

## Preventive Health Behaviors among elderly women Regarding Post-Menopausal Problem

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### ABSTRACT

**Background:** Post-menopause is a significant phase is typically accompanied by various physical, psychological, and social challenges that can impact the quality of life result from post-menopausal ignorance and unhealthy habits.. **Aim of the Study:** This study aimed to assess elderly women's preventive health behaviors regarding post-menopausal problems. **Subjects and Methods: Research Design:** A descriptive cross-sectional design was utilized. **Setting:** The study was conducted at Elgar Village in Zagazig City, Sharqia Governorate, Egypt. **Subjects:** A purposive sample of 130 post-menopausal women was selected. **Tools of Data Collection:** Data were collected using an interview questionnaire that consisted of two parts: assessment post-menopausal problems, and preventive health behavior checklist. **Results:** Regarding preventive behaviors, The study revealed that 77.7% of elderly women had unsatisfactory preventive health behaviors and 34.6% of studied elderly women had experienced sever post-menopausal symptoms **Conclusion:** The study highlights that older women exhibited inadequate preventative health behaviors and a comparatively low degree of knowledge. **Recommendations:** The implementation of focused health education programs is necessary to improve older women's knowledge of post-menopausal issues and preventative measures.

**Keywords:** Elderly Women, Post-Menopause problems, Preventive Health Behavior

### INTRODUCTION

Post-menopausal elderly women exhibit increased susceptibility to various complications, including osteoporosis, cardiovascular diseases, urogenital atrophy, and psychological issues such as anxiety and depression. Promoting women's healthy aging requires knowledge of menopause and its related difficulties.(1)

Particularly in low- and middle-income nations, cultural taboos, health illiteracy, and restricted access to healthcare services frequently impede the spread and acquisition of critical knowledge.(2)Post-menopausal Women may experience persistent symptoms such as hot

flashes, vaginal dryness, mood fluctuations, sleep disturbances, and a decrease in libido. Additionally, the reduced levels of estrogen increase the risk of developing osteoporosis, cardiovascular diseases, and urogenital atrophy.

Preventive health practices are essential for reducing the chance of developing chronic illnesses, which frequently surface after menopause. frequent exercise, a healthy diet, bone density tests, cardiovascular examinations, and frequent gynecological checkups are some examples of these activities. (3)In addition to

improving physical health, these activities help older women develop psychological fortitude and a sense of independence. Research indicates that lifestyle changes made in the post-menopausal stage can dramatically lower the prevalence of aging-related morbidity and mortality.<sup>(4)</sup>

In order to encourage healthy aging, governments and healthcare practitioners must focus on the confluence of behavior and knowledge. It has been suggested that raising women's awareness of postmenopausal difficulties encourages healthy lifestyle choices, which lower medical expenses and enhance quality of life.<sup>(5)</sup>

When specifically designed to target the distinct cultural and demographic factors impacting women's health-seeking behaviors, health education and community-based interventions have been demonstrated to be effective in closing the knowledge-behavior gap.<sup>(6)</sup>

The findings are intended to aid in the creation of specialized educational programs and policy suggestions that support the holistic health and well-being of older women by highlighting behavioral patterns and knowledge gaps.

### Significance of the Study:

The significance of this study is underscored by the increasing prevalence of post-menopausal complications worldwide. For instance, osteoporosis affects over 200 million women globally, and post-menopausal women represent the highest-risk group, especially for fractures that lead to disability or death.<sup>(7)</sup>

Additionally, the lack of preventive behaviors such as routine screenings, physical activity, and healthy dietary habits significantly contributes to these outcomes. This reinforces the urgency of understanding the extent to which elderly women are equipped with the knowledge and motivation to adopt health-preserving behaviors.

In cities like Zagazig where traditional norms prevail and health infrastructure is strained, elderly women may lack both the information and the resources to engage in preventive health behaviors effectively. By focusing on the Zagazig population, this study addresses a crucial need to explore local patterns of knowledge and behavior, which can inform targeted interventions that align with the specific sociocultural context of Egyptian communities.

### Aim of the study:

**The aim of the study was** to assess elderly women's preventive health behaviors regarding post-menopausal problems

### Research questions:

1. what is the prevalence of preventive health behaviors in postmenopausal women?
2. what is the severity of menopausal symptoms using the MRS?
3. what is the relationship between preventive health behaviors and symptom severity among elderly women?

### 3. Subjects and Methods:

#### Research design:

Descriptive Cross Sectional design will be used to conduct this study.

#### Study Setting:

The existing study was conducted at Elgar Village in Zagazig Center in Sharqia Governorate. A multistage cluster sampling technique was utilized for the recruitment of the older adults to be included in the study as follow;

- **First stage:** Selection of district.
- **Second stage:** Selection of village
- **Third stage:** Selection of streets.
- **Fourth stage:** Selection of participants.

#### Study Subjects:

A purposive sample composed of 130 post-menopausal women according to the following inclusion criteria. Women who had natural menopause. Able to communicate and accept to participate in the study. ;

- Age: 57years or over.
- Able to communicate and accept to participate in the study (oral consent).
- Able to communicate.
- Women have symptoms of post menopause.

#### Tool for data collection:

Data were collected by using an interview questionnaire composed of two parts;

#### **Part I: Menopause Rating scale (MRS):**

Menopause rating scale is a self-administered instrument which assess the severity of menopausal symptoms. This scale developed by

Heinemann et al (2003) <sup>(8)</sup>and modified by researcher to collect the data related to postmenopausal symptoms. The scale is composed of 59 items on a 4-point Likert scale “none/mild/ moderate /severe.” The items are categorized into four groups of menopausal symptoms. These symptoms can be divided to physical, Vasomotor, Psychosocial and Sexual problems.

#### **Scoring system:**

The items checked from “none” to “Severe” were scored from 0 to 3 respectively and the total score was ranged between (0-177). The scores of the items of each category and of the total scale were summed-up and the total divided by the number of items, giving a mean score. These scores were converted into percent scores. The total score of all items the score of it can be classified as follows:

- Mild symptoms score: <50%
- Moderate score: 50% to 70%.

#### **Part II: Preventive health behavior:**

**This tool was developed by the researcher after reviewing the related literature (Ahmed et al,2017). <sup>(9)</sup>it is consisted of 13 items used to alleviate post-menopausal problems such as hot flashes, mood changes vaginal dryness and source of these behaviors health.**

#### **Scoring system:**

The total number of questions was 33, and the total score was ranged from 0-66. For each question several correct answers were allotted, a score (2) was given when the answer was completely correct, a score (1) was given when the answer was incompletely correct and a score (0) was given when the answer was wrong or don't know. The preventive health behavior scores were depending on the numbers of grades the participant obtained regarding all questions. the total score of all items the score of it can be classified as follows:

- Satisfactory score: >75%
- Unsatisfactory score: 75% or less

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

It was ascertained by three experts in the field of study who will review the tools content for clarity, relevance, comprehensiveness, and understandability. The reliability of tools was tested by measuring their internal consistency. It demonstrated a good level of reliability regarding

total knowledge and total menopause rating scale with Cronbach's Alpha. the total preventive health behavior demonstrated an excellent level of reliability with score 0.903 and total menopause rating scale score was 0.817 and measure.

#### **Field work:**

Once the permission was granted to proceed with the study, the researcher started to prepare a schedule for collecting the data. Each elderly was interviewed individually by the researcher who introduced herself and explained the aim of study briefly, and reassured them that information obtained is strictly confidential and would not be used for any purposes other than research.

After that, the oral approval was obtained to collect the necessary data. The researcher used to go to Elgar village. for interviewing the elderly who fulfilling the criteria. The study tools were answered by each elderly during the interview and the time needed ranged from 20 to 30 minutes, according to understanding and cooperation of the elderly. The field work was executed over Six months from October 2023 to March 2024, two days per week (Friday and Saturday) between 11 a.m. and 4 p.m.

#### **Pilot study:**

A pilot study was carried out on a sample of 13 elderly randomly selected from the selected village and they were excluded from the total number of subjects to insure the clarity and comprehensiveness of the tool.

#### **Administration and Ethical consideration:**

Firstly,the study proposal was accepted by the Zagazig University Faculty of Nursing's Post Graduate Committee and Research Ethics Committee (REC) with the code of M.D.ZU.NUR\190\13\6\2023. An official letter containing the aim of the study was issued from faculty of nursing Zagazig University to the general manager of the general administration of Sharqia Governorate (the Central Agency for Public Mobilization and Statistics in Zagazig) explaining the nature and aim of this study and seeking facilitating the role of researchers. Following full explanation of the study's aim, each participant provided their informed consent to participate. Participants were given the right to

refuse participation and were informed that they could withdraw at any time while filling out the questionnaire. The elderly was each assigned a code number to protect their anonymity, and they were given the assurance that the information would be kept confidential and used only for research.

#### Statistical Analysis:

Data collected from the studied sample was revised, coded, and entered using Personal Computer (PC). Computerized data entry and statistical analysis were fulfilled using the Statistical Package for Social Sciences (SPSS) version 22. Data were presented using descriptive statistics in the form of frequencies, percentages, and Mean SD. A correlation coefficient "Pearson correlation" is a numerical measure of some type of correlation, meaning a statistical relationship between two variables. Chi-square ( $\chi^2$ ) is a statistical test used to determine the relationship between categorical variables. A linear regression model describes the relationship between a dependent variable,  $y$ , and one or more independent variables,  $X$ .

#### Results:

**Table (1)** shows that the severity of post-menopausal vasomotor symptoms among the studied elderly women. Notably, 47.7% of the subjects experienced moderate hot flashes. Sweating symptoms were also significant, with 45.4% had severe sweating. Concerning to the night sweating it was most prevalent with 48.4% with severe degree and 30.8% having moderate sweating. Furthermore, dizziness was reported moderately in 2.3%. Headache was moderate in 51.5%. chills were mild in 54.6%.

**Table (2)** highlights the physical problems in post-menopause period. As for the breast, drooping of breasts was moderately in 60.8% of the cases. Concerning the gynecologic system, vaginal dryness was a major issue, with 45.4% moderate and 37% severe. Regarding the urinary system, Dysuria was a mild problem for 68.5%. For integumentary system dark Pigmentation was 65.4% moderate and dry skin was severe in 48.5%.

**Table (3)** shows the physical problems in post-menopause period. As for the gastrointestinal system gum inflammation was moderate in 75.4% of the elderly women and constipation was moderate in 60.0% of subjects.

Regarding the cardiovascular system chest pain was mild in 64.6% of the elderly. Concerning respiratory system breathing difficulty was mild for 22.3%. For muscles and skeletal system joint stiffness was severe in 50% of cases and also osteoporosis was severe in 57.7%.

**Table (4)** reveals the psychological issues post-menopause were significant, with severe insomnia reported by 34.6% of elderly women. Moderate mood changes in 38.5% of cases. Anxiety was severe in 19.2% and moderate in 46.9%. Irritability was moderate in 40.8% of the cases. Sexuality problems were prevalent, with severe lack of lubrication in 66.1% and loss of sexual desire severe in 59.2%.

**Figure 1** illustrates that 35.4% of studied elderly women had experienced mild symptoms, while 34.6% had severe symptoms.

**Table (5)** shows that 62.3% of the elderly have information about preventive health behavior. The sources of this information for those who are informed, friends and relative was the highest source 44.4%, followed by healthcare providers 41.9%.

**Table (6)** presents the distribution of elderly participants based on their sexuality problems. For lack of sexual desire, 40.8% ignore the problem, and 53.8% are unaware. Only 7.7% believe these measures help. For pain during sex, 33.1% treat vaginal infections and 15.3% use vaginal lubricants. About 16.9% think these measures reduce pain.

**table (7) summarizes** the distribution of elderly participants based on their preventive health behaviors across various subscales. For vasomotor and physical problems, 74.6% & 76.2% have unsatisfactory behaviors respectively. Meanwhile, the psychological and sexuality problems it was found that 71.5% & 87.7% do not have satisfactory behaviors respectively.

**Table (8)** summarizes the distribution of elderly participants based on their preventive health behaviors across various subscales. For vasomotor and physical problems, 74.6% & 76.2% have unsatisfactory behaviors respectively.

**Figure (2)** illustrates that 77.7% of studied elderly had unsatisfactory preventive health

behavior, while 22.3% of them had satisfactory behavior.

**Table (9)** shows the correlation between the total menopause rating scale and total preventive health behavior is -0.602 with a p-value of 0.001

**Table (1):** Distribution of the studied elderly women according to their severity of post-menopausal symptoms (vasomotor problems) (n=130).

Items	None		Mild		Moderate		Sever	
	No	%	No	%	No	%	No	%
Hot flashes	0	0	17	13.1	62	47.7	51	39.2
Sweating	0	0	25	19.2	46	35.4	59	45.4
Sweating in night	4	3.1	23	17.7	40	30.8	63	48.4
Dizzy or faint	106	81.5	21	16.2	3	2.3	0	0
Headache	14	10.8	30	23.1	67	51.5	19	14.6
Chill	5	3.9	71	54.6	39	30.0	15	11.5

**Table (2):** Distribution of the studied elderly women according to their severity of post-menopausal symptoms (physical problems). (n=130).

Items	None		Mild		Moderate		Sever	
	No	%	No	%	No	%	No	%
<b>Breast</b>								
Reduce size of breast	3	2.3	97	74.6	20	15.4	10	7.7
Drooping and softer consistency	7	5.4	28	21.5	79	60.8	16	12.3
<b>Gynecological systems</b>								
Decrease size of external genitalia	84	64.6	31	23.8	15.1	11.5	0	0
Vaginal dryness	2	1.5	21	16.1	59	45.4	48	37
Pruritus	5	3.8	25	19.2	50	38.5	50	38.5
Abnormal vaginal discharge and bad odor	1	0.8	30	23.1	42	32.3	57	43.8
<b>Urinary tract systems</b>								
Dysuria	24	18.5	89	68.5	5	3.8	12	9.2
Frequency urination	38	29.2	75	57.7	9	6.9	8	6.2
Agency	30	23.1	82	63.1	12	9.2	6	4.6
Stress incontinence	29	22.3	74	56.9	17	13.1	10	7.7
Nocturia	34	26.1	73	56.2	12	9.2	11	8.5
Recurrent attack of urinary tract infection	21	16.2	80	61.5	16	12.3	13	10.0
<b>Integumentary systems</b>								
Dryness of skin	5	3.8	10	7.7	52	40.0	63	48.5
Dark Pigmentation-spotting	9	6.9	15	11.5	85	65.4	21	16.2
Dry hair	2	1.6	12	9.2	101	77.7	15	11.5
Loss of hair	0	0	17	13.1	59	45.4	54	41.5
Hirsutism of face	3	2.3	13	10.0	41	31.5	73	56.2

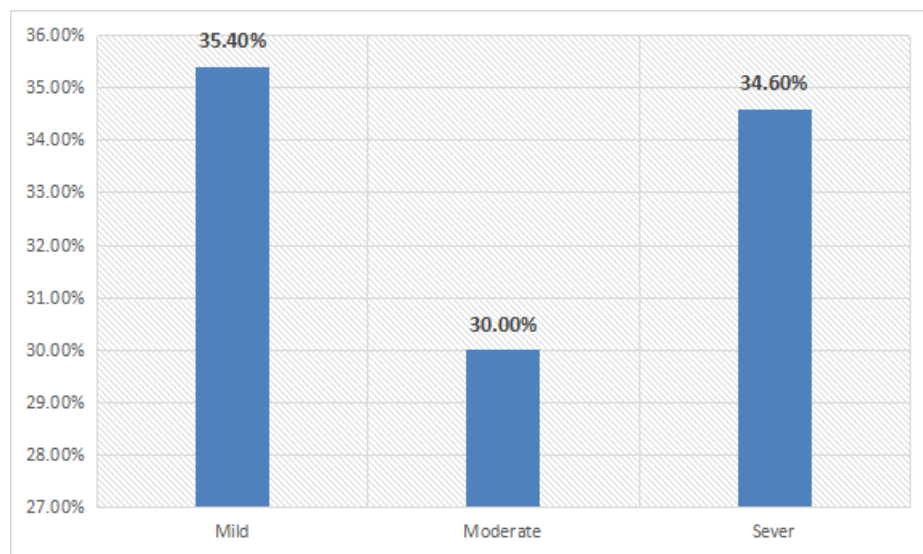
**Table (3):** Distribution of the studied elderly women according to their severity of post-menopausal symptoms (physical problems). (n=130).

Items	None		Mild		Moderate		Sever	
	No	%	No	%	No	%	No	%
<b>Gastrointestinal systems</b>								
Dry mouth	9	6.9	22	16.9	79	60.8	20	15.4
Loss of teeth	11	8.5	12	9.2	91	70.0	16	12.3
Gum inflammation	7	5.4	15	11.5	98	75.4	10	7.7
Increase in appetite	9	6.9	30	23.1	57	43.8	34	26.2
Decrease in appetite	13	10.0	39	30.0	63	48.5	15	11.5
Constipation	3	2.3	26	20.0	78	60.0	23	17.7
Distention	5	3.8	33	25.4	60	46.2	32	24.6
Colonic spasm	8	6.2	30	23	66	50.8	26	20.0
<b>Cardiovascular systems</b>								
Palpitation	36	27.8	77	59.2	12	9.2	5	3.8
Chest pain	30	23.1	84	64.6	15	11.5	1	0.8
Functional arrhythmia	44	33.8	67	51.5	15	11.5	4	3.2
<b>Respiratory systems</b>								
Breathing difficulty	86	66.1	29	22.3	7	5.4	8	6.2
<b>Muscles and skeletal systems</b>								
Muscles weakness	0	0	11	8.5	60	46.2	59	45.3
Muscles pain	0	0	8	6.2	58	44.6	64	49.2
Backache	0	0	10	7.7	47	36.2	73	56.1
Joint stiffness	0	0	9	6.9	56	43.1	65	50.0
Joint pain	0	0	9	6.9	43	33.1	78	60.0
Dorsal kyphosis	42	32.3	79	60.8	2	1.5	7	5.4
Fractures	83	63.8	33	25.4	4	3.1	10	7.7
Fell of numbness in part of body	21	16.2	38	29.2	29	22.3	42	32.3
Osteoporosis	0	0	5	3.8	50	38.5	75	57.7
Weight gain	10	7.7	3	2.3	63	48.5	54	41.5
Weight loss	12	9.2	7	5.4	99	76.2	12	9.2

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**Table (4)** Distribution of the studied elderly women according to their severity of post-menopausal symptoms (psychological and sexuality problems). (n=130).

Psychological problems	None		Mild		Moderate		Sever	
	No	%	No	%	No	%	No	%
Feeling tens or nerves	15	11.5	20	15.4	33	25.4	62	47.7
Insomnia	23	17.7	25	19.2	37	28.5	45	34.6
Attack of panic	62	47.7	47	36	12	9.2	9	6.9
Loss of enjoying of most things	28	21.5	25	19.3	49	37.7	28	21.5
Felling unhappy or depressed	13	10.0	61	46.9	35	26.9	21	16.2
Crying spells	10	7.7	32	24.6	49	37.7	39	30.0
Difficulty in concentration	11	8.5	27	20.8	50	38.5	42	32.1
Felling of mood changes	15	11.5	29	22.3	50	38.5	36	27.7
Anxiety	13	10.1	31	23.8	61	46.9	25	19.2
Irritability	14	10.8	34	26.2	53	40.8	29	22.2
Sexuality problems								
Lack of lubrication	0	0	23	17.7	21	16.2	86	66.1
Loss of sexual desire	0	0	27	20.8	26	20.0	77	59.2
Dyspareunia	0	0	30	23.1	28	21.5	72	55.4



**Figure (1):** Distribution of the studied elderly women according to their total menopause rating scale (n=130).

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**Table (5):** Distribution of the studied elderly women according to their information about preventive health behavior (n=130).

Have information about Preventive health behavior	N	%
Yes	81	62.3
No	49	37.7
<b>Source of this information n=81</b>		
Television	15	18.5
The Internet	18	22.2
Friends and relatives	36	44.4
Health care providers	34	41.9

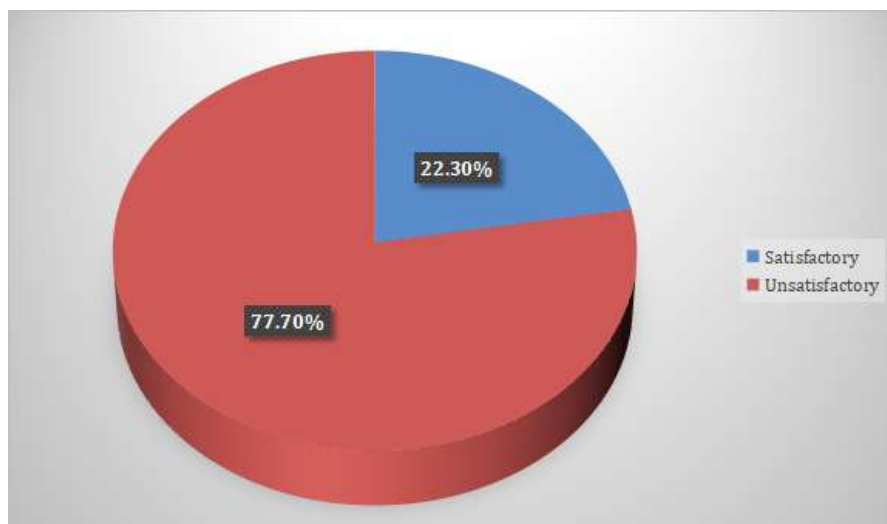
**Table (6):** Distribution of the studied elderly women according to their behavior to reduce vasomotor problems (n=130).

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Items	N	%
<b>Measures to reduce the occurrence of hot flashes in the face and neck</b>		
Do not drink hot drinks	16	12.3
Do not drink coffee or tea	10	7.7
Drink cola and soda drinks	22	16.9
Take cold a bath to reduce temperature	19	14.6
Reducing stress Trying to relax most of the time	15	11.5
I don't know	48	36.9
<b>The previous measures reduce the severity of the problem</b>		
Yes	35	26.9
No	95	73.1
<b>Measures to reduce the problem of night sweats</b>		
Wear loose, light cotton clothes while sleeping	25	19.2
Increase the number of sheets and blankets	11	8.5
Take a cold bath during the day and before bed	18	13.9
Reduce the room temperature by using a fan near the bed	20	15.4
Stay away from triggers of sweating, such as: drinking alcohol, smoking, caffeine, and drug use	15	11.5
I don't know	41	31.5
<b>The previous measures reduce the severity of the problem</b>		
Yes	44	33.8
No	86	66.2
<b>Measures to reduce the problem of dizziness</b>		
Go to consult a doctor	13	10.0
Ignore the feeling of dizziness	8	6.1
Attention to eating and a healthy lifestyle	39	30.0
Be careful not to stand for a long time	11	8.5
Increase sleeping hours	9	6.9
I don't know	50	38.5
<b>The previous measures reduce the severity of the problem</b>		
Yes	29	22.3
No	101	77.7
<b>Measures to reduce the problem of hand tremors</b>		
Take medication	13	10.0
Do light exercises to strengthen the muscles.	7	5.4
Reducing stimulant drinks	5	3.8
Stay away from stress and anxiety	30	23.1
I don't know	75	57.7
<b>The previous measures reduce the severity of the problem</b>		
Yes	24	18.5
No	106	81.5

**Table (7):** Distribution of the studied elderly women according to their total subscales of preventive health behavior (n=130).

Items	Satisfactory		Unsatisfactory	
	No	%	No	%
Vasomotor problems	33	25.4	97	74.6
Physical problems	31	23.8	99	76.2
Psychological problems	37	28.5	93	71.5
Sexuality problems	16	12.3	114	87.7



**Figure (2):** Distribution of the studied elderly women according to their total preventive health behavior (n=130)

**Table (8):** Correlation between the studied variables (n=130).

		Total menopause rating scale
1. Total preventive health behavior	<b>r</b>	-.602
	<b>p</b>	.001**

(\*\*) Statistically significant at  $p < 0.01$ . *r* Pearson correlation

**Discussion:**

The post menopause period refers to the stage in a woman's life that begins after 12 consecutive months without a menstrual period, marking the end of her reproductive years. This phase follows menopause and is characterized by a permanent cessation of menstruation due to a significant decline in ovarian hormone production, especially estrogen and progesterone. Typically occurring between the ages of 45 and 55, post menopause is associated with various physiological and psychological changes. Women may experience persistent symptoms such as hot flashes, vaginal dryness, mood fluctuations, sleep disturbances, and a decrease in libido. Additionally, the reduced levels of estrogen increase the risk of developing osteoporosis, cardiovascular diseases, and urogenital atrophy.<sup>(10)</sup>

According to Table1, which lists vasomotor symptoms in older women, the current study shows that postmenopausal participants have a noticeably high prevalence and severity of vasomotor abnormalities. About half said they had moderate hot flushes, and slightly less than half said they sweated a lot during the day and at night. The current study's findings are consistent with research from Iran that found vasomotor symptoms are among the most persistent and bothersome post-menopausal complaints, frequently lasting over ten years and having a major impact on mood, sleep, and cardiovascular health. titled "Vasomotor Symptoms and Menopause: A Longitudinal Study,".<sup>(11)</sup>

Unlike to studies in India, where vasomotor symptoms were reported to be less common ("Impact of Menopausal Symptoms in Indian Women"; these findings raise the possibility that cultural or medical variations may affect how symptoms are perceived and reported.<sup>(12)</sup> Likewise, in a study titled "Cultural Practices and Menopausal Symptom Relief in Chinese Women" thah hypothesized that cultural dietary habits, such as increased soy intake and increased physical activity, could lessen the intensity of symptoms.<sup>(13)</sup>

According to data on physical issues during the postmenopausal phase (Table2), a significant proportion of older women have debilitating physical symptoms, especially those pertaining to the gynecologic, integumentary, urinary, and breast systems. The results of two American studies by Simon et al. titled "Impact of Estrogen Decline on Vaginal Health in Postmenopausal Women" are in agreement with these findings.<sup>(14)</sup> From the researcher's viewpoint, the high prevalence of untreated physical symptoms, particularly gynecologic issues, highlights the pressing need for healthcare systems to prioritize postmenopausal care. Ensuring culturally sensitive, confidential, and evidence-based counseling could greatly enhance the quality of life and sexual health of elderly women.

Conversely, the most noticeable symptoms were related to the musculoskeletal system. Of the subjects, more than half had severe osteoporosis and half had significant joint stiffness. According to studies conducted in Bangladesh and the

United States, these symptoms are caused by estrogen deficiency, which lowers bone density and degrades joints, which in turn increases the risk of fractures, pain, and mobility problems.<sup>(15)</sup> On the other hand, studies conducted in Turkey and India found that postmenopausal women who regularly exercised, ate a diet high in calcium, and had access to hormone therapy had much lower incidences of osteoporosis and joint stiffness.<sup>(16)</sup>

The current study finds that older postmenopausal women have a significant burden of psychological and sexual health issues during the postmenopausal period. Severe insomnia, a common menopausal symptom caused by vasomotor disruptions and hormonal variations, affected almost one-third of the participants. This observation is consistent with research conducted in the United States, which found that abnormal sleep caused by menopause was linked to increased psychological stress and night sweats, which had a detrimental effect on day-to-day functioning.<sup>(17)</sup>

Two-thirds of participants experienced moderate to severe anxiety, and more than one-third of the sample reported mild mood changes, indicating emotional instability that can last into old life. Similar psychological trends were noted in China, where elevated rates of anxiety, depression, and irritability were associated with serotonin alterations and estrogen depletion.<sup>(18)</sup>

Issues related to sexual health were also prevalent. Indicative of the genitourinary syndrome of menopause, over two-thirds of the

women reported severe vaginal dryness, and nearly 60% reported a severe loss of sexual desire. These results are in line with research from Japan, which demonstrated that lower estrogen levels lead to less lubrication and libido practices in how to deal with extreme weather events.<sup>(19)</sup>

More than half of the participants experienced dyspareunia, which is consistent with research from the US showing that postmenopausal women's emotional and relationship status was negatively impacted by sexual discomfort.<sup>(20)</sup>

On the other hand, a study conducted in Pakistan called "Hormone Replacement Therapy and Psychological Support in Postmenopausal Women" found that postmenopausal women had lower rates of psychological distress and sexual dysfunction.<sup>(21)</sup>

From the researcher's perspective, the prominence of psychological and sexual issues in this study population suggests a critical need for integrative mental and sexual health services for postmenopausal women. Elderly women can be better equipped to handle this stage by increasing knowledge, decreasing stigma, offering counseling, and implementing evidence-based interventions. In order to address the connection between mental, sexual, and physical health in gerontological nursing care, a multidisciplinary strategy is necessary.

The current study provides a thorough illustration of the many health effects that older postmenopausal women encounter with respect to the entire subscales of the Menopause Rating

Scale (MRS). Forty percent had mild vasomotor symptoms, including night sweats and hot flashes. This conclusion is in line with findings from Iran, where a comparable percentage of women had minor vasomotor symptoms that led to discomfort and disturbed sleep.<sup>(22)</sup>

The current study's findings were corroborated by a study called "Assessment of menopausal symptoms and quality of life in Bahraini women," which was carried out in Bahrain and discovered that urogenital symptoms, like decreased sexual desire and bladder issues, were more prevalent among Bahraini women.<sup>(23)</sup>

As regards awareness of preventive health behaviors, that 62.3% of the elderly women had information about preventive health behaviors related to the postmenopausal period. This indicates a moderate level of awareness, suggesting that while some health messages have reached the target population, there remains a sizable proportion of women lacking essential knowledge. Among those who were informed, friends and relatives were the leading source of information (44.4%), followed closely by healthcare providers (41.9%). This finding emphasizes the continuing role of informal social networks in shaping women's health behavior, particularly in communities where formal health education programs targeting elderly women may be limited.

These finding is in agreement with a study titled "The Role of Social Networks in Health Information Dissemination Among Elderly Women" conducted in China, which also found

that family and friends were frequently the primary sources of health information among elderly women. However, the study also highlighted concerns over the accuracy of the information passed through informal networks. Ideally, healthcare providers should be the main channel through which scientifically accurate and personalized preventive strategies are communicated. Supportive literature affirms that postmenopausal women often depend on community and social interactions for health-related knowledge, particularly when they face barriers like low health literacy, mobility issues, or stigma around discussing reproductive health. This result is consistent with a study conducted in Iran called "Community-Based Health Interventions for Postmenopausal Women in Rural Areas," which found that women in rural areas frequently turn to unofficial networks since they have less access to professional healthcare education. Nonetheless, research from more organized healthcare systems indicates a change, with medical practitioners now serving as the main source of information about preventive health because of frequent screenings, institutional outreach, and wellness initiatives tailored to menopause.<sup>(24)</sup>

These results show the critical need for educational programs that encourage practical, culturally relevant, and evidence-based management solutions. In order to help older women transition from passive coping to proactive self-care, nurses and other primary healthcare practitioners must not only educate

them but also give them the tools to assess which coping mechanisms are effective and why. A study conducted in the United Kingdom supports these findings.<sup>(25)</sup>

In contrast, studies from more urbanized and medically supported environments indicate more proactive behaviors. For instance, a study conducted in Australia titled "Menopause Education and Health-Seeking Behavior in Urban Populations," found that women who had access to structured menopause education programs were significantly more likely to seek professional consultation and use appropriate treatments for vaginal symptoms.<sup>(26)</sup>

From the researcher's viewpoint, the substantial lack of knowledge and engagement with professional healthcare for managing physical menopausal issues highlights the need for more targeted educational campaigns and accessible care options. It is crucial that healthcare providers offer clear, empathetic guidance on managing physical menopausal symptoms, ensuring that elderly women are aware of, and empowered to use, the full spectrum of available treatments.

A Chinese study called "The Role of Hormone Replacement and Beta-Blockers in Alleviating Menopausal Cardiovascular Symptoms" highlighted how effective these therapies are at controlling heart and vasomotor symptoms.<sup>(27)</sup>

For osteoporosis, approximately one-third of participants reported consuming adequate calcium, and nearly one in six took vitamin D supplements. However, only slightly more than one in ten believed these efforts reduced the

severity of the problem. This highlights a gap between action and perceived outcomes. Osteoporosis, which becomes more prevalent in postmenopausal women due to rapid bone demineralization linked to estrogen deficiency, is typically managed through a multifactorial approach.

A Nepalese study called "Postmenopausal Osteoporosis: Assessment and Management Approaches" reaffirmed how crucial it is to combine weight-bearing exercise, medicine, and nutritional supplements for efficient osteoporosis management.<sup>(28)</sup> Additionally, the publication "Integrated Treatment Strategies for Osteoporosis in Postmenopausal Women" included studies from China that demonstrated the inadequacy of supplement use alone.<sup>(29)</sup>

The "National Clinical Guideline for the Management of Osteoarthritis in Adults" study from the United Kingdom highlighted the importance of early medication management in addition to physical therapy, joint strengthening, and education.<sup>(30)</sup> The very low proportion of participants who found their measures effective only about one in thirteen disagrees with the robust evidence supporting these interventions, indicating major gaps in knowledge dissemination and treatment accessibility.

Insomnia emerged as one of the most frequently reported psychological complaints. Approximately one in six participants reported taking warm baths as a remedy, while six in ten were unaware of any specific measures to manage insomnia. Only about one in four

believed these measures were effective. Menopausal insomnia is largely influenced by hormonal fluctuations, particularly reduced estrogen levels that disrupt circadian rhythms and thermoregulation. Warm baths, while comforting, primarily offer temporary relief.

Research from the United States in the study "Menopausal Symptoms and Sleep Disturbances: Mechanisms and Interventions" highlighted the benefits of sleep hygiene education, cognitive behavioral therapy (CBT), and, in certain situations, hormonal replacement therapy as the best ways to help postmenopausal women sleep better.<sup>(31)</sup> Similar to this, a longitudinal study conducted in the United States and titled "Non-pharmacologic Approaches for Sleep Disturbances in Menopausal Women," revealed that although lifestyle modifications such as taking warm baths can promote relaxation, behavioral therapy and medical advice are more effective in producing long-lasting changes.<sup>(32)</sup>

Table 4 lists the methods used by older women after menopause and their assessed efficacy with regard to mood disorder and forgetfulness measurements. During the menopausal transition, mood disorders continue to be a major psychiatric concern, mostly due to hormonal variations that affect neurotransmitter function and emotional regulation.<sup>(33)</sup>

Table 4 provides insights into the sexuality problems faced by elderly women, with a particular focus on lack of sexual desire and pain during intercourse. The table reveals that lack of sexual desire is a significant issue, with 40.8% of

participants. This finding highlights of sexual health problems in older women.

The current study's findings are consistent with a study called "Sexual Health and Menopause" that was carried out in the United States and found that societal stigma and a lack of knowledge prevented women from getting treatment for sexual health problems. Many women may not seek appropriate treatment because they are unaware of the issue or are reluctant to talk about sexual health.<sup>(34)</sup>

Table 8 shows that a significant portion of elderly women exhibit unsatisfactory behaviors regarding preventive health measures. For vasomotor problems, such as hot flashes, and physical problems, such as vaginal dryness, 74.6% . In terms of psychological problems, 71.5% do not exhibit satisfactory preventive behaviors, and for sexuality issues, a staggering 87.7% demonstrate unsatisfactory behaviors. Despite the existence of these health issues, these results suggest that the older women in this study could not be taking enough preventive health steps. This finding runs counter to that of Svedberg et al., who in their Swedish study "Health Behaviors During Menopause" discovered a greater level of participation in menopausal and postmenopausal health preventative behaviors.<sup>(35)</sup>

Regarding preventive health behavior, Figure 2 highlights a critical finding in this study: a significant majority (77.7%) of elderly women demonstrated unsatisfactory preventive health behavior, while only 22.3% exhibited satisfactory

levels. This finding aligns with earlier tables detailing specific subscales of behavior (vasomotor, physical, psychological, and sexual), where high percentages of unsatisfactory practices were observed. These findings suggest a worrying pattern that is in line with earlier studies that demonstrated that many postmenopausal women do not take preventative health care while having serious health issues.<sup>(36)</sup>

The findings from this study reinforce the need for targeted interventions that promote preventive health behaviors among elderly women. It is crucial to enhance education about menopause and its associated health risks, provide access to healthcare resources, and eliminate stigmas surrounding aging and sexual health. Encouraging women to engage in preventive behaviors may improve their quality of life and overall health outcomes post-menopause. Therefore, healthcare professionals must play a pivotal role in raising awareness and supporting elderly women to adopt healthier lifestyles, particularly as they navigate the complexities of aging and menopause.

The low percentage of satisfactory behaviors (22.3%) emphasizes the need for structured, culturally sensitive health education programs that address not only the physiological aspects of menopause but also equip elderly women with practical, actionable strategies for managing symptoms and preventing complications.

Women with more severe menopausal symptoms are less likely to engage in satisfying health

behaviors, according to the negative connection found between the menopause rating scale and preventive health behavior ( $r = -0.602$ ,  $p = 0.001$ ). This might be an example of a vicious cycle in which the stress of symptoms deters people from engaging in activities that promote health, which could deteriorate their general well-being. This finding is consistent with research conducted by Kuehner et al. (2021).<sup>(37)</sup> who noted that women with higher symptom severity often report lower motivation for preventive health behaviors, exacerbating their symptoms.

### **Conclusion:**

In light of the findings of the current study and in response to the research questions, it was concluded that elderly women in Elgar Village, Zagazig City, had a relatively low level of knowledge and unsatisfactory preventive health behaviors regarding post-menopausal problems. The results revealed that more than two-thirds of the studied women had unsatisfactory knowledge about menopause. the majority of this knowledge came from informal sources primarily friends and relatives followed by healthcare providers, These findings reflect a significant gap in translating knowledge into effective preventive health actions across various dimensions of post-menopausal health

### **Recommendation:**

Based on findings, the study recommended:

- Targeted health education initiatives should be implemented in rural areas like Elgar Village to enhance elderly women's

understanding of post-menopausal problems. These programs should be culturally appropriate, easy to understand.

- Use mass media and social media platforms to raise awareness of menopausal issues and encourage women to seek guidance from healthcare

professionals rather than relying solely on informal sources.

Additional studies with larger and more diverse samples should be conducted across various regions in Egypt to generalize findings and explore other factors influencing post-menopausal health behaviors.

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