Analysis of quality of life women in menopause period in Poland

Krajewska-Ferishah K.[1*], Krajewska-Kułak E.[1], Terlikowski S.[2], Wiktor H.[3]

[1]Department of Integrated Medical Care, Medical University of Białystok, Białystok, Poland
[2]Department of Obstetrics, Gynecology and Nursing, Medical University of Białystok, Białystok, Poland
[3]Department of Obstetrics, Gynecology and Nursing, Medical University of Lublin, Lublin, Poland

ABSTRACT

Introduction: Menopause is a normal, natural event—defined as the final menstrual period and usually confirmed when a woman has missed her periods for 12 consecutive months.
Purpose: The aim of this study was to examine the climacteric symptoms, and the quality of life of women in the menopausal period.
Material and methods: The study was conducted in 241 women in age over 40 years. The Polish version of the MRS scale, the Kupperman index, The Beck Depression Scale and a self-administered questionnaire were used.
Results: 83.4% thought that menopause is not a disease, and 34.2% considered that the symptoms of menopause are caused by genetics. The majority of the respondents (91.2%) heard about the hormonal treatment of menopause. According to 60.2% hormone replacement therapy during menopause is not needed, and 43.3% reported that it carries some risk. The average value of the Kupperman index was 14.8 ± 8.6, and the Beck Depression Scale was 10.5 ± 7.9. Almost 40% of the respondents had no depression symptoms. The Menopause Rating Scale score per subscale was as follows psychological symptoms:4.8 ± 3.4, somatic: 4.9 ± 3.0, urogenital and sexual symptoms: 2.5 ± 2.4. The Kupperman index was higher among women were no longer menstruating.
Conclusions: Most of the women perceived menopause as a period at which the expiration of ovarian function. Hot flashes, irritability, lack of energy, vaginal dryness and reduced libido were more frequently reported. Most of the respondents assessed positively their quality of life
Key words: quality of life, women, menopause, Poland

***Corresponding author:**
Department of Integrated Medical Care
Medical University of Białystok
7a M C Skłodowskiej str.
15-096 Białystok, Poland
Tel. + 48 85 748 55 28
E-mail**:** krajewskakasia@gmail.com (Katarzyna Krajewska-Ferishah)

Received: 9.12.2011
Accepted: 23.12.2011
Progress in Health Sciences
Vol. 1(2) · 2011 · pp 52-58.

INTRODUCTION

The individual experience of menopause is the result of a complex interplay of biological, psychosexual and socio-relational factors, which influence the woman's ability to cope with a life period characterized by significant changes. Changes and symptoms can the start several years earlier. They include: change in periods – shorter or longer, lighter or heavier, with more or less time in between; hot flashes and or night sweats; trouble sleeping; vaginal dryness, mood swings, trouble focusing and less hair on the head, more on the face [1]. Women, as to men, experience an age-related decline of physical and mental capacity. They observe symptoms such as periodic sweating or hot flushes, depression, insomnia, impaired memory, lack of concentration, nervousness, and bone, and joint complaints [2,3]. Menopause has an impact on women quality of life. Various tools or instruments have been designed to measure and assess symptoms during the menopausal transition, among them is Menopause Rating Scale (MRS) which is designed to assess menopause specific health related quantity of life (HRQoL) to measure the severity of age/menopause-related complaints by rating a profile of symptoms [4,5].

The MRS was developed in response to the lack of standardized scales to measure the severity of aging-symptoms and their impact on the HRQoL in the early 1990s. Scale can easily be completed by women. The original MRS is used since 1992. It documents climacteric symptoms and their changes during the treatment [4-6]. Based on this investigation, the revised and final version of the MRS we used.

The Kupperman menopausal index has been also used widely in studies of climacteric symptoms [7]. The original index was derived from clinical experience in New York in the 1950s. The index was a combination of self report and physician ratings; it omitted measures of vaginal dryness and loss of libido. However, a comparison of the MRS with the Kupperman index found a high correlation of raw scores ($r = 0.91$).

The objective of this study was to examine climacteric symptoms and quality of life of women in the menopausal period using the MRS scale.

MATERIAL AND METHODS

The study was conducted among 241 women in age after 40 years, from Poland. The participants included perimenopausal or post-menopausal women from 40 to 61 years old. The study was approved by the Ethical Committee at Medical University of Białystok, Poland (nr R-I-003/118/2006).

The Menopause Rating Scale (MRS) scale was obtained from the Professor Heinemann from Center of Epidemiology and Health Studies in Berlin. For the purpose of this research, the Polish version of the MRS was used [6]. The MRS scale measures changes over time and across different cultures (MRS scale available in 25 languages). It can be also used to evaluate changes before/ after treatment of with hormone-replacement therapy. The respondents have and choice among five categories: no symptom, mild, moderate, marked, and severe. The total score of the MRS ranges between 0 (asymptomatic) and 44 (the highest degree of complaints).The minimal/maximal scores vary between the three dimensions depending on the number of complaints allocated to the respective dimension of symptoms:

- psychological symptoms: 0 to 16 scoring points (4 symptoms: depressed, irritable, anxious, exhausted)
- somato-vegetative symptoms: 0 to 16 points (4 symptoms: sweating/flush, cardiac complaints, sleeping disorders, joint and muscle complaints)
- urogenital symptoms: 0 to 12 points (3 symptoms: sexual problems, urinary complaints, vaginal dryness).

We used also the Kupperman index. The Kupperman index is a numerical conversion index and covers 11 menopausal symptoms: hot flashes (vasomotor), paresthesia, insomnia, nervousness, melancholia, vertigo, weakness, arthralgia or myalgia, headache, palpitations, and formication. Each symptom on the Kupperman index was rated on a scale from 0 to 3 for no, (where 0 = no symptoms and 3 = most severe), weighted and the total sum calculated. To calculate the Kupperman index, the symptoms were weighted as follows: hot flashes (4), paresthesias (2), insomnia (2), nervousness (2), and all other symptoms (1). The highest potential score is thus 51. The score of hot flashes was based on the number of complaints per day: slight (more than 5), moderate (5-10), and severe (more than 10). The maximum score is 51 points.

Concerning the menopausal status the following definitions were used: premenopausal (women having regular menses); perimenopausal (irregularities >7 days from their normal cycle) and postmenopausal (no more menses in the last 12 months) [7]. Data included in this study were age, place of living, educational level, smoking habit and use of hormone therapy.

In our study, Polish version of Beck Depression Scale (BDI) has been employed. The BDI consists of 21 items to assess the intensity of depression in clinical and normal patients on a self-

report scale. The BDI assesses physical and physiological symptoms of depression such as mood, pessimism, sense of failure, self-dissatisfaction, guilt, punishment, self-dislike, self-accusation, suicidal ideas, crying, irritability, social withdrawal, body image, work difficulties, insomnia, fatigue, appetite, weight loss, bodily preoccupation, and loss of libido.

The statistical analyses were performed with the commercial statistical package Statistica 7.1. PL. (StatSoft, Tulsa, OK, USA). Data are expressed as mean ± standard deviation (S.D.) and percentages. ANOVA and the chi-square test were used to compare continuous and categorical data. A p-value of <0.05 was considered as statistically significant.

RESULTS

A total number of 241 women were entered into the study after completing the tests. Mean age was 50.7 ± 4.26 years. Of the respondents, 80.5 % lived in the city and 19.5% lived in the country. Twenty percent had received university education and 74% had received higher education. Only 6% had received primary education. Among women, the mean (± standard deviation [SD]) values for height, weight and BMI were 162.8 (± 5.43) cm, 70.6 (± 11.6) kg, and 26.6 (± 3.98) kg/m^2 (Table 1).

Table 1. Anthropometric variables in the studied women (N= 241).

Anthropometric variable	$\bar{x}$	***s***	**Min**	**Max**
Height (cm)	162.8	5.43	140	178
Weight (kg)	70.5	11.6	40	125
BMI (kg/m^2)	26.6	3.98	17.8	41.3

More than 1/3 of women had normal BMI and 46% had BMIs over 25. Obesity a BMI of 30 or more was found in 16.5% of the women. Mean age of menarche was 14.0 ± 1.43, last menstruation was 49.4 ± 3.7 years. Details of menarche pregnancies and births are shown in Table 2.

Table 2. Age of menarche, number of pregnancies and births.

	$\bar{x}$	***s***	**Min**	**Max**
Menarche	14.0	1.43	9	18
Last menstruation	49.4	3.7	38.0	58.5
Number of pregnancies	2.6	1.07	1	5
Number of births	2.5	1.02	1	5

Almost 9% of the respondents had hysterectomy and removal of uterine myomas Information on gynecological surgeries respondents are presented in Table 3.

Only 35% visited to the gynecologist once a year and only 2.1% once a month. Cytological tests were performed in 34.6% of women once a year and 14.6% once every two years. The majority of the respondents (84.4%) reported that menopause is not a disease. Almost all, 91.2% heard about hormonal treatment during menopause. Most of the respondents (60.2%) reported that hormone replacement therapy during menopause is not needed and 43.3% thought that it carries some risk . Details are shown in Table 4.

The average value of the Kupperman index was 14.8 ± 8.6, and the Beck Depression Scale was 10.5 ± 7.9. Almost 37% of the respondents had mild depression and 3% severe depression. The MRS score per subscale was as follows: psychological symptoms 4.8 ± 3.4, somatic: 4.9 ± 3.0, urogenital and sexual symptoms: 2.5 ± 2.4. Data are not shown.

Of the respondents, 66.3% reported irritability, 56% reduction in attention, 45% tendency to cry and 44% decrease libido. Details are given in Table 5.

Nearly all, 93.4% reported that active life affecting the well-being during menopause. Similarly, 92.5% were convinced that proper nutrition and 91.3% that positive attitude affecting the well-being. Details are shown in Table 6

Most of the women (60.6%) reported that husbands were persons from whom they expected support. In contrast, only 5.8% of the participants were convinced that psychologist is a person from whom they expected support.

DISCUSSION

In our study, the classical presentation of menopausal symptoms; hot flushes, dryness of vagina and reduced libido were more frequently reported were reported by women. Furthermore most of the respondents assessed positively their quality of life. Our findings are in accordance with previous reports [1-4].

The assessment tool that we used in our study was based on the MRS questionnaire. This questionnaire has been widely used in many epidemiological and clinical research when investigating the menopausal symptoms [1-4, 8-10]. The MRS Scale is a valuable tool for the assessment of menopausal complaints. It combines in practice excellent applicability and good reliability, and there are normal values for the population available. The MRS could serve as an

adequate diagnostic instrument for menopausal quality of life [6,10].
In urogential subscale (sexual problems, bladder problems and vaginal dryness), from our study the frequency of these symptoms experienced by women were similar with earlier studies [9-14]. Natural menopause strongly contribute to sexual changes experienced by these women.

Schneider et al. [11] evaluated the MRS for scoring menopausal symptoms by comparison with other instruments relevant for women in their menopausal transition: the Kupperman index and the quality-of-life scale SF-36. In the population sample of 306 of German women they found a good association between the subscales of the SF-36 and the MRS.

Recently, Heinemann et al. [12] performed a large, multinational survey to represent the situation across nine countries and cultures using existing and for the respective countries representative panels between November 2001 and February 2002 to get information about knowledge, attitudes and behavior related to hormonal treatment in women aged 40–70 years: Europe (Germany, France, Spain, Sweden), North America (USA), Latin America (Mexico, Argentine, Brazil), and as example for Asia – Indonesia. The sample size in each of the countries was about 1000 females aged 40–70 years, with exception of USA (n=1500). They found a high quality of the MRS scale to measure and to compare HRQoL of aging women in different regions and over time, and it suggested a high reliability and high validity of the MRS scale.

The MRS scale was also used in the assessment of health-related effects of hormone treatment. Heinemann et al. [13] analysed in an open, uncontrolled post-marketing study with over 9000 women with pre- and post-treatment data of the MRS scale to critically evaluate the capacity of the scale to measure the health-related effects of hormone treatment The improvement of complaints during treatment relative to the baseline score was 36% in average. Patients with little/no complaints before therapy improved by 11%, those with mild complaints at entry by 32%, with moderate by 44%, and with severe symptoms by 55% - compared with the baseline score. They concluded that the MRS scale showed some evidence for its ability to measure treatment effects on quality of life across the full range of severity of complaints in aging women.

In recent study, Im et al. [14] explored differences in menopausal symptom experience among four major ethnic groups in the United States (160 Whites, 120 Hispanics, 121 African Americans, and 111 Asians). The women perceived and accepted the changes brought by the menopausal transition and felt that they became more mature than ever before. They tried to be positive about their lives, menopause, and menopausal symptoms. There were slight ethnic differences in the sources of social support, the women were satisfied. The White women tended to be open about their menopausal symptoms and freely discussed them, whereas ethnic minorities mentioned staying silent about menopausal symptoms the support that they were getting. Furthermore, all the women wished for better treatment by their physicians regarding their menopausal symptoms.

In the menopausal period, there is evidence of increased risk for developing depression, even among women who never experienced depressive symptoms before [15,16]. Thus depression during the perimenopause may have a substantial impact on personal, family, and professional spheres of life. The treatment strategy should take into account not only the spectrum of side effects that may complicate treatment but also other menopause-related factors (e.g., vasomotor symptoms, psychosocial stressors) that may modulate risk for the development of mood disturbance. In our study, more than 1/3 of the respondents had mild depression.

There are several limitations of this study. Firstly, the study population was not too large. Secondly, this was a cross sectional study, it does not exclude other confounding effects of the natural aging process that may influence experience of symptoms. Thirdly, we did not explore correlation and multifacrtorial analyses e.g., menopausal complains and depression, age of menarche and menopausal complaints and correlation between the MRS scale and the Kupperman index.

CONCLUSIONS

1. Most of the women perceived menopause as a period at which the expiration of ovarian function.
2. Hot flashes, irritability, lack of energy, vaginal dryness and reduced libido were more frequently reported.
3. Most of the respondents assessed positively their quality of life. Most of the respondents thought that sexual intercourse should be maintained during the menopause period.
4. Women had a differentiated knowledge about menopause.

ACKNOWLEDGEMENTS

The authors would like to acknowledge for Professor Heinemann from Center of Epidemiology and Health Studies in Berlin for Menopause Rating Scale.

REFERENCES

1. Zoler YF, Acquadro C, Schaefer M. Litearture review of instruments to assess health-related quality of life during and after menopause. Qual Life Res. 2005 Mar14; (2): 309-27.
2. Dennerstein L, Randolph J, Taffe J, Dudley E, Burger H. Hormones, mood, sexuality, and the menopausal transition. Fertil Steril. 2002 Apr; **77** (Suppl. 4): S42–S8.
3. Schmidt PJ, Rubinow DR. Sex hormones and mood in the perimenopause. Ann N Y Acad Sci. 2009 Oct; 1179: 70-85.
4. Heinemann K, Assmann A, Möhner S, Schneider HP, Heinemann LA. Reliability of the Menopause Rating Scale (MRS): Investigation in the German population. Zentralbl Gynakol. 2002 Mar; 124(3): 161-3.
5. Heinemann K, Ruebig A, Potthoff P, Schneider HP, Strelow F, Heinemann LA, Do MT. The Menopause Rating Scale (MRS) scale: a methodological review. Health Qual Life Outcomes. 2004 Sep 2;2:45
6. Heinemann LA, Potthoff P, Schneider HP.
7. International versions of the Menopause Rating Scale (MRS). Health Qual Life Outcomes. 2003 Jul 30; 1:28.
8. Alder E. The Blatt-Kupperman menopausal index: a critique. Maturitas. 1998 May 20; 29 (1):19-24.
9. Krajewska K, Krajewska-Kułak E, Heineman L, Adraniotis J, Chadzopulu A, Theodoso-poyloy E, Euframidu EN, Kruszewa R, Szpakow A, Jankowiak B, Rolka H, Klimaszewska K, Kowalczuk K, Kondzior D, Baranowska A. Comparative analysis of quality of life women in menopause period in Poland, Greece and Belorussia using MRS Scale. Preliminary report. Adv Med Sci. 2007; 52 Suppl 1:140-3. (in Polish)
10. Potthoff P, Heinemann LA, Schneider HP, Rosemeier HP, Hauser GA. The Menopause Rating Scale (MRS II): methodological standardization in the German population. Zentralbl Gynakol. 2000; 122(5): 280-6.
11. Heinemann K, Assmann A, Möhner S, Schneider HPG, Heinemann LAJ. Reliabilität der Menopause-Rating-Scale (MRS). Untersuchung für die Deutsche Bevölkerung. Zentralbl Gynakol. 2002; 124: 161-3.
12. Schneider HPG, Heinemann LAJ, Rosemeier HP, Potthoff P, Behre HM. The Menopause Rating Scale (MRS): Reliability of scores of menopausal complaints. Climacteric. 2000 Mar 3; (1): 59-64.
13. Heinemann K, Ruebig A, Potthoff P, Schneider HP, Strelow F, Heinemann LA, Do MT. The Menopause Rating Scale (MRS) scale: a methodological review. Health Qual Life Outcomes. 2004 Sep 2; 2: 45.
14. Heinemann LA, DoMinh T, Strelow F, Gerbsch S, Schnitker J, Schneider HP. The Menopause Rating Scale (MRS) as outcome measure for hormone treatment? A validation study. Health Qual Life Outcomes. 2004 Nov 22; 2:67.
15. Im EO, Lee B, Chee W, Dormire S, Brown A. A national multiethnic online forum study on menopausal symptom experience. Nurs Res. 2010 Jan-Feb; 59(1): 26-33.
16. Cohen LS, Soares CN, Joffe H. Diagnosis and management of mood disorders during the menopausal transition. Am J Med. 2005 Dec 19;118 Suppl 12B:93-7.
17. Uguz F, Sahingoz M, Gezginc K, Ayhan MG. Quality of life in postmenopausal women: the impact of depressive and anxiety disorders. Int J Psychiatry Med. 2011; 41 (3): 281-92.

Table 3. Gynecological surgeries reported by women.

Surgery	Women	
	No	**%**
hysterectomy	21	8.7
removal of uterine myomas	21	8.7
oophorectomy	10	4.1
perineal plasty	17	7.1
removal of breast nodule	9	3.7
mastectomy	1	0.4

Table 4. Women's knowledge about menopause.

Women's knowledge about menopause			
%	**Yes**	**No**	**I do not know**
Does menopause is disease?			
%	7.5	83.4	9.1
Do symptoms of menopause are genetically determined?			
%	34.2	30.4	35.4
Do you hear about hormonal treatment during menopause?			
%	91.2	3.8	5.0
Do you know hormone replacement therapy?			
%	57.3	36.9	5.8
Does hormone replacement therapy in menopause necessary?			
%	5.8	60.2	34.0
Do you believe in the efficacy of hormonal treatment?			
%	16.6	15.4	68.0
Does the use of hormonal therapy carries a risk?			
%	43.3	28.7	27.9

Table 5. Reported symptoms during menopause by the respondents.

Reported symptoms		Never	Sometimes	Often	Very often
reduction in attention	*N*	90	134	17	0
	%	37	56	7	0
loss of confidence	*N*	164	61	10	3
	%	69	26	4	1
anxiety	*N*	125	93	16	7
	%	52	39	7	3
tendency to cry	*N*	89	107	37	7
	%	37	45	15	3
suicidal thoughts	*N*	211	23	4	0
	%	89	10	2	0
irritability	*N*	41	153	39	8
	%	17	63	16	3
memory problems	*N*	78	131	28	3
	%	33	55	12	1
dryness of mucous membranes	*N*	148	71	18	3
	%	62	30	8	1
dysgeusia	*N*	215	19	6	0
	%	90	8	3	0
vaginal dryness	*N*	115	97	17	9
	%	48	41	7	4
urinary tract infections	*N*	161	62	13	4
	%	67	26	5	2
urinary incontinence	*N*	149	64	21	6
	%	62	27	9	3
vaginal infection	*N*	170	57	13	0
	%	71	24	5	0
decrease libido	*N*	92	105	31	13
	%	38	44	13	5

Table 6. Factors affecting the well-being during menopause.

Factors	Women	
	No	**%**
active lifestyle	225	93.4
professional activity	207	85.9
positive attitude	220	91.3
proper nutrition	223	92.5
stop smoking	199	82.6
reducing alcohol	195	80.9
gynecological examination	207	85.9
taking care of appearance	209	86.7
friends	203	84.2
sleep	230	95.4
weight loss	206	85.5
use of hormone replacement therapy	132	54.8