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Assessment of Symptoms of Depression and Anxiety among Menopause Women in Sulaimani City, Kurdistan: Cross-sectional Study

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ABSTRACT

Menopause represents a pivotal developmental juncture in a woman's life, characterized by a spectrum of physiological alterations and the potential emergence of depressive symptomatology. The manifestation of anxiety and depression during the menopausal phase is intricate and influenced by a confluence of biological, social, and psychological determinants. This study aims to assess depression and anxiety among menopausal women while elucidating their associations with various sociodemographic attributes. A cross-sectional study was executed at the Ali Kamal Consultation Center, encompassing 126 menopausal women. Data compilation utilized a structured questionnaire encompassing sections on sociodemographic particulars, menopausal symptoms, and the Hospital Anxiety and Depression Scale. Statistical analysis employing SPSS version 25 encompassed frequency and percentage along with Chi-square tests. A substantial proportion of women (72.5%) reported prevalent anxiety, with a noteworthy 74.2% exhibiting discernible signs of depression. Sociodemographic determinants, including age and age at marriage, body mass index, and marital status, exhibited robust associations with anxiety and depression. The prevalence of depression and anxiety symptoms in menopausal women underscores the imperative for targeted interventions. Sociodemographic variables emerged as pivotal determinants influencing the likelihood of developing these psychological symptoms. Notably, occupation and place of residence exhibited no statistically significant correlations.

Index Terms: Menopause, Depression, Anxiety

1. INTRODUCTION

Menopause represents a significant transitional phase in a woman's life, marked by both physical and emotional changes that can profoundly impact well-being. Among the various challenges faced during this period, depression and anxiety emerge as prevalent psychological concerns affecting menopausal women [1], [2]. The ramifications of these mental health issues extend beyond the individual, influencing overall quality of life, social interactions, productivity, and self-esteem. Recognizing the prevalence and identifying risk factors associated with depression and anxiety in menopausal women in Iraq is crucial [1], [3]. Depression and anxiety, as highlighted in previous research [2], emerge as prevalent challenges during menopause, impacting various facets of women's lives. The ramifications of these mental health issues extend beyond the individual,

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influencing overall quality of life, social interactions, productivity, and self-esteem. Recognizing the prevalence and identifying risk factors associated with depression and anxiety in menopausal women in Iraq is crucial [1], [3]. The etiology of depression and anxiety during menopause encompasses hormonal fluctuations, stressors, and socio-cultural influences [4]. Therefore, a comprehensive understanding of their prevalence and associated risks is essential for providing effective healthcare to women in Iraq during this life stage. Menopause entails various consequences, including vasomotor symptoms, atrophy in the general and urinary tracts, osteoporosis, cardiovascular risks, cognitive decline, and psychological changes such as depression and anxiety [5], [6]. The interplay of biological, social, and psychological factors during this stage contributes to the vulnerability of women, with studies indicating a substantial prevalence of depression (18–41.8%) and anxiety (7–25%) in pre- and post-menopausal women[7], [8].

Depression, ranging from transient negative mood states to clinically defined disorders causing significant distress, and anxiety-related disorders manifesting as panic attacks or generalized worry pose significant challenges to women's mental health [9], [10]. These conditions, as highlighted by researchers, not only lead to risky behaviors but are also strongly correlated with diminished quality of life [11]. In addition, menopausal symptoms are factors that contribute to anxiety and depression [12].

This study centers on the Ali Kamal Health Center in Sulaymaniyah City, a pivotal healthcare institution serving women in the region. Focusing on this center allows for a nuanced examination of depression and anxiety prevalence among menopausal women attending this facility. Different instruments were used to assess mood during menopause in previous studies, such as the depression and anxiety stress scale [13]. The Patient Hospital Questionnaire-9 [14]. However, in this study, we used the Hospital Anxiety and Depression Scale. This scale is used to detect the emotional symptoms of anxiety and depression and was used in previous studies [12], [15].

The study aims to assess depression and anxiety and explore their association with socio-demographic characteristics in menopausal women in Sulaymaniyah City, Kurdistan, Iraq. The outcomes of this research are poised to offer valuable insights into the mental health landscape of menopausal women, guiding the development of targeted interventions to enhance their well-being in Iraq.

2. MATERIAL AND METHODS

2.1. Design

The qualitative, cross-sectional study was conducted at the Ali Kamal consultation center, a facility of the general teaching hospital in Sulaymaniyah City, Iraq, Kurdistan, and the period of data collection started from November 2022 until February 2023.

2.2. Study Sample

Non-probability: a purposive sample size of 126 menopausal women attending Ali Kamal Health Center for the check-up.

2.3. Inclusion and Exclusion Criteria

Women had to meet certain criteria to be included in the study: being between the ages of 50 and 60, reaching menopause naturally (as opposed to undergoing hysterectomy and surgery), having gone more than a year without having their period, and agreeing to participate in the study. Women under 50 who suffer from psychological conditions and cannot participate in interviews were excluded.

2.4. Data Tools

A questionnaire was developed for data collection and composed of three sections. The first section related to sociodemographic characteristics included age, age at marriage, educational level, occupation, marital status, residential area, height and weight, and age at menarche. The second section is related to menopause symptoms, which include forgetfulness, vaginal dryness, no sexual desire, lethargy, hot flashes, hair loss, shortsightedness, weight gain, sweating, skin dryness, urine leakage, and sleep disturbance. The third section, measured through the hospital anxiety scale by Zigmond and Snaith [16], which is a standard tool used for detecting anxiety and depression in non-psychiatric individuals, has been used in many pieces of research with good reliability and validity [7], [12]. Its 14 items were rated on a 4-point ranging from 0 to 3.

The scale comprised seven items to assess depression, five of which are marks for anhedonia (an inability to experience pleasure), and two concern appearance and feelings of slowing down. Seven items assess anxiety; two assess automatic anxiety (panic and butterflies in the stomach); and the other five assess tension and restlessness. The questionnaire was translated into the Kurdish language through a forward-backward procedure.

2.5. Validity and Reliability of the Study Instrument

The validity of the questionnaire is determined through a panel of experts in related fields. For the reliability of the

questionnaire, a pilot study was carried out at the Ali-Kamal Health Center on a sample of ten women selected from the October 8–20, 2022, interviewed by the researcher to determine the reliability and clarity of the questionnaire and to estimate the average time required for data collection. The result of a pilot study showed that the items were clear and understood, and the time required was from 30 to 60 min for each respondent. The internal consistency of the instrument was determined through the computation of the interclass correlation coefficient, and the result of the reliability was ($r = 0.84$, $P < 0.01$), which was a statistically adequate level of internal consistency. The sample of the pilot study was not included in the original sample of the study.

2.6. Data Collection

The data were collected through a face-to-face interview method conducted with each participant to fill out the questionnaire.

2.7. Data Analysis

The data were analyzed using a Statistical Package for the Social Science, SPSS version 25 software. The descriptive statistics include frequencies, percentages, mean, and forecast standard deviation. The inferential statistics, including the Chi-square (2X) test and Fisher's exact test, were used to analyze the data; a *P*-value of 0.05 was used as the cut-off for statistical significance and 0.001 for high statistical significance.

TABLE 1: Demographic characteristics of the participants

Variables	Frequency	Percentage
Age		
50–54	83	69.1
55–60	37	30.9
Marital status		
Married	96	58.6
Unmarried	18	37.5
Widow	2	3.8
Divorce	4	
Body mass index		
Normal	35	30.2
Overweight	55	47.4
Obese	24	20.7
Extreme obese	2	1.7
Occupation		
Housewife	62	51.7
Employed	58	48.3
Level of education		
Illiterate	8	6.7
Primary educated	39	32.5
Secondary educated	35	29.2
Institute graduated	28	23.3
College and post-graduated	10	8.3
Residency		
Urban	119	99.2
Suburban	1	0.8
Total	120	100

3. RESULTS

As seen in Table 1, women between the ages of 44 and 53 comprised the majority of participants in this study (69.1%), and most were married. In this study, 47.4% of the study samples were overweight according to body mass index (BMI). Regarding education level, more participants (32.5%) were only primary school educated. In this study, 51.7% of the women worked as stay-at-home mothers. Finally, almost all participants were from the city center.

TABLE 2: Signs and symptoms of the patients

Variable	Signs and symptoms	
	Frequency	Percentage
Forgetfulness		
Yes	104	86.7
No	16	13.3
Vaginal dryness		
Yes	101	84.2
Not	19	15.8
No sexual desire		
Yes	99	82.5
Not	21	17.5
Lethargy		
Yes	102	85
Not	18	15
Hot flushes		
Yes	99	82.5
Not	21	17.5
Hair loss		
Yes	96	80
No	24	20
Short-sighted		
Yes	93	77.5
Not	26	21.7
Weight gain		
Yes	92	76.7
Not	28	23.3
Excessive sweating		
Yes	99	82.5
Not	21	17.5
Skin dryness		
Yes	98	81.7
Not	22	18.3
Urine leakage		
Yes	88	73.3
No	32	26.7
Sleep disturbance		
Yes	96	80
No	24	20
Total	120	100

Overall data on signs and symptoms of pregnancy reveals that the majority of participants have menopausal signs and symptoms, as shown in the Table 2.

The table delineates the frequency and percentage distribution of various signs and symptoms reported by the patients. The most prevalent symptom is forgetfulness, with 86.7% of patients experiencing it. Vaginal dryness is reported by 84.2% of patients, followed by a lack of sexual desire in 82.5% of cases. The table provides a comprehensive overview of the occurrence of diverse symptoms among the surveyed patients.

Table 3 provides an assessment of anxiety among the patients based on various statements. The majority of respondents reported feeling tense or wound up most of the time (72.5%). In addition, a significant proportion experienced worrying thoughts a great deal of the time (62.5%) and reported feeling quite badly or very definitely that something awful was about to happen (60%). The table comprehensively outlines the frequency and percentage distribution of anxiety levels across different statements, offering insights into the prevalence of anxiety symptoms among the surveyed patients.

TABLE 3: Anxiety profile of the patients

Items	Frequency	Percentage
1. I feel tense or wound up		
From time to time, occasionally	12	10
A lot of the time	21	17.5
Most of the time	87	72.5
2. I get a sort of freighted feeling as it something awful is about to happen		
A little, but it doesn't worry me	10	8.3
Yes, but not too badly	38	31.7
Very definitely and quite badly	72	60
3. Worrying thoughts go through my mind		
From time to time, but not too often	5	4.2
A lot of the time	40	33.3
A great deal of the time	75	62.5
4. I can sit at ease and feel relaxed		
Usually	5	4.2
Not Often	41	34.2
Not at all	74	61.7
Total	120	100
5. I get a sort of freighted feeling like but terrified in the stomach		
Occasionally	5	4.2
Quiet Often	45	37.5
Very often	70	58.3
6. I feel restless as i have to be on the move		
Not very much	6	5
Quite a lot	32	26.7
Very much indeed	82	68.3
7. I get sudden feelings of panic		
Not very often	7	5.8
Quiet often	36	30
Very often indeed	77	64.2
Total	120	100

Table 5 presents the association between anxiety-related questions and various sociodemographic variables, indicated by the corresponding p-values. The p-values signify the level of significance for each relationship. Lower *P*-values generally suggest a more significant association. For instance, in the context of age and question 4 ("I can sit at ease and feel relaxed"), a *P*-value of 0.0 indicates a statistically significant association. This table serves as a valuable reference for understanding the relationships between anxiety symptoms and sociodemographic factors within the studied population.

Table 6 illustrates the association between depression-related questions and various sociodemographic variables, denoted by the corresponding *P*-values. The *P*-values indicate the level of significance for each association. Lower *P*-values generally signify a more significant association. For instance, in the context of age and question 2 ("I can laugh and see the funny side of things"), a *P*-value of 0.022 indicates a statistically

TABLE 4: Depression scale of the patients by frequency and percentage

Items	Frequency	Percentage
1. I still enjoy the things I used to enjoy		
Not quite so much	4	3.3
Only a little	27	22.5
Hardly at all	89	74.2
2. I can laugh and see the funny side of things		
As much as I always could	7	5.8
Not quite so much now	8	6.7
Definitely not so much now	30	25
Not at all	75	62.5
3. I feel cheerful		
Most of the time	4	3.3
Sometimes	17	14.2
Not often	40	33.3
Not at all	59	49.2
4. I feel as if I am slowed down		
Not at all	1	0.8
Sometimes	3	2.5
Very often	46	38.3
Nearly all the time	70	58.3
5. I have lost interests in my appearance		
I take just as much care as ever	5	4.2
I may not take quite as much care	3	2.5
I don't take as much care as I should	29	24.2
Definitely	83	69.2
6. I look forward with enjoyment to things		
As much as I ever did	4	3.3
Rather less than I used to	10	8.3
Definitely less than I used to	31	25.8
Hardly at all	75	62.5
7. I can enjoy a good book or radio or TV program		
Sometimes	3	2.5
Not often	50	41.7
Very seldom	67	55.8
Total	120	100

TABLE 5: Association between a demographic characteristic of the patients and anxiety

Demographic variable	Anxiety questions (*P*-value)						
	1. I feel tense or wound up	2. I get a sort of freighted feeling as it something awful is about to happen	3.Worrying thoughts go through my mind	4.I can sit at ease and feel relaxed	5. I get a sort of freighted feeling like but terrifies in the stomach	6.I feel restless as I have to be on the move	7.I get sudden feelings of panic
Age	0.4	0.1	0.9	0.0	0.2	0.4	0.6
BMI	0.5	0.4	0.6	0.4	0.0	0.7	0.3
Occupation	0.2	0.6	0.2	0.7	0.4	0.6	0.4
Education level	0.1	0.7	0.6	0.001	0.001	0.3	0.8
Residency	0.6	0.001	0.03	0.5	0.4	0.5	0.5
Marital status	0.02	0.001	0.2	0.0	0.2	0.4	0.3

BMI: Body mass index

TABLE 6: Association between a demographic characteristic of the patients and depression

Demographic variables	Depression (*P*-value)						
	1. I still enjoy the things I used to enjoy	2. I can laugh and see the funny side of things	3. I feel cheerful	4. I feel as if I am slowed down	5. I have lost interests in my appearance	6. I look forward with enjoyment to things	7. I can enjoy a good book or radio or TV program
Age	0.53	0.022	0.03	0.931	0.187	0.034	0.46
Age at marriage	0.367	0.026	0.182	0.744	0.426	0.094	0.592
BMI	0.619	0.548	0.51	0.116	0.0	0.841	0.269
Occupation	0.087	0.77	0.332	0.294	0.077	0.572	0.007
Education level	0.012	0.294	0.041	0.09	0.251	0.001	0.64
Residency	0.579	0.607	0.734	0.44	0.574	0.547	0.396
Marital status	0.039	0.697	0.007	0.911	0.589	0.217	0.681

BMI: Body mass index

significant association. This table provides valuable insights into the relationships between depression symptoms and sociodemographic factors within the studied population.

In Table 4 the data shows how depressed the participants were; the majority (74.2%) of the women appeared unhappy. More than half (62.5) of the study samples did not have any ability to laugh or find humor in situations. 49.2% of the participants said they did not feel happy at all. Nearly all of the respondents (58.3%) felt slowed down most of the time. More than half of the female population (69.2%) firmly believes that their interest in women's looks has diminished. More than half of the women (55.8%) very rarely enjoy listening to or watching an excellent book or radio show.

4. DISCUSSION OF THE RESULTS

The temporal intricacies of a woman's reproductive phase, marked by the decline in ovarian function, render it challenging to pinpoint a definitive age for menopause initiation. Consistent with the study by Ahlawat *et al.* (2019), our research focused on women aged 50 to 54, constituting 69.1% of the participants. Our findings indicate that 47.4% of the study sample was classified as overweight, potentially attributed to age-related changes, reduced physical activity, and a sedentary lifestyle. While consistent with [17], discrepancies with [18] are discussed, considering regional variations in race, ethnicity, and biological characteristics.

The prevalence of menopausal symptoms and indications in our study aligns with the hormonal changes inherent in the menopausal transition, affecting diverse biological systems. Notably, despite most participants having completed only primary school, education emerges as a potential modifier, contradicting [19] findings on the positive correlation between education and the quality of life of menopausal women. Our study resonates with [20], [21], reporting prevalent menopausal symptoms among participants aged 50–54. Discrepancies with [22] are acknowledged,

considering potential regional variations in cultural and biological characteristics.

The prevalence of nervousness reported by 72.5% of participants during menopause suggests potential anxiety symptoms accompanying or preceding depression. Contrary to Kravitz *et al.* (2014) [23], our findings emphasize the impact of environmental stressors during the midlife transition. The vulnerability to depression during the menopause transition is underscored by a recent study, indicating a high percentage (74.2%) of women reporting dissatisfaction or depression. This vulnerability, heightened during perimenopause, necessitates attention to potentially reversible psychological conditions, given the increased risks for osteoporosis and cardiovascular disease in post-menopausal women.

Risk factors for depressive mood during the menopause transition, such as poor sleep, stressful life events, unemployment, and a higher BMI, align with existing literature, emphasizing the multifactorial nature of depression during this period. Educational attainment and non-white-collar occupations are highlighted as sociodemographic risk factors, consistent with previous studies. Anxiety, another prevalent symptom during the menopause transition, demonstrates associations with sociodemographic characteristics, except for occupation status. This finding diverges from studies among teachers and healthcare workers, emphasizing the nuanced role of occupation-related stress in exacerbating menopausal symptoms.

5. CONCLUSION

Our study aims to assess depression and anxiety symptoms among menopausal women, with age and age at marriage, BMI, and marital status emerging as significant sociodemographic factors influencing the likelihood of developing these symptoms. The absence of associations with occupation and place of residence underscores the complexity of these psychological manifestations. The study recommends the implementation of counseling and nursing management to mitigate the prevalence of anxiety and depression among menopausal women.

6. ACKNOWLEDGMENT

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7. ETHICAL CONSIDERATIONS

The research adhered to ethical standards, with a clear articulation of its purpose and the requisite permissions secured. Approval was obtained from the Scientific Committee of the Psychiatric Mental Health Nursing Department at the College of Nursing and the Ethical Committee at the College of Medicine at the University of Sulaymaniyah. Further authorization from the General Health Director was acquired to conduct the study at Ali Kamal Health Centre. Prior to their participation, participants were fully informed about the research objectives, and verbal informed consent was obtained.

8. CONFLICTS OF INTERESTS

The authors declare the absence of any conflicts of interest.

9. FUNDING

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