Original Research Article

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Knowledge and prevalence of post-menopausal health problems among women attending a tertiary care hospital in Ajman: cross-sectional study

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ABSTRACT

Background: Many physiological and psychological changes happens to women during the time of menopause. The symptoms differ according to the individual, culture and ethnicity. As the women pass through various stages of menopause, the prevalence of symptoms also varies. This study aimed to assess the knowledge of post-menopausal health problems among the women above 45 years old and to identify the prevalence of symptoms in post-menopausal life.

Methods: A cross-sectional study was conducted in a private hospital in Ajman, UAE among women aged 45 years and above with a validated self-administered questionnaire. Ethics approval was obtained before the study. Data were coded, entered, and analyzed using SPSS version 24. Chi-square tests and descriptive statistics like frequency tables and crosstabs were used.

Results: The mean age of women participants was 50.7 years. The results showed that 50.2% of the women had moderate knowledge about post-menopausal health problems, while 37% and 12.8% had excellent and poor knowledge, respectively. Prevalence of post-menopausal symptoms among women were hot flushes (55.1%), dry skin (54.7%), muscle pain (54.5%), joint pain (52.9%), and weight gain (51%). Women suffered from at least one of the post-menopausal symptoms. Hot flushes, dry skin, muscle pain, and weight gain were significantly associated with the menopausal status (p<0.05).

Conclusions: Post-menopausal symptoms hot flushes, dry skin, and muscle pain were significantly associated with a peri-menopausal or post-menopausal state. Women must be made aware of these symptoms and their causes and treatments as well.

Keywords: Knowledge, Menopause, Post-menopause, Prevalence

INTRODUCTION

Menopause is defined as occurring 12 months after a female's last menopause and it usually occurs in the female's late 40s or early 50s. The most common age range for menopause is 48 to 55 years. The mean age for menopause is found 47.6±4.45 years amongst Iranian

females.^{1,2} Menopause doesn't happen all of a sudden; rather it takes place slowly over perimenopause, menopause and post-menopause.^{3,4} Perimenopause is the transitional life of a female's reproductive life. It begins many years before menopause and is associated with a decrease in estrogen production by the ovaries. Menopause is when the female has her final menstrual

period. It's associated with really low levels of estrogen and progesterone because the ovaries stop producing eggs therefore the hormone levels decrease too.

Low estrogen and progesterone levels are associated with vaginal dryness, and loss of vaginal walls elasticity which leads to painful or uncomfortable sexual intercourse, thus leading to a decrease in the female's sexual drive. The female will also experience night sweats, skin flushing, and insomnia (sleeping problems). Post-menopause is the period of a female's life that comes after menopause; it begins when the woman hits the one-year mark from her last period. In this phase, most of the acute changes associated with hormone level change subside.⁵

A study conducted in Malaysia to assess the knowledge of women and their perception of menopausal health problems showed a good understanding of the definition of menopause but were lacking knowledge of the symptoms associated with menopause.⁶

Different studies showed varying knowledge levels about the problems and symptoms. About 80% of the women had previous knowledge, while 46% were aware of the health effects, according to a study done in Pakistan, while only 12.1% had appropriate knowledge from a study conducted in India.^{7,8}

After menopause females are more susceptible to diseases and they struggle with a lot of physical changes, some of which are bearable and others, if not taken care of, could prove life-threatening.

These complications include: wrinkling, dryness, loss of skin's elasticity and vascular nature, poor wound healing, pigment changes, acne and unwanted hair growth, loss of scalp, leg, pubic and axillary hair, Dry mouth and desquamative gingivitis, include vaginal and vulval dryness, dyspareunia (painful sexual intercourse), post-coital bleeding (bleeding directly after sexual intercourse) or spotting and thinning of the labia, urinary frequency, incontinence, and cystitis, osteoarthritis and osteoporosis, and increased gain of body and belly fat.⁵

A cross-sectional study conducted to find out the frequency of self-reported sexual symptoms in different parts of Italy showed that 45.1% suffered from vaginal dryness, 29.8% experienced pain during sexual intercourse, 45.9% had reduced sexual pleasure.⁹

A study among Thai women showed that the most three prevalent post-menopausal symptoms that women suffer from were, joint and muscle pain, poor memory and change in libido. ¹⁰ Arab women living in Sydney showed a higher prevalence rate of symptoms than in the other countries of the world. ¹¹

The related literature showed that there is a lack of knowledge among middle-aged women about

postmenopausal health problems. Also, in the UAE, studies have been done rarely on this problem. Hence, the present study aimed to evaluate the knowledge of postmenopausal health problems among women above 45 years old and to identify the prevalence of symptoms of post-menopausal life.

METHODS

This study followed a cross-sectional design. The research was conducted in a tertiary care hospital in Ajman, UAE. The duration of the study was six months (from July 2017 to December 2017).

The women above the age of 45 years from any nationality, social and economic background, and gave the informed consent were included in the study. Females below the age of 45, those who refused to give informed consent and illiterate were excluded from this study.

The total sample size was calculated as 468, including the non-response rate. A Convenience sampling technique was used. Data were collected using a self-administered questionnaire that identified the prevalence of different post-menopausal health problems and knowledge among the study population. The questionnaire was first drafted in English, after which it was translated in the local language (Arabic), followed by back translation, by experts in both languages. It was then validated and finalized by experts through a consensus, after which a pilot study was conducted.

The research investigators were present for the whole time during the collection of data in the most focused and oriented manner. This also ensured no loss of data/questionnaires.

All indications of any conflict of interest are thoroughly scrutinized so that no bias is involved. Furthermore, the research investigators did not indulge in extra or unnecessary interactions with the participants. An approval from the Institutional Review Board was obtained to proceed with the research. Confidentiality, anonymity and privacy of the participants were ensured.

Statistical analysis

Statistical analyses were performed using SPSS software version 24. The results were presented in tables and figures. Descriptive statistics such as the median was calculated. Inferential statistics like the Chi-square test was used to find out associations.

The scoring technique was used to assess the knowledge of the participants. This was done using eight questions, for which 1 mark was given for the right answer. Based on the scores, they were assessed as excellent, moderate and poor knowledge. A P-value of less than 0.05 was considered significant.

RESULTS

The demographic and social features of the females who participated in the study were presented in Table 1. About 50% were found to be between age 45-48, Eastern Mediterranean (58.5%), married (84.8%), and having two children (32.4%). About 40% were in the normal BMI range. The respondents are almost equally distributed as peri and post-menopausal women (Figure 1).

Table 1: Distribution of demographic and social features of subjects.

Factors		No.	Percentage (%)
Age	45-48	244	53
	49-55	127	27.6
	>55	89	19.3
	African	4	9
	East Mediterranean	269	58.5
Nationality	Southeast Asian	130	28.3
	West Pacific	25	5.4
	America	5	1.1
	European	27	5.9
Employment	Unemployed	263	57.2
Status	Employed	178	42.8
Marital Status	Single	31	6.7
	Married	390	84.8
	Divorced	17	3.7
	Widowed	22	4.8
	No children	30	6.5
Number of	1	55	12
children	2	149	32.4
cinaren	3	102	22.2
	>4	124	27
	<18.5	35	7.6
BMI	18.5-24.9	184	40
BIVII	24.9-29.9	134	29.1
	>30	98	21.3

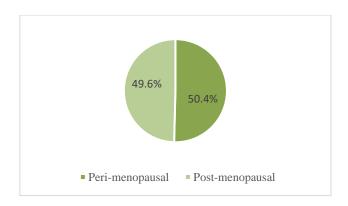


Figure 1: Distribution of women according to the menstrual status.

The respondents were also asked about the questions on menopausal age, such as menopause affects hormone levels, about the menopausal effect on missed periods, etc. More than 70% of the women knew that there would be a risk of developing health problems during postmenopausal life, the exact cause of menopause and it affects hormonal levels. It was seen that only 39.8% of the females knew about the exact age at menopause and 36% knew about the definition of menopause (Table 2).

Table 2: Distribution of knowledge about the postmenopausal status.

Knowledge questions	Response
Risk of developing health problems	71.7
Cause of menopause	82.1
Age at menopause	39.8
Menopause affects hormone levels	73.9
Miss periods for 12 months for considering menopause	36

Based on the scores obtained from these questions, the overall knowledge level of the respondents was divided into three categories: Excellent, Moderate and Poor knowledge.

Table 3: Distribution of knowledge level according to the Socio-demographic factors.

Socio-demographic factors		Knowledge level			P value
		Poor % (No.)	Moderate % (No)	Excellent % (No)	r value
Nationality	Arab	9.3 (25)	56.1 (151)	34.6 (93)	< 0.05
	Non-Arab	17.8 (34)	41.9 (80)	40.3 (77)	<0.03
Status of Employment	Unemployed	14.4 (38)	54.4 (143)	31.2 (82)	< 0.05
	Employed	11.2 (21)	43.6 (82)	45.2 (85)	<0.03
Marital Status	Single	22.6 (7)	51.6 (16)	25.8 (8)	NS
	Married	12.1 (52)	50.1 (215)	37.8 (162)	IND
Age in years	45-48	15.6 (38)	49.6 (121)	34.8 (85)	
	49-55	7.9 (10)	46.5 (59)	45.7 (58)	NS
	>55	12.4 (11)	57.3 (51)	30.3 (27)	

About half of the women had moderate knowledge (50.2%), 37% with excellent knowledge and 12.8% with poor knowledge (Figure 2).

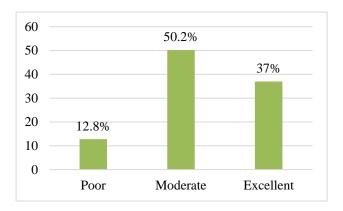


Figure 2: Distribution of knowledge level according to the respondents.

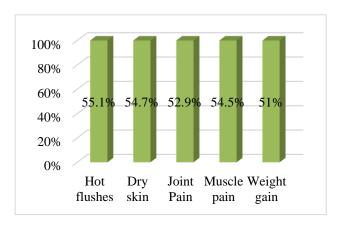


Figure 3: Prevalence of top five symptoms after age 40.

Table 3 gives the association between the sociodemographic factors and the level of knowledge on menopause among participants. The nationality and employment status showed a significant association with the knowledge of the target sample. Non-Arabs had significantly excellent knowledge (40.3%) compared to their counterparts. Also, employed women had significantly good knowledge (45.2%) than unemployed women. However, the married women had excellent knowledge (37.8%), marital status and age of women showed no significant association with the level of knowledge. About 50% of the women in both perimenopause and menopausal stage had moderate knowledge about post-menopausal health problems. The knowledge level did not show significant differences among the women; however, peri-menopausal women have slightly poor knowledge than their counterparts (Table 4).

The prevalence of the common symptoms about the postmenopausal health problems was found to be hot flushes (55.1%), dry skin (54.7%) and muscle pain (54.5%). Details are depicted in Figure 3.

Table 5 shows the association of the common symptoms among the post-menopausal and peri-menopausal women. The symptoms like hot flushes, dry skin and muscle pain had a significant association with the menopausal status of the women. The prevalence of hot flushes was about 67% among the post-menopausal women, while it was 52.8% for peri-menopausal women. Similarly, the prevalence of joint pain and muscle pain was significantly higher (59.6%, 66.2% respectively) in post-menopausal women than their counterparts. The symptoms like joint pain and weight gain did not show significant difference among both types of respondents, however; the percentage was more for post-menopausal women.

Table 4: Association between menstrual status and knowledge level.

Knowledge level				
Menstrual status	Poor % (No)	Moderate % (No.)	Excellent % (No.)	P value
Peri-	13.4	50.4	36.2	
menopausal	(31)	(117)	(84)	
Post-	12.3	50	37.7	NS
Menopausal	(28)	(114)	(86)	143

Table 5: Distribution of symptoms among the peri and post-menopausal women.

		Menopausal	Status	
Symptoms		Peri-	Post-	P
		menopausal % (No.)	menopausal % (No.)	value
Hot flushes	No	47.2 (101)	33.0 (69)	
	Yes	52.8 (113)	67.0 (140)	<0.05
Dry skin	No	46.8 (103)	38.5 (84)	۵۰.0 5
	Yes	53.8 (117)	61.5 (134)	<0.05
Joint pain	No	44.3 (94)	40.4 (85)	NC
	Yes	55.7 (118)	59.6 (125)	NS
Muscle pain	No	48.3 (100)	33.8 (73)	۰۰ ۵۶
	Yes	51.7 (107)	66.2 (143)	<0.05
Weight gain	No	47.4 (101)	42.5 (90)	NS
	Yes	52.6 (112)	57.5 (122)	IND

DISCUSSION

The problems related to the post-menopausal knowledge and symptoms were studied among the women above 45 years, wherein about 50% each of the sample collected was in the peri-menopausal and post-menopausal stage. A study done in Iran had a mean age similar to the result; 47.6±4.45. The majority of the studied sample was from the Eastern Mediterranean regions. Most of them were unemployed (57.2%) which showed a somewhat similar rate in another study conducted in India (42.1%). The reason can be due to the older age of the participants.

The majority of our participants had moderate knowledge regarding post-menopausal health problems (50.2%). But it has to be noted that 12.8% of the women had poor knowledge, which agreed to the results of a study conducted in Bahrain in which 8% had poor knowledge. The level of knowledge was different in different parts of the world; in India, it was 12.1%. This could be explained due to the lower educational status of women, mainly from developing countries.

The majority of them (71.7%) showed good knowledge about the higher risk of problems after the age of 40. Another study conducted by Pace et al. showed that 74.3% of women had a significant amount of knowledge about the overall menopausal phenomena, while 55.7% were aware of the symptoms that might be associated with post-menopause. Only 7% were aware of the many complications that may accompany menopause. In conclusion, females have different views regarding menopause; although the majority might see it as a medical condition that requires treatment, others will only view it as a normal transition in the lives. 12

Another aspect was the knowledge of women about the exact time menopause starts, our results showed that most women (39.8%) think that the age when menopause starts is 45-50 years while only 4.8% think that it is 40 years and below. However, another study found out that, generally, Egyptian women don't seem to have good knowledge about health problems associated with menopause, excluding the fact that they are aware of an increased risk/incidence of osteoporosis. The study done in the UAE found that 65% of women correctly identified the exact age of menopause while 9.5% did not know the average age. ¹³ A small percentage of women consider this as a natural phenomenon and were not concerned about the age of this transition.

The participants were asked about the knowledge about the hormonal change due to menopause and 73.9% had a good knowledge of that. The study conducted in Pakistan showed that only 12.9% knew this aspect, while another study done in the UAE showed the knowledge as 21%.⁷ The reason for the knowledge would be because they receive information about aftereffects of hormonal change and treatment like Hormone Replacement Therapy from doctors, friends and also media.

In the present study, most women (50.2%) from the total population had moderate knowledge about menopause, whereas 12.8% had poor knowledge and 37% had excellent knowledge. Another research was conducted in Kerala among the rural women, aged 40-45, about menopause and their awareness of menopausal symptoms. The research discussed their understanding of the postmenopausal phenomena and the consequential changes that come with that period of their lives. The results showed that 8% had inadequate knowledge, while 68% had adequate knowledge, and 38.5% scored slightly above average. The study found out that there is a strong connection between knowledge, attitude and economic condition. In conclusion, the knowledge of women about post-menopause aids a lot in promoting and developing programs about females' health status.14

Our research illustrates the most common symptoms women face after the age of 40 and it showed the distribution of the most occurring symptoms among peri and post-menopausal women. Hot flushes were recorded as the most experienced symptom, especially by postmenopausal women (55.3%), followed by dry skin (in postmenopausal women and 46.6% perimenopausal women) and muscle pain (57.2% postmenopausal women). The symptoms also include vaginal dryness, dry skin, weight gain, joint pain, reduced sexual desire, etc. A study conducted among Chinese women aged between 40 and 65 years revealed that many of them had good knowledge of menopause. The prevalence of symptoms was 16.1% premenopausal women and 49.3% among peri and postmenopausal women. Most of the symptoms reported were joint pain, fatigue, hot flushes, Insomnia. 15 A study was done in Pakistan also showed a similar result.⁷ A similar study was conducted amongst 411 women in another part of the Middle East, Riyadh, Saudi Arabia where the prevalence of menopausal symptoms was also assessed. It was found that the most frequent and prevalent symptom they experienced was muscle and joint pain (83.9%), followed by mental and physical exhaustion (80.2%), heart diseases, (73.2%), sleeping problems (72.1%) and hot flushes (71%).¹⁶ The reason for this could be the immense hormonal changes in a woman during the menopausal transition and other causes common in the UAE's female population, such as hyperthyroidism, and the generally hot climate. Close proximity in the occurrence and frequency of the same symptoms such as hot flushes, muscle pain is noted. In Saudi Arabia, muscle and joint pain are the most frequent symptoms, and in the present study more than half of the total population experienced muscle pain as a symptom and the results were significant. The fact that these two countries are in the same region, and the women living here are brought up and live in similar socio-cultural environments, could pose as an explanation to the occurrence of similar menopausal symptoms, and the similarity in the frequency of these symptoms.¹⁶

Limitation

The main limitation of this study was that the sample taken was not the true representation of the entire female population of the UAE, as the study was conducted among women attending one private hospital. Therefore, the results cannot be generalized to the total females of UAE.

CONCLUSION

The study concluded that slightly over half of the total women had moderate knowledge of the health problems linked with the onset of menopause. Post-menopausal symptoms among females like hot flushes, dry skin, muscle pain, joint pain, and weight gain were significantly associated with the peri and postmenopausal women. Awareness programs should be done to increase women's knowledge about post-menopausal health problems and encourage them to visit doctors around that period in their lives.

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