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Original Research Article

A cross-sectional study for assessment of menopausal symptoms and coping strategies among Jordanian women of 40-60 years age group

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ABSTRACT

Background: Menopause typically occurs between the ages of 45 and 55 and can significantly impact a woman's quality of life. Understanding the prevalence of menopausal symptoms and the strategies of coping with them is crucial for developing targeted interventions that address their unique needs.

Methods: This cross-sectional study targeted the Jordanian women aged 40-60 through online questionnaire during January 2023-June 2023. The menopause rating scale (MRS) was utilized to assess the severity of menopausal symptoms, including somatic, psychological, and urogenital domains.

Results: The study included a total of 309 successfully completed participations by women from different socioeconomic and educational backgrounds in Jordan. The analysis revealed a high prevalence of menopausal symptoms among the participants. The severity of symptoms varied; moderate to severe symptoms, were appreciable across the various domains. The coping strategies employed by the participants were multifaceted. Unfortunately, a proportion of participants admitted to using ineffective coping mechanisms, such as tobacco and excessive caffeine consumption. In general, the study revealed that there is an evident shortage in the overall awareness among women.

Conclusions: The findings emphasize the necessity of comprehensive interventions to enhance the well-being of women and consequently the society. The qualitative and the quantitative aspects of the study shall contribute valuable perceptions to both of the academia and the authorized healthcare institutes.

Keywords: MRS, Menopausal symptoms, Middle age women, Coping strategies

INTRODUCTION

Menopause is characterized by the cessation of menstrual cycles. After a period of 12 months without a menstrual cycle, the condition is diagnosed. Although it can occur in one's 40s or 50s, the mean age at which it occurs in the United States is 51. Menopause is categorized into three primary phases: perimenopause, menopause, and post menopause. During this period, the ovaries undergo atrophy, leading to a decrease in the synthesis of the hormones estrogen and progesterone, which are responsible for stimulating the monthly cycle.

The term "menopause" is used to describe the natural and irreversible stop of menstruation. Historically, menopause has been recognized as a watershed event in the reproductive and emotional lives of women. The decline in the general biochemistry and specifically in the ovarian production of the steroidal sex hormones, mainly estrogen and progesterone (Figure 1), causes menopause, which is not an illness but a natural phase in a woman's life. She may experience physical and mental distress as a result of the decline in her ability to reproduce and the onset of old age. Hot flashes, night sweats or chills, disturbed sleep, vaginal dryness, loss of libido, loss of energy, mood

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swings, increased irritability, thinning skin, and urine incontinence are the most commonly reported physical problems. Loss of self-assurance, sadness, impatience, forgetfulness, inability to focus, panic attacks, and anxiety are psychological problems; depression symptoms and menopausal symptoms overlap.²

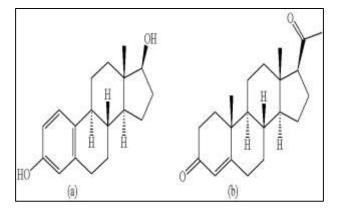


Figure 1 (A and B): Estradiol, the major estrogen sex hormone in women, and progesterone.

These women may encounter menopausal symptoms that are severe enough to interfere with their everyday lives without having any idea that menopause is the cause of their symptoms. The decline in estrogen levels that occurs as a woman nears menopause is directly responsible for the onset of menopausal symptoms, which can be felt by some women as early as the perimenopausal period.³ They may endure vasomotor, somatic, psychological, or sexual issues, all of which are associated with the climacteric. People often employ one of three primary coping mechanisms when under stress: assessment-focused coping, issue-focused coping, or emotion-focused coping.

It's no wonder that women who have experienced menopause employ a diverse array of coping methods. This is quite understandable considering the beneficial impacts that physical activity, dietary mindfulness, and creative endeavors can have during this phase. Given the individuality of each woman and the evolving nature of circumstances, the suitability of coping practices might shift. For instance, during periods of pronounced fatigue, adopting restorative poses could prove particularly effective. 1 Moreover, there are tools available to assess the intensity of complaints associated with aging and menopause which allow for the systematic evaluation of symptom profiles, providing valuable insights into the experiences women undergo during this transitional period.4 One such tool is the MRS, which is meant to assess menopause-specific health-related quantity of life (QoL).5 Most women have no idea of the difficulties and problems that can arise after menopause. This study aims to assess the state of coping methods used by middle-aged to elderly women to alleviate menopausal symptoms using a modified version of the menopause symptom checklist (MSFC).

METHODS

Study design

This cross-sectional study employed a structured and comprehensive approach to assessing menopausal symptoms and coping strategies among women aged 40 to 60 in Jordan. The questionnaire was carefully crafted to gather both quantitative and qualitative data, enabling a thorough assessment of the participant's experiences.

The study design incorporated a two-section questionnaire as the primary research tool. The first section gathered demographic data, including age, education level, marital status, and monthly income. This section provided essential context for understanding the participants' backgrounds and potential socio-economic influences on their menopausal experiences.⁶

The second section of the questionnaire delved into the assessment of menopausal symptoms and coping strategies. Participants were presented with a list of menopausal symptoms, ranging from hot flashes to joint discomfort, and were asked to indicate which symptoms they were currently experiencing. For each reported symptom, participants were further prompted to rate its severity on a five-point scale ranging from "none" to "extremely severe." This structured approach enabled a systematic evaluation of the prevalence and intensity of menopausal symptoms.⁷⁻⁹ Additionally, participants were queried about their adoption of coping strategies to manage these symptoms. The coping strategies explored in the questionnaire included self-calming skills (such as exercise, yoga, and relaxation breathing exercises), dietary awareness, maintenance of social relationships, fostering a sense of achievement, and engagement in creative activities.

Data collection

An online questionnaire was used to collect information from Jordanian women aged 40 to 60 during January 2023-June 2023. Ethical considerations were paramount throughout the process, ensuring participant privacy, confidentiality, and voluntary participation. Participants were instructed to complete both sections of the questionnaire, ensuring that all demographic information and responses were accurately recorded. This approach allowed participants to respond thoughtfully and truthfully without any external influence.

Statistical analysis

The p value (regression analysis; confidence level is 95%) and the other statistical analyses were performed using the excel software. The numerical results were employed to summarize and present the various characteristics of the sample. To assess the prevalence and severity of menopausal symptoms, the frequency and distribution of reported symptoms were analyzed. The severity ratings

provided by participants were aggregated, analyzed, and used to classify symptom intensity across the various domains. The coping strategies adopted by participants were quantitatively analyzed to determine the frequency of usage for each strategy. Patterns and trends in coping strategy selection were examined to gain a deeper understanding of the approaches women in Jordan employ to manage their menopausal symptoms.

The results were interpreted within the context of existing literature and the study's objectives. The combination of demographic, symptom, and coping strategy data facilitated a comprehensive assessment of menopausal experiences and will contribute valuable insights to both academic research and the practical healthcare applications.

RESULTS

The research involved a cohort of 309 women from a diverse array of backgrounds within Jordan, aged between 40 and 60 years old (Table 1). To offer a comprehensive understanding of the participants' distribution across

different age segments, the study noted that 40% fell within the 40-45 range, 27.2% were in the 46-50 range, 18% represented the 51-55 age-group, and the remaining 15% were situated in the 56-60 age range.

Educational attainment (Table 1) exhibited a diverse range, with 4% having completed primary school, 19% middle school, 32% high school, 34% achieving university-level education, and 11% holding higher degrees. Marital status displayed variability, with 37% of participants being married, 17% divorced, 29% widowed, and 17% unmarried. In terms of income distribution (Table 1), 39% of the respondents reported earnings below 500 Jordanian Dinars (JD), 27% fell within the 500-1000 JD range, while the remaining 34% enjoyed incomes surpassing 1000 JD.

In the current study, among the 309 women in the 40-60 age range, out of this studied population (Table 2) we found 143 premenopausal, 97 perimenopausal, and 69 postmenopausal women. The data show that there is a statistically significant association between the mean of each age group and the status of menopause (Table 2).

Table 1: The demographic characteristics of the participant (n=309) and the p value between the mean of each age group (years) and the percent of its frequency.

Variables	Categories	N	Percentages (%)	
	40-45 (42.5)	124	40.1	
Age (In years) (p=0.029)	46-50 (48)	84	27.2	
	51-55 (53)	55	17.8	
	56-60 (58)	46	14.9	
	Primary	13	4.2	
	Middle	59	19.1	
Education	High school	99	32.0	
	College	33	10.7	
	University	105	34.0	
	Divorced	51	16.5	
Marital status	Married	114	36.9	
	Unmarried	53	17.2	
	Widow	91	29.4	
	less than 500	121	39.2	
Income (JD)	500 -1000	85	27.5	
	more than 1000	103	33.3	

Table 2: The frequency distribution of women according to age and menopausal status (n=309) and the p value between the mean of each age group (In years) and the percent of the frequency of each menopausal status.

Age group (mean) (In years)	Regular, n=143 (%) (premenopausal)	Irregular, n=97 (%) (perimenopausal)	Absent, n=69 (%) (postmenopausal)
40-45 (42.5)	79 (55.2)	34 (35.1)	11 (15.9)
46-50 (48)	44 (30.8)	25 (25.8)	15 (21.7)
51-55 (53)	14 (9.8)	20 (20.6)	21 (30.4)
56-60 (58)	6 (4.2)	18 (18.6)	22 (31.9)
Average age	45.9	49.0	51.8
P value	0.026	0.036	0.027

As the study probed into the realm of menopausal symptoms, a series of intriguing insights surfaced (Table 3). Sleep problems loomed prominently, afflicting 90% of the respondents (moderate to severe) while 37.5% experienced sleep disturbances of severe to extremely severe nature, manifested as difficulties in falling asleep, staying asleep, and early awakening. The study also delved into the emotional well-being aspects, unearthing noteworthy patterns in mood-related experiences. Depressive mood cast its shadow over 75% of the participants (moderate to severe), and an intriguing percent of nearly one-third (36%) of this subset noted the presence of severe to extremely severe symptoms.

Irritability (Table 3), characterized by feelings of nervousness and inner tension, emerged as a prevalent complains among participants, of whom 74% admitted to grappling with moderate to severe levels of irritability. Anxiety (Table 4) exhibited a similar prevalence rate of 70% (moderate to severe), with a noticeably high 45% describing their inner restlessness as severe to extremely severe. These results indicate a potentially profound impact on their overall mental state.

Physical and mental (management of daily tasks) exhaustion (Table 3) emerged as a significant concern, affecting a substantial percentile of the participants (80% moderate to severe). Among this group, 40% reported experiencing severe to extremely severe fatigue, a manifestation that can significantly hinder daily functioning.

Sexual problems (Table 3), such as changes in sexual desire and satisfaction, affected the majority of the

participants. Among them, 55% voiced a moderate to severe level of impact on their sexual well-being.

Bladder problems (Table 4), encompassing difficulties in urination and bladder incontinence, were noted by 70%, with 34% encountering severe to extremely severe issues. Joint and muscular discomfort, manifested as pain in the joints and rheumatoid complaints, was reported by 91%, with 81% experiencing a moderate to severe degree of discomfort. The study revealed that 69% of participants experienced vaginal dryness, an issue that was characterized as moderately to severely uncomfortable by 57% of this subgroup.

Hot flashes emerged as a notable complaint, affecting a substantial portion of the participants. Within this, about 85% of the women described the hot flashes as having a moderate to severe impact on their daily lives. Heart discomfort, encompassing sensations like unusual heartbeat racing and tightness, garnered attention from the majority of the participants, with about 86% categorizing these sensations as moderately to severely distressing. P values are listed among various domains (Table 4), with (1)/(2), (4), (5) > 0.8, (1)/(3):0.080, to (4)/(5):0.001.

Among the assessed coping strategies (Table 5), 76% of participants reported using self-calming skills with exercising being the most common approach. Awareness about diet and weight control was practiced by 69% of participants. Maintaining social relationships was reported by 63% of participants, while 38% indicated maintaining a sense of achievement as a coping strategy. Engaging in creative activities was reported by 46% of the participants. The significant p values are in (1)/(3), and (4)/(5), and to a lesser extent in (1)/(2): 0.099.

Table 3: The distribution of behavioral and psychological symptoms of menopause and the (p value) with respect to the sleep problems.

Variables (p value)	Degree	N	Percentages (%)	Variables (p value)	Degree	N	Percentages (%)
1. Sleep problems	Extremely severe	13	4.2	2. Depressive mood	Extremely severe	28	9.1
	Severe	103	33.3		Severe	84	27.2
	Mild	58	18.8		Mild	39	12.6
	Moderate	117	37.9	(0.035)	Moderate	109	35.3
	None	18	5.8		None	49	15.9
3. Irritability (0.054)	Extremely severe	23	7.4	4. Anxiety (0.104)	Extremely severe	41	13.3
	Severe	71	23.0		Severe	99	32.0
	Mild	58	18.8		Mild	36	11.7
	Moderate	100	32.4		Moderate	81	26.2
	None	57	18.4		None	52	16.8
5. Physical and mental exhaustion (0.008)	Extremely severe	28	9.1	6. Sexual drive (0.843)	Extremely severe	33	10.7
	Severe	96	31.1		Severe	56	18.1
	Mild	65	21.0		Mild	49	15.9
	Moderate	85	27.5		Moderate	64	20.7
	None	35	11.3		None	107	34.6

Table 4: The frequency distribution of the several physical menopausal symptoms (n=309) and the corresponding p values.

Variables	Degree	N	Percentages (%)	Variables	Degree	N	Percentages (%)	
	Extremely severe	28	9.1	Joint and	Extremely severe	33	10.7	
Bladder	Severe	76	24.6	muscle discomfort (2)	Severe	96	31.1	
problem (1)	Mild	50	16.2		Mild	57	18.4	
	Moderate	61	19.7		Moderate	96	31.1	
	None	94	30.4		None	27	8.7	
	Extremely severe	38	12.3	Hot flashes / sweating (4)	Extremely severe	11	3.6	
Dryness of	Severe	54	17.5		Severe	47	15.2	
Vagina (3)	Mild	46	14.9		Mild	137	44.3	
	Moderate	75	24.3		Moderate	78	25.2	
	None	96	31.1		None	36	11.7	
Heart discomfort (5)	Extremely severe	16	5.2	P value				
	Severe	55	17.8	(1)/(2), (4), (5) > 0.8				
	Mild	129	41.7	(1)/(3): 0.080				
	Moderate	81	26.2	(4)/(5): 0.001				
	None	28	9.1					

Table 5: The frequency distribution of coping methods, the menopausal status (n=309), and p values (among the domains).

Coping (P value; % of "yes")		Regular (%; 143)	Irregular (%; 97)	Absent (%; 69)	Total (%; 309)
Solf colming skill (1)		21 (14.7)	30 (30.9)	24 (34.8)	75 (24.3)
Self-calming skill (1)	Yes	122 (85.3)	67 (69.1)	45 (65.2)	234 (75.7)
Awareness about diet and weight (2), p=(1)/(2): 0.0994		21 (14.7)	44 (45.4)	32 (46.4)	97 (31.4)
		122 (85.3)	53 (54.6)	37 (53.6)	212 (68.6)
C	No	31 (21.7)	46 (47.4)	37 (53.6)	114 (36.9)
Social relationship (3), $p=(1)/(3)$: 0.0002	Yes	112 (78.3)	51 (52.6)	32 (46.4)	195 (63.1)
Maintain sense of achievement (4), p=(1)/(4): 0.2186		104 (72.7)	50 (51.5)	38 (55.1)	192 (62.1)
		39 (27.3)	47 (48.5)	31 (44.9)	117 (37.9)
Doing creative activities (5),	No	101 (70.6)	38 (39.2)	29 (42.0)	168 (54.4)
p=(1)/(5): 0.1685, (4)/(5): 0.0501	Yes	42 (29.4)	59 (60.8)	40 (58.0)	141 (45.6)
					129 (41.7)
Estimated general awareness (%; 309)	Yes				180 (58.3)

DISCUSSION

The voluntary participation was a cornerstone in recruiting the women in this sample. Table 1 shows that younger women (40-45) had more willingness and were more likely to participate. This indicates that, in this age group and probably at younger age, women in Jordan start to feel an unexpected change and a degree of biological changes in their bodies, thus, motivate them to seek knowledge and a better understanding of the hidden transition between premenopausal and perimenopausal states. The direct proportionality between the age group (or the mean) and the number of participants (p=0.029) implies that the younger (40-45) are still psychologically intact and energetic with motivation while these feature decline as they age and as they pass through the menopausal experience. This observation suggests that national

intensive care and educational programs should address women at a younger age; arbitrarily 35-40.

Table 2 presents the distribution of women according to their age and menopausal status. The data illustrate that the average age at which women in Jordan are likely to have a regular menstruation is 45.9, 49 for irregular status, and 51.8 for the menopause, which are consistent with the previous findings.^{4,6,7,10-12} Further support to the homogeneity of the sample comes from the calculated p<0.05 between the mean of each age group and the distribution of participants in each menopausal status.

Prevalence and severity of menopausal symptoms

The analysis of the behavioral and psychological menopausal symptoms (Table 3) revealed a substantial

prevalence among the participants. Most notably is the sleep problems, including difficulty falling asleep and waking up early, affected the majority of the participants (>90%), which may contribute to overall sleep deprivation and daytime fatigue. Depressive mood and irritability were also commonly experienced and a major issue impacting women. The p value indicates that there is a strong statistical correlation between the sleep problems and each of depressive moods and the physical and mental exhaustion while to noticeable extent with the irritability. These findings suggest that improving sleep quality is crucial. Also, the frequency distribution underscores the emotional toll that menopausal symptoms can have on women's overall well-being, which warrants a direct attention to these mental health issues.

Hot flashes (Table 4) were reported by a considerable portion of women (85% of the study sample), aligning with the existing literature highlighting their prominence during menopause. ¹⁰ On the other hand, the severity of the various physical symptoms varied randomly in their frequency distribution across the different domains. The p values indicate that only the hot flashes and the heart discomfort have statistical significance and could be related; they are not random statistically. These results indicate that the physical complaints of menopausal status need individualized intervention based on symptom severity, as concluded previously. ¹³

Coping strategies

The study explored various coping strategies employed by women to manage their menopausal symptoms (Table 5). The most prevalent coping strategy was self-calming skills, with 76% of participants utilizing techniques such as exercising, yoga, and relaxation breathing exercises. This reflects a proactive approach taken by women to alleviate symptoms through lifestyle adjustments. Awareness about diet and weight control was also commonly practiced, highlighting the recognition of the potential impact of dietary choices on symptom management, as emphasized earlier. 2,11,13

Maintaining social relationships emerged as a key coping strategy, with 63% of women valuing the support and camaraderie offered by friends and family. The importance of a robust support network cannot be overstated, as it contributes not only to symptom management but also to overall emotional well-being. Similarly, the emphasis on maintaining a sense of achievement and engaging in creative activities to pursue positive experiences and accomplishments would be much of a help despite the challenges posed by menopause. These inferred extrapolations were highlighted in previous analyses, warranting an essential implementation. 4,14,15

The calculated p values (Table 5) illustrate that those self-calming skills (1), awareness about diet and weight (2), and social relationships (3) are, to some degree, related and may be recognized together in one woman. On the other

hand, maintaining a sense of achievement (4) and doing creative activities (5) as coping strategies may be present at a higher probability in another woman in any of the menopause stages. This variation regarding aspects of awareness is consistent with the low "estimated general awareness" (58.3%; Table 5). These findings indicate that the Jordanian society needs more intense and systematic educational programs, about menopause coping strategies, in addition to the available healthcare interventions and support systems.

Along with these valuable insights into symptomatology and coping mechanisms, the original advantage of the present study is being un-localized; not focused on a specific community in Jordan, due to its nature as an online questionnaire-based investigation. On the other hand, it is limited in the number of women (309) who had the fulfilling willingness to react and complete the online questionnaire successfully. To some degree, this would be attributed to the low educational level and the low general awareness of the available valuable electronic learning technology and how to employ it.

Recommendations

The findings of this study have several implications for healthcare providers, policymakers, and women themselves. ¹⁶ Firstly, the high prevalence of menopausal symptoms underscores the necessity of integrating menopause-related care into routine healthcare services. Women should be encouraged to seek medical guidance for symptom management and receive accurate information about available treatment options. ¹⁷

Secondly, healthcare interventions should focus on a holistic approach that addresses the physical, psychological, and social aspects of menopause. 4.18 Incorporating strategies such as mindfulness-based interventions, cognitive-behavioral therapy, and group support sessions can equip women with the effective tools to manage symptoms and enhance their quality of the life. 18

Furthermore, public health campaigns and educational initiatives are crucial to de-stigmatizing menopause and promoting an open dialogue about its challenges. ¹⁸ By raising awareness and encouraging discussions, societal support for women undergoing menopause can be strengthened, enabling them to navigate this phase more confidently. ¹⁹

In pursuit of comprehending the intricate landscape of menopausal experiences and coping strategies among Jordanian women aged 40-60, this cross-sectional study has illuminated tapestry of insights that bear significant implications for both healthcare providers and wider society. The diverse cohort of 309 women from varying backgrounds within Jordan unveiled a rich mosaic of demographic nuances, offering a snapshot of the socioeconomic fabric in which menopause is woven. ^{20,21}

The prevalence and severity of menopausal symptoms unearthed by this study reverberate with the experiences of women navigating this pivotal life stage. Hot flashes, heart discomfort, sleep disturbances, mood fluctuations, and physical discomfort manifested with varying degrees of intensity, emphasizing the multifaceted nature of menopause's impact on women's well-being.²¹ These findings underscore the necessity for tailored and holistic approaches to support women through this transitional phase, addressing both the physiological and psychological facets of their journey.

Equally noteworthy are the diverse coping strategies that women employ to navigate the challenges presented by menopause. ^{5,22} From the embrace of self-calming skills to the conscientious consideration of dietary choices and the nurturing of social connections, women's resourcefulness in confronting symptoms is evident. The prevalence of these strategies highlights the resilience and proactive spirit that define women's responses to the transformations that menopause ushers in. ²²

The implications of this study are manifold. Healthcare providers stand poised to integrate these findings into patient-centered care, fostering an environment that acknowledges the diverse manifestations of menopausal experiences and tailors interventions to individual needs.²³ The societal discourse surrounding menopause is poised to shift, guided by a deeper understanding of the challenges women face during this transition.²⁴ Support systems can now be fortified with insights that empower women to embrace their journey through menopause with dignity, resilience, and enhanced well-being.^{24, 25}

CONCLUSION

Being devoted to the Jordanian women, to best of our knowledge, this is the first study in the literature that included this unique collection of menopause parameters in one package. These cross-sectional readings and explorative efforts focused the light on the pervasiveness of menopausal indicators and the recommended coping approaches among women aged 40-60 in Jordan. This study adds a crucial layer of understanding to the narrative of menopause. With its nuanced insights into symptomatology and coping mechanisms, the study provides a foundation upon which future research, clinical practices, and public health initiatives can build.

The outcomes confirm the critical multidimensional nature of menopause and its significant effect on the Jordanian women life; physical, psychological, and social aspects. The general awareness analysis demonstrates that there should be a prioritized advancement of holistic interventions that address the unique challenges faced by women during this transitional phase. Consequently, by the expanding awareness, the promoting healthy lifestyles, and the facilitating social support, it is possible to enhance the well-being and quality of life of women as they navigate the journey of menopause, all reflecting

positively back to the well-being of the society itself. The ultimate goal of the journey through menopause, as illuminated by this study, to become not merely a phase marked by challenges, but an opportunity for growth, adaptation, and empowerment, underscoring the enduring strength and dynamism of women as they navigate the landscape of life's transitions.

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