

## Stress and Marital Adaptation among Menopausal Working Women

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### Abstract:

**Background:** The change in a woman's life from being fertile to infertile is known as menopause and it is a bio psychological process. **Aim of the study:** was to assess stress and marital adaptation among menopausal working women. **Subjects and Methods:** **Design:** A descriptive cross sectional was utilized. **Setting:** The current study was conducted at Zagazig University among menopausal working women. **Subjects:** About 160 menopausal working women made up the purposive sample. **Tools:** Data from three sources were used: Tool I; structured interview form consists of demographics, medical history, and menstrual history, Tool II: Arabic version perceived stress scale and Tool III: dyadic adjustment scale. **Results:** About 83.1% of the study sample had moderate stress level and 75% of them had maximum level of marital adaptation. Highly statistically significant relation was found between marital adaptation and stress level. **Conclusion:** Menopausal working women's ability to adjust to marriage is negatively impacted by stress. **Recommendation:** Nursing interventions that use different stress management approaches to reduce stress may aid in successful marital adaptation.

**Keywords:** Stress, marital adaptation, menopause, working women.

### Introduction:

Menopause, which is a key life event for women, is characterized by the cessation of menstruation permanently; the absence of monthly flow for a year, and the loss of the ability to become pregnant due to the ovaries' decreased hormone production <sup>(1)</sup> Bahrain's mean age was 48.7± 2.9 years, according to data from Arabic-speaking nations <sup>(2)</sup>. The average age at menopause in Egypt is lower, at 46.6± 3.4 years <sup>(3)</sup>.

According to <sup>(4)</sup>, when a menopausal woman experiences stress, her body is prepared for battle and instead of producing estrogen and progesterone, the adrenal glands opt to produce cortisol and adrenaline because they are more effective in fighting off an attack. These signs of high cortisol can occur: Low energy despite getting enough sleep,

repeated colds, and a penchant for unhealthy foods are all symptoms of insomnia.

Eating, digestive issues such bloating, weight gain, especially in the midsection, low sex drive, additional aches and pains, and a bad mood.

The attitude a person has towards their marriage can be referred to as marital adaptation, and marital satisfaction rises when each partner in a marriage makes an effort to recognize and meet the needs of the other person <sup>(5)</sup>. Important elements of marriage relationship satisfaction include sexual pleasure, receiving support from a partner, taking part in decision-making, relationships with the partner's family, social support, psychological well-being, and life satisfaction <sup>(6)</sup>.

Previous research about the relation between postmenopausal stress and marital adaptation as <sup>(7)</sup> in

Turkey and mentioned that stress level proven to be a statistically significant predictor of postmenopausal women's marital adjustment. Given that postmenopausal women spend a third of their lives in this stage, nurses are vital in reducing stress and enhancing marital quality through self-care education of menopausal women about menopausal changes in all body systems as a result of hormonal changes during this time and relief measures aimed at promoting health, preventing or limiting disease, and restoring health (8).

### Significance of the study:

Menopausal women have difficulties related to this stage of life and need professional guidance and effective menopause treatment to enhance their experience and avoid detrimental long-term effects. When a woman is not experiencing mental discomfort, she is better able to converse with others and carry out her household responsibilities, which improves her relationship with her husband. A woman's journey into menopause is frequently easier when woman has a supportive partner (9). While frequent somatic and psychological complaints have a negative impact on women's relationships with men and their ability to have sex, same factors also have an impact on the marital adaptability score (10).

### Aim of the study:

Current aim of the study was to assess stress and marital adaptation among menopausal working women.

### Research questions:

1. What is the stress level among menopausal working women?
2. What is marital adaptation score among menopausal working women?
3. Is there a relation between stress and marital adaptation among menopausal working women?

### Subjects and Methods:

#### Design of the study:

To conduct this study, a descriptive cross-sectional design was chosen.

#### Study Setting:

Menopausal working women participated in the current study at Zagazig University, which was founded in 1974 and has faculties and administrative structures. Administrative buildings have four or five levels, with roughly three or four employees per office, while each faculty building has five floors, with employees selected from the first and second floors.

#### Study Subjects and sample:

About 160 menopausal working women were included in the purposive sample, plus 16 additional women who engaged in the pilot project and were disqualified from the study. Sample based on the following criteria:

- Women in menopause between the ages of 45 and 55 who get married.
- Women have menopausal symptoms
- The woman and the husband live together.
- Desire to take part throughout the study.

#### Criteria for exclusion:

- Women who had undergone hysterectomy, ovariectomy, or chemotherapy and radiotherapy or who had other serious medical issues.
- Women undergoing hormone replacement therapy
- Women who suffered from mental diseases.

#### Sample size:

Using the software Epi-info package, the sample size was calculated assuming a prevalence of moderate marital adaptation of roughly 74.0%

among all working women at Zagazig University (270). Level of confidence was 95% and test power was 80% according to **Ghattas et al.** (10); there 142 samples were taken.

The sample size was calculated using the formula below. Steven & Thompson (11)

$$n = \frac{N \times P(1 - P)}{[N - 1 \times (d^2 \div z^2)] + P(1 - P)}$$

The sample size was therefore 142 participants, as determined by the calculations.

Final sample size = 160 subjects after 10% dropout.

#### **Tools for data collection:**

The current investigation was conducted using three different tools.

**Tool I:** Data for the general characteristics of the study individuals were gathered using a structured interview form. There were two parts:

#### **Part 1: Socio-demographic traits:**

This section includes questions as such as age, place of residence, women's work and education, spouse's education, spouse's job, income of family additionally questions about family type, crowding index, home environment, as well social status.

#### **Scoring of social class:**

The participants' social status and demographic variables were evaluated in this section. It was modified by **Jayasinghe et al.** (12) and now includes factors such age, class, place of residence, degree of education attained by spouses, their jobs, family size, family income, the number of rooms in the house, and the condition of the house. Low social class: 40% (19.2) of the overall score, which is 48, is determined by the social class score.40% to 70% of the middle class (19.2-33.6), High social class: 33.6–48%, >70%

#### **Part 2: Medical and menstrual history**

It covered long term illnesses like, heart problems, diabetes, thyroid conditions, osteoporosis, hypertension, pulmonary disorders, mental illnesses and Menstrual history which covered questions about menarche age, menstrual amount, duration, rhythm and interval, and menopause age.

#### **Tool II: Arabic version Perceived stress scale**

It identify the degree to which situations in a person's life are perceived as stressful and developed by **Almadi et al** (13) and composed of 14 questions on 3 point likert scale 0 (never) to 3 (very often).

#### **Scoring system of perceived stress scale:**

Questions in the scale scored 0 to 3, zero considered never, it didn't happen and 3 considered very often, it happened a lot, a high score represents a high level of perceived stress and total score is 28 and stress level classified as: Low stress (scores 0 - 9), moderate stress (scores 10 - 18) and high Stress (scores 19 - 28).

#### **Tool III: Scale of Dyadic adjustment**

The scale was created by **Spanier** (14) and it measures marital adaptability. There were 32 questions and they have been divided into four categories as follow;

##### **1. Domain of dyadic consensus:**

It serves to determine the degree of agreement between spouses who are married on significant issues and consensus between spouses, it covers 13 items (1-3, 5 and 7-15).

##### **2. Domain of dyadic satisfaction:**

It measures the favorable and unfavorable traits relating to emotions and communication. It comprises 10 items (16-23, 31 and 32).

### **3. Domain of affective expression:**

It recognizes affectionate actions and consensual expressions of affection. It includes 4 items (4, 6, 29 and 30).

### **4. Domain of dyadic cohesion:**

It affects how much time couples spend together. It covers 5 items (24-28).

### **Scoring of Dyadic adjustment scale:**

The greatest possible score for the dyadic consensus domain was 65, the highest possible score for the dyadic satisfaction domain was 50, and the greatest possible score for domains of affective expression and the dyadic cohesion was 12, 24 respectively. After consulting a statistician, the scale has a total score of 151, and marital adaption is categorized as having a minimum marital adjustment score of (0-50), a moderate marital adjustment score of (51-100), and a high marital adjustment score of (101-151). **Ghattas et al** <sup>(10)</sup>.

### **Content Validity and Reliability:**

After getting ready, the tools were revised by a group of three experts. These experts included professor from the community nursing department and professor from obstetric nursing department at Zagazig university and one professor from the community health medicine department at the same university. Experts evaluated the tools to determine how clear, useful, applicable. This was the process of checking and confirming the content of the tool. It checked how reliable the perceived stress scale and dyadic adjustment scale are. The results showed that are both reliable, with a high level of reliability. The perceived stress scale had a reliability score of 0.93, while the dyadic adjustment scale had reliability score of 0.82.

### **Field work:**

After getting permission, the investigator met with the head of the departments and buildings then

clarified what the study was about and how they were going to collect information. The director and researcher worked together to meet with menopausal women. Then, the researcher spent time getting to know the menopausal women. The researcher shared the goal of the study and requested their permission to complete a questionnaire.

Collecting tools took six months, from the beginning of May, 2022, to the end of October, 2022. The researcher visited specific locations at Zagazig University for 2 to 3 days every week, between 10 AM and 12 PM. It took about 30-45 minutes for each woman to gather tools, and researcher met around 5 to 7 women each day.

### **Pilot study:**

A small study with 16 women going through menopause, which is about 10% of the total number of women planned to study.

The goal was to check if the questions were easy to understand, if the questionnaire looked organized, if the items covered everything, and to figure out how long it takes to complete the questionnaire. Menopausal women were not included in the main study because the way data was collected did not apply to them.

### **Administration and ethical consideration:**

Upon receiving letters outlining the purpose and research methodologies from the Zagazig University Faculty of Nursing's postgraduate programme, according to the university's general director of administrative affairs granted official clearance. The directors of the chosen faculties and administrative structures were then directed to the researcher with letters of permission. The researcher then met with each one of them and gave a brief clarification of the study's purpose and the characteristics of the data collection method.

First, the Zagazig University faculty of nursing's Research Ethics Committee (REC) gave its approval to the research protocol. Following a thorough description of the study's purpose, the women participants' consent was then obtained. During the data collecting interviews, participants were given the option to decline taking part and informed that they could leave at any moment. They were also given the assurance that the data would be kept private and used exclusively for the intended study aim. The researcher guaranteed that the subject's data would remain confidential and anonymous.

### Statistical Analysis:

We entered and analyzed data using software called SPSS 22.0. The information was shown using numbers and percentages for categories, and average and variation for numbers. The Cronbach alpha coefficient was used to determine how reliable the developed tools are by measuring how consistent they are internally. The chi-square test ( $\chi^2$ ) was used to compare qualitative categorical variables. If there were fewer than five cells in a 2x2 table, Fisher's exact test was utilized in its place. Utilizing the Spearman rank correlation to measure the strength of the connections between different types of numbers, both those that can be measured exactly and those that have been put in order. To find out what factors are related to the severity of menopausal symptoms, stress level, and how well a person is adapting to marriage, we used a statistical method called multiple linear regression. Data checked if it followed a normal pattern and if the variance was consistent. It also used a technique called analysis of variance to look at the overall relationship between the predictors and the symptoms. Something to be statistically significant if the p-value was less than 0.05.

## Results:

### Part I. general traits of the investigated women

**Table 1** lists the socio-demographic details of the women who participated in the study. It reveals that 76.9% of the women who were subjected to the study were in the 50- to 55-year-old age range, with a mean age of  $53.31 \pm 2.57$  years, 60% of them living in cities, 66.3% having earned degrees from universities, and 95% declaring that their income only covered basic necessities.

### Table 2 continued general traits of the investigated women

Concerning home environment, all women had access to clean water, sanitary facilities, and local garbage collection at home. Additionally, it reveals that 66.3% of them had families with 5–6 members, 85.6% of them were nuclear families (with a father, mother, and children), and 96.2% belonged to the upper socioeconomic class.

The medical and menstrual histories of the women under study are explained in **Table 3**. It makes clear that menopausal working women had diabetes and hypertension in proportions of 89.4% and 82.5%, respectively. In terms of menstrual history, 71.2% of the study participants were between the ages of 13 and 15 when they first started having periods, 36.3% had heavy periods, and 73.1% had irregular periods. Menopause began on average at age 50.46 and 1.65 years.

### Part II. Stress level and marital adaptation among the investigated women

**Figure 1** portrays that the studied group had moderate stress level (83.1%). On the other hand, 15% of them had low stress level and only 1.9% had high level of stress.

**Table 4** shows that dyadic consensuses had the greatest mean score among the marital adaptation categories ( $54.58 \pm 3.21$ ), while affective expression had the lowest ( $6.58 \pm 1.08$ ).

**Figure 2** depicts marital adaptation between the examined women and reveals that 75% of them had reached the highest level.

### Part III. Relation between the studied variables

**Table 5** clarifies a highly statistically significant relation between marital adaptation and stress level ( $p$ -value = 0.009\*). It is evident that women had moderate marital adaptation had moderate stress level (97.5%) compared to those with high stress level (2.5%).

### Part IV. Correlations and predictors for the variables under study

**Table 6** clarifies the correlation between stress and marital adaptation. It clarifies that negative statistically significant correlation was found between stress level and marital adaptation ( $r = -0.387$ ).

**Table 7** clarifies the correlation between socio demographic characteristics, stress and marital adaptation. It shows negative statistical significant correlation was found between Wife education and stress level ( $r = -0.227^{**}$ ) while statistical significant positive correlation was found between stress level and number of chronic diseases ( $r = 0.167^*$ ). Nevertheless, residence, wife education, and husband education all showed statistically significant positive correlations with marital adaptation ( $r = 0.169^*$ ,  $0.283^{**}$ , and  $0.257^{**}$ , respectively). Despite the fact that there was a statistically significant negative association between family size and marital adaptability ( $r = -0.175^*$ ).

According to **Table 8**, which shows the optimal linear regression model for the stress level score of menopausal working women, the education level of the wife was a statistically significant negative predictor of stress level score. The regression model accounts for 13% of the variation in stress level, as shown by the  $r$  square value.

**Table 9** displays the best-fitting linear regression model for the marital adaptability score of menopausal working women. The regression model explains 12.8% of the variation in stress level, and based on the  $r$  square value, the stress level score was a statistically significant negative predictor of the marital adaptability score.

### Discussion:

Menopause is a typical degenerative shift linked to ageing and the decline in fertility. The quality of life and marital adaptability may be gravely concerned menopause-related physical and psychological symptoms affect over 80% of women, varying in severity and life-altering impact **Kumar and Gupta** <sup>(15)</sup>.

Independence in later life depends critically on maintaining adequate physical function with ageing. In order to conduct suitable health education programmes, find novel ways to meet their requests, and regularly review the needs of menopausal women, health-care providers now play a more prominent and important role. Working women must recognize the menopausal symptoms' intensity and impact on life<sup>(16)</sup>.

**The results of this study** on the demographics of the working menopausal women it studied and showed that more than three quarters of them were between the ages of 50 and 55, with a verge age of ( $53.31 \pm 2.57$ ). This could be because this is

the average age at which women go through menopause <sup>(17)</sup>.

This outcome was comparable to that of **Karimi et al.** <sup>(18)</sup> who conducted a randomised controlled clinical trial in Iran and discovered that average age of research participants was  $54.50 \pm 4.43$  years. However, a study carried out in Pakistan by **Zaman et al.** <sup>(19)</sup> found that the women under study had a lower mean age (mean = 45.21 & SD = 7.47) years. This disparity may be caused by differences in the studied sample characteristics and different settings.

The findings of the current study indicated that less than two thirds of the working menopausal women analyzed lived in urban areas. This was due to the fact that most of them worked at Zagazig University, hence majority of them lived in urban areas. This finding was consistent with that of **Ghattas et al.** <sup>(10)</sup>; in Egypt, who stated that almost two thirds of the study participants came from urban areas.

In addition, the current study's findings showed that almost two thirds of the menopausal working women analyzed had a university degree; this is because career opportunities in Egypt call for a higher level of education. On the reverse, **Lee** <sup>(20)</sup> reported on a study he performed in Korea where he found that more than half of the women participants had completed secondary school. Additionally, **Nazarpour et al.** <sup>(21)</sup>; in Iran discovered that about two thirds of the women under study were illiterate or only had basic reading and writing skills. This variation could be the result of different examined sample characteristics.

The results of the present research showed that most of the working women who are menopausal who participated in the survey had family income that was barely

sufficient for meeting daily necessities; this was due to Egypt's high cost of living and present-day living conditions. Similar findings were made by **Barati et al.** <sup>(22)</sup>; in Iran, who discovered that the majority of the participants under study had a mild economic position. On the other hand, **Nazarpour et al.** <sup>(23)</sup>; in Iran claimed that more than half of the women in the study had sufficient or saved income. The socioeconomic position of the sample under study may be a factor in this disparity.

The present study revealed that the majority of the working menopausal women it studied had nuclear families (parents, children, and mother), which may be related to the fact that a significant number of the women it studied resided in cities in terms of household features and socioeconomic status. This result was in the same line with a study by **Nazarpour et al.** <sup>(23)</sup>, which showed that the majority of the investigated women were from nuclear families. Similar to this, **Yoshany et al.** <sup>(24)</sup> in Iran noted that the majority of the investigated women belonged to nuclear families.

The present study's findings showed that the majority of the working menopausal women analysed belonged to a high socioeconomic class, which was related to the fact that working women prefer to live affluent lives. This finding agreed with **Erbil's** <sup>(25)</sup> findings from Alexandria that the majority of the investigated women belonged to a high social level. Additionally, a research in Turkey by **Ylmaz & Avci** <sup>(7)</sup> revealed that the majority of the investigated women belonged to a high social level.

The current study's analysis of the medical history of the menopausal working women revealed that the majority of women had hypertension and diabetes, which can be linked to their advanced age, which is a major

risk factor for the development of chronic diseases <sup>(26)</sup>. This result was consistent with a research conducted in Turkey by **Taşkran & Özgül** <sup>(27)</sup> who found that the majority of the women in the study had chronic illnesses.

Despite the fact that this finding contradicted Chinese researchers **Huang et al.** <sup>(28)</sup> who claimed that less than a fifth of the participants in the study had hypertension and diabetes, this discrepancy may be due to the different characteristics of the study population.

The results of the present research revealed that less than three-quarters of the menopausal working women analyzed had menarche between the ages of 13 and 15 years, based on their menstrual histories. This outcome was consistent with research by **Hoshiyar et al.** <sup>(29)</sup> from Iran, who discovered that the average age of the examined women's first period was  $13.11 \pm 1.56$  years. Additionally, **Ebrahimi and Rahimi** <sup>(30)</sup> in Iran noted that the majority of the investigated participants had menstrual cycle between the ages of 13 and 15.

According to the current study's findings, more than one third of the working menopausal women evaluated experienced moderate to severe menstrual bleeding, which is associated to physiological changes in women's bodies that vary from person to person <sup>(31)</sup>. In a similar direction, **Krzyanowska and Górecka** <sup>(32)</sup> in Poland found that the majority of the women in the study had moderate amount of menstruation.

According to the results of the current study, approximately three-quarters of the menopausal working women were found to have irregular menstrual cycles; this was attributed to the age of menopause caused by

hormonal alterations, according to **WHO** <sup>(33)</sup>. This outcome was consistent with **Lama and Oqba's findings** <sup>(34)</sup> in the northern part of Jordan, who found that the majority of the women under study had irregular menstrual cycles. However In contrast, **Dastgerdi et al.** <sup>(35)</sup> in Iran observed that the majority of the tested women were still having regular menstrual cycles. This disparity may be caused by the different characteristics of the studied participants.

The findings of the current study showed that the menopausal age of around three quarters of the women who participated were between 50 and 54 years old. This is because menopause begins at this age. **Rathnayake et al.** <sup>(36)</sup> from Sri Lanka, who found that the women under examination had an average age of 48.3(3.98) years at menopause provided support for this finding. Additionally, **Tavoli et al.** <sup>(37)</sup> observed that In Iran, the average age at menopause was 47.3 (5.85) years.

**In light of addressing the initial research question regarding the level of stress experienced by the menopausal working women under study**, according to total level of stress among the study sample the current research revealed that most of them had moderate stress level. On the other hand, less than one fifth of them had low stress level. This might be due to women's perceived health, psychosocial factors, and role overload. Also, stress might correlate with bothersome menopausal period. These results were supported by **Yazdanpanahi et al** <sup>(38)</sup> in Shiraz, Iran and stated that the majority of the studied women had moderate level of stress.

**With reference to responding to the second study question regarding marital**



**adaptability in the sample of working menopausal women,** In terms of the overall mean of the marital adaptation domains, the current study's findings showed that dyadic consensus had the highest mean score, while affective expression had the lowest. This could be attributed to the psychosocial and hormonal changes that occur during menopause. The social and sexual lives of women are also impacted by menopause changes. This outcome was consistent with a study by **Elsayed et al.** <sup>(39)</sup> that was conducted in Egypt and discovered that the marital adaptation domains with the highest mean score were those with dyadic consensus.

This result contrasted with that of Turkish researchers **Caglar et al.** <sup>(40)</sup>, who observed that the individuals' dyadic adjustment scale scores were  $104.60 \pm 32.98$  (0-151). These findings indicate that women's dyadic adjustment was low; this may be due to the environment, sociodemographic, and sociocultural variances across the study respondents, three-quarters of the examined women had the highest level of marital adaptation, according to the current study. This finding may be related to the studied women's financial independence and their efforts to adjust to their conditions. In contrast, **Ykar et al.** <sup>(41)</sup> in Turkey discovered that the average marital adaptation score of the women under study was  $39.32 \pm 11.01$ , indicating that women had poor marital adaptation. This could be attributed to cultural differences and beliefs.

**As Regards answering the third research question about relation between menopausal working women's stress and marital adaptation,** the present study result showed that there was a highly statistically significant relation between marital adaptation and stress level, It can be interpreted as women who had

moderate marital adaptation had moderate stress level compared to those with high stress level. Correspondingly, **Yilmaz & Avci** <sup>(7)</sup> mentioned that stress level determined to be statistically significant predictor of postmenopausal women's marital adjustment.

**Concerning correlation between stress level and marital adaptation among working women in menopause,** the current study revealed that statistically significant negative correlation discovered between stress level and marital adaptation. This due to evidence suggests that stress is a threat to marital adaptation and its longevity. Parallel to these findings, a study by **Caglar et al** <sup>(40)</sup> found that there was negative correlation between the studied women stress level and marital adaptation.

**Regarding correlations and predictors between general characteristics, stress level and marital adaptation among working women in menopause,** the current study findings clarified that there was a statistical significant negative correlation between wife education and stress level, this related to educated women realize that continuous exposure to stress can lead to decreased job quality. While statistical significant positive correlation was discovered between stress level and chronic diseases, this might be due to primary stress hormones such as cortisol and adrenaline increase glucose in the blood stream and increase heart beats also blood pressure <sup>(42)</sup>.

In the same line, a research conducted by **Aqeel et al.** <sup>(43)</sup> in Pakistan stated that there existed negative significant correlation between women stress level and their degree of education. Likewise, a study done by **Moghani et al** <sup>(44)</sup> found that

there was positive correlation between stress level and presence chronic diseases of the investigated women.

Statistically significant positive relationships between the adaptability of marriage and residency, education of the spouses were found in the current study's findings. This reflects the idea that as the quality of a marriage improves with higher levels of education, marital adaptation also improves. Although there was a negative statistically significant correlation between family size and marital adaptation, this was because a big family size reduces the degree of married couples' ability to adjust and may lead to family issues.

These results supported a study by **Ykar et al** (41) that showed a substantial positive association between marital adjustment and wife residence, education, and husband educational attainment. Similar to this, a study by **Bülül et al.** (45) found a negative link between marital adaptability and the number of children the examined women had. Regarding the best multiple linear regression model that fits the stress level score of working women going through menopause, the current study reflected that a statistically independent negative predictor of stress level score was the wife's education level. This reflects that lower education associated with higher level of stress. Similarly, study done by **Lunau et al.** (46) in Germany found that consistent association between lower education and higher level of work stress on all countries.

The current study shown that a statistically significant negative predictor of the marital adaptability score was the stress level score for best multiple linear regression model for menopausal working women. This reflects the notion that positive communication and stress are signs of marital dissatisfaction whereas communication problems and conflict resolution techniques are qualities that indicate marital satisfaction. Similarly, **Rema et al.** (47) study in India discovered a negative correlation between stress and married women's ability to adapt to their marriages.

### **Conclusion:**

The majority of women had a moderate level of stress, and a maximal level of marital adaptability was present in three-quarters of working women.. Furthermore, there was a strong statistical relation between stress level and marital adaptation. Additionally, a statistically significant negative correlation between stress level and marital adaptation was discovered.

### **Recommendations:**

The following recommendations were done in light of the study's findings:

- Menopausal women's marital adaptability and menopausal stress levels need to be regularly assessed in order to create effective interventions.
- A health education programme that teaches various stress management approaches.
- More research is required to make sure the results of the study

Part I. Basic traits of the women under study

Table (1): Distribution of the 160 women who were the subject of the study by their socio demographic traits

Socio-demographic traits	Frequency	Percent
<b>Age:</b>		
45-49	37	23.1
50-55	123	76.9
<b>Mean ± SD</b>	<b>53.31 ± 2.57</b>	
<b>Range</b>	<b>(45 – 55)</b>	
<b>Residence:</b>		
Rural	64	40.0
Urban	96	60.0
<b>Education of women :</b>		
Two years institute	43	26.8
University	106	66.3
Post graduate / Higher Studies	11	6.9
<b>Job of women:</b>		
Administrative work	160	100.0
<b>Education of Husband :</b>		
Secondary education	33	20.6
University / post graduate	127	79.4
<b>Job of Husband :</b>		
Craftsman	27	16.9
Businessman/ tradesman	19	11.9
Employee	73	45.6
Professional [teacher, doctor, lawyer....]	41	25.6
<b>income of Family:</b>		
Not enough & loan	6	3.8
Only enough daily needs	152	95.0
Enough daily needs & emergency	2	1.3

Table (2): Distribution of the 160 women who were the subject of the study by their sociodemographic traits

Socio-demographic traits	Frequency	Percent
<b>Home environment</b>		
Clear water	160	<b>100.0</b>
Electricity	159	<b>99.4</b>
Normal gas	108	<b>67.5</b>
Sanitation	160	<b>100.0</b>
Garbage collected locally	160	<b>100.0</b>
<b>Size of Family</b>		
< 5	48	30.0
5-6	106	<b>66.3</b>
≥ 7	6	3.8
<b>Crowding index</b>		
<2	121	<b>75.6</b>
2+	39	24.4
<b>Type of Family</b>		
Extended [have family]	23	14.4
Nuclear [have children, father, mother]	137	<b>85.6</b>
<b>Social class</b>		
Medium	6	3.8
High	154	<b>96.2</b>

**Table (3): Working menopausal women in the study sample's medical and menstrual history (n=160)**

Medical History	Frequency	Percent
<b>Illnesses :</b>		
Diabetes	143	<b>89.4</b>
Hypertension	132	<b>82.5</b>
Heart diseases	40	25.0
Osteoporosis	17	10.6
Respiratory illnesses	9	5.6
<b>No. of diseases:</b>		
1-2	118	<b>73.8</b>
3-4	42	26.2
<b>Mean ± SD</b>	<b>1.26 ± 0.44</b>	
<b>Menarche age in years</b>		
11-12	46	28.8
13-15	114	<b>71.2</b>
<b>Mean ± SD</b>	<b>13.01 ± 0.97</b>	
<b>menses amount:</b>		
Mild	44	27.4
Moderate	58	36.3
Severe	58	36.3
<b>Duration of menses:/ days</b>		
Four days	29	18.1
Five days	90	<b>56.3</b>
Six days	41	25.6
<b>Mean ± SD</b>	<b>5.08 ± 0.66</b>	
<b>Menses regularity: Interval</b>		
Regular	43	26.9
Irregular	117	<b>73.1</b>
<b>Menopause age:</b>		
45-49	39	24.4
50- 54	121	<b>75.6</b>
<b>Mean ± SD</b>	<b>50.46 ± 1.65</b>	

Notice: illnesses item in table 3 women may choose more than one choice.

Part II. Stress level and marital adaptation among the studied sample

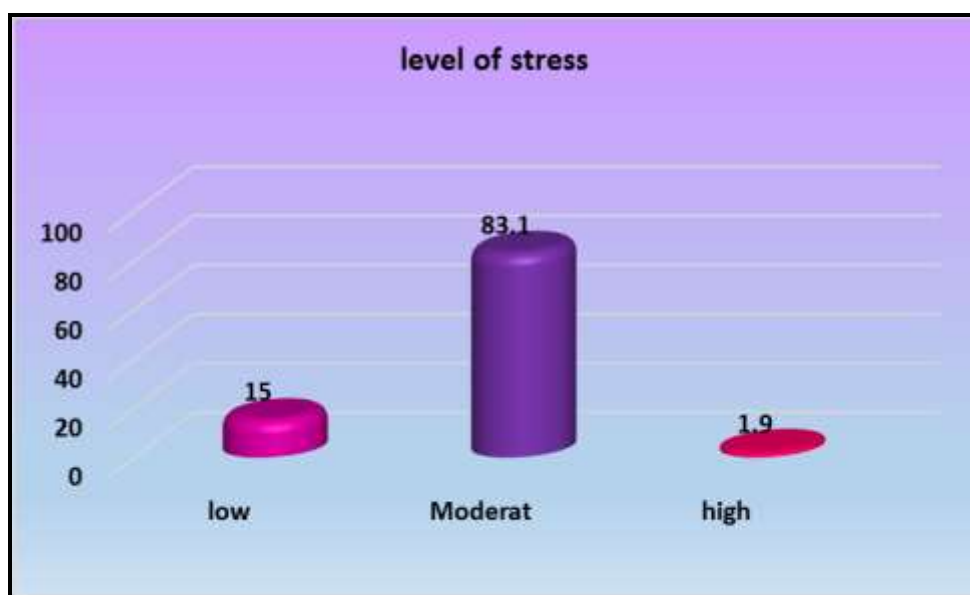


Figure 1: Distribution of the women in the study by their level of stress (n=160)

Table (4): Menopausal working women (n=160) were evaluated for their average marital adaptability domains.

domains of Marital adaptation	Mean	SD
Domain of Dyadic consensus	54.58	3.21
Domain of Dyadic satisfaction	33.09	2.84
Domain of Affective expression	6.58	1.08
Domain of Dyadic cohesion	10.90	2.25

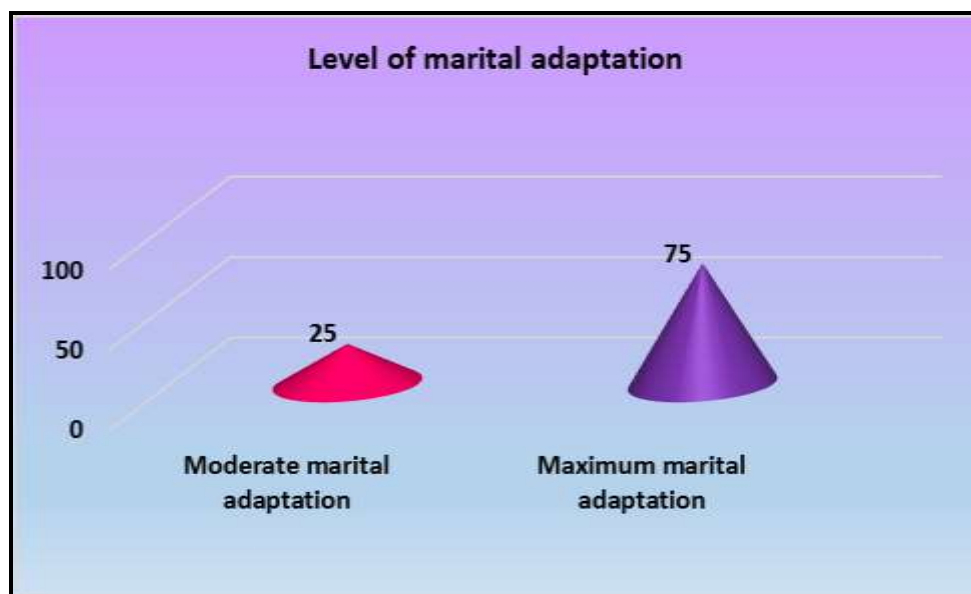


Figure 2: Marital adaptation distribution among studied women (n=160)

Part III. Relation between the studied variables

Table (5): Relation between menopausal working women's stress level and marital adaptation

Variables	Stress level						X <sup>2</sup>	p-value
	Low (n=24)		Moderate (n=133)		High (n=3)			
	No.	%	No.	%	No.	%		
<b>Total marital adaptation</b>								
Moderate adaptation	0	0.0	39	97.5	1	2.5		
Maximum adaptation	24	20.0	94	78.3	2	1.7	9.44	0.009*

Part IV. The factors under study's correlates and predictors

Table (6): Correlation between stress level and marital adaptation among working menopausal women.

Scores	Total Mean score	
	Stress Level	Marital Adaptation
Stress Level	-	0.387**
Marital Adaptation	-0.387**	

**Table (7):** Menopausal women's general traits, stress levels, and marital adaptation in a correlation matrix

General Characteristics	Spearman's rank correlation coefficient	
	Stress Level	Marital Adaptation
Age	-0.129	-0.072
Residence	0.014	<b>0.169*</b>
Education of Wife	<b>-0.227**</b>	<b>0.283**</b>
Education of Husband	-0.111	<b>0.257**</b>
Type of Family	-0.106	0.137
Size of Family	0.124	<b>-0.175*</b>
Social class	-0.073	0.046
No. of chronic diseases	<b>0.167*</b>	0.085
Age of Menstrual cycle	-0.082	-0.047
Age of Menopause	-0.121	-0.080
Amount of Menses	0.024	-0.086
Duration of Menses	0.015	-0.106
Menses interval regulation	0.066	0.006

**Table (8):** The stress level score for menopausal working women with the best-fitting multiple linear regression model

Items	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Beta	Lower Bound
(Constant)	2.102	0.618		3.398	<b>0.001</b>	0.880	3.323
Educational level of Wife	-0.119	0.060	-0.166	-1.991	<b>0.048</b>	-0.237	-0.001
Type of Family	-0.041	0.098	-0.037	-0.421	0.674	-0.235	0.152
Size of Family	0.050	0.067	0.066	0.746	0.457	-0.082	0.182
Social class	-0.160	0.171	-0.078	-0.933	0.352	-0.498	0.179
No. of diseases	0.110	0.068	0.124	1.609	0.110	0.245	0.025
Menstruation interval regulatory	0.101	0.067	0.115	1.498	0.136	-0.032	0.233



**Table (9): Marital adaptation score for menopausal working women with the best-fitting multiple linear regression model**

Items	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	2.119	0.682		3.109	<b>0.002</b>	0.773	3.466
Setting	0.037	0.083	0.041	0.440	0.661	-0.128	0.201
Educational level of Wife	0.129	0.077	0.162	1.671	0.097	-0.023	0.280
Educational level of Husband	0.117	0.103	0.109	1.140	0.256	-0.086	0.319
Family size	-0.035	0.048	-0.067	-0.727	0.468	-0.131	0.061
Type of Family	-0.015	0.124	-0.012	-0.119	0.905	-0.260	0.230
Stress score	-0.186	0.090	-0.167	-2.065	<b>0.041</b>	-0.363	-0.008

**References:**

1. **Lund KJ.** Menopause and the menopausal transition. *Med Clin North Am.*, 2020, 92(5): 1253-12571. Sciences, 84(4):396-399. doi: 10.1016/j.sbspro.2021.06.573.
2. **Jassim, G., and Al-Shaboul, Q.** Attitude of Bahraini women towards the menopause: implication for health policy. *Maturitas*, 2018, 59: 358-372.
3. **Shams-Eldin, A. A.** Knowledge, attitude and severity of menopausal symptoms among women attending primary health care centers in cairo, Egypt, *Al-Azhar Med. J*, 2020, 47(2), 423-434 DOI : 10.12816/0052265.
4. **Padfield, J.** Five reasons why stress and perimenopause are an issue. 2022 Available at <https://www.onstella.com/the-latest/long-term-health/stress-and-menopause/>. Last retrieved 1/12/2022.
5. **Wong, S., Goodwin, R.** Experiencing marital satisfaction across three cultures: A qualitative study. *Journal of Social and Personal Relationships*, 2020, 26(8):1011-28. doi: 10.1177/0265407509347938.
6. **Javanmard, G.H., Garegozlo, R.M.** The study of relationship between marital satisfaction and personality characteristics in Iranian families. *Procedia - Social and Behavioural Sciences*, 84(4):396-399. doi: 10.1016/j.sbspro.2021.06.573.
7. **Yilmaz, F. A., & Avci, D.** The relationship between personality traits, menopausal symptoms, and marital adjustment. *Health Care for Women International*,; 2022, 43(10-11), 1142-1157.
8. **Malik, E., Sheoran, P., Siddiqui A.** Health-promoting behaviors and menopausal symptoms: an interventional study in rural India. *J Mid-Life Health*,2020, 9(4):200–6. [https://doi.org/10.4103/jmh.JMH\\_96\\_18](https://doi.org/10.4103/jmh.JMH_96_18).
9. **Çelik, A.S., Pasinlioglu, T.** Determining. the association between Turkish women’s menopausal symptoms and their marital adjustment. *Turk J Med Sci*,; 2020, 43(6): 928-938. doi: 10.3906/sag-1208-7
10. **Ghattas, V.N., Ali, W.K., & Abdel EL Wahed, A.Y.** Association between Menopausal Symptoms, Quality of Life and Marital Adaptation among Working Women. *IOSR Journal of Nursing and Health Science*, 2019;vol (8), PP 13-25.

11. **Steven, K., Thompson.** Sampling. 3rd ed. 2012, P:59-60.
12. **Jayasinghe, J. A. S. I., Lokubalasureya, S. P., Madhuwanthi, S. D. S. H., & Sadhana, A. F. G.** A study on menopause, menopausal symptoms and their impact on routine life, among female health care workers over 40 years in Teaching Hospital Batticaloa (Doctoral dissertation, FHCS, EUSL).2021.
13. **Almadi, T., Cathers, I., Mansour, A.M and Chow, C.C.** An Arabic version of the perceived stress scale: translation and validation study. *International Journal of Nursing Studies*, 2012, 49(1):84-9.
14. **Spanier, G. B.** Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family*1976, 38(1), 15-28.
15. **Gupta, G., & Kumari R.** Quality of life among menopausal women, *Indian Journal of Scientific Research*, 2021, 11(2), 25-32.
16. **Raj, A.** Compare the Severity of Menopausal Symptoms, Coping strategies, And Quality Of Life among Women During various Postmenopausal Period. *International Journal of Obstetrics, Perinatal and Neonatal Nursing*, 2021, 7(2), 12-29.
17. **Vatankhah, H., Khalili, P., Vatanparast, M. et al.** Prevalence of early and late menopause and its determinants in Rafsanjan cohort study. *Sci Rep*, 2023, 13, 1847.
18. **Karimi, L., Mokhtari Seghaleh, M., Khalili, R., & Vahedian-Azimi, A.**The effect of self-care education program on the severity of menopause symptoms and marital satisfaction in postmenopausal women: a randomized controlled clinical trial. *BMC Women's Health*, 2022, 22(1), 1-11.
19. **Zaman, N. I., Shakoor, S., & Yusuf, S.** Menopausal symptoms: prediction of quality of marital relationship among couples. *Journal of Mind and Medical Sciences*, 2022; 9(1), 133-142.
20. **Lee, E. J.** Factors influencing adaptation to menopause in middle-aged women. *Korean Journal of Women Health Nursing*, 2018, 24(4), 336-345.
21. **Nazarpour, S., Simbar, M., Ramezani Tehrani, F., & Alavi Majd, H.** Factors associated with quality of life of postmenopausal women living in Iran. *BMC women's health*, 2020, 20(1), 1-9.
22. **Barati, M., Akbari-Heidari, H., Samadi-Yaghin, E., Jenabi, E., Jormand, H., & Kamyari, N.** The factors associated with the quality of life among postmenopausal women. *BMC Women's Health*, 2021, 21(1), 1-8.
23. **Nazarpour, S., Simbar, M., Khorrami, M., Jafari Torkamani, Z., Saghafi, R., & Alavi-Majd, H.** The association between sexual function and body image among postmenopausal women: a cross-sectional study. *BMC women's health*, 2021, 21, 1-9.
24. **Yoshany, N., Mazloomi Mahmoodabad, S. S., Bahri, N., Moori, M. K., & Hanna, F.** Association between Lifestyle and Severity of Menopausal Symptoms in Postmenopausal Women. *Electron J Gen Med*, 2020, 17 (5): em222. *Electron J Gen Med*.
25. **Erbil, N.** Attitudes towards menopause and depression, body image of women during menopause. *Alexandria Journal of Medicine*, 2018, 54(3), 241-246.
26. **McIntyre, D., & WHO.** Global coordination mechanism on the prevention and control of non-communicable diseases. Policy brief. Domestic financing for NCDs. Geneva: World Health Organization; 2015. Working Group on how to realize governments' commitment to provide financing for NCDs.

27. **Taşkıran, G., & Özgül, S.** Individual characteristics associated with menopausal symptom severity and menopause-specific quality of life: a rural perspective. *Reproductive Sciences*, 2021, 28(9), 2661-2671.
28. **Huang, W., Jiang, S., Geng, L., Li, C., & Tao, M.** Correlation between menopausal symptoms and everyday cognition in Chinese (peri) menopausal women. *Gynecological Endocrinology*, 2021, 37(7), 655-659.
29. **Hoshiyar, M. S., Ziaei, T., Tatari, M., & Khoori, E.** Self-Awareness Counseling on Quality of Life of Menopausal Women. *Journal of Research Development in Nursing and Midwifery*, 2021, 18(2), 29\_32-29\_32.
30. **Ebrahimi, M., & Rahimi, B.** The effect of self-efficacy counseling on the management of menopausal symptoms in psychological dimension in perimenopause women referred to health centers in Mahabad city. *Menopause*, 2019; 3, 5.
31. **Kepley, J. M., Bates, K., & Mohiuddin, S. S. (2023).** Physiology, Maternal changes. 2023, Available at <https://www.ncbi.nlm.nih.gov/books/NBK539766/>
32. **Krzyżanowska, M., & Górecka, K.** Women's knowledge on the menopausal transition in relation to their socio-economic status. *Menopause Review/Przegląd Menopauzalny*, 2021, (2), 81-87.
33. **World Health Organization. Menopause.** Retrieved from: <https://www.who.int/news-room/factsheets/detail/menopause>.2022.
34. **Lama, A. M., & Oqba, A. K.** Impact of menopause on quality of life: A cross sectional study in menopausal females in the north of Jordan. *Medical Science and Discovery*, 2018, 5(6), 234-238.
35. **Dastgerdi, F. A., Zandiyeh, Z., & Kohan, S.** Comparing the effect of two health education methods, self-directed and support group learning on the quality of life and self-care in Iranian postmenopausal woman. *Journal of Education and Health Promotion*, 2020, 9(1), 62.
36. **Rathnayake, N., Lenora, J., Alwis, G., Lekamwasam, S.** Prevalence and Severity of Menopausal Symptoms and the Quality of Life in Middle-aged Women: A Study from Sri Lanka. *Nurs Res Pract.*, 2019, 1; 2081507. doi: 10.1155/2019/2081507. PMID: 31354992; PMCID: PMC6632501.
37. **Tavoli, A., Tavoli, Z., Effatpanah, M., & Montazeri, A.** Prevalence and associated risk factors for sexual dysfunction among postmenopausal women: a study from Iran. *Women's Midlife Health*, 2021, 7, 1-6.
38. **Yazdanpanahi, Z., Nikkholgh, M., Akbarzadeh, M., & Pourahmad, S.** Stress, anxiety, depression, and sexual dysfunction among postmenopausal women in Shiraz, Iran. *Journal of family & community medicine*, 2018; 25(2), 82.
39. **Elsayed, F. S., Ahmed, F. M., Moustafa, S. S.M., & Shams Eldin, F. A.** Correlation between Menopausal symptoms, Depressive Symptoms and Marital Satisfaction among Menopausal Women. *International Egyptian Journal of Nursing Sciences and Research (IEJNSR)*, 2023, 3 (2), 419-437.
40. **Caglar, M., Mersin, S., & Ibrahimoglu, O.** Dyadic adjustment and sexual function in postmenopausal women. *Annals of Medical Research*, 27(3), 0955–0963. 2020, Retrieved from [https://annalsmedres.org/index.php/ao\\_mr/article/view/645](https://annalsmedres.org/index.php/ao_mr/article/view/645)
41. **Yıkar, S. K., Doğan, S. D., Yurtseven, Ş., Arslan, S., & Nazik, E.** An assessment of marital adjustment and sexual functions of women working in shifts in healthcare, Turkey. 2019.
42. **Thau L, Gandhi J, Sharma S. Physiology, Cortisol.** In: StatPearls [Internet]. Treasure Island (FL):

StatPearls Publishing; 2022, Available at <https://www.ncbi.nlm.nih.gov/books/NBK538239/>

43. **Aqeel, M., Arbab, K. B., & Akhtar, T.** Psychological problems and its association to other symptoms in menopausal transition. *Pakistan Journal of Psychological Research*, 2018, 33(2), 507-519.
44. **Moghani, S. S., Simbar, M., Fakari, F. R., Ghasemi, V., Dolatian, M., Golmakani, N., & Nasiri, M.** The relationship between stress, anxiety and depression with menopausal women experiences. *Scientific Journal of Hamadan Nursing & Midwifery Faculty-ISSN*, 2018, 2819.
45. **Bülbül, T., Mucuk, S., Dolanbay, M., & Turhan, I.** Do complaints related to menopause affect sexuality and marital adjustment?. *Sexual and Relationship Therapy*, 2021, 36(4), 465-479.
46. **Lunau T, Siegrist J, Dragano N, Wahrendorf M.** The association between education and work stress: does the policy context matter? *PLoS One*. 2015, 26;10(3):e0121573. doi: 10.1371/journal.pone.0121573. PMID: 25812142; PMCID: PMC4374794.
47. **Rema, M.K., & Kaur, Parneet .(2020).** Depression, Anxiety, Stress and Marital Adjustment among Women. *Journal of International Women's Studies*, 2020, 21(5), 2-8.