

Symptoms, Demographic Parameters and Health Profile of Post-Menopausal Women

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ABSTRACT

Objective: To determine the symptoms, demographic parameters and health profile of post-menopausal women and factors related to the deranged health profile.

Study Design: Comparative cross-sectional study.

Place and Duration of Study: Department of Gynecology and Obstetrics, Pak Emirates Military Hospital Rawalpindi Pakistan, from Jun 2019 to Aug 2021.

Methodology: Five hundred post-menopausal women were included in this study via convenience sampling. Menopause was confirmed based on clinical and laboratory information. A consultant Gynecologist inquired about details of clinical symptoms and demographic profile. Relationship of age, body mass index, use of hormonal replacement therapy and living with husband was assessed with the presence of deranged health profile among the post-menopausal women participating in this study.

Results: Out of 500 post-menopausal women studied in the given period, 323 (64.6%) had at least one clinical symptom of a deranged health profile, while 177 (35.4%) did not report any such symptom. The mean age of the study participants was 58.47 ± 4.561 years. Hot flushes 200 (40%) were the most commonly reported symptoms, followed by urinary tract infections 121 (24.2%) and palpitations 121 (24.2%). After applying the statistical analysis, high body mass index and not using hormonal replacement therapy emerged as factors associated with deranged health profiles in the study participants (p -value <0.001).

Conclusion: Most of the women had at least one clinical symptom after menopause. Hot flushes, urinary tract infections and palpitations were commonly reported symptoms. Patients with high body mass index and no hormonal replacement therapy were more likely to have a deranged post-menopausal health profile.

Keywords: Health profile, Menopause, Socio-demographic factors.

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INTRODUCTION

Elderly, especially post-menopausal women, pass through drastic physical, physiological and psychological changes in their life after the cessation of the menstrual cycle.¹ Epidemiological data suggests that the number of post-menopausal women has been increasing each year across the globe due to longevity and better health facilities.² Women after menopause are prone to multiple health care problems due to ageing also due to drastic endocrine changes taking place in the body after the menopause.³

Post-menopausal health is a multi-dimensional phenomenon having gynecological, endocrine, psychological and physical aspects.⁴ A lot of physical and psychological symptoms can arise in this group of women, which can compromise the overall quality of life.⁵ Sometimes, small and very basic interventions may prevent the symptoms, but timely recognition and

screening are important.⁶

Several studies have been published regarding the clinical spectrum of post-menopausal symptoms. Moser *et al*, in 2020, in their study regarding symptoms and demographic profile of menopausal women, revealed that depression, anxiety, osteoporosis and insomnia were commonly reported symptoms in post-menopausal women, especially those who were less than 52 years old.⁷ A study was published on women of Bhatinda, Punjab in India, regarding women's socio-demographic, reproductive parameters, and health issues after menopause.⁸ It was concluded that fatigue, backache, breathing problems, and abdominal discomfort were common symptoms reported by women who had achieved menopause. This reflected the systemic nature of this gynaecological or endocrine phenomenon. Kopciuch *et al*, in 2017, studied the perception of post-menopausal women regarding the management of neuropsychiatric symptoms. They concluded that phytoestrogen therapy was considered an effective and accepted method for this purpose.⁹

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Pakistan is one of the most populous countries globally, with an increasing number of old age people, including post-menopausal women. A limited number of patients have access to health care facilities and hormonal replacement therapies. Very few women enter this phase of life with adequate information, care and support. A recent local study published by Khan *et al.*¹⁰ in 2020 compared vitamin D levels and bone mineral density in premenopausal women to post-menopausal Women. Limited local data is available regarding the health profile of these women and factors affecting the health profile. We, therefore, conducted this study with the rationale of determining the symptoms, demographic parameters and health profile of post-menopausal women and factors related to deranged health profiles.

METHODOLOGY

This comparative cross-sectional study was conducted at the Department of Gynaecology and Obstetrics at Pak Emirates Military Hospital Rawalpindi Pakistan, from June 2019 to August 2021. WHO Sample Size Calculator calculated the sample size with the population prevalence of clinical symptoms in post-menopausal women as 72%.^{11,12} Convenience sampling technique was used to gather the sample for this study.

Inclusion Criteria: All women between the age of 40 and 65 with menopause were included in the study.

Exclusion Criteria: The women with clinical or psychiatric syndromes prior to menopause, malignancies (solid or haematological), severe infection or any organ failure in the past six months were excluded. In addition, patients who had premature menopause or iatrogenic menopause had NSAIDs abuse or any autoimmune disorder. Finally, those using illicit drugs or those whose follow up was not possible were also excluded from the study.

The Ethical Review Board Committee of the hospital was approached to get the ethical approval for this study (Letter No. A/28). Written informed consent was taken from all the potential participants of this study before the start of the study. Menopause for women was defined as post-menopausal from one year after her last period.

Post-menopausal women fulfilling the above-mentioned inclusion and exclusion criteria presenting as attendants of patients in the hospital were included in the study. A consultant Gynaecologist inquired about details of clinical symptoms and demographic

profile. Relationship of age, body mass index (BMI), use of hormonal replacement therapy and living with a husband was assessed with the presence of deranged health profile among the post-menopausal women participating in this study. Study participants were categorized as normal, overweight and obese based on BMI.¹³ Hormonal replacement therapy was standard therapy prescribed by consultant Gynaecologist, medical specialist or endocrinologist.¹⁴

All statistical analysis was performed using Statistics Package for Social Sciences version 24.0 (SPSS -24.0). Pearson chi-square test assessed the association between age, body mass index, use of hormonal replacement therapy and living with a husband with a deranged health profile. Differences between groups were considered significant if *p*-values were less than or equal to 0.05.

RESULTS

After applying inclusion and exclusion criteria and consent of the individuals, 500 women were finally recruited for the study. Out of 500 post-menopausal women studied in the given period, 323 (64.6%) had at least one clinical symptom of a deranged health profile, while 177 (35.4%) did not report any such symptom. The mean age of the study participants was 58.47 ± 4.561 years. Table-I summarized the characteristics of the study participants.

Table-I: Characteristics of post-menopausal women included in study.

Study Parameters	n (%)
Age (Years)	
Mean ± SD	58.47 ± 4.561 years
Range (min-max)	45 years-65 years
Presence of Deranged Health Profile	
No	177 (35.4%)
Yes	323 (64.6%)
Duration Since Menopause	
>5 years	210 (42%)
<5 years	290 (68%)
Mean Duration since menopause	5.98 ± 3.61 years
Symptoms	200 (40%)
Hot Flushes	100 (20%)
Night Sweats	80 (16%)
Anxiety	49 (9.8%)
Depression	120 (24%)
Insomnia	19 (3.8%)
Bone fractures	191 (38.2%)
Dyspareunia	121 (24.2%)
Urinary tract infections	99 (19.8%)
Memory Problems	121 (24.2%)
Palpitations	91 (18.2%)
Blood Pressure Fluctuations Others	16 (3.2%)

Hot flushes 200 (40%) were the most commonly reported symptoms, followed by urinary tract infections 121 (24.2%) and palpitations 121 (24.2%). Bone fractures were reported in only 19 (3.8%) patients. In addition, 210 (42%) patients had menopause for less than five years, while 290 (68%) had menopause for more than five years. The mean duration of menopause was 5.98 ± 3.61 years.

Table-II showed the results of the statistical analysis. High body mass index (p -value<0.001) and not using hormonal replacement therapy (p -value<0.001) emerged as factors associated with the presence of deranged health profile in the study participants, while age (p -value 0.953) and living with or without a husband (p -value-0.163) had no such relationship.

Table-II: Comparison of various factors in post-menopausal women with and without deranged health profile.

Factors Studied	Normal health profile	Deranged Health Profile	p-value
Age			
<55 years	119 (67.2%)	218 (67.4%)	0.953
>55 years	58(32.8%)	105 (32.6%)	
Living With Husband			
No	113 (63.8%)	226 (69.9%)	0.163
Yes	64 (36.2%)	97 (30.1%)	
Body Mass Index			
Normal	134 (75.7%)	195 (60.4%)	<0.001
Overweight or Obese	43 (24.3%)	128 (39.6%)	
Use of Hormonal Replacement Therapy			
No	158 (89.3%)	243 (75.2%)	<0.001
Yes	19 (10.7%)	80 (24.8%)	

DISCUSSION

More than 60% of post-menopausal women suffer from health-related problems, especially those with high BMI and not using hormonal replacement therapy. Menopause brings about a significant change in the life of women. They not only face routine challenges of ageing, but this drastic endocrine change predisposes them to a lot of medical and psychological problems. Multiple problems together under the heading of the post-menopausal syndrome manifest in the women after the cessation of their menstrual cycle. These problems are not limited to one or two systems; instead, it is a multisystem phenomenon interwoven with the routine physiological changes of ageing. A clear knowledge of these problems and diseases can enable geriatric care physicians and general physicians to manage the women after menopause properly. This study was planned to determine post-menopausal

women's symptoms, demographic parameters, health profiles and factors related to deranged health profiles.

An interesting meta-analysis was published regarding the health profile of Iranian post-menopausal women. Sharifi *et al*, systematically evaluated the quality of life among Iranian post-menopausal women. It was concluded that physical and sexual symptoms mainly were responsible for the poor quality of life among Iranian post-menopausal women.¹⁵ Our results supported the findings as more than half of our study participants had physical symptoms, and 38.2% reported dyspareunia. Unfortunately, we did not quantify the quality of life of our participants, but current data could serve as the basis for future studies incorporating quality of life parameters.

Menopausal symptoms were studied in detail in a cross-sectional study conducted in Pakistan's Sindh province by Nisar *et al*,¹⁶ in 2015. They revealed that the prevalence of menopausal symptoms is relatively high in their target population. Around half of the women they studied suffered from physical or psychological symptoms, including hot flushed, sleep disorders, depressive symptoms etc., Age of the woman, education and menopausal status had a statistically significant impact on symptoms. We performed a study in Punjab province, but patients were from different ethnicities as it was a Military Hospital. We concluded that hot flushes, urinary tract infections and palpitations were commonly reported symptoms. Patients with high body mass index and not using hormonal replacement therapy were more likely to have post-menopausal deranged health profiles.

A study was published in 2013 regarding the impact of menopausal symptoms and menopausal symptom severity on health-related quality of life (HRQoL), work impairment, healthcare utilization, and costs of women in the USA.¹⁷ It was concluded that around half of the women experienced significant clinical symptoms affecting the quality of life, and depression, anxiety, and joint stiffness were symptoms with the strongest associations with health outcomes. Our results were not significantly different from them as more than 60% of our study participants had significant symptoms, including mental health problems.

Yerra *et al*, from India published a study in 2021 regarding physical, psychological, vasomotor, and sexual symptoms experienced by post-menopausal women. They concluded that vasomotor and sexual symptoms were most cumbersome for the target popu-

lation and affected quality of life significantly.¹⁸ Though we did not study the quality of life but still in terms of symptoms profile, our results supported the findings generated by Yerra *et al*, in our neighbouring country.

Selection of study ample from the caregivers of hospital patients is a significant limitation of our study. It should have been a population-based study. Moreover, history was the only way to exclude women with other illnesses prior to menopause. The baseline status of health profile before menopause would have generated more accurate results. Studies in future addressing these issues may generate more generalizable results in this regard.

CONCLUSION

Most of the women had at least one clinical symptom after menopause. Hot flushes, urinary tract infections and palpitations were commonly reported symptoms. Patients with high body mass index and not using hormonal replacement therapy were more likely to have post-menopausal deranged health profiles.

Conflict of Interest: None.

Author's Contribution

AK: Direct contribution, TY:, SSB:, UH: Intellectual contribution.

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