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Exploring the Relationships between Resilience, Menopausal Symptoms and Quality of Life in Perimenopause Women. A Cross-Sectional Study

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Abstract **Original Research Article**

The purpose of this study was to assess the influence of resilience and quality of life (QoL) in menopause women. The study further examines the moderating role of socio-demographic variables in relationship with menopause symptoms. This cross-sectional study, employed multi-stage sampling technique to sample 386 perimenopause women from the urban population of Islamabad for the study. The menopause rating scale (MRS), Nicholson McBride Resilience Questionnaire (NMRS), and Quality of life scale were used to collect data. The perimenopause women aged between 40 – 55 years were included and those who were at menopause were excluded. The results showed that the majority of responders 142 (36.5%), were between the ages of 40 and 45, married people made up 83.8%. and 60.4% of the women had a degree or diploma. Our study found a significant relationship between quality of life and menopause symptoms (p=0.01) but no association between resilience and menopause symptoms. Further analysis revealed that only the predominant lifestyle demographic variable was related to menopause symptoms (p=.0.01). This study concluded that the overall frequency of menopause symptoms in perimenopause women was low. The resilience level of perimenopause women was at a developing level and quality of life was good. There was no link between resilience and menopause symptoms but menopause symptom was linked with quality of life.

Keywords: Quality Of Life, Menopause Symptoms, Resilience, Perimenopause Women.

INTRODUCTION

Perimenopause is a transition a woman goes through during their midlife stage (45-50 years) that is associated with a range of symptoms both physical and emotional that is caused by the gradual variation in ovarian hormone levels, which eventually stops [1, 2]. Common signs and symptoms during the transition phase include hot flashes, mood swings, depression, anxiety, and irregular menstrual cycles [3]. Studies have shown that menopausal symptoms differ among different ethnicities, with white women often experiencing more vasomotor symptoms such as night sweats and hot flashes, while Asian women primarily suffer from physical and somatic symptoms including muscular and joint pain and sleeping problems. Moreover, the severity of symptoms tends to increase from moderate to severe as women advance through the menopausal stages [4].

An international study showed the prevalence of moderate to severe levels of menopausal symptoms was 2.6% in premenopausal, 8% in perimenopause, and 8.8% in postmenopausal women [5]. A study in India showed that the prevalence of somatic and psychological symptoms was highest in the perimenopause stage that is 47.2% compared to premenopausal and postmenopausal women that is 37.2% [6]. In another study in Pakistan, the prevalence of menopausal symptoms was recorded highest among housewives at 45.5% and teachers at 42.5%. but vasomotor symptoms were common in all participants [7].

Resilience is defined as an internal protective mechanism that helps the body cope with stress or emergency response efficiently. The stress coping theory suggests that high-resilience individuals efficiently adjust to the changing environment. Also, they can control their emotions and form relationships

with others that are mutually beneficial and help to reduce discomfort or stress [8]. In one of the studies on middle-aged Ecuadorian women, it was found that they have lower menopausal symptoms because they have higher resilience. Similarly, some other studies also showed that higher resilience is directly related to fewer menopausal complaints among middle-aged (45-50 years) women in Spain.

According to the International Menopause Association, women who receive the right and efficient care throughout their illness have shown a better quality and satisfaction of life than those who do not. Thus it can be concluded that if women are treated with care during this transitional stage of biological and psychological changes it significantly has a direct impact on women's health and quality of life [9]. It is also noted that women now have to deal with double workloads compared to the past because they have become prominent in the economic growth of the country. Still, in many Asian cultures and middle-income countries, women have to bear the majority of household chores adding to the stress placed on them throughout their lives. This double workload results in health decline in their midlife age ultimately affecting the quality of life in their perimenopause phase. It is important to note the global perspective on perimenopause symptoms, as evidenced by the differences observed among various ethnicities. However, there is still a lack of research studies in less developed countries, including Pakistan, on the relationship between middle-aged women and perimenopause symptoms [10]. This gap in research is significant as it limits our understanding of the experiences of women in these regions and hinders the development of effective interventions and support systems tailored to their needs. Therefore, addressing this research gap is crucial for improving the quality of life and health outcomes of women during the perimenopause phase, and empowering women to actively participate in societal roles during this transitional phase, a thorough understanding of factors alleviating symptoms is imperative, especially in less developed countries. The study aims to assess the potential associations between resilience, quality of life, and menopausal symptoms among perimenopause women.

METHODOLOGY

After ethical clearance from the Institutional Review Board, the analytical cross-sectional study was conducted on females of Islamabad from May 2024 to Nov 2024. The sample was raised using the cluster sampling technique and the sample size of 389 was calculated through Rao software using a 95% confidence interval. The participants included were females from 40-55 years of age. Those women who were at menopause naturally or due to any reason like hysterectomy, or oophorectomy, women taking Hormonal Replacement Therapy, or any severe disease that disturbs the menstrual cycle were excluded. The primary objective of the study was to find the frequency of menopause symptoms, resilience, and quality of life and to find the association of menopause symptoms with resilience and quality of life.

The participants filled out informed consent, socio-demographic form, 12-item Nicholson McBride Resilience Questionnaire(NMRQ) using a 5-point Likert scale, the overall scores were divided into four categories: exceptional level (Scores 49-60), strong level (scores 44-48), established level (scores 38-43), and developing level (scores 0-37), European Health Interview Survey- Quality of Life Scale 8-item index (EUROHIS-QOL) and scores ranged from 1 (extremely poor) to 5 (very good) for each question and to get the EUROHIS-QOL mean score, which ranges from 1(worst QOL) to 5(best QOL) all scores were then summed and divided by 8 (the sum of the questions) with higher scores denoting better quality of life and a menopause Rating Scale(MRS) which scored was < 11, 12-35, and>36 considered asymptomatic, mild to moderate, and severe, respectively. After retrieving data from all the respondents Statistical Package for Social Sciences (SPSS) 26 software was used to perform data analysis.

RESULTS

Sociodemographic Characteristics of Participants

Table 1 summarizes the sociodemographic characteristics of perimenopause women. The study included 386 female participants. The demographic revealed that the majority of respondents (36.5%) were aged between 40 and 45. Most participants (83.8%) were married, and 60.4% of the women had attained higher education. In terms of employment, 83.3% of the menopausal women were housewives, and only 15.7% were employed, as shown in Table 1.

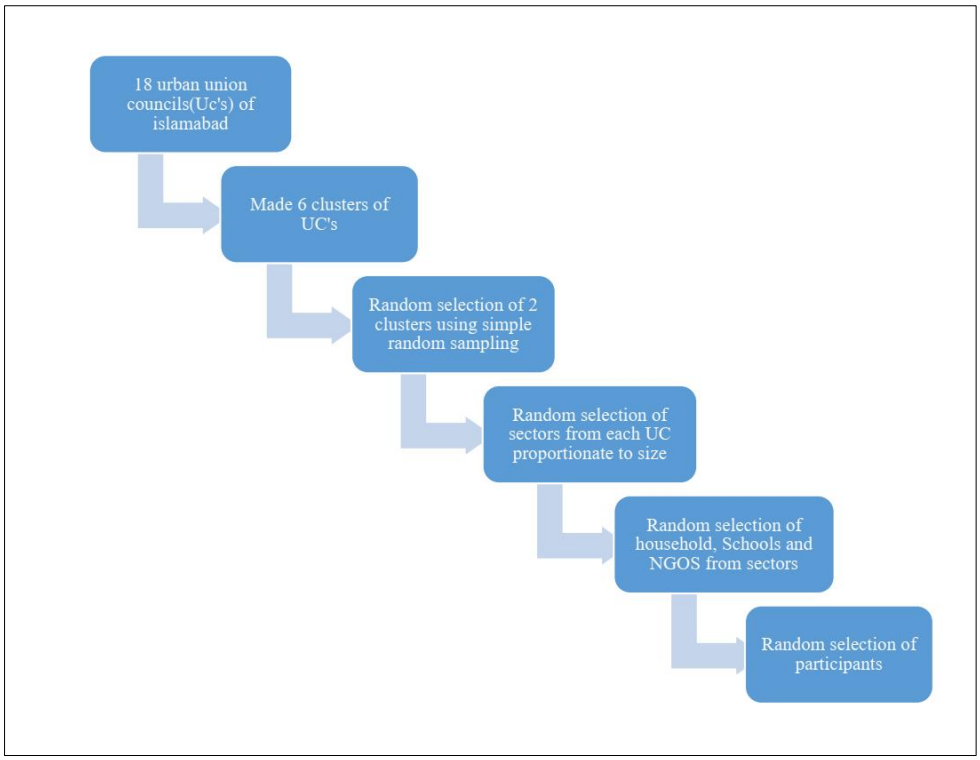

Figure 1: Flow Diagram Showing Cluster Sampling Strategy

Table 1: Demographic characteristics of females

Variable	n	%
Age		
40-45	142	36.5%
45-50	132	33.9%
50-55	115	29.6%
Education level		
Primary& middle	48	12.3%
Secondary	29	7.5%
Intermediate	77	19.8%
Degree/Diploma	235	60.4%
Employment status		
Unemployed	4	1.0%
Employed	61	15.7%
Housewife	324	(83.3%)
Predominant lifestyle		
Active	116	29.8%
Sedentary	273	70.2%
Marital status		
Married	326	83.8%
Unmarried(single, widow, Divorced)	63	16.2%

Menopause Symptoms

The frequency of menopause symptoms in perimenopause women has been reported in Table 2. The somatic, psychological, and urogenital domains were used to classify menopausal symptoms. Hot flashes and sweating were common somatic complaints, with 35.2% reporting considerable discomfort and 43.7% reporting mild discomfort. 36.5% of respondents reported feeling physically and mentally exhausted, including a moderate incidence of psychological disorders such as anxiety and sadness. Mild cases of urogenital symptoms, such as vaginal dryness and bladder problems, ranged from 42.4% to 48.5%. Figure 1 shows only 37.28% showed mild to moderate symptoms.

Table 2: Frequency of menopause symptoms in different domains of the menopause rating scale (MRS)

Symptoms	Total n	None n(%)	Mild n(%)	Moderate n(%)	Severe n(%)	Very Severe n(%)
Somatic						
Hot flushes, Sweating	389	60(15.4%)	170(43.7%)	137(35.2%)	20(5.1%)	2(.5%)
Heart Discomfort	389	110(28.3%)	173(44.5%)	68(17.5%)	34(8.7%)	4(1.0%)
Sleep problems	389	99(25.4%)	99(25.4%)	129(33.2%)	55(14%)	7(1.8%)
Joint and muscular discomfort	389	54(13.9%)	138(35.5%)	123(31.6%)	61(15.7%)	13(3.3%)
Psychological						
Depressive mode	389	98(25.2%)	151(38.8%)	100(25.7%)	35(9%)	5(1.3%)
Irritability	389	95(24 %)	156(40.1%)	88(22.6%)	43(11.1%)	7(1.8%)
Anxiety	389	98(25.2%)	139(35.7%)	85(21.9%)	64(16.5%)	3(.8%)
Physical and mental exhaustion	389	69(17.7%)	104(26.7%)	142(36.5%)	61(15.7%)	13(3.3%)
Uro-genital						
Sexual problems	389	165(42.4%)	136(35%)	61(15.7%)	27(6.9%)	0(0%)
Bladder Problems	389	189(48.5%)	107(27.5%)	66(17%)	26(6.7%)	1(.3%)
Dryness of vagina	389	185(47.6%)	110(28.3%)	70(18.0%)	22(5.7%)	2(.5%)

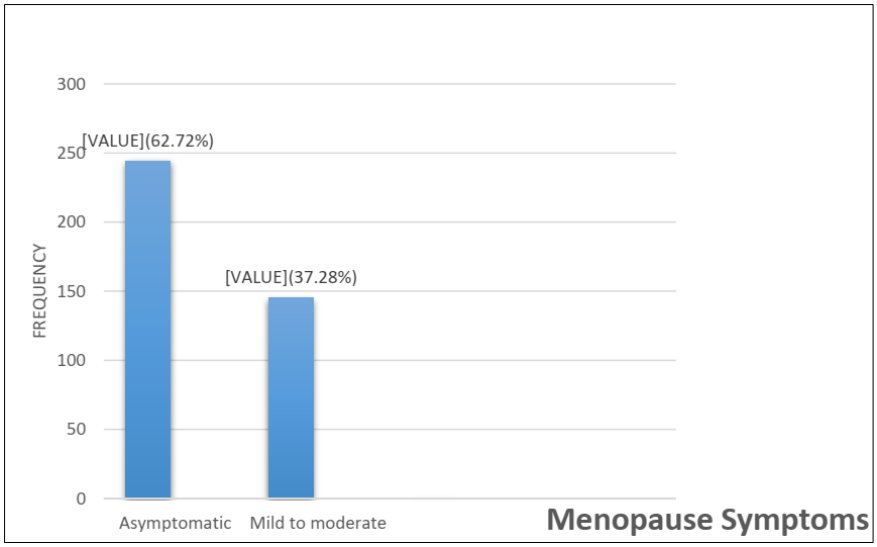

Figure 2: Bar chart representation of menopause symptoms

Quality of Life:

Table 4 reports the frequency of Quality of life in perimenopause women. According to a quality of life (QOL) assessment, the majority of participants expressed moderate (31.4%-51.2%) or good (35%-50%) satisfaction in a number of areas, such as energy levels, personal relationships, and health. Figure 2 shows overall good quality of life in perimenopause women.

Table 4: Frequency of Quality of Life in different domains of the Quality of Life Scale (QOL)

Level	Total n(%)	Not at all n(%)	Poor n(%)	Moderate n(%)	Good n(%)	Completely n(%)
Rate your quality of life.	389	2(.5%)	17(4.4%)	163(41.9%)	195(50%)	12(3.1%)
Satisfaction with health.	389	6(1.5%)	28(7.2%)	199(51.2%)	145(37%)	11(2.8%)
Enough energy for everyday life.	389	4(1%)	48(12.3%)	133(34.2%)	182(47%)	22(5.7%)
Satisfaction with your ability.	389	5(1.3%)	40(10.3%)	122(31.4%)	188(48%)	34(8.7%)
Satisfaction with yourself.	389	4(1%)	29(7.5%)	127(32.6%)	194(50%)	35(9%)
Satisfaction with your personal relationships.	389	9(2.3%)	37(9.5%)	137(35.2%)	169(43%)	37(9.5%)
Enough money to meet the needs.	389	2(.5%)	25(6.4%)	139(35.7%)	183(47%)	40(10.3%)
Satisfaction with your conditions of living place.	389	1(.3%)	30(7.7%)	121(31.1%)	181(47%)	56(14.4%)

Resilience:

Table 6 reports the frequency of Quality of life in perimenopause women. According to resilience statistics, the majority of participants (with agreement levels ranging from 26% to 56.6%) moderately agreed that they could manage stress, remain composed in emergency situations, and solve problems. Figure 3 shows that 43.4% of females are on a developing level.

Table 6: Frequency of Resilience in different domains of the Resilience Scale (NMRS)

Level	Total n	Strongly disagree n(%)	Moderately disagree n(%)	Neither agree/ disagree n(%)	Moderately agree n(%)	Strongly agree n(%)
In a difficult spot, I turn at once to what can be done to put things.	389	13(3.3%)	98(25.2%)	220(56.6%)	46(11.8%)	12(3.1%)
I influence where I can, rather than worrying about what I can't influence.	389	22(5.7%)	198(50.9%)	84(21.6%)	71(18.3%)	14(3.6%)
I don't take criticism personally.	389	38(9.8%)	63(16.2%)	82(21.1%)	177(45.5%)	29(7.5%)
I generally manage to keep things in perspective.	389	22(5.7%)	83(21.3%)	149(38.3%)	97(24.9%)	38(9.8%)
I calm in a crisis.	389	31(8.0%)	108(27.8%)	98(25.2%)	102(26.2%)	50(12.9%)
I'm good at finding solutions to problems.	389	16(4.1%)	81(20.8%)	110(28.3%)	136(35.0%)	45(11.6%)
I woudn't describe myself as an anxious person.	389	10(2.6%)	82(21.1%)	129(33.2)	04(26.7%)	64(16.5%)
I don't tend to avoid conflict.	389	34(8.7%)	82(21.1%)	111(28.5%)	99(25.4%)	63(16.2%)
I try to control events rather than being a victim of circumstance.	389	16(4.1%)	70(18%)	112(32.1%)	125(32.1%)	66(17%)
I trust my intuition.	389	14(3.6%)	57(14.7%)	124(31.9%)	114(29.3%)	80(20.6%)
I manage my stress levels well.	389	20(5.1%)	69(17.7%)	111(28.5%)	119(30.6%)	70(18.0%)
I feel confident and secure in my position.	389	17(4.4%)	61(15.7%)	110(28.5%)	111(28.5%)	0(23.1%)

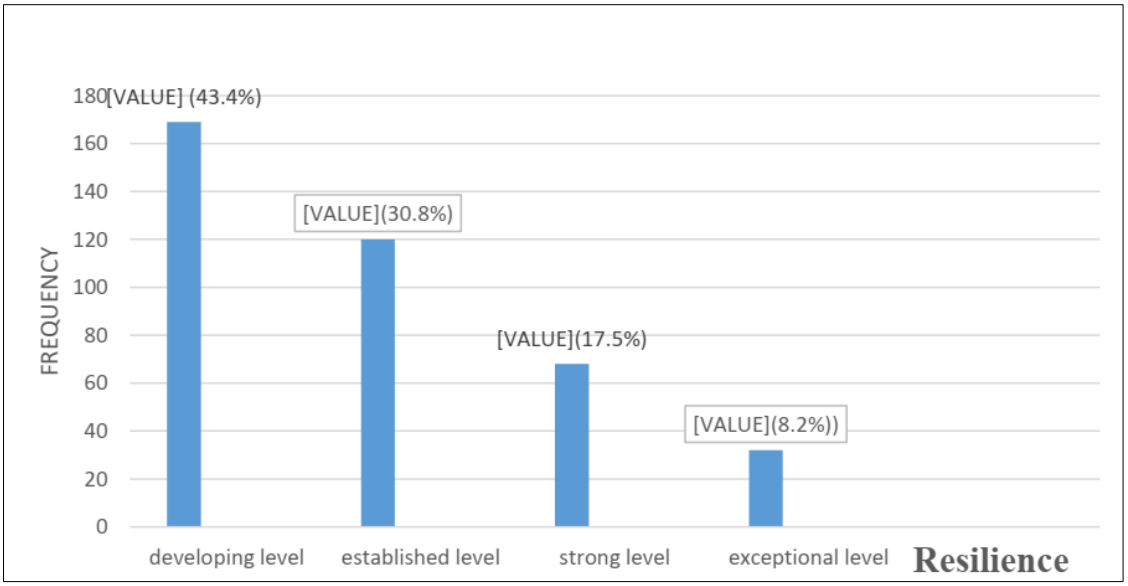

Figure 3: Bar chart representation of Resilience

Relationship of Menopause Symptoms with Resilience and Quality of Life:

A chi-square test was performed to find the association between menopause symptoms, quality of life, and resilience. The result showed no significant association between resilience and menopause symptoms (P> 0.05) but there was a significant association between quality of life and menopause symptoms (P<0.05). Among the demographic variables assessed, most participants had a sedentary lifestyle, and it was the only factor that showed a significant association with menopause symptoms, after applying the chi-square test. Other variables, educational level, marital status, employment, and age showed no significant association with menopausal symptoms (p>0.05).

Table 8: Association of menopause symptoms with quality of life and resilience

Variable 1	Variable 2	Test statistics	P-value
Menopause Symptoms 389(100%)	Age 40-45 45-50 50-55	3.57	0.16
	Education level Primary& middle Secondary Intermediate Degree/Diploma	.909	0.83
	Employment Status Unemployed Employed Housewife	3.97	0.13
	Predominant Lifestyle Active Sedentary	5.50	0.01
	Marital Status Married Unmarried (single, widow, Divorced)	0.98	0.32
	Resilience	2.35	0.50
	Quality of life	10.3	1

DISCUSSION

In the present study, there was no correlation between the intensity of the menopause symptoms and the subjects' age, marital status, occupation, education, or resilience. The only variables linked to menopausal symptoms were quality of life and predominant lifestyle. The majority of the participants in our data set had no symptoms. The results showed that participants' established resilience level with sporadic adversities was average (38. 53%). This study found that the maximum number of participants had a moderate degree of quality of life among females.

A study was conducted on women aged 40–64 who had no history of cancer. A comparison was made between women who reported having menopausal symptoms and those who did not. Compared to women without menopausal symptoms, women with menopausal symptoms reported much lower levels of Quality of life and higher work impairment. Similar effects on quality of life were observed in this study when comparing the quality of life of asymptomatic and symptomatic menopausal women [11]. From June 2019 to August 2021, a comparative cross-sectional study was carried out in the Gynecology and Obstetrics of Rawalpindi, postmenopausal women surveyed throughout the study period reported at least one clinical sign of a disordered health profile. This study demonstrated how lifestyle choices have a significant impact on menopausal symptoms. This study also revealed that the severity of menopause is influenced by lifestyle choices [12].

In 2020, Zhao *et al.*, recruited perimenopause women from three communities in Jinan City, Shandong Province, China, between March 2015 and March 2017. Their study aimed to assess the prevalence and intensity of menopausal symptoms at various perimenopause sub-stages, as well as the associations of these symptoms with social support and resilience. Each perimenopause sub-stage has its own set of menopausal symptoms. Additionally, fewer menopausal symptoms were substantially correlated with better family support and resilience, which may assist medical personnel in recognizing these symptoms and seeking the right preventive action. Contrary to this research, menopausal symptoms and resilience were not correlated [1]. A recent study by F Khurshid *et al.*, looked at women from the DHQ Hospital Mirpur, AJK, Pakistan, Gynecology department. Menopausal Rating Scale (MRS) questionnaires and structured interviews were used to gather information on demographic characteristics and menopausal symptoms. According to this study, mild to moderate depressive symptoms are common among postmenopausal women, highlighting the need for individualized assistance and interventions to improve their general well-being. However, there was no discernible link between menopause and resilience similar to this study [13].

In 2023, MB Waqar and colleagues carried out a cross-sectional survey in Pakistan's Tertiary Health Care Centers in Lahore. Convenient non-probability sampling was used to gather the data. All females aged 45 to 60 and older are eligible to participate. Among Senior Women Visiting Lahore's Tertiary Healthcare Facilities the quality of life was impacted by the moderate-to-severe menopausal symptoms that a considerable proportion of women experienced. Similarly, this study found a positive relationship between life satisfaction and menopausal symptoms [14]. In postmenopausal women in Europe, the US, and Japan, as well as among subgroups of women not using hormone therapy, Nappi *et al*., assessed the prevalence and health-related quality of life of moderate-to-severe menopausal symptoms. A significant percentage of women had moderate-to-severe menopause, and the symptoms that accompanied it affected their quality of life. Likewise, this research revealed a strong favorable correlation between menopausal symptoms and life satisfaction [15].

Some limitations concerning this research merit our attention. The population of our study relied only on urban areas and literate women due to this generalizability of results is affected. The data were based on self-reports and there was no objective measurement and validation of self-reported data which might cause potential biases. Another limitation was the use of a limited number of variables as mediators.

CONCLUSION

The study showed that only 37.3% of women reported menopause symptoms. The prevalence and severity of menopause symptoms were significantly associated with quality of life but there was no association with resilience. Overall, the current study indicates that continuous lifestyle practice should be considered to improve the health-promoting lifestyle and resilience, as they are mediators for reducing menopausal symptoms in middle-aged women.

Recommendations

The current study advances knowledge of women's safety and health during the menopause transition. Since there isn't much literature on Women's Health this literature will greatly advance the field understanding and aid in creating a plan to improve women's quality of life concerning their health.

Promoting the growth and fortification of the skills and aptitudes that enable women to discover purpose in their lives is crucial. To be contented with their lives and experience menopause in the best positive possible way, women should also learn coping mechanisms that enable them to deal with the typical issues of aging.

This study may also be helpful since it brings attention to delicate subjects like menopause which are taboo in our culture. By teaching women how to manage the symptoms we can raise their knowledge of menopause symptoms.

Conflict of Interest: None

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REFERENCES

1. Zhao D, Liu C, Feng X, Hou F, Xu X, Li PJM. Menopausal symptoms in different substages of perimenopause and their relationships with social support and resilience. 2019;26(3):233-9.
2. Inayat K, Danish N, Hassan LJJoAMCA. Symptoms of Menopause in peri and postmenopausal women and their atitude towards them. 2017;29(3):477-82.
3. Lobo RA, Kelsey J, Marcus R. Menopause: biology and pathobiology: Academic press; 2000.
4. Wang X, Wang L, Di J, Zhang X, Zhao GJM. Prevalence and risk factors for menopausal symptoms in middle-aged Chinese women: a community-based cross-sectional study. 2021;28(11):1271.
5. Mulhall S, Anstey KJIiA. Prevalence and severity of menopausal symptoms in a population-based sample of midlife women. 2018;2(Suppl 1):711.
6. Agarwal AK, Kiron N, Gupta R, Sengar A. A cross sectional study for assessment of menopausal symptoms and coping strategies among the women of 40-60 years age group attending outpatient clinic of gynaecology. 2022.
7. Zulfiqar E, Sohail I, Sadiq N, Sadiq HJJoTSoO, Pakistan Go. Comparison of Hot Flushes and Night Sweats Frequency and Problem Rating Among Working and Non-Working Perimenopausal Women. 2022;12(2):170-4.
8. Wang Q, Zhao D, Zhou M, Zhao X, Gao Y, Duan J, et al. The Effect of Resilience and Family Support Match on Psychological Distress among Women in the Menopausal Transition Based on Polynomial Regression and Response Surface Analysis. 2022;19(21):14165.
9. Nguyen TTP, Phan HT, Vu TMT, Tran PQ, Do HT, Vu LG, et al. Physical activity and social support are associated with quality of life in middle-aged women. 2022;17(5):e0268135.
10. Leone TJS-ph. Women's mid-life health in low and middle income Countries: a comparative analysis of the timing and speed of health deterioration in six countries. 2019;7:100341.

11. Whiteley J, DiBonaventura Md, Wagner J-S, Alvir J, Shah SJJowsh. The impact of menopausal symptoms on quality of life, productivity, and economic outcomes. 2013;22(11):983-90.
12. Kiran A, Yazdani T, Batool SS, Hina UJPAFMJ. Symptoms, Demographic Parameters and Health Profile of Post-Menopausal Women. 2022;72(3):1037-40.
13. Khurshid F, Chatta AN, Zain M, Aziz H, Dar TK, Saghir IJJoST-e-MU. A cross-sectional study to explore depression in postmenopausal women. 2024;7(1):61-7.
14. Waqar MB, Noreen S, Rizwan B, Khan A, Bashir I, Tanveer R, et al. Knowledge, attitude, and practices regarding menopause among elderly women attending tertiary health care centers in Lahore, Pakistan: Menopause among elderly women. 2023:12-7.
15. Nappi RE, Kroll R, Siddiqui E, Stoykova B, Rea C, Gemmen E, et al. Global cross-sectional survey of women with vasomotor symptoms associated with menopause: prevalence and quality of life burden. 2021;28(8):875-82.