

Effect of menopause on activity of women in East European countries

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Abstract

Introduction: Menopause is a period of a woman's life in which changes occur almost at every level of functioning. The hormonal system is changing, diseases of the middle-age are developing or getting more severe. The change in physical, sexual, occupational and social activities resulting from past climacteric is becoming more and more perceptible for the woman.

Objective: investigate the effect of menopause on physical and occupational activity, social and sexual life of women from Poland, Belarus, Ukraine, Czech Republic and Slovakia, as well as selected factors on which these changes depend.

Material and methods: The study was conducted in the years 2014-2015 among postmenopausal women living in 5 East European countries: Poland, Belarus, Ukraine, Czech Republic and Slovakia. The inclusion criteria were: age 50-65; minimum 2 years after the last menstrual period, generally good state of health, and educational level at least completed primary. Greene

Key words:

menopause,
activity of women,
Eastern Europe

Climacteric Scale was used to assess menopausal symptoms severity. Logistic regression and analysis of variance were used in statistical analyses.

Results: Menopause has altered physical, sexual, social and occupational activity to varying degrees depending on the country of origin. The greatest changes in all 4 activities occurred in women in Ukraine. The main determinants of their limitation were the severity of menopausal symptoms and the level of education

Conclusion: After menopause there follows a limitation, to a varying degree, of physical, occupational, social and sexual activity, regardless of the country of origin. The potential factors having the greatest effect on reducing the aforementioned activities are: menopausal symptoms, poor education, rural residence, early menopause and marital status (married). Further studies are needed on the factors which can modify menopause in order to achieve the least possible reduction in physical, occupational, social and sexual activity and the best quality of life.

Introduction

Menopause is the last menstrual period in a woman's life, after which menstrual bleeding no longer occurs, for which there are no pathological causes. In Poland, the mean age at menopause is 51.25 years [1]. Estrogen deficiency resulting from the cessation of ovarian hormonal function leads to the development of symptoms contributing to the so-called menopausal syndrome – vasomotor, psychological, somatic, and atrophic changes in estrogen-dependent tissues. In addition, during this critical period in the life of a woman, there often develop serious metabolic disorders, such as obesity, abnormal lipid profile, or diabetes [2]. Physiological changes of the climacteric period, additionally contributing systemic diseases of the middle age, in association with changes in socio-economic position, exert an effect on the general physical, psychological and social condition of women at menopausal age, which may negatively affect the quality of life. Physical activity allows the maintenance of a normal body weight, prevents the development of cardiovascular diseases, obesity, diabetes, and motor system disorders. In addition, it delays the process of ageing, and by maintaining an adequate physical fitness and efficiency favours a better quality of life. Physical exercises performed during the menopausal period prevent articular changes, osteoporosis, and muscle atrophy. It is estimated that

after menopause, sexual activity of women decreases, which may only partly be explained by a decrease in the level of sex hormones.

Occupational activity is one of the basic human needs. It provides existence, a proper life standard and material status, as well as an opportunity for self-fulfilment and satisfaction of ambition. In Poland, the employment rate of women aged over 50 is one of the lowest in the EU. This is one of the countries where the largest numbers of women retire. At the end of 2013, 43.6% of women aged 55-64 were occupationally active (at that time, the mean value for the EU countries was 55.4%). The highest rate of employment in this age group, more than 70%, occurred in the Scandinavian countries (Norway, Sweden, Iceland), and in Switzerland [3].

Social activity is understood as an active participation in family, social, cultural and intellectual life [4], and is indispensable for the achievement of a high quality of life. By the end of the 1980s, the theory of 'switching off' was in effect, understood as the necessity for the withdrawal of persons at the age of retirement and older from various roles and social relations. The withdrawal was supposed to be the preparation of an individual and the surrounding for the approaching end of life [5,3]. Miszczak also pays attention to the fact that, together with entering the age of retirement, many interpersonal relations are disrupted which results from the loss of occupational

activity, while the remaining contacts become narrowed down to the circle of the closest family, neighbours and acquaintances. Occupational activity is often replaced by emptiness, excess of free time, and the sense of being useless [6]. Considering an increasing life span, the approach to social activity changed to the benefit of an active ageing. It was observed that inactivity results in quicker ageing [3]. The attitude of the elderly has changed, and they increasingly more often focus on an active participation in the life of their friends and the local community. They use the opportunity created by having a large amount of free time, relatively good state of health and a stable material situation. Many of them use the time of retirement to pursue their hobbies [7,6].

Objective

The objective of the study was to investigate the effect of menopause on physical and occupational activity, social and sexual life of women from Poland, Belarus, Ukraine, Czech Republic and Slovakia, as well as selected factors on which these changes depend.

Material and method

Study group

The study was conducted in the years 2014-2015 among postmenopausal women living in 5 East European countries: Poland, Belarus, Ukraine, Czech Republic and Slovakia. For the purpose of the study a website was created containing a questionnaire in all language versions, which was voluntarily completed by the women. In each country there were persons coordinating the study.

The criteria for inclusion into the study were: age 50-65; minimum 2 years after the last menstrual period, generally good state of health, and educational level at least completed primary. The criteria for exclusion from the study were: chronic diseases, an active cancerous disease within the period of 5 years before recruitment; mental diseases in medical history, including depression before menopause; addiction to

medicines and alcohol; diagnosed disease with the symptoms of dementia, and use of hormone replacement therapy.

Research instrument

Women were asked if menopause significantly affected their physical, occupational, social and sexual activity. In addition, the respondents were asked about age, level of education, place of residence, marital status and age at last menstruation. In all women, the degree of severity of menopausal symptoms was assessed using the Greene Climacteric Scale [8].

With respect to the Greene Climacteric Scale, the respondents provided answers according to the scale from 0-3 to 20 questions concerning the occurrence of the following: 1) heart palpitations 2) feeling of tension or nervousness, 3) sleep disorders, 4) irritation, 5) episodes of panic, 6) difficulties with concentration, 7) feeling of fatigue or lack of energy, 8) loss of interests, 9) feeling of sadness, depression, 10) episodes of spasms, 11) irritability, 12. dizziness and syncope, 13) feeling of tension, pressure in the head, 14) numbness and tingling, 15) headaches, 16) sensory loss in the palms and feet, 17) osteoarticular pain, 18) breathing difficulties, 19) hot flushes, and 20) night sweats. Subsequently, the scores were calculated for the 3 subscales:

- for the scale of psychological symptoms the results were summed up from the questions 1-11;
- for the scale of somatic symptoms the results were summed up from the questions 12-18;
- for the scale of vasomotor symptoms the results were summed up from the questions 19-20.

Statistical analysis

Statistical analysis was performed using SAS System software, with the level of significance of $p < 0.05$. In the Tables and Figures, absolute numbers were presented (n) and relative numbers (ratio between the number of units of a given characteristic to the number of the sample expressed in %) for qualitative variables, while for quantitative variables: arithmetic mean values (M) and standard deviation (SD).

In order to compare the changes in activity after menopause between the 4 countries vs. Poland, logistic regression analysis with nominal polytomous

response was performed. Generalized logits and estimated multiple logits per country were also performed. Poland was assumed as the reference country, and no change in functioning after menopause as the reference category.

The χ^2 test for stochastic independence was applied to compare the change in activity after menopause between individual levels of education, place of residence, and marital status.

The F test for analysis of variance was used to compare age, age at last menstruation, severity of menopausal symptoms (Greene Climacteric Scale) between women without any changes in functioning after menopause, with significant change, with change but insignificant, and women who could not assess the impact of menopause on their functioning.

Consent for the study was obtained from the Ethical Commission at the Institute of Rural Health in Lublin, Poland.

Results

Characteristics of the study group

The study included 244 women from Poland, 196 from Belarus, 316 from Ukraine, 298 from the Czech Republic, and 306 from Slovakia. Their characteristics are involved in Table 1. Mean age of the examined women ranged from 55.3-57.5, and mean age at the last menstruation – from 50.2-51.6 for individual countries examined.

Approximately 2/3 of the examined women from each country were married, several percent were never married, more than a dozen percent – divorced or widowed, and the least – separated. The majority of examined women from 4 countries (except those from Poland) had a secondary school education. The same percentage of women from Poland had a secondary and university education. The majority of the examined women from 4 countries lived in cities (except those from Ukraine, where almost a half lived in towns).

Mean psychological menopausal symptoms in the Greene Climacteric Scale of the examined women

ranged from 6.1-9.4, somatic – from 4.0-6.3, vasomotor – from 2.5-3.1 for individual countries. These results are between the results for the general population of women and the standard for menopausal women.

Changes in occupational, social and sexual activity after menopause, acc. to countries

Changes in all 4 domains of activity: physical, occupational, social and sexual after menopause differed significantly between the examined women from 5 countries (Tab. 2, Fig. 1).

The examined postmenopausal women from Poland changed their physical and sexual activity more frequently than occupational and social.

Menopause changed all 4 domains: physical, occupational, social and sexual in women from Ukraine more than those from Poland and other examined countries. In contrast, the changes in sexual activity after menopause in women from Belarus were smaller than in those from Poland and other examined countries.

Changes in physical, occupational, social and sexual activity after menopause, acc. to selected factors

Changes in all 4 domains: physical, occupational, social and sexual after menopause depended on the severity of menopausal symptoms and level of education. Marital status affected changes in 3 domains: occupational, social and sexual, place of residence – only 3 other domains: physical, occupational and sexual, age – only 2 domains: social and sexual, age at last menstruation – only 2 domains; occupational and social (Tab. 3).

Women who after menopause limited their social life significantly were older than those who made no or only slight changes, or were unable to make an assessment (Fig. 2).

Women who after menopause significantly reduced occupational activity and social life, had the last menstruation earlier than those, who made no

Table 1.

Characteristics of women in the study

Variable, test	Parameter	Poland (N=244)	Belarus (N=196)	Ukraine (N=316)	Czech Republic (N=298)	Slovakia (N=306)
Age (years)	M±SD	56.4±3.5	55.3±2.8	57.5±4.3	56.6±3.6	56.5±3.6
Age at last menstruation (years)	M±SD	50.2±2.1	51.2±1.7	51.6±2.3	50.2±2.8	50.3±2.1
Marital status	n (%)					
married		160 (65.57)	136 (69.39)	214 (67.72)	198 (66.44)	202 (66.01)
never married		15 (6.15)	8 (4.08)	12 (3.80)	18 (6.04)	18 (5.88)
divorced		31 (12.70)	24 (12.24)	40 (12.66)	40 (13.42)	44 (14.38)
widowed		28 (11.48)	28 (14.29)	50 (15.82)	32 (10.74)	32 (10.46)
separated		10 (4.10)	0 (0.00)	0 (0.00)	10 (3.36)	10 (3.27)
Level of education	n (%)					
primary or basic vocational		32 (13.11)	4 (2.04)	40 (12.66)	34 (11.41)	34 (11.11)
secondary		106 (43.44)	140 (71.43)	172 (54.43)	138 (46.31)	140 (45.75)
tertiary		106 (43.44)	52 (26.53)	104 (32.91)	126 (42.28)	132 (43.14)
Place of residence	n (%)					
city		140 (57.38)	148 (75.51)	116 (36.71)	178 (59.73)	186 (60.78)
town		69 (28.28)	24 (12.24)	150 (47.47)	82 (27.52)	82 (26.80)
rural area		35 (14.34)	24 (12.24)	50 (15.82)	38 (12.75)	38 (12.42)
Greene Climacteric Scale	M±SD					
psychological		9.1±5.5	6.1±6.3	9.4±5.9	9.1±5.7	9.1±5.7
somatic		6.3±3.8	4.0±3.5	5.6±3.6	6.3±3.9	6.3±3.9
vasomotor		2.7±2.1	2.9±1.5	3.1±1.5	2.5±2.1	2.5±2.1

Table 2.

Changes of activities after menopause vs. no changes in the examined 4 countries vs. Poland

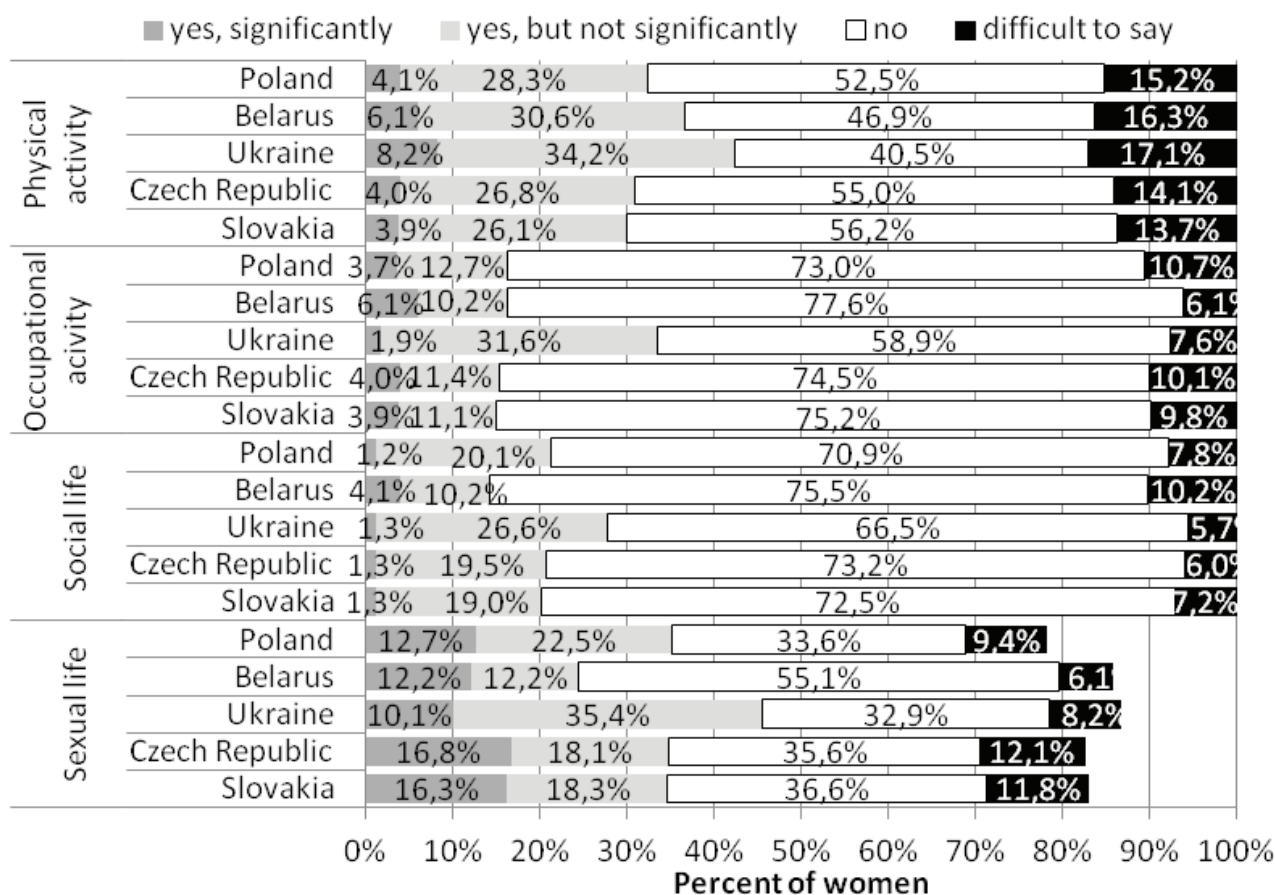
Country	Changes of activity after menopause	Physical activity		Occupational activity		Social life		Sexual life	
		OR	p	OR	p	OR	p	OR	p
Belarus	yes, but not significantly	1.210	0.435	0.756	0.054	0.477	0.002	0.331	<0.001
	yes, significantly	1.670	0.348	1.561	0.122	3.117	0.015	0.588	0.019
	difficult to say	1.203	0.465	0.540	0.090	1.230	0.169	0.396	0.002
Czech Republic	yes, but not significantly	0.905	0.150	0.879	0.149	0.939	0.743	0.760	0.817
	yes, significantly	0.937	0.224	1.069	0.861	1.058	0.643	1.248	0.068
	difficult to say	0.886	0.261	0.925	0.551	0.752	0.360	1.211	0.067
Slovakia	yes, but not significantly	0.863	0.067	0.849	0.097	0.922	0.845	0.745	0.719
	yes, significantly	0.893	0.163	1.032	0.964	1.039	0.614	1.181	0.136
	difficult to say	0.845	0.152	0.893	0.688	0.902	0.933	1.146	0.124
Ukraine	yes, but not significantly	1.565	0.002	3.087	<0.001	1.412	<0.001	1.606	<0.001
	yes, significantly	2.600	0.001	0.638	0.186	1.098	0.703	0.814	0.449
	difficult to say	1.459	0.030	0.883	0.752	0.780	0.457	0.891	0.890
Analysis of effects		$\chi^2=23.743$, p=0.022		$\chi^2=74.895$, p<0.001		$\chi^2=28.371$, p=0.005		$\chi^2=83.866$, p<0.001	

Table 3.

Dependence between changes of activities after menopause and characteristics of women in the study

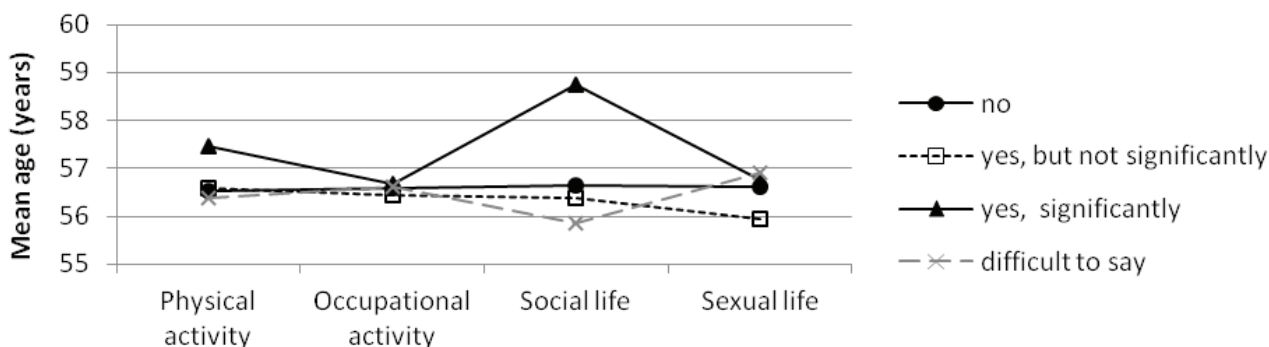
Variable	Physical activity		Occupational activity		Social life		Sexual life	
	test	p	test	p	test	p	test	p
Age, F	1.641	0.178	0.099	0.961	4.242	0.005	3,370	0.018
Age at last menstruation, F	1.985	0.114	3.185	0.023	5.615	0.001	0.297	0.827
Marital status, χ^2	3.094	0.377	13.630	0.003	7.838	0.049	118.258	<0.001
Level of education, χ^2	36.077	<0.001	27.885	<0.001	15.663	0.016	78.589	<0.001
Place of residence, χ^2	16.307	0.012	32.983	<0.001	9.105	0.168	21.532	0.018
Greene Climacteric Scale								
psychological, F	51.286	<0.001	47.684	<0.001	33.101	<0.001	35.220	<0.001
somatic, F	27.140	<0.001	31.266	<0.001	19.971	<0.001	29.601	<0.001
vasomotor, F	55.949	<0.001	30.410	<0.001	22.463	<0.001	36.890	<0.001

Fig. 1.
Changes of activities after menopause vs. countries



missing % in sexual life – none or occasionally

Fig. 2.
Changes of activities after menopause vs. age



or only slight changes, or were unable to make an assessment (Fig. 3).

A higher percentage of married than single women decreased their occupational and sexual activity after menopause (Fig. 4).

A higher percentage of women with primary or basic vocational education decreased their physical activity after menopause than women with secondary or university education (Fig. 5).

A higher percentage of women living in rural areas decreased their physical, occupational and sexual

activity after menopause than that of women living in cities and towns (Fig. 6).

Women who after menopause significantly decreased their functioning in all 4 domains had more severe psychological (Fig. 7), somatic (Fig. 8) and vasomotor menopausal symptoms (Fig. 9) than those who made no or only slight changes, or were unable to make an assessment. Women who after menopause made no changes in all 4 domains of activity had less severe psychological, somatic and vasomotor menopausal symptoms.

Fig. 3.

Changes of activities after menopause vs. age at last menstruation

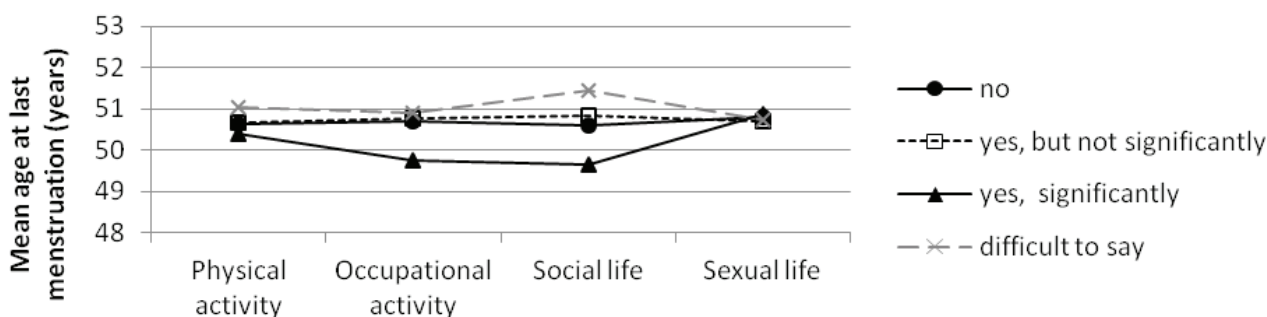


Fig. 4.

Changes of activities after menopause vs. marital status

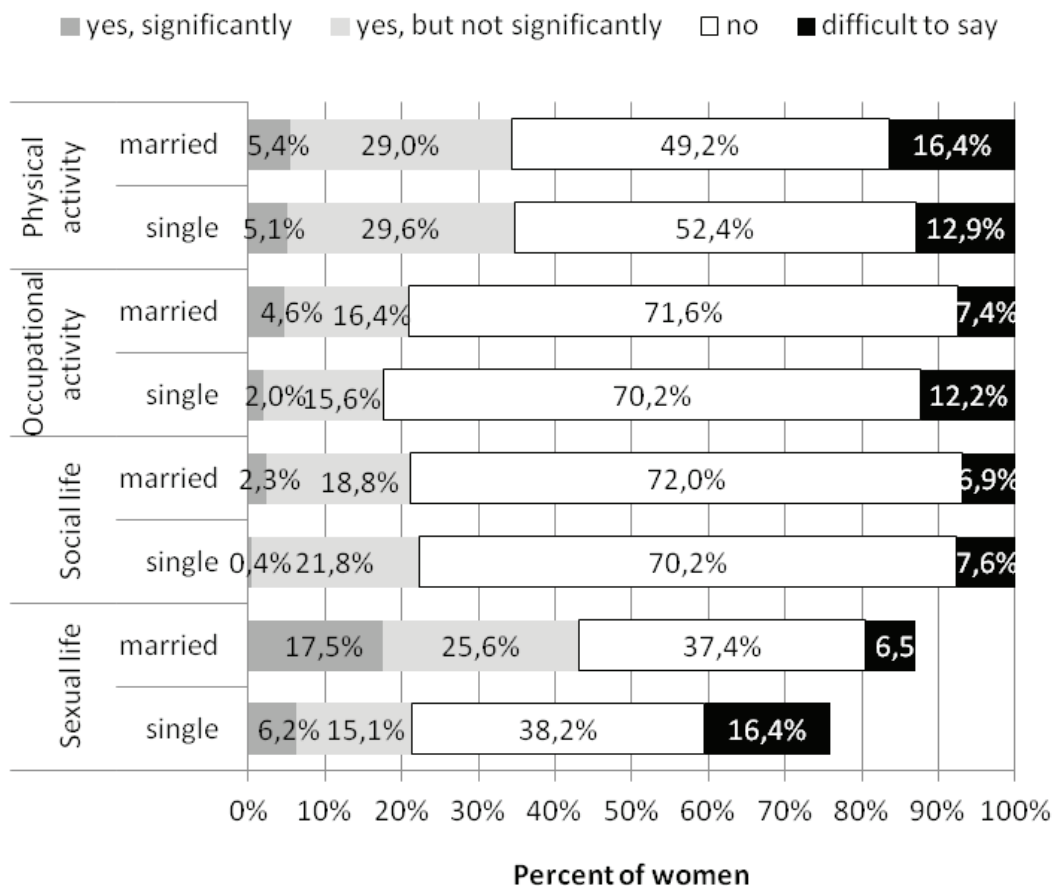


Fig. 5.
Changes of activities after menopause vs. level of education

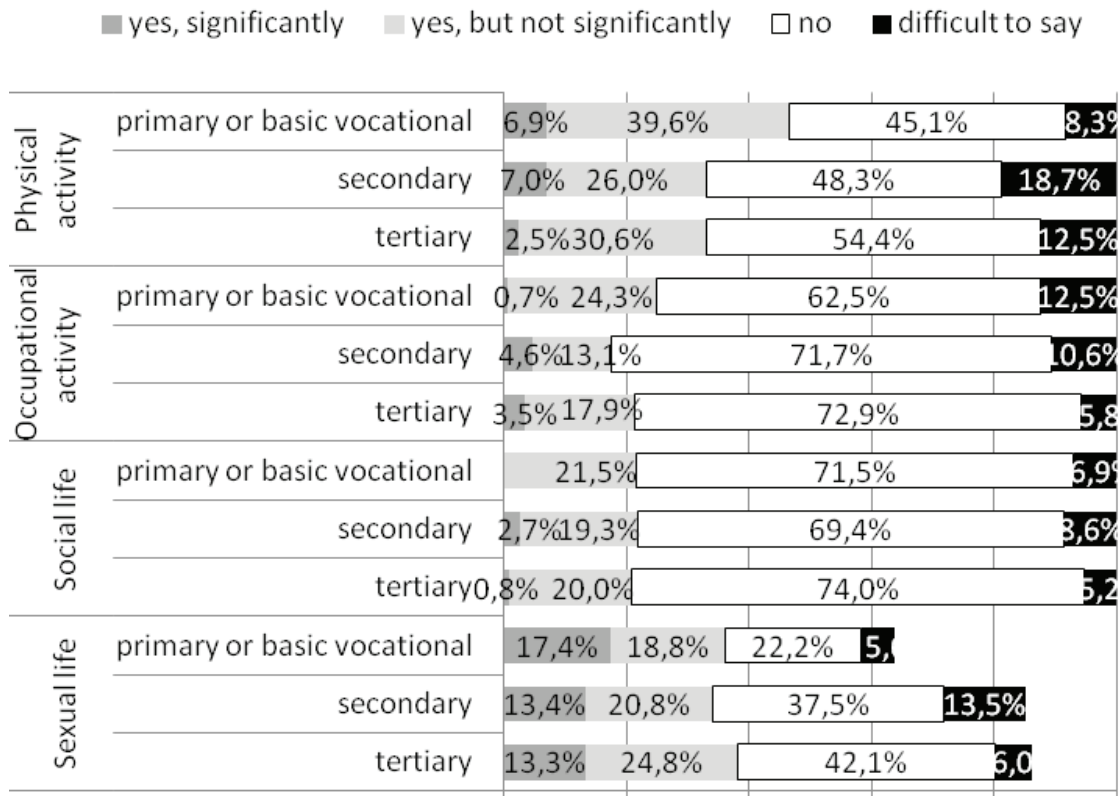


Fig. 6.
Changes of activities after menopause vs. place of residence

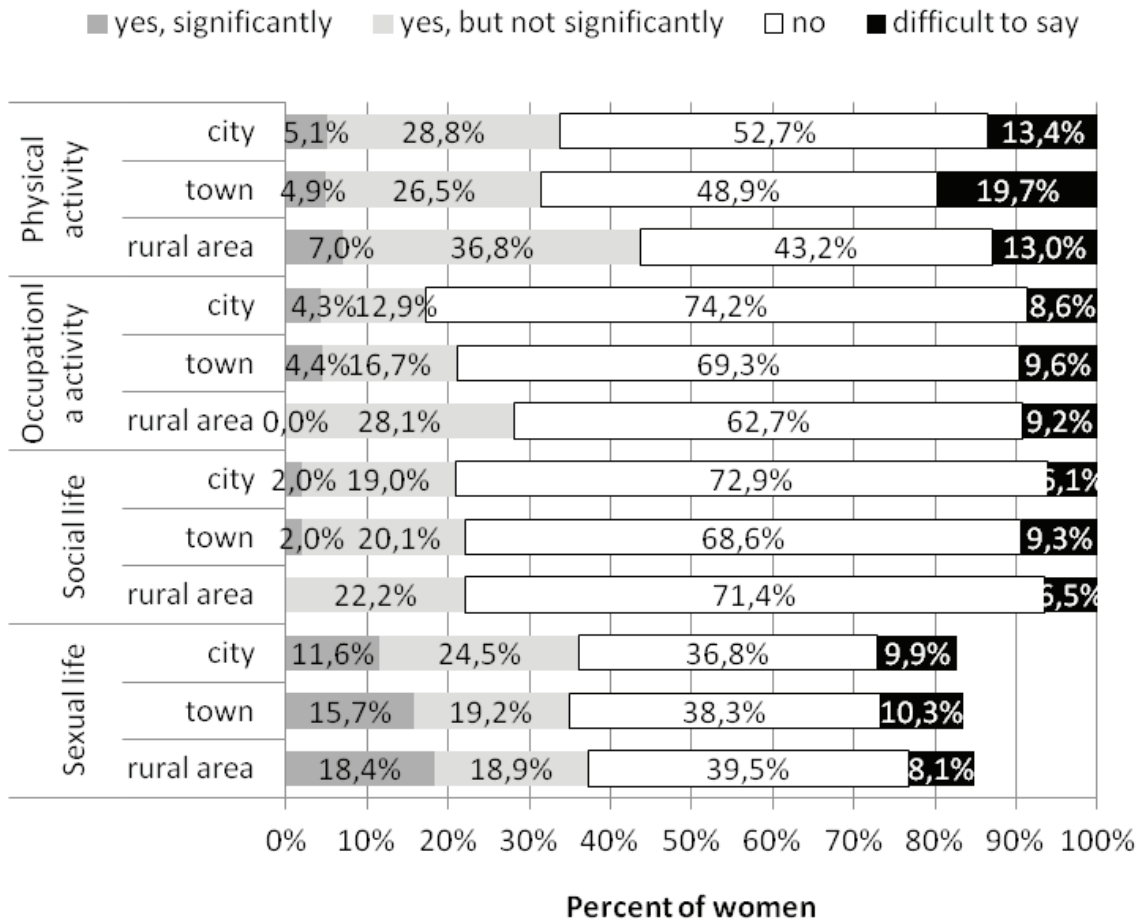


Fig. 7.

Changes of activities after menopause vs. Greene climacteric scale – psychological symptoms

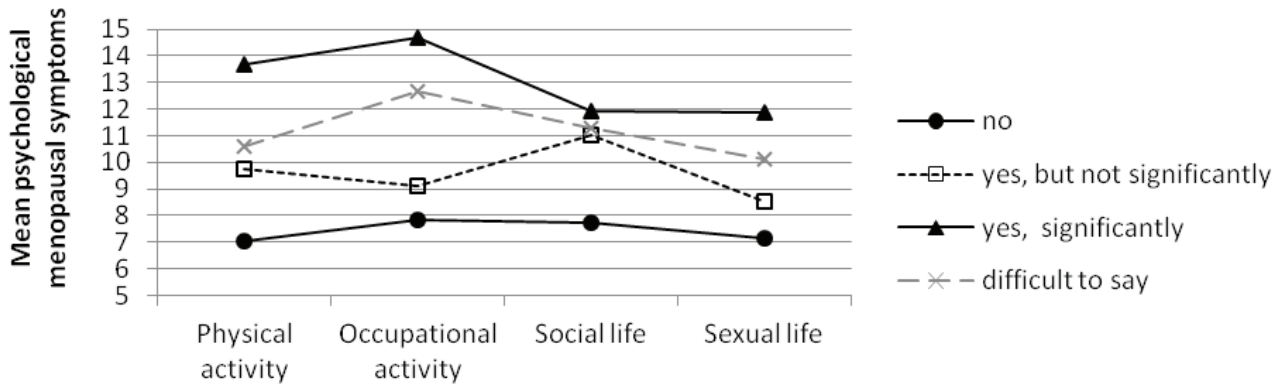


Fig. 8.

Changes of activities after menopause vs. Greene climacteric scale – somatic symptoms

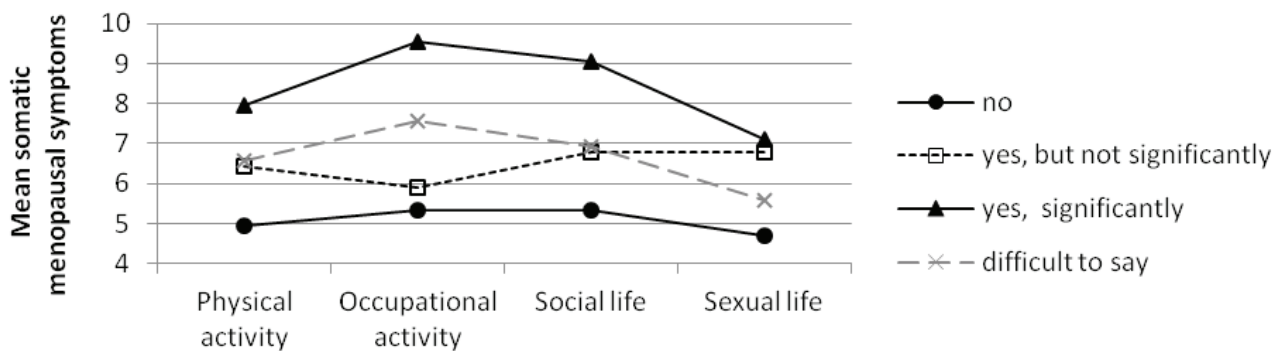
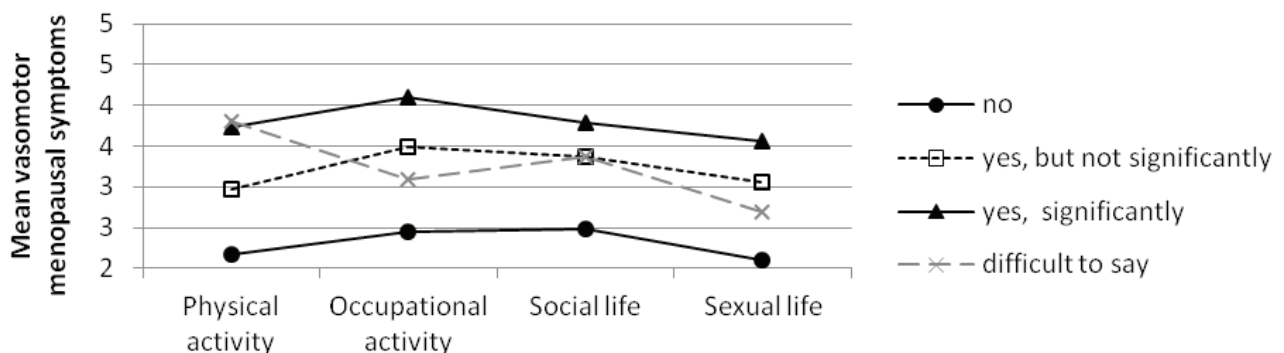


Fig. 9.

Changes of activities after menopause vs. Greene climacteric scale – vasomotor symptoms



Discussion

In postmenopausal women in the presented study, changes were observed in all 4 domains of activity, i.e. physical, sexual, occupational, and social. The changes in the above-mentioned domains significantly differed between women from the 5 countries of Eastern Europe, whereas among the inhabitants of Ukraine, menopause limited functioning in all domains to a higher degree, compared to other countries. In Polish women, menopause exerted a stronger effect on physical and sexual than occupational and social activity.

In the examined postmenopausal women, a limitation in undertaking physical activity was noted. The reduction of physical effort was more frequently observed in women who had primary or basic vocational education, lived in rural areas, at older age, with intensified climacteric symptoms.

According to an American study conducted in a group of women aged between 50-64, only a half of them practiced any regular physical activity, while less than 25% satisfied the requirements of the National Institutes of Health (NIH), i.e. performed exercises for at least 30 minutes daily, 6 days a week [9]. A study conducted among Polish women showed that physical activity was declared by 40.2% of women at reproductive age, while only 26% of those after menopause [10]. In turn, according to Kózka, only 14% of postmenopausal women undertake regular physical activity [11]. A comparable result with respect to physical activity of women during the menopausal period was reported by Synowiec-Piłat. In her study, only 5% of the respondents undertook physical activity every day, and 23% once a week [12]. The 2008 study by the Main Statistical Agency (GUS) revealed that approximately 80% of the population aged over 60 do not undertake any physical activity, and prefer the 'couch-television' mode of life [3]. Tseng, based on the SWAN study, paid attention to the fact that postmenopausal women are at a 4 times higher risk of reduction of physical activity, compared to premenopausal women. This depends on age, and may only be partly explained by an increase in body weight and depressive disorders [13].

It has been scientifically proven that physical activity strongly modifies the course of menopause. A population study conducted in Australia within the framework of the National Women's Health Program, confirmed the effect of physical exercises on alleviation of the somatic and psychological symptoms of menopause, including the symptoms of depression and anxiety [14]. According to Kai, 10 minutes of stretching exercises before sleep decrease menopausal (measured by the Simplified Menopausal Index) and depressive symptoms (Self-Rating Depression Scale) [15]. Jorge also reported that Hatha Yoga and other physical exercises decrease the intensity of menopausal symptoms, the level of stress, and symptoms of depression. In addition, physical exercises reduce the levels of FSH and LH [16]. In a study conducted by Tan, the women who were physically active had a lower intensity of psychological, psychosomatic, urogenital, and sexual symptoms, less problems with sleep and musculoskeletal disorders, compared to those who did not practice sports. However, in this study, the effect of physical activity on vasomotor symptoms was not observed [17]. In turn, Daley did not find any relationship between the performance of physical exercises and the intensity of vasomotor symptoms [18]. The postmenopausal women from Eastern Europe examined in the presented study more rarely undertook physical activity when they experienced menopausal symptoms of a considerable intensity.

In the examined postmenopausal women, the limitation of physical activity was significant, and was most characteristic among the inhabitants of Ukraine. This sphere of activity was most often limited in married women, and those living in rural areas; and it also decreased with age.

Ageing in itself limits sexual activity; however, the behaviours of postmenopausal women strongly depend on such additional factors as: physical and psychological health, relations with the partner, life situation, social status, education, occupational activity, stressors, type of personality, negative attitude towards menopause, age of the partner and his state of health [19]. The most frequent sexual disorders include dyspareunia and loss of sexual interest. In the longest-lasting population study Melbourne Health

Project, a significant decrease was observed in the feeling of sexual desire, arousal, orgasm, and frequency of sexual activity, and a considerable increase in vaginal dryness /dyspareunia during the whole menopausal period. In this study, both age and the time elapsed since the last menstrual period were the main factors which negatively affected sexual activity [20]. Gregersen also reported that sexual activity after menopause decreases with age [19]. Experiencing sexual disorders is related with a low quality of life of both women and men; however, the negative effects seem to be more extensive and severe in women. Despite the occurrence of sexual problems in the elderly, the discontinuation of sexual activity is not an inevitable consequence of the lapse of time, and a high percentage of women and men remain sexually active, also during the period of late old age [21].

Among the postmenopausal women in the presented study, occupational activity decreased. This was especially clearly observed in rural inhabitants, married women, those with a lower education level, and intensified climacteric symptoms. It is interesting that in contrast to scientific data, occupational activity of the examined women did not decrease linearly with age.

It was confirmed that occupational activity exerts a significant effect on the course of menopause. Blumel reported that the lack of occupational activity is conducive to the intensification of vasomotor symptoms and decreases the quality of life [22]. According to Bień, lack of employment was also related with a greater intensification of menopausal symptoms [23]. In the study in which participated 205 women from Koszalin aged 45-60, the respondents who were unemployed indicated that the fact of the lack of employment had negatively affected their assessment of the quality of life [24]. The results of studies conducted by Kowalska [25] and Pastucha [26] also evidence the effect of occupational activity on the quality of life. Williams, based on the study which covered 2,703 American women aged 40-65, also found that occupational activity is related with higher evaluations of the quality of life [27]. According to Szkup-Jabłońska, occupationally active women were characterized by higher evaluations of the quality of life with respect to physical activity. The researcher found that the

longer the women remained occupationally active, the better their physical fitness and the better their general state of health [28].

The subsequent type of physical activity which changes after menopause is social activity. Among the postmenopausal women examined in the presented study, social activity significantly decreased. The main factors which limited this activity were age and time elapsed since the last menstrual period. The women who after menopause considerably decreased their social activity were older, and had the last period earlier, compared to those who did not limit their social functioning or limited it to a low degree.

Many factors exert a significant effect on widely understood activity of women after menopause. In the examined women from Eastern Europe, the factors which most strongly affected all types of activity were: the degree of intensity of menopausal symptoms and education.

The women in the study who, after menopause, significantly reduced their physical, sexual, occupational, and social functioning were characterized by a higher intensity of somatic, psychological and vasomotor symptoms than those who did not change this functioning, or limited it to only a low degree.

Bień also observed that an increased intensity of menopausal symptoms exerts a strong effect on the activity of women in all domains, and considerably decreased the quality of life [23]. Similarly, Blumel reported that both the fact of undergoing menopause and the presence of climacteric symptoms has a negative effect on the quality of life. According to this researcher, after menopause the risk of occurrence of vasomotor symptoms increases 10.6 times. In turn, the intensity of climacteric symptoms leads to the deterioration of: psychosocial activity – 3.48 times, physical activity – 5.72 times, and sexual activity – 3.24 times [22]. Wiklund also considered intensified climacteric symptoms as the main cause of deterioration of the quality of life after menopause. The researcher indicated a beneficial effect of hormone replacement therapy on the increase in: satisfaction with life, energy, physical activity, and on a decrease in: tension, anxiety, mood or sleep disorders, and a decrease in the Kupperman Index [29]. According to Kai, climacteric symptoms increase

only the frequency of sleep disorders and emotional disorders, thus deteriorating the women's wellbeing; however, without any effect on their physical, social, or sexual activity [15]. Kumari, in a study which covered 2,489 postmenopausal women, observed that women suffering from depression or vasomotor disorders obtained higher results in the Kupperman test, and complained of a significant decrease in the quality of life [30]. According to Nowakowska, hot flushes, night sweats, and decreased concentration are the major menopausal symptoms hindering occupational functioning [31]. In his study, Avis also found that in postmenopausal women, menopausal symptoms in the form of vaginal dryness, urinary incontinence, sleeplessness, and depression contribute to the decrease in the quality of life in all domains, i.e. physical, psychological, social, sexual, and occupational [32].

Education is the subsequent factor which significantly affects physical, occupational, sexual and social functioning. In the examined postmenopausal women from Eastern Europe, it was found that the lower the education level, the worse the results in the above-mentioned domains of activity. Women who had primary education significantly more often limited their physical and occupational activity, compared to those with secondary school and university education.

The effect of education on the degree of intensity of menopausal symptoms and the quality of life was also confirmed. According to Bartosińska, the worst parameters from the aspect of physical and psychological health occur in women who have university education [33]. However, Krajewska, having analyzed the quality of life of women during the period of menopause in Poland and Greece, proved that women with university education experience considerably milder climacteric symptoms than those with a lower education level. Educated women evaluated their quality of life in considerably better terms. Moreover, a higher percentage of Polish women (41%) assessed their quality of life as good, compared to the inhabitants of Greece (17.6%) [34]. Bień observed a correlation between severe menopausal symptoms measured by the Kupperman scale, and a lower education level [23]. Similar results among

Swedish women were obtained by Li, who reported that women who have university education experience less menopausal symptoms [35]. According to Moilanen, a better quality of life is positively correlated with a university education [36]. In the study conducted in a group of 150 women from the Krakow Region, Kolarzyk showed that the respondents with university education evaluated their quality of life in both physical and psychological domains in the most positive terms, whereas those with primary or vocational education provided the most negative evaluations [37]. However, Joseph obtained completely different results among women living in India. The researcher observed that women with university education complained of a larger number of menopausal symptoms. In this study, no relationship was found between the intensity of menopausal symptoms, and age and employment [38]. The situation when better educated women reported more menopausal symptoms was repeated among women from Taiwan [39]. In the Polish study by Makara-Studzińska, the situation was the opposite, i.e. women with the strongest menopausal symptoms were the worst educated [40].

The age of the examined postmenopausal women exerted a negative effect on their social and sexual activity, and seems to be an important factor affecting the quality of life. American studies indicate that an advanced age is significantly related with a lower assessment of the quality of life [41,42]. Age also negatively affected the quality of life of Chinese women, especially in the context of vasomotor and sexual disorders [43]. In turn, in German women, age positively correlated with sensation disorders and cardiovascular disorders [41]. According to Skrzypulec et al., age positively correlated with the intensity of menopausal symptoms measured by the Kupperman Index, and the loss of normal physical and sexual functioning [44]. Nevertheless, Bień did not notice any relationship between the intensity of menopausal symptoms and age [23]. Gharaibeh et al. reported a significant relationship between the severity of menopausal symptoms and age, lack of family, low education level, and poor state of health [45].

The effect of marital status and place of residence on the course of menopause has been confirmed. In the presented study, the marital status of the women

exerted an effect on their occupational, social and sexual activity, whereas the undertaking of physical, occupational and sexual activity depended on the place of residence. Married postmenopausal women significantly more frequently limited their occupational and sexual activity, compared to those who were unmarried. A higher percentage of postmenopausal women living in rural areas, limited physical, occupational and sexual activity, compared to urban women. According to the study conducted by Bartosińska, the lowest parameters from the aspects of physical and psychological health occurred among women aged between 50-55, who lived in urban areas [33]. In the study conducted in a group of 150 women from the Krakow Region, Kolarzyk indicated that the respondents who had university education, living in urban agglomerations, were occupationally active, and from the oldest age group of the examined women (55-60), most positively evaluated their quality of life, in both the physical and psychological domains. The most negative evaluations of own health from the psychological and physical aspects, were expressed by rural women with primary or vocational education [37].

Menopause is the period in the life of a woman which does not consist exclusively in the occurrence of climacteric symptoms, but which changes the functioning of a woman in private, occupational and social life. Further studies are necessary concerning the factors which modify the course of menopause in order to obtain the least limitation in physical, occupational, social and sexual functioning, and the highest quality of life possible.

Conclusions

1. Polish women change their physical and sexual activity after menopause more frequently than occupational and social activity.
2. Ukrainian women change their physical, occupational, social and sexual activity after menopause more frequently than Polish, Czech, Slovakian and Belarusian women.
3. Women change their functioning after menopause the more frequently:
 - the higher the severity of menopausal psychological, somatic and vasomotor symptoms experienced;
 - the lower the level of education;
 - if they live in rural areas compared to urban areas;
 - if they are married;
 - if they undergo earlier menopause.
4. There is a need for education concerning menopausal symptoms and ways of coping with these symptoms, in order to alleviate their effect on the changes in life functioning of women after menopause.

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