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Menopausal symptoms: prediction of quality of marital relationship among couples

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ABSTRACT

Objective. The current study determined the association between menopausal symptoms and marital quality of life, and explored the role of several demographic variables (education, occupation, and income) on these symptoms. *Materials and Methods*. The purposive sample included 180 married couples. Wives experiencing premenopause, perimenopause, and postmenopause 35 to 60 years old (M=45.21 & SD=7.47) were recruited from Islamabad and Rawalpindi, Pakistan. Two assessment instruments were used: Menopause Rating Scale- MRS for menopausal symptoms, and ENRICH Marital Satisfaction Scale- EMS for quality of marital relationship. *Results*. Wives' quality of marital relationship was not significantly predicted by menopausal symptoms whereas husbands' quality of marital relationship was significantly predicted by psychological (but not physical) symptoms of menopause. Also, several differences in menopausal symptoms and quality of marital relationship were found in relation to demographic variables. *Conclusions*. Clinicians should consider the relevance of psychological symptoms of menopause, and not just physical symptoms, in relationship assessment, a result that has research, practice, education and public health implications. Furthermore, possible cultural differences in the perception of menopausal effects should be addressed in greater depth.

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Introduction

Human development entails many stages and transitions, but one specific to women that signals a major physical, psychological, and social transition is that of the menopausal period. During this stage, fertility and reproduction come to an end as ovaries cease functioning and women start a new chapter of life [1,2]. The World Health Organization defines natural menopause as "the permanent cessation of menstruation resulting from the loss of ovarian follicular activity which occurred after 12 consecutive months of amenorrhea" [3]. For women around the world, natural menopause typically occurs between 45 and 55 years old, with variation occurring across different world regions. For example, it is generally acknowledged that in developed countries, about 51 years is the mean age at menopause. In Asia, the average age ranges from 42.1 to 49.5 years [4]. For Pakistani women, it is 49.3 years [5]. Researchers estimate that by the year 2030, 1.2 billion women will be at menopausal and postmenopausal ages [6,7]. Furthermore, due to increasing life expectancy, women are expected to spend on average 1/3 of their life in the postmenopausal period [8].

A shift from a female's reproductive age into the period of post-reproductive age was defined as the climacteric period that includes premenopausal, perimenopausal, postmenopausal periods [3,6]. According to the stages of WHO, menopausal status is defined by the reported length of time since the last menstrual period. Those women who reported regular normal periods for the last twelve months were categorized as premenopause. Those women who reported irregular periods or an absence of periods for at least 3 months but less than 12 months were categorized perimenopause, and those who reported the last menstrual periods more than 1 year ago were classified as postmenopause [3].

Somatic, psychological, and urogenital symptoms are the most dominant menopausal symptoms, all of which are higher in postmenopause than in perimenopause [9]. Specific and common symptoms include tiredness,

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headache, joint and muscle aches, mental and physical tiredness, troubled sleep, depressive mood, irritability, vaginal dryness, hot flushes (HFs), sweating, and anxiety. However, sexual problems, heart discomfort, and bladder problems have also been reported [10]. Menopausal symptoms increase with age, body mass index (BMI), marital status, and working status [11], and they have been related to level of education, number of children, and family income [12].

A high degree of intimacy, affection, and empathy are generally associated with a high quality and stable marital relationship [13]. Sexual satisfaction, receiving support from a partner, participation in the decision-making process, relationship with the partner's family, social support, psychological well-being, and satisfaction with life also represent important aspects of the marital relationship satisfaction [14,15]. During transition to menopause, a number of these processes may be disrupted, affecting the well-being of a woman and her role in managing social, familial, and the marital relations [16]. Furthermore, although intimacy is an important aspect of the quality of marital relationships [17], middle-aged women in Asian cultures often assume that menopausal changes will affect their intimate relationships and negatively affect their lives [18]. Chinese menopausal women, for example, believe that with the increase in age, the importance of sexual relationships declines. The majority of these women reported decreased sexual interest after menopausal transition and felt accountable for fluctuations in their sexual relationship with their husbands [19]. In contrast, some research has also indicated that some women may experience increased sexual interest after menopausal transition due to a reduction in stressors such as pregnancy and fewer child-rearing responsibilities [20].

Rationale of the Study

The onset of menopausal symptoms in Pakistani women may adversely affect their marital relationship and psychological and physical well-being. The present study aimed to identify whether menopausal symptoms affected quality of marital relationships, while also examining several relevant demographic variables (education, occupation, and income). In doing so, the findings might add to the broader understanding of the effects of menopause on marital relationships in a non-Western context. Studying such women is important because women from non-Western cultures generally do not discuss such issues openly, and many are uninformed regarding the signs, symptoms, and consequences of menopause [21]. Findings from this study could help healthcare professionals devise and execute practical programs to prepare women and their families for the physical, psychological, and social transitions associated with menopause.

In this study, three hypotheses were addressed. (1). Menopausal symptoms will influence the quality of marital relationships. (2). Given that literacy and education are often tied to the understanding of menopause and its symptoms, there will be a difference in menopausal symptoms and quality of marital relationships between highly educated and less educated wives. (3). There will be a difference in menopausal symptoms and quality of the marital relationships among wives having highly educated vs less educated husbands. In addition to these hypotheses, we also investigated income and employment as possible variables of interest.

Materials and Methods

Sample and Procedure

Sample size requirements were calculated using G*Power (version 3.1.9.2), resulting in a sample of 180 couples. Women who were married, had qualifications until matric education and onwards, and experienced natural menopause without any intervening source such as pregnancy, breastfeeding, and surgical exclusion of the uterus or ovaries, were included in the study. Menopausal status was based on the stages defined by WHO. Wives experiencing premenopause, perimenopause, and postmenopause between ages of 35-60 years were selected. Data were collected using the purposive sampling technique from Islamabad and Rawalpindi, Pakistan.

Instruments

Two standardized instruments were used, along with forms to collect demographic information and obtain informed consent form. Menopause Rating Scale-MRS was used for measuring menopausal symptoms [22]. MRS consists of 11 items and has three subscales: psychological subscale (4 items), somato-vegetative subscale (4 items), and urogenital subscale (3 items). Women rate their responses on a 5-point Likert scale ranging from 0 (no symptoms) to 4 (very severe symptoms). For each subscale, a composite score is calculated by summing the scores. Values equal or above 7 (psychological), 9 (somato- vegetative), 4 (urogenital), and 17 (total) were used to define severe menopausal symptoms [22,23].

ENRICH (Evaluation and Nurturing Relationship Issues, Communication and Happiness) Marital Satisfaction Scale (EMS) assessed the quality of the marital relationship [24]. This scale consists of two subscales with a total of 15 items: Marital Satisfaction Subscale (10 items) and Idealistic Distortion Subscale (5 items). Participants respond on a 5-point Likert scale that ranges from 1 (Strongly Disagree) to 5 (Strongly Agree). For both subscales, raw scores are calculated by first reverse-scoring the negative items and then summing the items for each scale. Scores can range from 15 to 45, with

higher scores indicating greater marital relationship satisfaction.

Both questionnaires were completed by the wives but only the EMS was completed by the husband. No time limit was specified, but most participants required about 10 minutes to complete the questionnaire.

Ethical Considerations

The project was approved by meeting the ethical obligations of Bahria University Islamabad, Pakistan. Instruments were used after obtaining author permissions. Research participants were handed an informed consent form which explained the objective and purpose of the study and ensured their willingness to participate in the study. Candidates were given choice to withdraw from the project at any time and were assured confidentiality and the use of aggregate data only for research purposes.

Statistical Analysis

Statistical Package for Social Sciences (SPSS-IBM Version 23) was used to analyze the data. Frequency, mean, and percentages for the socio-demographic variables were computed using descriptive statistics. To infer associations between variables, multiple regression was used and ANOVA was used to determine differences among groups.

Results

Table 1 provides descriptive statistics of the wives, whose ages were M=45.21 and SD=7.47. The sample showed a range of educational attainment, occupational diversity (with most being housewives), and income. Regarding menopausal status, 42.8% were premenopause, 36.7% perimenopause, and 20.6% postmenopause. Husbands also showed a range of educational attainment.

Table 1. *Socio-demographic information of Participants (n=180)*

Characteristics of the Participants	Categories	*f*	%	M	SD
Wives' age				45.21	7.47
Wives' education	Matric	45	25.0		
	Intermediate	35	19.4		
	Graduate	50	27.8		
	Masters	45	25.0		
	PhD	5	2.8		
Wives' occupation	Government sector	20	11.1		
	Private sector	41	22.8		
	Housewife	119	66.1		
Wives' income group	Lower	53	29.4		
	Middle	74	41.1		
	Higher	53	29.4		
Wives' Menopausal status	Premenopause	77	42.8		
	Perimenopause	66	36.7		
	Postmenopause	37	20.6		
Husbands' education	Matric	29	16.1		
	Intermediate	35	19.4		
	Graduate	55	30.6		
	Masters	52	28.9		
	PhD	9	5.0		

***Part 1 of Results**: Relationships between menopausal symptoms and husbands' and wives' marital satisfaction*

Table 2 (multiple regression analysis to predict idealistic distortion and marital satisfaction of husband with wives' menopausal symptoms) indicates that the psychological symptoms of wives significantly predict marital satisfaction among their husbands. Specifically, higher symptomology is associated with lower marital satisfaction of the husband.

Table 2. *Multiple regression analysis to predict idealistic distortion and marital satisfaction of husband with menopausal symptoms of wives (n= 180)*

	Idealistic distortion of husband					
	B	SE	B	p	95% CI	
					LL	UL
Constant	20.26	1.13		.00	18.03	22.49
Psychological	-.04	.11	-.04	.70	-.26	.18
Somatic	-.38	1.12	-.03	.74	-2.58	1.83
Urogenital	-.17	.13	-.12	.21	-.43	.09
$R = .17$, $R^2 = .03$, $\Delta R^2 = .01$, $F = 1.67$, $p = .18$						
	Marital satisfaction of husband					
	B	SE	B	p	95% CI	
					LL	UL
Constant	41.15	1.64		.000	37.91	44.40
Psychological	-.33	.162	-.20	.04	-.65	-.01
Somatic	-.15	1.62	-.01	.93	-3.35	3.06
Urogenital	.05	.19	.03	.78	-.33	.43
$R = .19$, $R^2 = .04$, $\Delta R^2 = .02$, $F = 2.23$, $p = .09$						

Table 3 indicates that menopausal symptomology has no association with either idealistic distortion or marital satisfaction of the women (wife) herself. Overall R2 values are relatively low.

Table 3. *Multiple regression analysis to predict idealistic distortion and marital satisfaction of wives with their menopausal symptoms (n = 180)*

	Idealistic distortion					
	B	SE	β	p	95% CI	
					LL	UL
Constant	20.28	1.11		.00	18.09	22.46
Psychological	-.04	.11	-.04	.69	-.26	.17
Somatic	-1.05	1.09	-.09	.34	-3.21	1.11
Urogenital	-.12	.13	-.09	.37	-.37	.14
$R = .18$, $R^2 = .03$, $\Delta R^2 = .02$, $F = 1.94$, $p = .13$						
	Marital satisfaction					
	B	SE	β	p	95% CI	
					LL	UL
Constant	40.20	1.69		.00	36.87	43.54
Psychological	-.11	.17	-.06	.53	-.44	.22
Somatic	-.92	1.67	-.05	.58	-4.21	2.38
Urogenital	-.09	.19	-.05	.64	-.48	.30
$R = .13$, $R^2 = .02$, $\Delta R^2 = .001$, $F = 1.06$, $p = .37$						

Results in Table 4 indicate that marital satisfaction of wives is significantly predicted by marital satisfaction of their husbands; but marital satisfaction of wives was not significantly predicted by idealistic distortion of their husbands.

Table 5 shows that the idealistic distortion of wives is significantly predicted by marital satisfaction and idealistic distortion of their husbands.

Table 4. *Multiple regression analysis to predict marital satisfaction of wife with the idealistic distortion of husband and martial satisfaction of husband (n=180)*

	B	SE	β	p	95% CI	
					LL	UL
Constant	14.10	2.41		.00	9.35	18.85
Marital satisfaction (husband)	.53	.08	.52	.00	.38	.68
Idealistic distortion (husband)	.18	.11	.12	.11	-.04	.40
$R = .60$, $R^2 = .36$, $\Delta R^2 = .36$, $F = 50.36$, $p = .000$						

Table 5. *Multiple regression analysis to predict idealistic distortion of wife with the idealistic distortion of husband and martial satisfaction of husband (n= 180)*

	B	SE	β	p	95% CI	
					LL	UL
Constant	6.14	1.68		.000	2.82	9.46
Marital satisfaction (husband)	.12	.05	.18	.03	.01	.22
Idealistic distortion (husband)	.40	.08	.41	.000	.25	.56
$R = .54$, $R^2 = .29$, $\Delta R^2 = .28$, $F = 35.58$, $p = .000$						

***Part 2 of Results**: Associations between demographic variables, menopausal symptoms, and marital satisfaction*

Wives' education is negatively correlated with the psychological subscale (r= -.32**, p<0.00), somato-vegetative subscale (r=-.23**, p<0.00), and urogenital subscale (r= -.22**, p<0.00) whereas there is no correlation between wives' education and subscales of quality of marital relationship (marital satisfaction and idealistic distortion) (not shown in table).

Table 6. *Analysis of variance between Wives' occupation on variables of Menopausal Symptoms and Quality of Marital Relationship (n=180)*

	Government Sector (n=20)		Private Sector (n=41)		Housewife (n=119)					
Variables	M	SD	M	SD	M	SD	F	*p*	η^2	Post-Hoc
Psychological	6.85	3.65	7.39	3.49	8.52	4.06	2.40	.09	-	-
Somato-vegetative	5.75	3.77	5.54	4.14	7.75	3.93	5.90	.00	.06	1<2<3
Urogenital	2.45	2.33	3.22	3.36	4.10	3.22	2.97	.05	.03	1<2<3
Marital satisfaction wife	38.00	5.14	37.59	7.88	38.07	6.28	.08	.92	-	-
Idealistic distortion wife	17.80	3.14	19.02	4.33	18.11	4.47	.83	.44	-	-

Table 6 reveals that women whose main role is that of housewife report higher severity of somato-vegetative symptoms than women/wives who are working in government and private sectors, although the effect sizes are relatively small, $\eta 2 = .06$. In addition, women whose main role is that of housewife report higher severity of urogenital symptoms than wives who are working in government and private sectors, although effect sizes are again relatively small, $\eta 2 = .03$. Posthoc comparisons indicate significant between group mean differences of each group with other two groups. There is no significant difference among categories of wives' occupation and variables of quality of marital relationship.

Husbands' education is negatively correlated with wives' psychological subscale ($r= -.31^{**}$, $p<0.00$), somato-vegetative subscale ($r=-.20^{**}$, $p<0.00$), and urogenital subscale ($r= -.19^{**}$, $p<0.00$) whereas there is no correlation between husbands' education and subscales of quality of martial relationship (marital satisfaction and idealistic distortion).

Discussion

This study assessed whether menopausal symptoms predict the quality of marital relationships among married couples. It also explored differences in the menopausal symptoms and quality of the marital relationships in relation to several demographic variables (education and occupation) previously not examined in Pakistani couples.

The first hypothesis predicted that menopausal symptoms would affect the quality of marital relationships. We found that the psychological symptoms of menopause of wives significantly predicted marital satisfaction among husbands, consistent with previous research which found an inverse relationship between wives' depressive symptoms and their relationship with husbands [25,26]. Asian-based studies have reported that psychological complaints such as depression and anxiety create negative feelings in menopausal women that can negatively influence marital intimacy and/or satisfaction [27-29]. We surmise that, perhaps when the wife is not under mental distress, she communicates more effectively and better performs her family duties, resulting in a more positive relationship with the husband. Women who have a supportive partner often have a smoother menopausal transition [30].

In contrast to the above, wives' own idealistic distortion and marital satisfaction of were not significantly predicted by their own menopausal symptoms (psychological, somatic, and urogenital symptoms), again aligning with previous research [31,32]. One recent study in Pakistan reported that married women emphasized that marital satisfaction was not possible without a satisfying sexual life [33]. This attitude may be related to the fact that in Eastern cultures most marriages are arranged by the family, so this compromising factor in the marital relationship is already understood by the couple. However, it should also be noted that other factors such as living standards and financial status predict marital satisfaction [34].

Marital satisfaction of the wife was significantly predicted by the marital satisfaction of the husband, also suggested by previous research [35]. Furthermore, it appears that in Eastern culture, menopausal women have a good level of consensus, satisfaction, and affective expression, as well as a moderate level of cohesion with their spouses and an overall good level of marital adaptation [30,36].

Marital satisfaction of the wife was not predicted by idealistic distortion of husband, suggesting that women were more sensitive to the quality of relationships and thus this factor had the greater influence on interpersonal functioning than their husbands [37]. Many husbands do not cope well with their spouse's menopausal symptoms due in part to their limited information about menopausal transition and its related consequences. Yet, husbands' perceptions and attitudes towards the menopause may affect women's menopausal symptoms and marital relation [38]. In contrast, idealistic distortion of the wife was significantly predicted by marital satisfaction and idealistic distortion of the husband, indicating that the husbands' perceptions had substantial impact on their wives self-related cognitions. The results were consistent with the previous studies indicating commonly used coping mechanisms among husbands of menopausal women that improve mental health of their wives [39,40].

The second major hypothesis of this study focused on demographic differences (education, employment) as possible covariates of interest in marital satisfaction in menopausal women. Findings revealed a negative relationship between education and menopausal symptoms. This finding, consistent with studies [25,41,42] suggesting that higher education and knowledge about the nature of menopause and its consequences better prepares the woman to cope with this transition and, in doing so, decreases the worry (and thus perceived severity/gravity) of the symptoms [43,44]. The relationship between education, menopausal symptoms, and marital satisfaction might also have been mitigated by the fact the women with a higher educational level generally report higher sexual and marital satisfaction, as diverse knowledge can change a person's attitude towards relationships in a positive way [45]. The positive impact of education on menopausal severity and coping has been demonstrated in other cultures (e.g., Nigeria) as well [46].

As part of this exploration, husbands' education was negatively correlated with wives' menopausal symptoms. These results contrast with the literature which found that wives' severity of menopausal symptoms (mainly

vasomotor symptoms such as hot flushes and night sweats) increased as educational levels of husbands increased. A greater level of stress among more educated people has been proposed as an explanation for this difference [47-49].

As part of our investigation into the role of demographic variables, we examined differences in menopausal symptoms and quality of the marital relationship between working and non-working wives. Interestingly, housewives had increased severity of somato-vegetative and urogenital symptoms than working spouses [50-54]. While no clear explanation accounts for these differences, we hypothesize that employment may have acted as a stress reducer for the women during the menopausal transition, as these women had greater opportunities for self-realization outside their homes [55-62].

Study Limitations

The current study had several limitations that need to be addressed in future studies. Participants were educated, married, and recruited from Islamabad and Rawalpindi only, thereby limiting the generalizability of results. Women who had surgically induced menopause were not included in this study but might be included in future research to determine whether induced menopause is different than natural menopause with respect to marital satisfaction. Finally, wives self-identified their menopausal status, and thus errors may have occurred in the classification process of premenopausal, perimenopausal, or postmenopausal.

Recommendations for Future Research

The present study provides insight concerning the menopausal transition, previously considered a taboo topic in Pakistan. Further studies using longitudinal and/or qualitative methods could provide a deeper cultural framework for understanding the effects of menopausal transition on marital couples. Moreover, a sample that includes women from both rural and urban—these constituted very different groups in Pakistan—could help understand the potentially wide variability in effects that women having very different cultural experiences within the same country. Finally, similar research could explore differences in marital satisfaction between surgically induced menopause and natural menopause. Clinical and vocational psychologists could develop interventional methods to educate and assist couples experiencing distress and difficulty related to menopausal and related midlife symptoms for both the husband and wife.

Highlights

- ✓ Menopause, a transitional phase of a woman's life, brings challenges for women.
- ✓ Climacteric period and marital satisfaction.
- ✓ Menopausal transition, intimacy, affection and empathy.

Conclusions

This study concluded that wives' quality of marital relationship was not significantly predicted by menopausal symptoms while husbands' quality of marital relationship was significantly predicted by psychological symptoms of menopause, indicating the dependency of relationship assessment that results from spousal interactions [see also 62]. Several demographic-related differences between menopausal symptoms and quality of marital relationships were also identified in this study.

Conflict of interest disclosure

There are no known conflicts of interest in the publication of this article. The manuscript was read and approved by all authors.

Compliance with ethical standards

Approval and permission were taken from Departmental Ethical Review Board, and authors of the instruments to use their scales in study.

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