

Quality of Life and Depression among Postmenopausal Women in Pakistan

Madeeha Malik^{1*}, Mahjabeen Mahjabeen¹, Shazana Rana², Azhar Hussain³, Ayisha Hashmi¹

¹Hamdard Institute of Pharmaceutical Sciences, Hamdard University Islamabad, Pakistan. ²HITEC-IMS Taxila Cantt, Pakistan. ³Faculty of Pharmacy, Hamdard University Islamabad, Pakistan.

Abstract

The reduced quality of life and increased depression among menopausal women places an increased disease burden on the healthcare system in developing nations such as Pakistan. The purpose of this study was to evaluate the menopausal-specific quality of life and depression among postmenopausal women in Pakistan. A descriptive cross-sectional study design was used. Respondents of the research included postmenopausal women visiting gynecologic clinics of healthcare equipment and facilities located in Pakistan's twin cities. The sample size was calculated to be 382 patients to achieve a 95% confidence level with a 5% margin of error. Two pre-validated structured questionnaires were used for the collection of data in this study, i.e. Menopause Specific Quality of Life (MENQOL) and Hospital Anxiety and Depression Scale (HADS). Mann-Whitney and Kruskal-Wallis ($p \geq 0.05$) tests were applied according to different demographic variables. The results indicated that there was a significant difference ($p \leq 0.05$) between different levels of education and the presence of depressive symptoms among postmenopausal women. A significant difference ($p < 0.05$) was seen among respondents having a different number of children. Respondents having no children were comparatively more bothered in the psychosocial and physical domain than other respondents. The results obtained from this study indicated poor quality of life and moderate depression among post-menopausal women in Pakistan. The stigma and fear associated with menopause should be reduced by providing counseling to women regarding the effects of menopause on the body and the importance of adopting a physical and healthy lifestyle by healthcare professionals.

Keywords: Postmenopause, Women, Quality of life, Depression, Pakistan

INTRODUCTION

Menopause is a transition that women undergo in the mid-stages of life which involves the slow process of menstrual cycle cessation, which in turn, triggers various physiological changes in the body such as vascular instability, atrophy of the urogenital tract, bone and skin diseases as well as soft tissue disorders [1, 2]. The menopausal phase also includes other common symptoms like hot flashes, night sweats, a myriad of nonspecific emotional and psychological distresses, decreased sexual functioning and libido [3]. The menopausal common key symptoms can be categorized in four areas depending on nature, i.e. psychosocial, physical, vasomotor, and sexual [4]. In the menopausal phase, women have higher levels of depression and anxiety, hormonal changes are linked with increased mood swings, which have been strongly associated with the deprivation of estrogens in females after menopause [5]. The quality of life (QoL) of women is highly influenced during menopause as it is a major biological change in one's life, and can produce physical as well as emotional changes in females [6].

Along with physiological changes, women during the post-menopausal phase have a greater risk of developing depression, anxiety, and other cardiovascular diseases therefore adoption of a healthy lifestyle and proper management of co-morbidities among post-menopausal

women is of prime importance. The changes associated with menopausal women are highly linked with the development of other non-communicable diseases, e.g. hypertension, diabetes, breast and cervical cancer, and osteoporosis [7]. Several physiological and social evolutions happening during female mid-life may intensify the risk of depressive disorders. These changes increase the incidence of menopausal complaints, which result in higher rates of depression among females. Depressive condition and mood have a negative effect that impairs the quality of life, sleep, sexual function, resilience, and life satisfaction of mid-aged women. Depression is also related to a higher risk of increased body

Address for correspondence: Madeeha Malik, Hamdard Institute of Pharmaceutical Sciences, Hamdard University Islamabad, Pakistan. madeehamalik15@gmail.com

This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-Share Alike 4.0 License, which allows others to remix, tweak, and build upon the work non commercially, as long as the author is credited and the new creations are licensed under the identical terms.

How to cite this article: Malik M, Mahjabeen M, Rana S, Hussain A, Hashmi A. Quality of Life and Depression among Postmenopausal Women in Pakistan. Arch Pharm Pract. 2021;12(3):29-33. <https://doi.org/10.51847/MAPShK83EB>

weight, cardio-vascular diseases, poor cognitive function, subclinical inflammation, and osteoporosis [8].

Women in developing countries such as Pakistan lack basic knowledge about the physiology of menopause and its signs and symptoms and they tend to avoid discussion about it or seek medical help. This behavior may result in reduced QoL as well as enhanced chances of developing depression among postmenopausal women in Pakistan. To design effective interventions aimed at improving quality of life, it is necessary to assess the current status as well as factors affecting the quality of life in postmenopausal women. Therefore, this research was done to evaluate the QoL and depression among postmenopausal women in Pakistan.

MATERIALS AND METHODS

In order to assess menopausal quality of life and depression among post-menopausal women in Pakistan, a descriptive cross-sectional study design was applied. Study approval was taken from the Ethical Committee of Hamdard University (BASR-78-5). Approval was also taken from medical superintendents of different hospitals of Islamabad and Rawalpindi. Respondents were briefed regarding the nature and objectives of the study. Verbal and written consent were obtained before data collection from respondents. Respondents were assured of the confidentiality of their responses and their right to withdraw from the study whenever they wanted. The study respondents were postmenopausal women aged between 40-65 years old. Patients were categorized based on age between 40-65 years old, whose last menstrual period occurred within a period of last 1-5 years, and had normal menopause. Raosoft sample size calculator was used for calculation of the sample size at 95% confidence interval and 5% margin of error which came to be 382. Convenient sampling techniques were used and all the respondents available upon data collection were chosen. Two pre-validated structured questionnaires were used for the collection of data in this study i.e. Menopause Specific Quality of Life (MENQOL) and Hospital Anxiety and Depression Scale (HADS) to evaluate menopause specific quality of life and depression respectively among postmenopausal women from twin cities of Pakistan.

Menopause specific Quality of Life developed by Hilditch J R [9] includes 5 domains such as vasomotor (hot flushes, night sweats, and sweating), psychological (anxiousness, poor memory, lowered ability, feeling depressed, impatient, wanting to be alone), physical (flatulence, muscles and joints pain, tiredness, difficulty sleeping, backaches, decreased stamina, lack of energy, dry skin, weight gain, weakness, increased facial hair, change in skin texture, bloating, low backache, frequent and/or involuntary urination) sexual (changes in sexual desire, vaginal dryness and avoiding intimacy) and others (palpitation, headache, dizziness). The Hospital Anxiety and Depression Scale (HADS) measures the extent to which patients experience anxiety or depressive

symptoms. It consists of 7 items each for anxiety and depression [10].

Pilot testing was performed on 10% of the sample size to check the reliability of the tool. The value of Cronbach's alpha was 0.70 for MENQOL and 0.69 for HADS. Data was cleaned, coded, and analyzed using SPSS 21. Descriptive statistics comprised of frequencies and percentages were determined. Mann-Whitney and Kruskal Wallis test ($p \leq 0.05$) was applied to determine differences among various variables.

RESULTS AND DISCUSSION

Demographic Characteristics of Respondents

Out of 382 respondents, 30.4 % (n=116) were 40-49 years old, 43.2% (n=165) were 50-59 years old and 26.2% (n=100) were 60-65 years old. Of all the respondents, 88.5% (n=388) had menopause between the age of 44-53 years. Most of the females were married (85.6%, n=327) and over three-quarters of respondents (75.4%, n=228) had more than 3 children. A detailed description is given in **Table 1**.

Table 1. Demographic Characteristics of Respondents

Indicator		n (%)
Age	40-49 Y	116 (30.4)
	50-59 Y	165 (43.2)
	60-65 Y	100 (26.2)
Hospital	Public	362 (94.8)
	Private	20 (5.2)
	≤10 years	3 (0.8)
Age at Menarche	11-12 years	80 (20.9)
	13-14 years	213 (55.7)
	≥15 years	86 (22.5)
Age at Menopause	≤40 years	8 (2.1)
	41-45 years	72 (14.3)
	46-50 years	164 (42.9)
Marital Status	>50years	137 (35.8)
	Married	327 (85.6)
	Unmarried	14 (3.7)
Qualification	Divorced	39 (10.2)
	Illiterate	108 (28.3)
	Primary	44 (11.5)
No of Children	Secondary	85 (22.3)
	Bachelor	78 (20.4)
	Masters	56 (14.7)
	Post Graduate	11 (2.9)
	None	34 (8.9)
	1	15 (3.9)
	2	45 (11.8)
	3	96 (25.1)
	4	97 (25.4)

	More than Four	95 (24.9)
Setting	Urban	238 (62.3)
	Rural	144 (37.7)
Work Status	Employed	150 (39.3)
	Housewife	229 (59.9)
	None	164 (42.9)
Type of Morbidity	Hypertension	116 (30.4)
	Diabetes	40 (10.5)
	Others	62 (16.2)
Type of Therapy	Hormone Replacement Therapy	19 (5.0)
	Others	360 (94.2)

Mean Scores of Menopause Specific Quality of Life among Postmenopausal Women

The results obtained from this study highlighted that mean scores for the sexual domain were higher (4.52, \pm 4.05) indicating the poor menopause-specific quality of life in this domain whereas the lowest scores were seen for the psychosocial domain (3.29, \pm 3.92). A detailed description is shown in **Table 2**.

Table 2. Mean Scores of Menopause Specific Quality of Life among Postmenopausal Women

Vasomotor	Psychosocial	Physical	Sexual
Mean \pm SD	Mean \pm SD	Mean \pm SD	Mean \pm SD
3.83 (\pm 4.05)	3.29 (\pm 3.92)	3.51 (\pm 3.34)	4.52 (\pm 4.05)

Comparison of Mean Scores of Menopause Specific Quality of Life by Demographic Variables

A significant difference ($p < 0.05$) was observed in specific menopause quality of life among different age groups. Respondents having age greater than 60 years were more bothered concerning vasomotor, psychosocial, physical, and sexual domains of menopause quality of life as compared to other age groups. A significant difference was observed ($p < 0.05$) among different levels of education. Illiterate respondents were comparatively more worrisome in the physical domain whereas the sexual domain was comparatively more disturbed among postgraduate respondents. A significant difference ($p < 0.05$) was seen among respondents having a different number of children. Respondents having no children were comparatively more bothered in the psychosocial and physical domain than other respondents. A significant difference ($p < 0.05$) was seen among respondents having different types of co-morbidities. Respondents having hypertension and diabetes were comparatively more bothered in the psychosocial domain than other respondents whereas respondents having diabetes were more bothered in the sexual domain. No significant difference was observed among respondents having different marital statuses and using different types of therapies. A detailed description is given in **Table 3**.

Table 3. Comparison of Mean Scores of Menopause Specific Quality of Life by Demographic Variables

Variables	Vasomotor				Psychosocial				Physical				Sexual			
	n	Mean Rank	Test Statistics	p-value	n	Mean Rank	Test Statistics	p-value	n	Mean Rank	Test Statistics	p-value	n	Mean Rank	Test Statistics	p-value
Age	40-49=116	161.33	14.633 ^b	0.002	40-49=116	161.41	17.484 ^b	0.001	40-49=116	143.99	43.899 ^b	0.001	40-49=116	151.45	33.852 ^b	0.001
	50-59= 165	202.72			50-59= 165	193.51			50-59= 165	195.07			50-59= 165	191.45		
	60-65=99	209.39			60-65=99	222.28			60-65=99	241.99			60-65=99	236.55		
Marital Status	Unmarried= 14	195.74	3.588 ^b	0.309	Unmarried= 14	186.04	4.636 ^b	0.200	Unmarried= 14	186.95	5.548 ^b	0.136	Unmarried= 14	188.24	6.326 ^b	0.097
	Married= 327	155.46			Married= 327	214.57			Married= 327	247.54			Married= 327	214.68		
	Divorced=39	170.82			Divorced=39	222.15			Divorced=39	211.09			Divorced=39	217.65		
Level of Education	Illiterate= 108	186.01	4.199 ^b	0.521	Illiterate= 108	205.69	14.850 ^b	0.011	Illiterate= 108	214.49	25.298 ^b	0.001	Illiterate= 108	255.71	60.138 ^b	0.001
	Primary= 44	199.57			Primary= 44	196.39			Primary= 44	214.49			Primary= 44	186.00		
	Secondary= 85	210.09			Secondary= 85	210.39			Secondary= 85	211.39			Secondary= 85	147.44		
	Bachelors= 78	186.26			Bachelors= 78	163.44			Bachelors= 78	153.67			Bachelors= 78	168.21		
	Masters= 56	176.43			Masters= 56	160.85			Masters= 56	163.05			Masters= 56	187.62		

Number of Children	Post Graduate= 11	183.32	9.305 ^b 0.097	Post Graduate= 11	226.09	15.444 ^b 0.009	Post Graduate= 11	133.18	17.773 ^b 0.003	Post Graduate= 11	108.41	6.610 ^b 0.251
	None= 34	171.74		None= 34	236.37		None= 34	235.22		None= 34	209.72	
	1= 15	180.97		1= 15	228.10		1= 15	211.20		1= 15	218.67	
	2= 45	166.22		2= 45	177.36		2= 45	158.59		2= 45	170.21	
	3= 96	179.69		3= 96	176.26		3= 96	169.39		3= 96	180.20	
	4= 97	202.08		4= 97	171.98		4= 97	188.06		4= 97	186.71	
	More than 4= 95	213.34		More than 4= 95	209.49		More than 4= 95	214.19		More than 4= 95	207.08	
Type of Co-morbidity	None= 164	184.88	7.223 ^b 0.065	None= 164	180.59	10.381 ^b 0.016	None= 164	181.55	5.957 ^b 0.114	None= 164	197.32	13.883 ^b 0.003
	Hypertension= 116	183.56		Hypertension= 116	211.96		Hypertension= 116	206.49		Hypertension= 116	195.14	
	Diabetes= 40	188.45		Diabetes= 40	211.88		Diabetes= 40	211.86		Diabetes= 40	224.63	
	Others= 62	225.82		Others= 62	165.69		Others= 62	176.63		Others= 62	147.93	
Type of Therapy	Hormone replacement therapy= 19	229.37	2672.000 ^a 0.108	Hormone replacement therapy= 19	221.79	2797.000 ^a 0.186	Hormone replacement therapy= 19	221.79	3010.000 ^a 0.378	Hormone replacement therapy= 19	221.79	3336.000 ^a 0.857
	Others= 360	187.92		Others= 360	187.79		Others= 360	187.79		Others= 360	187.79	

^a Mann-Whitney, ^b Kruskal-Wallis

Comparison of Hospital Anxiety and Depression among Postmenopausal Women according to Different Demographic Variables

A significant difference ($p \leq 0.05$) was seen between different levels of education and the presence of depressive symptoms among postmenopausal women. Illiterate respondents had a comparatively higher level of depressive symptoms than those with masters and postgraduate education. On the contrary, no significant difference ($p \geq 0.05$) was seen for depression among respondents belonging to different age groups, having different marital status and number of children. Likewise, no significant difference was seen ($p \geq 0.05$) in depression scores among respondents who had any co-morbidity and received different types of therapies. A detailed description is given in **Table 4**.

Table 4. The Comparison of Hospital Anxiety and Depression among Postmenopausal Women according to Different Demographic Variables

Demographics	n	Mean Rank	Test Statistics	p-value
Age	40-49=116	131.39	4.164 ^b	0.125
	50-59= 165	139.91		
	60-65=99	122.19		
Marital Status	Unmarried= 14	29.96	231.500 ^a	0.400
	Married= 327	25.94		
	Divorced=39	22.15		
Level of Education	Illiterate= 108	168.12	27.76 ^b	0.001
	Primary= 44	112.76		
	Secondary= 85	151.08		

Number of Children	Bachelors= 78	162.65	7.242 ^b	0.124
	Masters= 56	109.83		
	Post Graduate= 11	76.45		
	None= 34	165.25		
	1= 15	205.68		
	2= 45	158.91		
	3= 96	163.21		
Type of Co-morbidity	4= 97	192.72	3056.000 ^a	0.136
	More than 4= 95	168.27		
	None= 164	143.24		
	Hypertension= 116	104.00		
Type of Therapy	Diabetes= 40	106.98	1.130 ^a	0.288
	Others= 62	119.83		
	Hormone replacement therapy= 19	181.47		
	Others= 360	246.00		

Mann-Whitney Test ($p \geq 0.05$)^a Kruskal Wallis Test ($p \geq 0.05$)^b.

During the transition phase of menopause, women experience fluctuations in levels of hormones due to which women at a later age experience a variety of symptoms and syndromes. The signs of different fluctuations vary among different women. The menopausal phase is linked with physical symptoms and signs as well as emotional changes in women [11]. Reduced adherence to healthy behaviors and lifestyle changes and low levels of knowledge regarding menopause can lead to reduced QoL. The reduced QoL among menopausal women places an increased disease burden on the healthcare system in developing nations such as Pakistan

[12]. The present study showed the reduced menopausal specific quality of life and depression among postmenopausal women in Pakistan.

Menopausal symptoms can hurt various aspects of QoL among women. The results obtained from this study showed that older women were more bothered in all four domains of quality of life than younger women. This might be because older women experience more debilitating symptoms due to menopause. Women who had completed secondary education had poor quality of life in the psychosocial domain whereas illiterate women had more physical problems and postgraduate women were more bothered due to poor quality of life in terms of the sexual domain. Women who had no children reported poor quality of life in psychosocial and physical domains. Diabetic as well as hypertensive women had poor psychosocial health whereas diabetic women were also bothered in the sexual domain. Identical findings were observed in a study carried out in Saudi Arabia where menopausal women having old age, no children, no formal education, and suffering from co-morbidities had a poor menopausal specific QoL [13].

The most prevalent symptoms associated with menopause are categorized into four different areas like physiological, physical, vasomotor, and sexual along with these post-menopausal women are at higher risk of cardiovascular disease, anxiety, and depression. The results of the present study revealed that postmenopausal women experienced moderate to severe depression that varies in its severity, as severity is greater at the start of menopause and gradually lowered down to moderate depression in women of older age. This might be due to the physical and hormonal changes which the patient is experiencing. Identical findings were reported from a study conducted in China which reported that management of depression and anxiety associated with post-menopausal women is necessary to improve quality of life [14].

CONCLUSION

The results of this research revealed poor quality of life and moderate depression among post-menopausal women in Pakistan. The quality of life was lowest in the domain of sexual and vasomotor functioning while was moderately better in the domain of psychosocial functioning. The stigma and fear associated with menopause should be reduced by providing counseling to women regarding the effects of menopause on the body and the importance of adopting a physical and healthy lifestyle by healthcare professionals. Post-menopausal clinics should be developed to promote healthy living and to reduce anxiety and depression under the supervision of a psychologist.

ACKNOWLEDGMENTS: We acknowledge the support of Medical Superintendents of all healthcare facilities for allowing data collection.

CONFLICT OF INTEREST: None

FINANCIAL SUPPORT: Nil

ETHICS STATEMENT: Ethical approval was taken from Hamdard University Ethical Committee.

LIMITATIONS: The present study was carried out in twin cities of Pakistan and the obtained results may not be generalizable to the rest of the country. Time and financial limitations were a few of the barriers faced by the principal investigator.

REFERENCES

1. El Shafie K, Al Farsi Y, Al Zadjali N, Al Adawi S, Al Busaidi Z, Al Shafae M. Menopausal symptoms among healthy, middle-aged Omani women as assessed with the Menopause Rating Scale. *Menopause*. 2011;18(10):1113-9.
2. Kim C, Cleary PA, Cowie CC, Braffett BH, Dunn RL, Larkin ME, et al. Effect of glycemic treatment and microvascular complications on menopause in women with type 1 diabetes in the Diabetes Control and Complications Trial/Epidemiology of Diabetes Interventions and Complications (DCCT/EDIC) cohort. *Diabetes Care*. 2014;37(3):701-8.
3. Villaverde Gutierrez C, Torres Luque G, Abalos Medina GM, Argente del Castillo MJ, Guisado IM, Guisado Barrilao R, et al. Influence of exercise on mood in postmenopausal women. *J Clin Nurs*. 2012;21(7-8):923-8.
4. Elsabagh EEM, Abd Allah ES. Menopausal symptoms and the quality of life among pre/post menopausal women from rural area in Zagazig city. *Life Sci J*. 2012; 9(2):283-91.
5. Kim EY, Chang Y, Ahn J, Yun JS, Park YL, Park CH, et al. Menopausal Transition, Body Mass Index, and Prevalence of Mammographic Dense Breasts in Middle-Aged Women. *J Clin Med*. 2020;9(8):2434.
6. Salazar-Pousada D, Monterrosa-Castro A, Ojeda E, Sánchez SC, Morales-Luna IF, Pérez-López FR, et al. Evaluation of depressive symptoms in mid-aged women: report of a multicenter South American study. *Menopause*. 2017;24(11):1282-8.
7. 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(3):209-21.
8. Oberoi DV, White V, Jefford M, Giles GG, Bolton D, Davis I, et al. Caregivers' information needs and their 'experiences of care' during treatment are associated with elevated anxiety and depression: a cross-sectional study of the caregivers of renal cancer survivors. *Support Care Cancer*. 2016;24(10):4177-86.
9. Asrami FS, Hamzehgardeshi Z, Shahhosseini Z. Health promoting lifestyle behaviors in menopausal women: A Cross-Sectional Study. *Glob J Health Sci*. 2016;8(8):128.
10. Malik E, Sheoran P, Siddiqui A. Health-promoting behaviors and menopausal symptoms: an interventional study in rural India. *J Midlife Health*. 2018;9(4):200.
11. Ganapathy T, Al Furaikh SS. Health-related quality of life among menopausal women. *Arch Med Health Sci*. 2018;6(1):16.
12. Chang WD, Lai PT. Different exercise behaviors influence heart rate variability, autonomic nerve system function and menopausal symptoms in post-menopausal women. *J Phys Ther Sci*. 2013;25(4):477-81.
13. Algahtani FD. Healthy Lifestyle among Ha'il University Students, Saudi Arabia. *Int J Pharm Res Allied Sci*. 2020;9(1):160-7.
14. Minodora O, Ana-Maria V, Iuliana I, Horia B, Adriana N, Cătălin A, et al. Pregnancy-Associated Gastric Cancer: Real-Life Diagnosis and Management. *Pharmacophore*. 2020;11(3):89-92.