THE JOURNAL OF OBSTETRICS AND GYNECOLOGY OF INDIA

The Journal of Obstetrics and Gynecology of India (May–June 2019) 69(3):279–283
https://doi.org/10.1007/s13224-018-1172-y

ORIGINAL ARTICLE

Women's Quality of Life in Menopause with a Focus on Hypertension

Siros Kabodi[1] · Elahe Ajami[2] · Ali Zakiei[3] · Alireza Zangeneh[4] · Shahram Saeidi[4]

Received: 1 April 2018 / Accepted: 20 August 2018 / Published online: 11 October 2018
© Federation of Obstetric & Gynecological Societies of India 2018

About the Author

Siros Kabodi holding a master's of arts in health education is a researcher at Kermanshah University of Medical Sciences who has conducted studies about self-care in diabetic patients, culture, safety of patients, causes of tendency to perform Botox, and barriers to insulin therapy in diabetic patients.

Siros Kabodi is a Social Development and Health Promotion Research Center, Kermanshah University of Medical Sciences, Kermanshah, Iran. Elahe Ajami is a Department of Family Health, Kermanshah city health center, Kermanshah University of Medical Sciences, Kermanshah, Iran. Ali Zakiei is a Sleep Disorders Research Center, Kermanshah University of Medical Sciences, Kermanshah, Iran. Alireza Zangeneh is a Social Development and Health Promotion Research Center, Kermanshah University of Medical Sciences, Kermanshah, Iran. Shahram Saeidi is Social Development and Health Promotion Research Center, Kermanshah University of Medical Sciences, Kermanshah, Iran.

✉ Elahe Ajami
elaheajami1350@gmail.com

[1] Social Development and Health Promotion Research Center, Kermanshah University of Medical Sciences, Kermanshah, Iran

[2] Department of Family Health, Kermanshah city health center, Kermanshah University of Medical Sciences, Kermanshah, Iran

[3] Sleep Disorders Research Center, Kermanshah University of Medical Sciences, Kermanshah, Iran

[4] Social Development and Health Promotion Research Center, Kermanshah University of Medical Sciences, Kermanshah, Iran

Abstract

Background One-third of each woman's life is naturally during her menopause. This study was conducted to determine the factors related to the quality of life in post-menopausal women.

Materials and Methods This cross-sectional study was carried out using cluster sampling method on 218 post-menopausal women aged 40–60 years old in Kermanshah in

2014. The data were collected through interview and with the standard questionnaire of Menopausal Quality (MENQOL) of Life and analyzed using SPSS software version 19.
Results The mean age of menopause was 50.03 ± 4.48 years. Mean scores of quality of life and four domains, vasomotor, psychosocial, physical and sexual were 3.15±0.970, 3.71 ± 1.81, 3.32±0.959, 2.91 ± 1.06, 3.74 ±1.59, respectively.
Conclusion Chronic conditions such as hypertension in postmenopausal women can lead to lower quality of life. Therefore, provision of coherent support programs for controlling chronic diseases requires serious intervention from health care providers.

Keywords Quality of life · Menopause · Postmenopausal women

Introduction

The World Health Organization has defined quality of life as individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns [1]. The menopausal symptoms are the main determinants of a reduced health-related QOL [2]. Natural menopause is defined as the permanent cessation of menstruation resulting from the loss of ovarian follicular activity that is identified to have occurred after 12 consecutive months of amenorrhea, for which there is no other obvious pathological or physiological cause [3]. The deficiency of these hormones elicits various somatic, vasomotor, sexual, and psychological symptoms that impair the overall quality of life (QoL) of women [4, 5]. The hypoestrogenic menopausal state is associated with weight gain, increased visceral fat, and increased secretion of inflammatory factors and predisposes women to chronic diseases such as diabetes, heart disease, and metabolic syndrome [6]. The prevalence of hypertension in women increases after menopause, which is mainly due to the sudden shortage of estrogen hormone [7, 8].

Additionally, due to the lack of studies in the country regarding the association of chronic diseases such as hypertension to the quality of life in postmenopausal women, the present study was conducted to determine the relationship between socio-cultural and economic factors, as well as hypertension and quality of life in postmenopausal women.

Procedure

The data were collected using interview in a sample of 218 postmenopausal women aged and among 60–40 years who had one or more years of amenorrhea, and no history of hormone use during the past 6 months, hysterectomy of mental illness, and systemic diseases.

Instruments (Two Parts)

The first part of the study included demographic variables including age, occupation, education, marital status, menopausal age, economic status satisfaction, participants' knowledge about menopausal symptoms, smoking, physical activity, body mass index, marital satisfaction, and hypertension, all of which were considered as independent variables in this study.

The second part included the Quality of Life Questionnaire (MENQOL), which evaluated the quality of life during menopause from the Women's Health Society of Toronto, Canada (MENQOL) [9]. Menopausal Quality of Life Questionnaire (MENQOL) was based on the Likert scale of 7 options (zero score for no problem and score 6 for the severity of the sign). High scores reflect the severity of symptoms or discomfort.

Data analysis firstly, the significance of difference of the independent variables with the dependent variable of quality of life and its four domains was investigated, and in the second stage, using the regression test, we tried to estimate the predictive value of each independent variable and their contribution to the dependent variable of the study (quality of life). Data were analyzed using SPSS-19 software, descriptive tests (mean and standard deviation), and proportional inference (MONOVA, T test, and regression).

Results

The mean age of participants was 55.21 ± 3.66 years. Among the women participating in this study, 72% (157 persons) had daily walking program. About 9.8% (21 people) had a history of smoking, 14.6% of subjects had normal body mass index, 35.4% were over-weight and 50% were obese. In total, 91.5% (199 persons) did not use any specific medications to eradicate their menopause problems. Only 11% (24 persons) referred to the doctor over the past year because of menopausal problems.

The relationship between body mass index variables ($P < 0.052$, $F = 3.007$), smoking ($P < 0.175$, $T = 1.423$), employment ($P < 0.073$, $T = -1.91$), referral to physician due to menopausal problems ($P < 0.765$, $T = 0.304$), and physical activity of women ($P < 0.215$, $T = 1.155$) with their quality of life was not statistically significant (Table 1).

The results of regression analysis showed that predictive variables in general can predict 33% of the quality of life in postmenopausal women in the present study (29% if

Table 1 Relationship between dimension of quality of life scores and various demographic characteristics (n = 218)

Variables	N (%)	Dimension of postmenopausal quality of life				
		Vasomotor, mean (SD)	Psychosocial, mean (SD)	Physical, mean (SD)	Sexual, mean (SD)	Quality of life, mean (SD
Total	218	3.71 ± 1.81	3.32 ± 0.959	2.9 ± 1.06	3.74 ± 1.59	3.15 ± 0.970
Age						
40–45	3 (1.2)	4 (2.82)	1.71 (1.21)	0.733 (0.92)	1.5 (1.32)	1.19 (0.489)
45–50	23 (10.4)	3.52 (1.46)	3.34 (0.918)	2.58 (0./ 842)	3.17 (1.87)	2.9 (0.819)
50–55	80 (36.6)	3.5 (1.97)	3.22 (0.975)	2. 79 (1.17)	3.61 (1.59)	3.02 (1.04)
55–60	112 (51.8)	3.9 (1.76)	3.44 (0.925)	3.11 (0.963)	4.03 (1.4)	3.33 (0.887)
P value		0.576	0.53	0.003	0.001	0.003
Education						
Illiterate	82 (37.8)	4.2 (1.69)	3.66 (0.744)	3.32 (0.804)	4.1 (1.53)	3.52 (0.745)
To diploma	120 (55.5)	3062 (1.78)	3.2 (0.993)	2.74 (1.12)	3.67 (1.57)	3 (1)
Academic	16 (6.7)	1.72 (1.34)	2.54 (1.11)	2.06 (1.08)	2.81 (1.83)	2.22 (0.942)
P value		0.001	0.001	0.001	0.056	0.001
Marital status						
Married	177 (81.5)	3.56 (1.87)	3.2 (0.955)	2.78 (1.05)	3.86 (1.47)	3.04 (0.959)
Single	41 (18.9)	4.38 (1.4)	3.88 (0.82)	3.42 (0.948)	3.22 (1.96)	3.63 (0.881)
P value		0.008	0.001	0.001	0.044	0.002
Employment status						
Housewife	198 (90.9)	3.81 (1.8)	3.36 (0.94)	2.96 (1.05)	3.8 (1.54)	3.2 (0.957)
Employed	20 (9.1)	2.8 (1.69)	2.99 (1.69)	2.46 (1.08)	3.13 (1.92)	2.68 (1)
P value		0.043	0.223	0.108	0.208	0.073
Family economy						
Poor	88 (40.2)	3.92 (1.81)	3.68 (0.784)	3.15 (0.968)	3.8 (1.58)	3.4 (0.855)
Middle	120 (55.5)	3.68 (1.86)	3.12 (0.995)	2.82 (1.06)	3.81 (1.55)	3.04 (0.974)
Strong	10 (4.3)	2.28 (2.05)	2.69 (1)	1.82 (1.29)	2.28 (1.7)	2.13 (1.15)
P value		0.073	0.001	0.003	0.046	0.01
BP > 140/90						
Yes	92 (42.1)	4.39 (0.753)	3.7 (0.871)	3.39 (0.833)	4.02 (1.55)	3.6 (0.754)
No	126 (57.9)	2.82 (0.983)	3.06 (0.935)	2.56 (1.08)	3.53 (1.59)	2.82 (0.983)
P value		0.001	0.001	0.001	0.05	0.001
Menopause information						
Yes	90 (41.5)	3.48 (1.92)	3.1 (1.165)	2.66 (1.22)	3.47 (1.67)	2.92 (1.11)
No	128 (58.5)	3.88 (1.73)	3.49 (0.752)	3.08 (0.913)	3.93 (1.48)	3.31 (0.814)
P value		0.169	0.011	0.015	0.72	0.008
During menopause						
5 >	142 (65)	4.1 (1.7)	3.43 (0.936)	2.99 (1.06)	3.74 (1.67)	3.24 (0.969)
5 <	76 (35)	3.17 (1.9)	3.14 (0.982)	2.76 (1.06)	3.73 (1.44)	2.97 (0.953)
P value		0.007	0.069	0.189	0. 966	0.082
Marital relationships						
Poor	125 (62.2)	3.94 (1.73)	3.51 (0.874)	3.08 (1)	3.96 (1.48)	3.33 (0.897)
Middle	77 (35.4)	3.37 (1.92)	3.06 (1)	2.68 (1.11)	3.51 (1.65)	2.9 (1)
Strong	6 (2.4)	3 (1.82)	2.57 (1.34)	1.96 (1.06)	1.5 (1.29)	2.17 (1.17)
P value		0.124	0.005	0.014	0.004	0.003

adjusted for R^2). Accordingly, variables such as hypertension, menopause duration, age, and education were significantly predictive of quality of life in postmenopausal women (Table 2).

Table 2 Multivariate predictors of different aspects of health-related quality of life among menopausal women (n = 218)

Independent variable	Model results	Predictor variables	*B*	Beta	A.sig
Total quality of life	F = 8.25	Age	0.648	0.19	0.021
	P = 0.001	Education	− 4.05	− 0.156	0.043
	R^2 = 0.33	BP > 140/90	− 7.46	− 0.29	0.001
	R^2 adjusted = 0.29	During menopause	− 0.702	− 0.23	0.002
	R = 0.57				

Discussion

The results of the present study showed postmenopausal women in this study had a better average score in terms of physical fitness. The findings of other studies that were consistent with these results were indicative of lower level of physical problems in postmenopausal women compared to other areas related to quality of life [10]. The quality of life in the sexual and vasomotor domains, in the present study, was worse than other aspects of quality of life. These results were consistent with the findings of other studies [11].

The results of this study showed that 62% of the participants in the study were poorly satisfied with their marital relationship. Findings of other studies indicated that perceived social support was an important predictor of life satisfaction and the lower symptom of menopause [12, 13].

Older postmenopausal women in this study significantly experienced lower quality of life and more problems in both physical and sexual areas. The results of the study by Shobeiri et al. [14] indicated the worst condition dimension of women's QoL with increased age.

In the present study, women with high levels of education showed better quality of life and fewer conflicts with problems of vasomotor, psychosocial, and physical domains. Findings of other studies were consistent with the positive relationship between high education levels and better quality of life in postmenopausal women [10].

Approximately 42% of postmenopausal women in recent studies had hypertension. A Tunisia study showed an prevalence of 43% [15], and in Congo study, 34% was reported [16].

Seventy-two percent of women who had hypertension were over 55 years old. The results of various studies that were consistent with our recent findings showed that with increasing age in postmenopausal women, the prevalence of hypertension increases [7, 16]. Hypertension in the present study contributed greatly to predicting their quality of life. The findings of the study in postmenopausal women revealed the negative and serious impact of this variable on their quality of life [17].

The results of this study regarding postmenopausal women with less than 5 years of menopause experienced lower quality of life and more involvement with different areas of their symptoms, and the difference was significant only in vasomotor domain. Therefore, postmenopausal women experience the most symptoms associated with estrogen reduction problems, during the first 4 years of menopause, especially in the vasomotor area [18].

Less than half of the postmenopausal women had enough information about menopause, only 11% of them were referred to a doctor during the past year to treat menopausal problems, and 8/5% of them used a special medication to treat menopausal symptoms. On the other hand, in an study from a in five European countries, the majority of women reported visiting their gynaecologist at least every 2 years [19]. These results illustrate the depth of the problems of Iranian menopausal women in dealing with the most natural occurrence which constitutes one-third of their life. Hunter and Liao [20] believe that increasing awareness of women regarding menopause issues improves their attitude toward it, their health behavior, and habits, eventually leading to improvement in the quality of life. Low awareness of postmenopausal women about changes in menopause is also reported in other studies.

In Iran, women do not have a special place in the healthcare system and practically receive no tendance in this period, while trying to improve women's knowledge for self-care helps the improvement of their life quality during menopause [21].

Samples in the recent study were limited to women in Kermanshah city, and lack of participation of rural women is observed. It is recommended that future studies be carried out with the participation of rural women.

Conclusion

Iranian menopausal women seem to experience an increased risk of incident hypertension. This can lead to reducing their quality of life. The findings of study showed that most of them have a poor perception about controlling incident hypertension as a controllable variable. Therefore, it is necessary to develop effective intervention programs in order to control hypertension problems in Iranian menopausal women.

Compliance with Ethical Standards

Conflict of interest There are no conflicts of interests for any author (financial or otherwise).

Ethical Statements Institutional ethical committee clearance has been obtained for the study (ID KUMS.REC.1394.515.).

Informed Consent Informed consent was obtained from all patients for being included in this.

References

1. World Health Organization. Measuring quality of life: the world health organization quality of life instruments. 1997.
2. Nelson HD. Menopause. The Lancet. 2008;371(9614):760–70. https://doi.org/10.1016/S0140-6736(08)60346-3.
3. International Menopause Society. Research on the Menopause in the 1990s. http://apps.who.int/iris/bitstream/handle/10665/41841/?sequence=1.
4. Deeks AA, McCabe MP. Well-being and menopause: an investigation of purpose in life, self-acceptance and social role in premenopausal, perimenopausal and postmenopausal women. Qual Life Res. 2004;13(2):389–98.
5. Greenblum CA, Rowe MA, Neff DF, et al. Midlife women: symptoms associated with menopausal transition and early postmenopause and quality of life. Menopause. 2013;20(1):22–7.
6. Chae CU, Derby CA. The menopausal transition and cardiovascular risk. Obstet Gynecol Clin N Am. 2011;38:477–88.
7. Bateman BT, Shaw KM, Kuklina EV, et al. Hypertension in women of reproductive age in the United States: NHANES 1999-2008. PLoS ONE. 2012;7(4):e36171.
8. Barton M, Meyer MR. Postmenopausal Hypertension. Hypertension. 2009;54(1):11–8.
9. Lewis JE, Hilditch JR, Wong CJ. Further psychometric property development of the Menopause-Specific Quality of Life questionnaire and development of a modified version, MENQOL-Intervention questionnaire. Maturitas. 2005;50:209–21.
10. Fallahzadeh H. Quality of life after the menopause in Iran: a population study. Qual Life Res. 2010;19(6):813–9.
11. Ceylan B, Özerdoğan N. Menopausal symptoms and quality of life in Turkish women in the climacteric period. Climacteric. 2014;17(6):705–12.
12. Avis NE, Assmann SF, Kravitz HM, et al. Quality of life in diverse groups of midlife women: assessing the influence of menopause, health status and psychosocial and demographic factors. Qual Life Res. 2004;13(5):933–46.
13. Prairie BA, Wisniewski SR, Luther J, et al. Symptoms of depressed mood, disturbed sleep, and sexual problems in midlife women: cross-sectional data from the Study of Women's Health Across the Nation. J Womens Health (Larchmt). 2015;24(2): 119–26.
14. Shobeiri F, Jenabi E, Hazavehei SM, et al. Quality of life in postmenopausal women in Iran: a population-based study. J Menopausal Med. 2016;22:31–8.
15. Allal-Elasmi M, Feki M, Zayani Y, et al. Prehypertension among adults in Great Tunis region (Tunisia): a population-based study. Pathol Biol (Paris). 2012;60(3):174–9.
16. Muchanga M, Lepira FB, Tozin R, et al. Prevalence and risk factors of pre-hypertension in Congolese pre and post menopausal women. Afr Health Sci. 2016;16(4):979–85.
17. Maas A, Franke H. Women's health in menopause with a focus on hypertension. The Netherlands Heart J. 2009;17(2):68–72.
18. Lonnèe Hoffmann RA, Dennerstein L, Lehert P, et al. Sexual function in the late postmenopause: a decade of follow up in a population-based cohort of Australian Women. J Sex Med. 2014;11(8):2029–38.
19. Constantine GD, Graham S, Clerinx C, et al. Behaviours and attitudes influencing treatment decisions for menopausal symptoms in five European countries. Post Reprod Health. 2016;22(3):112–22.
20. Hunter MS, Liao KL. Problem solving groups for mid-aged women in general practice: a pilot study. J Reprod Infant Psychol. 1995;13:147–51.
21. Noroozi E, Dolatabadi NK, Eslami AA, et al. Knowledge and attitude toward menopause phenomenon among women aged 40–45 years. J Educ Health Promot. 2013;2:25. https://doi.org/10.4103/2277-9531.112701.