

## Knowledge and Perception of Premenopausal Women about Menopause

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### 1.ABSTRACT

Background: Menopause is a universal physiological condition that annually affects more than 500 million women aged from 42 to 55 years with an average age of 51 years. Aim: this study aimed to assess knowledge and perception of premenopausal women about menopause. Study design: A cross sectional descriptive design. Setting: the study was carried out at Mansoura University Hospitals. Study sample: A convenient sample of 382 premenopausal female employees. Tools: Data was collected using a questionnaire included three parts; part one covered socio-demographic characteristics, part two covered knowledge about menopause and part three covered perception of premenopausal women. Results: More than two-thirds of the studied women had poor knowledge regarding causes of menopause (lack of hormonal production which regulates menstruation and no response of ovaries to follicle stimulating hormone). Most of them had poor knowledge regarding menopausal symptoms as frequency of urination, depression and mood swings. Most women had poor knowledge regarding physical coping mechanisms during menopause in addition to more than three-quarters of them were unaware of hormonal replacement therapy. More than two-thirds of women expressed hatred and worrying about menopause. Majority of women verbalized that menopausal women are losing their physical strength and youthfulness. Conclusion: More than one-third of women had poor knowledge and three-quarters of them had negative perception about menopause. There was positive correlation between level of knowledge and perception of the studied premenopausal women about menopause. Recommendation: Spreading information to raise awareness among premenopausal women to improve knowledge and attain positive perception about menopause.

**Keywords:** Knowledge, Perception, Pre-menopausal women, Menopause

### 2.Introduction

One of the essential and normal phases of a woman's life is menopause, which is characterized by the cessation of menstruation and infertility for 12 consecutive months after the last period. The menopause typically begins at 51 years of age (from 47 to 53 years). Every woman goes through the menopausal period with a particular set of symptoms (Alan, Gozuyesil, & Gokyildiz, 2016; Ali, Ahmed & Smail, 2020).

Physical, sexual, vasomotor, and psychological symptoms, such as hot flashes, insomnia, weight gain, bloating, mood swings, irregular menstruation, breast pain, anxiety, depression, irritability, fatigue, headaches, poor memory and concentration and a high level of distress, are due to hormonal changes that occur with the onset of menopause. These symptoms may make it difficult for menopausal women to cope and lower their

quality of life (Nazarpour, Simbar, Ramezani Tehrani & Alavi Majd, 2020; Smail, Jassim, & Shakil, 2020b).

Based on the age of menopausal onset, general woman health, and the particular form of menopause a woman experiences, menopausal symptoms and experiences differ greatly from one woman to another (Aninye, Laitner, Chinnappan & Society for Women's Health Research Menopause Working Group 2021). The way that women perceive menopause is influenced by their social, cultural, economic, and lifestyle aspects. Therefore, lack of information and a negative attitude about menopause make it more difficult for women to cope with its symptoms and lower their quality of life overall, which has an adverse effect on the entire family and society (Rathnayake, Alwis, Lenora, Mampitiya & Lekamwasam, 2020).

Women's perception toward menopause can be improved by increasing their knowledge of the physical, psychosocial, and lifestyle changes that follow menopause through health education programmes (Smail et al., 2020b). This will help them deal with the emotional and practical aspects of menopause as well as help them become more comfortable with this stage of life. Women in their middle years who are more knowledgeable about the menopause are more likely to handle it well, while those who have unfavourable views regarding the menopause have been observed to endure unpleasant menopause symptoms (Rathnayake et al., 2020).

### 2.1 Significance

More than 500 million women between the ages of 42 and 55 experience menopause each year; the average age at which it begins is 51 (Smail et al., 2020; Allahverdipour, Jafarabadi, Burri, & Javadi, 2020). In Egypt, the average age of menopause is 46.7 years, which is younger compared to many other nations (Orabi, 2017). In terms of Egypt's life expectancy (72.5 years in 2014), women spend around one-third of their lives during this time (Ministry of Health and Populations (MOHP), 2015). The transition to menopause has the potential to aggravate issues that reduce quality of life and life expectancy if a woman is not sufficiently prepared and/or symptoms are not handled well (Aninye et al., 2021).

There is little information about Egyptian women's attitude toward menopause, their understanding of it, and the severity of its symptoms. A campaign to raise awareness about the menopause among Egyptian women is necessary to inform them about this crucial time in their lives (Shams-Eldin, 2018). According to some theories, women's emotional well-being suffers as a result of their increased fear of the menopause as a result of their lack of knowledge about it. Women's perspectives of the menopause may change as a result of increased knowledge, which may result in less emotional distress (Macpherson & Quinton, 2022). The knowledge, perception of premenopausal women for menopause have not received much attention. Therefore, this study conducted to assess knowledge and perception of premenopausal women about menopause.

### 2.2 Aim of the study

The present study aimed to assess knowledge and perception of premenopausal women about menopause.

### 2.3 Research questions

What is the level of knowledge of premenopausal women about menopause?

What is the perception of premenopausal women about menopause?

### 3. Method

**3.1 Study design:** A cross sectional descriptive research design was used. It does not attempt to draw any inferences or offer any reasons for the prevalence; rather, it investigates the prevalence of a disease or condition in a particular population at a certain period or point.

**3.2 Study setting:** The study was conducted at Mansoura University Hospitals. Mansoura University hospitals include: Mansoura University Hospital, Center of Urology and Nephrology, Specialized Medical Hospital, Gastroenterology Surgical Center, Emergency Hospital, Mansoura University Children's Hospital, Oncology Center, and Ophthalmic Center.

**3.3 Sample type:** Convenient sample was used.

**3.4 Study sample:** 382 premenopausal female employees working in the previously mentioned settings aged between 40 to 51 years old were interviewed.

### 3.5 Study size calculation:

To determine the sample size with precision/absolute error of 5% and type 1 error of 5% using data from the literature (Omidoyin, 2014):

$$\text{Sample size} = [(Z_{1-\alpha/2})^2 P(1-P)] / d^2$$

As,

$Z_{1-\alpha/2}$  = is the standard normal variate, and for 5% type 1 error ( $p < 0.05$ ) it equals 1.96.

P = the expected proportion in population based on past studies.

d = absolute error or precision.

So,

$$\text{Sample size} = [(1.96)^2 \cdot (0.458) \cdot (1 - 0.458)] / (0.05)^2 = 381.4$$

The sample size needed for the study is 382, according to the formula above.

## Knowledge and Perception of Premenopausal .....

	Numbers of employees	Sample
Mansoura University hospital	315	80
Center of Urology and Nephrology	168	43
Gastroenterology Surgical Center	144	36
Specialized Medical Hospital	196	50
Oncology Center	135	34
Children's Hospital	160	40
Ophthalmic Center	206	52
Emergency hospital	186	47
Total	1510	382

### 3.6 Tools of data collection:

Data was collected using one tool: **Structured Interview Questionnaire:** It was adapted from (Omidoyin, 2014). It included three parts:

- **Part I: Socio- demographic characteristics of the studied women:** such as name, age, marital status, educational level, occupation and income perception.
- **Part II: Knowledge about menopause:** It is used to measure woman's level of knowledge about menopause. It is consisted of four domains; knowledge about causes of onset of menopause, knowledge about menopausal symptoms, knowledge about the coping mechanisms during menopause and sources of information about menopause.

### Scoring system:

Each correct knowledge had a score of 1, while an incorrect knowledge had a score of 0. The scores were then summed up to give a composite knowledge score for each woman, total score (0-25). A score between 0-8 points were graded as poor knowledge, 9-16 points were graded as fair knowledge while a score between 17-25 points considered a good knowledge.

- **Part III: Perception of menopause:** It is used to assess women's perception of menopause. It consisted of a set of eight words and 12 descriptions of menopause such as: hatred, relief, worry, fear, etc.... women who are menopausal have lost youthfulness, women who are menopausal no longer have physical strength, when a woman attains menopause, it is a new phase in her life, etc...

### Scoring system:

Each question on positive perception had a score of 1 for Disagree, 2 for Not Decided and 3 for Agree while question on negative perception had a score of 1 for Agree, 2 for Not Decided and 3 for Disagree. Then, the scores will be summed up to give a composite perception score for each woman. Less than 60% was graded as negative perception and 60% or higher was graded as positive perception.

### 3.7 Validity:

Data collection tool was tested and juried for the content validity by three specialists in maternity nursing field and the recommended modifications were done such as simplicity of questions and statements.

### 3.8 Reliability :

The Cronbach's alpha value (internal consistency) of the Knowledge regarding menopause was 0.893 and of the Perception regarding menopause was 0.910 which indicate high reliability of the tool.

### 3.9 Pilot study:

The Pilot study was conducted before data collection on 10% of women (38) to assess the tool's usability and clarity. Based on the pilot study results, no modifications were done and the pilot study was included in the study sample.

### 3.10 Ethical Considerations

The Mansoura University Faculty of Nursing's Research Ethics Committee granted ethical permission before the study could be carried out. All participants were given a signed formal consent prior to the study after being informed of its nature and objectives. Each participant had the option to leave from the study at any moment, and participation

was completely voluntary. Throughout the entire study, anonymity, privacy, safety, and secrecy were fully guaranteed. The findings were included into the essential research for a master's degree, as well as for publications and educational purposes.

**3.11 Field work:**

The current study was done through two phases; preparatory phase and data collection phase as following:

**Preparatory Phase:** This process was started by obtaining ethical approval from Faculty of Nursing and approval from authorities in the previous mentioned settings. Tool for data collection was designed after reviewing the national and international related literatures. Before gathering the final sample, a pilot study involved 38 female employees was conducted. This process took about one month from the beginning of December 2021 to the beginning of January 2022.

**Data collection phase:**

- This study was conducted for 4 months from the beginning of February 2022 until the beginning of June 2022.
- The researcher conducted at least ten minutes of individual interviews with each woman to gather demographic information, such as name, age, marital status, educational level, occupation and income perception.

- The researcher asked each woman and recorded their responses in the Structured Interview Questionnaire which include Knowledge about menopause to assess the level of woman's knowledge as (knowledge about causes of menopausal onset, knowledge about menopausal symptoms, knowledge about the coping mechanisms during menopause and the sources of information about menopause).
- Then the researcher asked about perception of menopause such as: hatred, relief, worry, fear, etc.... menopausal women have lost their youthfulness., menopausal women lose their physical strength., a woman enters a new stage of her life when she reaches menopause., etc...
- The researcher asked all of the administrative female employees, security and cleaners in one hospital until the specified number of each hospital were completed.
- The researcher visited the next hospital after the calculated number of the previous hospital was finished and so on until ending the calculated number of female employees in the settings mentioned before.
- Each hospital took about two weeks for data collection. The researchers started with Mansoura University hospital and ended with Emergency hospital, as shown in the following table:

Hospital name	Duration of data collection& days	Number of nterviewers
Mansoura University hospital	Three weeks (5-22/2/2022 Saturday, Monday, Tuesday)	80
Center of Urology and Nephrology	Two weeks (26/2-8/3/2022 Saturday, Monday, Tuesday)	43
Gastroenterology Surgical Center	Two weeks (12-23/3/2022 Saturday, Sunday, Wednesday)	36
Specialized Medical Hospital	Two weeks (27/3-7/4/2022 Sunday, Tuesday, Thursday)	50
Oncology Center	Two weeks (10-21/4/2022 Sunday, Monday, Thursday)	34
Children's Hospital	Two weeks (24/4-5/5/2022 Sunday, Wednesday, Thursday)	40
Ophthalmic Center	Two weeks (10-19/5/2022 Tuesday, Wednesday, Thursday)	52
Emergency hospital	Two weeks (22/5-2/6/2022 Sunday, Wednesday, Thursday)	47

- The researcher followed the personnel protective equipment for safety from any cross infection as wearing face mask, keeping social distance and disinfecting hands after each interview.

**3.12 Statistical Analysis:**

SPSS for Windows version 20.0 was used to conduct all statistical analyses (SPSS, Chicago, IL). Continuous data were expressed as mean standard deviation and had a

normally distributed distribution (SD). Numbers and percentages were used to express categorical data. Correlation coefficient test was used to test for correlations between two variables with continuous data. The reliability (internal consistency) test for the questionnaires was done in the study using the Cronbach's alpha test.

#### 4. Results:

**Table (1)** showed that 39% of women aged 43-45 years with a Mean  $\pm$ SD 45.6  $\pm$ 3.5. 64.9% were married and more than half of them were highly educated, administrators and reported moderate income.

**Table (2)** showed that nearly the same proportion of women (68.6% and 66%) reported incorrect responses regarding causes of onset of menopause (lack of hormonal production which regulates menstruation and no response of ovaries to follicle stimulating hormone as they once were) respectively.

**Table (3)** showed that (86.1%, 70.4%, and 64.9%) of women reported incorrect responses related to symptoms of menopause (frequency of urination, forgetfulness & depression and mood swings) respectively.

**Table (4)** revealed that most of women reported incorrect responses related to physical coping mechanism for menopause as eating a well-balanced diet and exercising. Results showed that (81.9% and 75.1%) of women reported incorrect responses regarding sexual coping mechanism (using testosterone to improve sexual life and using hormone replacement therapy to preserve the women sex hormones levels) respectively. Regarding psychosocial coping mechanism, results showed that 73.6% of studied women had

incorrect responses to developing a positive attitude towards life.

**Figure (1)** showed that more than one-third of women had poor knowledge about menopause.

**Figure (2)** about half of women reported that they get the information about menopause from relatives followed by friends (19.5%).

**Table (5)** showed that only 5.5% of the studied women expressed empowered confidence, while more than two-thirds of women expressed hatred, worry and pessimism about menopause. The mean perception score is 14.9  $\pm$ 1.3.

**Table (6)** showed that only 2.1% of women agree that woman enters a new stage of her life when she reaches menopause while 94% of them disagree with this view. 91.9% of women agree that menopause is a normal process, thus there is no need to see a doctor because the symptoms will disappear on their own. The mean perception score is 14.2  $\pm$ 1.7.

**Table (7)** revealed that the majority of women were of the view that women get ill when they have sexual relations after menopause, menopausal women lost their physical strength and youthfulness (88.5%, 88.5% and 83% respectively). The mean perception score is 10.6  $\pm$ 1.8.

**Figure (3)** showed that about three-quarters of the studied premenopausal women had negative perception about menopause.

**Figure (4)** showed that there was positive correlation between knowledge and perception of the studied premenopausal women about menopause as poor knowledge is associated with negative perception about menopause ( $r = 0.167$ ,  $p < 0.001$ ).

**Table 1.** Socio-demographic characteristics of the studied premenopausal women

Items	N(n=382)	%
<b>Age (years)</b>		
(40 – 42)	113	29.6
(43 – 45)	<b>149</b>	<b>39.0</b>
(46 – 48)	80	20.9
(49 – 51)	40	10.5
<b>Mean ±SD</b>	45.6 ±3.5	
<b>Marital Status</b>		
Single	29	7.6
Married	<b>248</b>	<b>64.9</b>
Widow	61	16.0
Divorced	44	11.5
<b>Educational Level</b>		
Basic education	63	16.5
Secondary education	124	32.5
Higher education	<b>195</b>	<b>51.0</b>
<b>Occupation</b>		
Administrators	<b>212</b>	<b>55.5</b>
Security	105	27.5
Cleaner	65	17.0
<b>Income perception</b>		
Low	159	41.6
Moderate	<b>193</b>	<b>50.5</b>
High	30	7.9

**Table 2.** Knowledge regarding causes of onset of menopause among the studied premenopausal women

Women's responses to causes of menopause	Expected answer	Incorrect response		Correct response	
		N (n=382)	%	N (n=382)	%
Ovaries stopped producing ovum	Yes	168	44.0	214	56.0
No response of ovaries to follicle stimulating hormone as they once were	Yes	<b>252</b>	<b>66.0</b>	130	34.0
Excessive sexual activity while younger	No	126	33.0	256	67.0
Lack of hormonal production which regulates menstruation	Yes	<b>262</b>	<b>68.6</b>	120	31.4
Too much carbohydrate consumption	No	220	57.6	162	42.4

# multiple responses are allowed

## Knowledge and Perception of Premenopausal .....

**Table 3.** Knowledge about menopausal symptoms among the studied premenopausal women

Women's responses to symptoms of menopause	Expected answer	Incorrect response		Correct response	
		N (n=382)	%	N (n=382)	%
Hot flushes	Yes	138	36.1	244	63.9
Vaginal dryness and itching	Yes	231	60.5	151	39.5
Frequency of urination	Yes	<b>329</b>	<b>86.1</b>	53	13.9
Depression and mood swings	Yes	<b>248</b>	<b>64.9</b>	134	35.1
Reduction in sexual relation with husband	Yes	216	56.5	166	43.5
Forgetfulness	Yes	<b>269</b>	<b>70.4</b>	113	29.6
Tiredness	Yes	246	64.4	136	35.6

# multiple responses are allowed

**Table 4:** Knowledge about the coping mechanisms during menopause among the studied premenopausal women.

Women's responses to coping mechanisms for menopause	Expected answer	Incorrect response		Correct response	
		N (n=382)	%	N (n=382)	%
<b>Physically</b>					
Coloring hair	Yes	218	57.1	164	42.9
Wearing makeup	No	327	85.6	55	14.4
Wearing high-hilled shoes	No	109	28.5	273	71.5
Using herbal medicine as menopausal remedies	Yes	309	80.9	73	19.1
Eating a well-balanced diet.	Yes	<b>355</b>	<b>92.9</b>	27	7.1
Exercising	Yes	<b>348</b>	<b>91.1</b>	34	8.9
<b>Sexually</b>					
Using hormone replacement therapy to preserve the women sex hormones levels	Yes	<b>287</b>	<b>75.1</b>	95	24.9
Using lubricant when having sexual intercourse	Yes	235	61.5	147	38.5
Wearing tight and skimpy dresses to impress men	No	262	68.6	120	31.4
Using testosterone to improve sexual life	Yes	<b>313</b>	<b>81.9</b>	69	18.1
<b>Psychosocially</b>					
Taking part in activities that will keep the mind occupied (hand crafts, religious activities, ....)	Yes	254	66.5	128	33.5
Attending social events and functions	Yes	241	63.1	141	36.9
Developing a positive attitude towards life	Yes	<b>281</b>	<b>73.6</b>	101	26.4

# multiple responses are allowed score among the studied premenopausal women.

Figure 1. Total knowledge

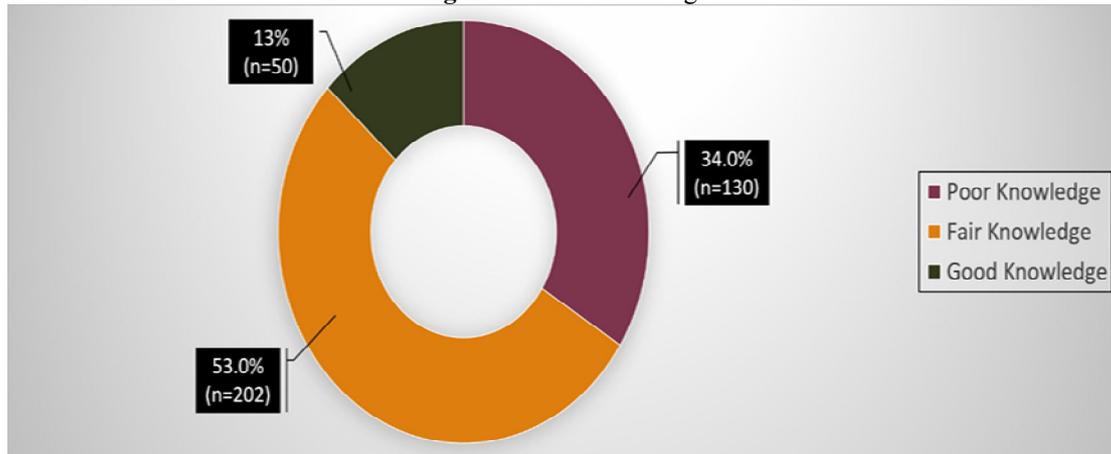


Figure 2.: Sources of knowledge about menopause among the studied premenopausal women

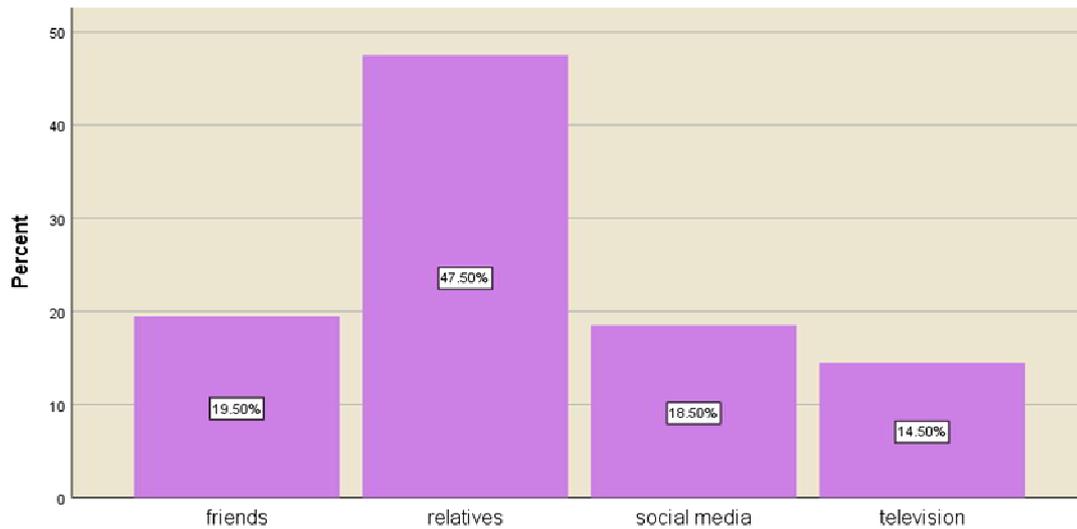


Table 5: Perception about menopause among the studied premenopausal women.

Words that express how women feel about menopause	Agree		Not decided		Disagree	
	N (n=382)	%	N (n=382)	%	N (n=382)	%
<b>Positive Responses</b>						
Optimism	44	11.5	48	12.6	290	75.9
Relief	47	12.3	65	17.0	270	70.7
Joy	36	9.4	34	8.9	312	81.7
Empowered confidence	21	5.5	40	10.5	321	84.0
<b>Negative Responses</b>						
Hatred	265	69.4	94	24.6	23	6.0
Worry	260	68.1	97	25.4	25	6.5
Fear	210	55.0	96	25.1	76	19.9
pessimism	258	67.5	118	30.9	6	1.6
Mean ±SD	14.9 ±1.3					

# multiple responses are allowed

## Knowledge and Perception of Premenopausal .....

**Table 6:** Positive perception about menopause among the studied premenopausal women

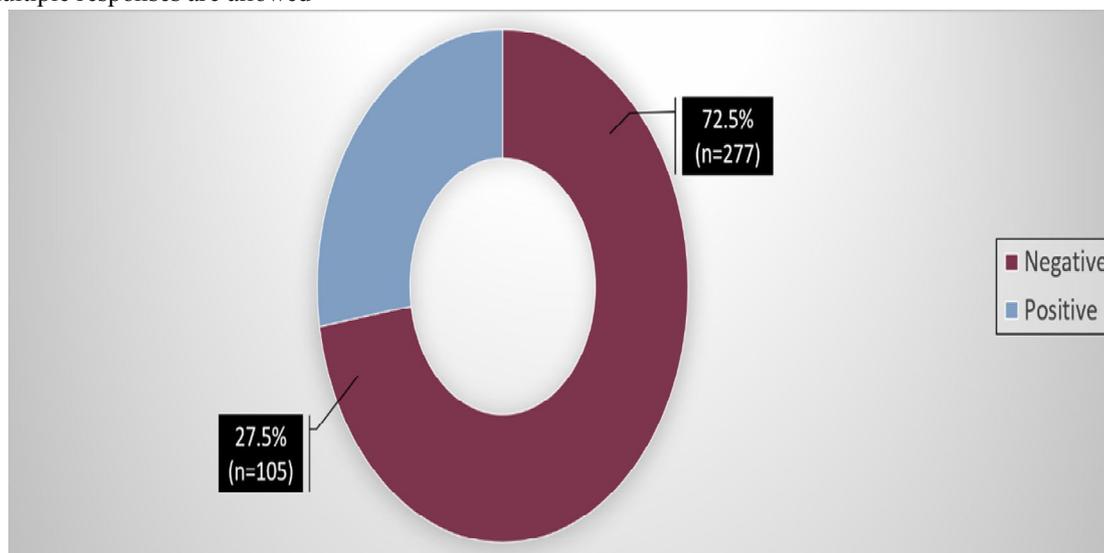
Descriptions	Agree		Not decided		Disagree	
	N (n=382)	%	N (n=382)	%	N (n=382)	%
Regular menstruation is an indication of good health.	187	49.0	96	25.1	99	25.9
It is a new stage of women life.	<b>8</b>	<b>2.1</b>	15	3.9	<b>359</b>	<b>94.0</b>
Women's hearts are gladdened by getting older.	2	0.5	31	8.1	349	91.4
Appreciation and wisdom for menopausal women.	86	22.5	166	43.5	130	34.0
Relief from having children or family planning.	180	47.1	126	33.0	76	19.9
Menopause is a normal process, thus there is no need to see a doctor because the symptoms will disappear on their own.	<b>351</b>	<b>91.9</b>	27	7.1	4	1.0
mean ±SD	<b>14.2 ±1.7</b>					

# multiple responses are allowed

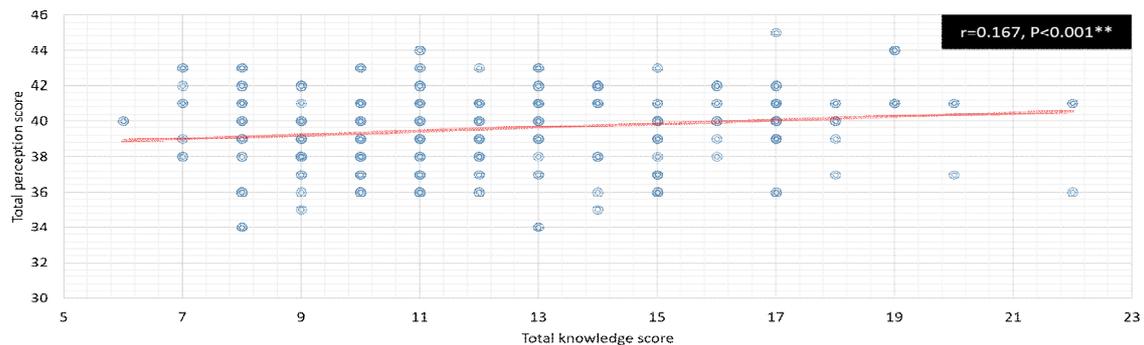
**Table 7:** Negative perception about menopause among the studied premenopausal women

Descriptions	Agree		Not decided		Disagree	
	N (n=382)	%	N (n=382)	%	N (n=382)	%
Menopausal women are losing youthfulness.	317	<b>83.0</b>	63	16.5	2	0.5
Menopausal women are losing physical strength.	338	<b>88.5</b>	42	11.0	2	0.5
A woman turns into a male when she reaches menopause	71	18.6	157	41.1	154	40.3
Women shouldn't tell anyone when they stop menstruating	223	58.4	117	30.6	42	11.0
Women get ill when they have sexual relations after menopause.	338	<b>88.5</b>	44	11.5	0	0.0
Men prefer not to engage in sexual activity with menopausal women.	229	59.9	153	40.1	0	0.0
mean ±SD	<b>10.6 ±1.8</b>					

# multiple responses are allowed



**Figure 3.** Perception scores among the studied premenopausal women.



**Figure 4.** Correlation between total knowledge and total perception level.

**5. Discussion:**

The current study aimed to assess knowledge and perception of premenopausal women about menopause. The results of the study answered the study questions and assessed the levels of knowledge and perception about menopause.

Regarding the knowledge about causes of menopause, premenopausal women in this study generally had poor knowledge where more than two-thirds of the studied women didn't believe that lack of hormonal production which regulates menstruation, no response of ovaries to follicle stimulating hormone as they once were and ovaries stopped producing ovum were the causes of onset of menopause.

This study finding is contradicted with a study conducted in Egypt by **Elkordy, Ahmed and Farahat (2019)** to assess the impact of health education programmes on menopausal women's quality of life, the study revealed that more than half of menopausal women believed that low levels of female hormones were the cause of menopause. As well with a study by **Smail, Jassim & Sharaf, (2020a)** on Emirati women between the ages of 30 and 64. They discovered that almost two-thirds of women stated that menopause happens when the ovaries cease producing eggs.

There is disagreement with **Alshogran, Mahmoud and Alkhatatbeh (2021)**, who assessed premenopausal women knowledge and awareness of menopause and hormone therapy in Jordan and found that more than half of them believed that the main cause of menopause was the ovaries' incapacity to secrete hormones. This can be explained as women in this study get their information from relatives, friends and social media. Also,

low exposure of premenopausal women to menopausal education is considered a cause of their poor knowledge.

In the current study, premenopausal women generally had poor knowledge where the majority of women reported incorrect responses to frequency of urination, depression and mood swings as symptoms of menopause. In the same line, the findings of a study conducted by **AbdulHalim, Mehras, Assabri, Alkobaty, and Albourhi's (2018)** in Yemen to determine the age at menopause, one-fifth of premenopausal women had wrong answers to bladder problems as symptom of menopause.

While, this result is not consistent with a study conducted in Sri Lanka to assess the prevalence and severity of menopausal symptoms, **Rathnayake, Lenora, Alwis and Lekamwasam (2019)** found that more than half of premenopausal women believed that sad mood is a symptom of menopause. Also, this study results are contradicted with those of **Alharthi, Elzahrany, Alkhalifah, Aljasser and Kofi (2021)**, who examined Saudi Arabian women's knowledge and attitude concerning menopause and found that approximately three-quarters of premenopausal women agreed that depression was a symptom of menopause.

Considering knowledge about coping mechanisms during menopause, premenopausal women in the current study generally had poor knowledge where most of the studied women didn't believe that eating a well-balanced diet and exercising are priority as physical adaptation to menopause. In the same line, **Elkordy et al. (2019)** found that more than half of menopausal women didn't agree to learn how to maintain a healthy weight. On the other hand, **Ogbah and**

**Omozuwa (2018)**, who examined the challenges and coping strategies of menopausal women in Nigeria. They revealed that among menopausal women's coping mechanisms, keeping a healthy body weight is a priority. Contrarily, **Khan et al. (2020)**, who discovered that almost half of participants exercised daily as a preventative method for menopausal symptoms.

Incongruent to the current study finding, a qualitative study in USA by **Edwards, Duchesne, Au & Einstein (2019)** that aimed to understand the impact of the podcast "menopause: unmuted" on women's knowledge of the menopause revealed that the most women were encouraged to change their behavior, such as joining a gym and increasing their physical activity, in order to adopt healthier lifestyles. This can be due to Egyptian women feeling hopeless and believing that maintaining a healthy diet wouldn't make a difference during this stage of life while American women cared about their beauty and improving their financial condition and the attractiveness of their lives.

Regarding sexual coping mechanisms, more than two-thirds of women in the study were unaware of hormonal replacement therapy after menopause and using lubrication when having sexual intercourse. Similar findings were reported by **Alshogran et al. (2021)**, who found that about half of the women who took part were unaware of the possibility of hormone replacement therapy replacing hormone deficit following menopause.

Additionally, the results of the current study are consistent with those of **El Swerky, Mohamed, Sayed, Elshafie and Elsayed (2020)**, who examined how middle-aged women's awareness of menopause was affected by social media instructions in Egypt and found that half of menopausal women were unaware of the benefits of using lubricating creams during sexual activity to lessen dyspareunia. In addition, **Mahmoud and Moustafa (2016)**, who examined coping mechanisms for postmenopausal women's problems in Egypt, found that the majority of the women who participated in the study refused to use lubricating gel for dyspareunia because there isn't a culture of lubrication use and the acceptance of women to get such production.

Concerning psychosocial coping mechanisms, about two-thirds of the studied women didn't prefer to taking part in activities that will keep the mind occupied and attending social events and functions. In the same line, **Mahmoud and Moustafa (2016)** cleared that more than half of women didn't favor to visit family and friends or even watch TV. While the present study was contradicted with a study in India by **Agarwal, Kiron, Gupta and Sengar (2019)**, that aim to assess menopausal symptoms and coping strategies among premenopausal women and found that more than half of premenopausal women accepted to maintain social relationships as coping mechanism of menopause. This can be explained as Egyptian culture shape the believes of women towards menopause in which they perceive the menopause as age of despair and the end of life. Based on that, there is no need to perform any activities that overwork herself.

Regarding total knowledge score in this study, more than one-third of studied women had poor knowledge about menopause, which is similar to study by **Harahap and Harahap (2022)** and found that more than one-fourth of respondents had insufficient knowledge about menopause after conducting a study to ascertain the awareness of women regarding complaints in Indonesia. Similar to this, **Chavan et al. (2022)**, who conduct a study to assess the knowledge of pre-menopausal changes among women in India, discovered that about one-fifth of premenopausal women had bad knowledge about menopause.

Regarding the sources of information on menopause among the studied premenopausal women. According to the current study, women reported that they get their information about menopause from relatives. This finding is consistent with a study by **El Swerky et al. (2020)**, discovered that more than half of the women in the study got their information about menopause from family members.

While the present study was contradicted with **Khan et al. (2020)**, who carried out research in Pakistan to examine menopause symptoms, consequences, and preventive methods, demonstrated that approximately half of menopausal women had lady health workers as sources of knowledge for menopause. As this may be linked partially

to the less interest from media and less willingness of health-care providers to discuss menopause with premenopausal women in Egypt.

Concerning the perception of menopause, the current study revealed that nearly three-quarters of studied women had negative perception about menopause, where more than two-thirds of women expressed (hatred, worry and negative mindset). The present study finding is supported by **Ahmed and El-Nemer (2021)** who conducted a study in Egypt to assess women's perception and experience of menopause, they reported that more than two-thirds of the studied women had bad perception.

Also, the result is in the same line with study conducted by **More and Sujatha (2018)** in India, who revealed that more than half of the studied premenopausal women had negative mindset towards menopause as they feel loss of fertility, femininity and loss of youth. The present study findings are in disagreement with **Amitha (2020)** and **Chalise et al. (2022)** reported that more than three-quarters of women had positive perception toward menopause. Contrarily, **Latif and Shahzadi (2022)**, who found that only 14.3% of women were worried about menopause.

The present study finding reported that only "12.3% and 5.5%" of women exhibited relief and empowered confidence. The study findings conflict with those of **Alwi, Brohi & Awi (2021)**, who examined Malaysian women's perception of menopause and found that three-quarters of them thought that the end of menstruation was a relief. Contrarily, **George, Pathan, Alexander and Nair (2022)** reported that the majority of menopausal women perceived the cessation of menstruation in menopause as a relief. In contrast to this finding, another study by **Ali et al. (2020)** in the United Arab Emirates found that approximately half of women experience increased self-confidence as a result of this shift in lifestyle. This may be due to their cultural environment might have influenced how they perceived things.

The current study reported that the majority of women expressed that menopausal women lose their physical strength and youthfulness, and women get ill when they have sexual relations after menopause, while few of the studied women perceived that

respect for women who have reached menopause and woman enters a new stage of her life when she reaches menopause. Such findings are supported by **Gayathripriya et al. (2018)** who examined menopause awareness and symptoms in Bahrain. They found that almost half of the women reported a decline in physical strength. Similarly, **El Khoudary et al. (2019)** who conducted study in New York to understand the menopause transition and women's health at midlife, reported that about half of women reported ever experiencing some physical functioning limitations.

There is also consistency with a study by **Alwi et al. (2021)**, who found that the majority of the women they surveyed were unsure about the enjoyment of sex after menopause. Similarly, **Alenezi, Almutrafi, Alruwaili, Alanazi and Hammad (2021)** who evaluated women's knowledge and attitude toward menopausal symptoms in KSA, found that half of women believed that going through menopause meant losing woman's youth. Similar findings were made by **Nagaraj et al. in 2021**, who found that almost half of menopausal women agreed that menopause signifies the loss of youth.'

These finding results are in contrast to research by **Elswerky et al. (2020)**, who found that almost three-quarters of menopausal women stated that menopausal women intercourse was comfortable. Also, they revealed that more than half of menopausal women agreed that menopause marks the start of a new life and the second maturation of women. On the other hand, according to a recent study by **Chalise et al. (2022)** who demonstrate that more than three-quarters of women reported that menopause signified a new life phase because they had a good impression of menopause.

The current study findings stated that nearly half of women agreed that when women enter menopause, they do not need to worry about having children or about family planning. According to a Saudi Arabian study by **Alharthi et al. (2021)**, almost three-quarters of participants revealed that menopause meant they no longer have to worry about getting pregnant or using contraception. Similarly, **Gebretatayos et al. (2020)** conducted study on the impact of health education on knowledge and attitude of menopause and stated that about three-

quarters of premenopausal teachers agreed that menopause is the period when pregnancy is prevented.

Such agreement between the current study findings which found that there was positive correlation between knowledge and perception about menopause, and **Alshogran et al. (2021)**, who stated that positive views of women regarding menopause may help to improve awareness and experience of menopausal symptoms in the future. Therefore, assessment of knowledge and perception for menopause among premenopausal women could help in designing menopausal educational program for premenopausal women thus improving their knowledge and perception of women leading to high quality of life during menopause.

### 6. Conclusion:

The present study findings concluded that more than one-third of studied premenopausal women had poor knowledge about menopause. Hatred, worry and pessimism were the most words that expressed how women felt about menopause. About three-quarters of women had negative perception about menopause. There was positive correlation between premenopausal female employees' knowledge and their perception about menopause.

### 7. Recommendations:

Based on the present study findings, the followings are recommended:

1. Premenopausal women should be targeted with information early enough to help them to be prepared for menopause.
2. Adequate information about menopause and different strategies for coping with menopausal issues should be provided to premenopausal women to clear their wrong knowledge and negative perception about menopause.
3. Spreading information to raise awareness among premenopausal women to improve knowledge and attain positive perception about menopause through awareness campaign, mass media and educational programs.
4. Further researches are recommended to:
  - Evaluate effect of menopausal preparedness on knowledge and attitude of menopausal women.

- Assess coping strategies and quality of life in post-menopausal women.

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