p=0.0366					
Completion of qualification course					
has not completed any course	35.41	41.77	11.73	7.83	3.25
has completed at least one course	41.68	38.44	9.50	7.88	2.48
χ^2=13.514 df=4 p=0.0090					
Completion of specialization course					
has not completed any course	36.74	39.47	12.62	8.07	3.10
has completed at least one course	37.48	43.05	8.97	7.51	2.99
χ^2=13.465 df=4 p=0.0092					
Completion of improvement course					
has not completed any course	34.17	41.00	13.00	8.54	3.29
has completed at least one course	39.48	40.83	9.59	7.25	2.85
χ^2=18.457 df=4 p=0.0010					
Total number of midwives in the study	37.04	40.91	11.15	7.85	3.05

Midwives who definitely declared that they were prepared for independent performance of prophylactic activities of obstetric pathologies, compared to the all-Polish group, highly statistically prevailed among respondents aged 41–50 (47,97%), with university education (48.55%), as well as among those participating in post-graduate education – in improvement courses (39.48%).

Midwives who reported the lack of preparation for independent performance of prophylactic activities of obstetric pathologies, compared to the all-Polish group, highly statistically prevailed among the oldest respondents aged over 50 (12.20%), with secondary-school education (11.59%), and had not participated in post-graduate education, i.e. in improvement courses (11.83%) (Tab. 2, 3).

DISCUSSION

Women's diseases and obstetric pathologies create health risk for women, and widely understood promotion of health

at each stage of their life is very important, especially in pregnancy, which is the main task for healthcare providers, including midwives [10, 11]. While planning by a midwife the tasks within the scope of prophylactic care and health promotion it is necessary to consider a number of risk factors of many diseases and behaviours which are unfavourable for health, including low physical activity, inadequate nutritional habits and tobacco smoking [11]. Arterial hypertension is one of the most frequent pathologies in the period of pregnancy and, at the same time, a care and therapeutic challenge for those who provide perinatal care [12, 13]. Midwives, due to the scope of their competences, have the possibility to identify and assess arterial hypertension risk factors in order to provide the best care possible of mother and baby [13]. Studies by Berglund A. (2007) show that midwives more frequently than physicians identify risk factors among pregnant women. Midwives diagnose more women with a chronic disease and earlier obstetric complications; they are also more sensitive to the psycho-social problems of patients. In turn, physicians identify more symptoms in pregnancy [14]. The results of own studies showed that according to the subjective evaluations by midwives, the majority are prepared for independent performance of prophylactic activities in the area of obstetric pathologies (77.95%).

Regular physical activity exerts an effect on the course of pregnancy [6]. Physical activity is an important element of prophylaxis and treatment of diabetes, arterial hypertension, cardiovascular diseases and obesity. There are also reports in the literature which emphasize that physical activity reduces the risk of breast cancer by 20–30% or colorectal cancer by 30–40% [6, 7]. Physical activity in pregnancy contributes to a decrease in the risk of arterial hypertension, gestational diabetes, obesity in pregnancy, reduction in the number of Caesarean sections, amniotomies and episiotomies [6, 7, 10]. Despite many benefits resulting from physical activity, pregnant women still do not perform this activity. Therefore, it is very important to engage health care staff, including midwives, especially family midwives, in expanding knowledge in the area of an active style of life of women, not only in pregnancy, but also during the preconception period [5, 7, 10, 15]. The presented study shows that every tenth midwife (10.90%) participating in the study was not prepared for an independent performance of prophylaxis of obstetric pathologies.

Urinary incontinence is among the most common chronic diseases concerning women which considerably affect the quality of their life [16, 17]. Studies by Gugała B. et al. (2011) show that a physician is the main source of information concerning the prophylaxis and treatment of urinary incontinence (98.5%), followed by a nurse (86.4%), and a midwife (51.5%) [16]. Analysis of studies by Adamczuk J. et al. (2011) indicated that patients expect from midwives education primarily within the scope of prophylaxis of stress urinary incontinence (SUI) (29.18%) and factors predisposing for the occurrence of SUI (29.67%) [17]. In their studies, Saxers S. et al. (2008) showed that nurses possess a higher level of knowledge concerning urinary incontinence, compared to nurse assistants [18]. The results of studies by Trawińska J. et al. (2012) showed that midwives who participated in various forms of post-graduate training possessed a greater scope of knowledge concerning pelvic organ prolapse and stress urinary incontinence, compared to the remaining group of respondents [4]. Nevertheless, studies by Stadnicka G. and Iwanowicz-Palus G.J. (2007) confirmed that midwives who do not participate in post-graduate training, i.e. qualification courses (76.19%) and specialization courses (70.49%), admitted the lack of knowledge within the scope of methods of stress urinary incontinence prophylaxis, whereas midwives possessing university education (79.95%) reported the opposite [19]. The results of the presented study show that every twelfth midwife examined who did not participate in post-graduate training, i.e. specialization courses (7.71%), qualification courses (7.64%) and improvement courses (8.24%), as well as midwives who possessed post-secondary school education (7.85%), mentioned the lack of preparation for performance of prophylaxis of women's diseases.

The scope of problems of prophylaxis and treatment of cancer is a tremendous challenge to 21st century health care worldwide [20, 21]. The results of the presented study show that midwives felt prepared (41.72%), and even very well prepared (42.56%) for performing prophylaxis of women's diseases; however, according to the studies by Ulman-Włodarz I. et al. (2011) and Lewandowska A. et al. (2011) they are not the main source of knowledge and information concerning the prevention of cervical cancer, while the most frequently indicated sources are journals, the media and a physician [22, 23]. In turn, studies by Edwards Q. T. et al. (2009) showed that the knowledge of nurse practitioners concerning assessment of the risk of breast cancer is low, and they also do not feel confident and comfortable while evaluating the risk of breast cancer in women [24].

Analysis of relevant literature and results of own studies indicate the necessity for improving the qualifications of health care staff, including midwives, by expanding knowledge in the area of women's health, especially prophylaxis of women's diseases and obstetric pathologies, through participation in training, workshops, and other forms of post-graduate education, in order to improve the quality of care provided [4, 11, 14, 25, 25, 27].

CONCLUSIONS

The majority of midwives feel prepared for independent performance of prophylactic activities, including prophylaxis of women's diseases (84.28%) and obstetric pathologies (77.95%). However, nearly every tenth midwife in the study, irrespective of the region of residence, age, and participation in post-graduate training, was not prepared for independent performance of prophylaxis of obstetric pathologies. The lack of preparation for independent performance of prophylaxis of women's diseases was admitted mainly by midwives from the Northern and Central Regions of Poland ($p<0.05$), aged 31–40, with post-secondary school education, who had not participated in any forms of post-graduate training.

The results of the presented study and analysis of the relevant literature indicate that it is necessary for midwives to improve their qualifications within the cope of prophylaxis of women's diseases and obstetric pathologies by participating in various forms of post-graduate training.

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