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Research Article

Knowledge, Attitude and Severity of Menopausal Symptoms among Women Attending Primary Health Care Centers in Cairo, Egypt

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Abstract

Objectives: This study aimed to assess knowledge and attitude towards menopause among women (40-60 years) attending Primary Health Care Centers (PHCs) in Cairo, Egypt, and to assess the severity of menopausal symptoms among them.

Methods: A cross-sectional study was conducted in Cairo, Egypt. The study analysis included data from 300 Egyptian women. A multistage cluster sampling technique was used to randomly select the studied two centers; El-Hagana family medicine center and 6th district family medicine center at Nasr city. The data were collected from the studied women (40-60 years) attending these centers by a valid structured questionnaire. The questionnaire included socio-demographic and reproductive data and the Menopause Rating Scale rate scale (MRS) to assess the severity of menopausal symptoms. The collected data were analyzed using the appropriate statistical methods.

Results: The mean age at menopause of the studied women was 46.6 ± 3.4 years. The level of good knowledge about menopause was significantly low among premenopausal and perimenopausal women. Positive attitude towards menopause, however, was prevalent regarding most studied attitude items. The mean severity score of somatic symptoms was significantly high among perimenopausal (7.4 ± 2.6) and postmenopausal (7.1 ± 2.5) women. Also, the mean psychological and urogenital symptoms severity scoring was significantly high among these women. The mean total severity score was significantly high in perimenopausal women (21.7 ± 5.6).

Conclusions: The mean age at menopause was low. The observed low level of good knowledge necessitates more efforts for creating mass awareness about this issue.

Keywords: Attitude; Knowledge; Menopause; Cross sectional study; Egypt

Introduction

Menopause is physiological event and marks the end of the natural reproductive capacity of a woman, defined as the permanent cessation of menstrual periods, determined retrospectively after a woman has experienced 12 months of amenorrhea without any other obvious physiological cause or pathological cause [1,2]. It is a reflection of complete, or near complete, ovarian follicular depletion, with resulting hypoestrogenemia and high follicle-stimulating hormone concentrations [1].

The menopausal transition, or perimenopause, begins on average four years before the final menstrual period, and is characterized by irregular menstrual cycle and marked hormonal fluctuations [1,3], while the premenopause is used either to refer to the one or two years immediately before the menopause or to refer to the whole of the reproductive period prior to menopause [4].

Age of onset of natural menopause also varies worldwide, with the international range being 44.6–52 years [5]. In the US, the median age at menopause is 51 years [6], while across Europe; age of onset of natural menopause is higher with a mean of 50.7 years and a median of 54.3 years [7]. Data from Arabic countries showed that showed a mean age ± SD of 48.4±3.8 years in the UAE, 48.7±2.9 years in Bahrain (8,9), and 48.9 years in Saudi Arabia [10]. In Egypt, however, the mean age at menopause was 46.7 years, which is low compared to similar data, including those from Arabic countries [11].

Hormonal changes at the menopause are associated with multiple physical and psychological symptoms like vasomotor symptoms, vaginal dryness, sleep disturbances, mood changes, depression, urinary incontinence, cognitive changes, and increased health risks for several chronic disorders including osteoporosis, and cardiovascular disease [12-14]. The duration, severity and impact of these symptoms vary tremendously from woman to woman and population to population, but menopausal symptoms can profoundly affect women's quality of life. Knowing more about menopause can help women to adapt better with menopausal change [15-16], and several studies have reported that women may avoid and reduce many adverse psychological symptoms of menopause by educating themselves about menopause [17-18].

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Table 1: Personal characteristics of the studied women.

Characteristics*	N= 300
Age in years	
≤ 45	33 (11.0)
> 45	267 (89.0)
Age in years; mean ± SD (Range)	47.7 ± 3.1 (40-60)
Marital status	
Married	205 (68.3)
Not married**	95 (31.7)
Educational level	
Less than university	15 (5.0)
University and higher	285 (95.0)
Family income/month	
< 3000 LE	279 (93.0)
3000-5000 LE	12 (4.0)
≥ 5000 LE	9 (3.0)

*Data are presented by the mean ± SD or by n (%).
** Not married category included 3 single, 23 divorced and 69 widow women.

Whether or not the psychological and emotional problems reported by some menopausal women can be attributed specifically to the menopausal transition is a controversial issue [19]. Symptoms experienced by women during and after the menopausal transition are influenced by preconceived knowledge and attitudes toward the menopause, personality type, and exposure to a greater or lesser degree of life stressors [20].

According to available literature, there is limited data about the knowledge and attitude towards menopause and the severity of its associated symptoms among women in Egypt. This study aimed to assess knowledge and attitude towards menopause among Egyptian women attending PHCs in Cairo, and to assess the severity of the associated menopausal symptoms among them.

Subjects and Methods

The present cross sectional study was carried out among Egyptian women attending primary health care centers in Cairo during the period from September 2017 to January 2018, to measure their knowledge and perception towards menopause and to assess the severity of menopausal symptoms among them. The target population of this study was all women aged from 40-60 years attending PHCs during the study period. The sample size was calculated according to a confidence interval of 95%, a marginal error of 5%, and a proportion of knowledge among women of the same age in from a previous study. Finally, the calculated sample size was 300.

For selection of study population, the multistage cluster sampling technique was employed as follow: the first stage included the random selection of one health affairs directorate in Cairo (health affairs directorate for Eastern Cairo). The 2nd stage included random selection of two PHCs from the chosen directorate. The randomly selected PHCs were: El-Hagana family medicine center and 6th district family medicine center at Nasr city. Each studied center was visited twice weekly during the study period.

The data were obtained from the studied subjects through a

Table 2: Reproductive characteristics of the studied women.

Characteristics*	N= 300
Age of menarche in years; mean ± SD (Range)	13.4 ± 1.6 (11-18)
Number of pregnancies; mean ± SD (Range)	4.7 ± 2.2 (0-8)
No of abortions; mean ± SD (Range)	0.84 ± 1.3 (0-7)
Number of living children; mean ± SD (Range)	3.6 ± 1.4 (0-8)
Regularity of menstruation	
Regular	57 (19.0)
Irregular (Perimenopausal)	89 (29.7)
Menopause	154 (51.3)
Perimenopausal age; mean ± SD (Range)	45.7 ± 2.5 (42-50)
Menopausal age; mean ± SD (Range)	46.6 ± 3.4 (38-52)

*Data are presented by the mean ± SD or by n(%).

structured anonymous questionnaire. The questionnaire included questions about personal (age, marital status, educational level and monthly family income), reproductive characteristics (age of menarche, number of pregnancies and abortion and regularity of the menstrual cycle) and data concerning knowledge and attitude towards menopause. A special section of the questionnaire was used to measure the severity of menopausal symptoms among the studied women. The data were collected from the target women by face to face interviewing in the selected PHCs after obtaining the consent and giving a brief explanation of the objective of the study.

The knowledge about menopause was based on 24 questions. Each of these questions has two answers (yes and no). The knowledge was assessed and categorized into good, fair and poor according to knowledge score given for each of its component. Good knowledge was defined if the subjects' answer by "yes" was more than 75%, fair knowledge if between (50-75%), and finally poor knowledge if less than 50%. Attitudes towards menopause was assessed using Likert response scale from 1-5 (1= totally disagree; 2= disagree 3= neutral; 4= agree; 5= totally agree). The percentage of women with favorable attitude (totally agree and agree) was calculated among the studied women and compared by their menopausal status. The knowledge and attitude variables used in the questionnaire were adapted from similar previous studies. These data were validated through revision by Obs/Gyna and family medicine consultants.

The severity of menopausal symptoms was assessed by using Menopause Rating Scale (MRS) questionnaire. MRS has been validated and widely used in many clinical and epidemiological studies, and in research on the etiology of menopausal symptoms to assess the severity of menopausal symptoms [21]. As there is no Arabic version of this scale, the English version was translated into Arabic language. The translation was verified by back-translation performed by a different bilingual person.

The MRS is composed of 11 items and was divided into three subscales: (i) somatic-hot flushes, heart discomfort/palpitation, sleeping problems and muscle and joint problems; (ii) psychological-depressive mood, irritability, anxiety and physical and mental exhaustion and (iii) Urogenital-sexual problems, bladder problems and dryness of the vagina. Each of the eleven symptoms contained a scoring scale from "0" (no complaints) to "4" (very severe symptoms). The women were asked whether or not they had experienced the 11

Table 3: Level of knowledge of the studied women about menopause by their menopausal status.

Level of knowledge	Pre-menopausal	Peri-menopausal	Postmenopausal-	P value
	(n=57)	(n=89)	(n=154)	
Good	0 (0.0)	3 (3.4)	24 (15.5)	
Fair	36 (63.1)	65 (73.0)	83 (53.9)	0.003*
Poor	21 (36.9%)	21 (23.6)	47 (30.6)	

*Significant

menopausal symptoms shown in the MRS in the previous one month (30 days).

The menopausal status of women in this study was classified according to STRAW (Stages of Reproductive Aging Workshop) classification which divided menopause staging into: Postmenopausal; no menstrual bleeding in the previous/last 12 months. perimenopause; had increasing irregularity of menses without skipping periods [3,22] and Premenopause; refer to the whole of the reproductive period prior to menopause [4].

The data were analyzed using the statistical analysis system (SAS) software package [23]. The data were tabulated and presented in frequency number and percent. Chi square and Fischer exact test were use as appropriate to compare the studied categorical variables (level of knowledge (good, fair and poor), and the percentage of favorable (positive attitude)) by menopausal status of the studied women (premenopause, perimenopause, and menopause). Comparison of menopausal symptoms scores (total, somatic, psychological and urogenital was compared among the studied women by using one way ANOVA analysis. The level $P < 0.05$ was considered as the cut-off value for significance.

The permission for this study was obtained by the Ethics Committee at the faculty of medicine, Al-Azhar University, Cairo, Egypt. The participation was voluntary and anonymous. All women gave their informed consent prior to their inclusion in the study. Confidentiality and privacy of the collected data were assured, and the data were only used for the research purpose.

Results

The study analyzed data from 300 Egyptian women aged from 40 to 60 years. The personal characteristics of the studied subjects are presented in Table 1. The mean age of the studied women was 47.7 ± 3.1 years and most of them (89%) were above the age of 45 years. The majority of the studied women were university and higher

Table 5: Mean scoring of menopausal symptoms of the studied women by their menopausal status.

	Pre-menopausal	Peri-menopausal	Postmenopausal-	P value
	(n=57)	(n=89)	(n=154)	
Somatic scores	5.7 ± 3.8	7.4 ± 2.6	7.1 ± 2.5	0.001*
	7.3 ± 4.2	10.2 ± 3.3	7.9 ± 3.7	<.0001*
	2.9 ± 2.7	4.1 ± 2.6	3.4 ± 2.8	0.03*
Somatic scores	16.1 ± 8.7	21.7 ± 5.6	18.4 ± 7.1	<.0001*

*Significant

educational level (95%), and more than two thirds % of them was married (68.3%). The monthly family income was exceeding 5000 LE in only 3% of the studied women.

Table 2 presents the reproductive characteristics of the studied women. Their mean age of menarche was 13.4 ± 1.6 years. The mean number of pregnancies of the studied women was 4.7 ± 2.2, the mean number of abortions was 0.84 ± 1.3, and the mean number of living children was 3.6 ± 1.4. More than half of the studied women (51.3%) reported menopause, 29.7% showed irregularity of menstruation (Perimenopausal), and 19% reported regularity of their cycles (Premenopausal). The mean perimenopausal and menopausal age of the studied women was 45.7 ± 2.5 and 46.6 ± 3.4, respectively.

Table 3 presents the level of knowledge of the studied women about menopause by their menopausal status. The percentage of good level of knowledge was higher among postmenopausal women (15.5%) compared to 3.4% among perimenopausal women and 0% among premenopausal women. The percentage of the studied women with fair level of knowledge was high in all studied groups. The level of poor knowledge, however, was the highest among premenopausal women (36.9%), and postmenopausal women (30.6%). The analysis showed statistically significant differences (p= 0.003).

Table 4 displays the comparison of favorable attitude of the studied women towards menopause by their menopausal status. There have been statistically significant differences among the studied women regarding the favorable (positive attitude) of the following attitude items: “Menopause is the end period for menstrual problems and contraception”, and “Menstrual interruption, reduces the attention of women to her husband”, with the higher percentage was among perimenopausal and postmenopausal women for the first significant item, and among premenopausal and perimenopausal women for the second significant item.

Table 4: Comparison of agreement with attitude items towards menopause among the studied women by their menopausal status.

Attitude	Pre-menopausal	Peri-menopausal	Postmenopausal-	P value
	(n=57)	(n=89)	(n=154)	
Menopause is the end period for menstrual problems and contraception	45 (80.0)	86 (96.6)	142 (92.2)	0.01*
Every woman can train herself to cope with the period of menopause	51 (89.5)	86 (96.6)	148 (96.1)	0.1
Menstrual interruption, reduces the attention of women to her husband	33 (27.5)	13 (22.8)	2 (6.9)	<.0001*
Compared to pre-menopause, menopause and women's life will be more enjoyable after a break	9 (16.0)	6 (7.0)	60 (39.0)	0.18
Menstrual impairment reduces the beauty and attractiveness of women	30 (52.6)	44 (49.4)	94 (61.0)	0.69
Menopause is the beginning of a new life and other maturation for women	45 (79.0)	68 (76.4)	112 (72.7)	0.6
Women's social activity is reduced after menopause	12 (21.1)	15 (16.9)	57 (37.0)	0.32

*Significant

Table 5 shows the mean scoring of menopausal symptoms of the studied women by their menopausal status. The mean score of severity of somatic symptoms was significantly high among perimenopausal (7.4 ± 2.6) and postmenopausal (7.1 ± 2.5). Psychological symptoms severity was also higher among perimenopausal and postmenopausal compared with premenopausal women, with statistically significant difference (p <.0001). Urogenital symptoms showed significant high severity among perimenopausal and postmenopausal with the mean scoring among these women was 4.1± 2.6 and 3.4 ± 2.8, respectively. The total menopausal severity scoring was also significantly highest among perimenopausal (21.7 ± 5.6) and postmenopausal (18.4 ± 7.1) women.

Discussion

The present cross sectional study analyzed data from 300 Egyptian women attending PHCs in Cairo, to assess their knowledge and attitude towards menopause and to estimate the severity of menopausal symptoms among them. The mean age at menopause among the studied women was 46.6 ± 3.4 years. Comparable with this finding, a previous Egyptian study has reported similar mean age at menopause (46.7 years) [11]. However, the age at menopause in that and the present study was low compared with the mean age reported in Western and Arabic studies. In Europe, the age of onset of natural menopause is higher with a mean of 50.7 years and a median of 54.3 years [7]. Data from Arabic countries showed a mean age ± SD of 48.4 ± 3.8 years in the UAE, 48.7 ± 2.9 years in Bahrain [8,9], and 48.9 years in Saudi Arabia [10].

The results of the study indicated a low level of good knowledge of the studied women, particularly among premenopausal and perimenopausal. These findings were consistent with the results of most similar studies conducted regionally [24-26]. Also, the results of studies conducted in developing countries were comparable with the results of this study to some extent. These studies have indicated inadequate knowledge of women towards menopause [27-30]. On the other hand, the results of studies are different in developed countries. In USA, the knowledge level of most of the studied women about menopause was reported as good [31]. In Denmark, the knowledge of half of the subjects about menopause was good [32]. However, in Italy, the report of similar study indicated that more than half of the samples had no information about menopause [33].

The study findings have revealed a prevalent positive findings and agreement with most of the studied attitude items about menopause. The prevalence of agreement was high and approaching more than 90% for some of the studied attitude items. Avis and McKinley [34] in their longitudinal study of women's attitudes toward the menopause in Massachusetts, USA, showed that the attitude of most of the women toward menopause was a sense of relief, and women thought they were a positive and experienced person. Also, another study showed that most of the studied women know menopause as a reward and feeling of freedom [35]. Similar studies conducted in Ecuador [29] and Italy [33] showed that over 90% of the samples knew menopause as a positive event and had a positive attitude toward it.

According to the observed knowledge and attitude results in this study, no meaningful relation was found between knowledge and attitude of the studied women. This was inconsistent with the results of previous studies indicating a positive relation between the level of knowledge and positive attitude among the studied women towards menopausal issues [36,37].

The study findings revealed a significant high mean scoring of menopausal symptoms of the studied women by their menopausal status. The mean score of severity of somatic symptoms was significantly high among perimenopausal (7.4 ± 2.6) and postmenopausal (7.1 ± 2.5). The findings in studies carried out in Pakistan [38] and India [39] showed a high prevalence of hot flushes in the studied women of 59.4% and 60.9%, respectively, although not stratified by the menopausal status of the studied women.

Psychological symptoms severity was also higher among perimenopausal and postmenopausal in the present study. Similar studies were also reported high prevalence of psychological and sleep disturbance among the postmenopausal women reaching up to 70% in some studies [40]. A much higher proportion, however, was reported in other similar Asian studies [41]. Depression is frequent among perimenopausal and postmenopausal women and it was about 25% among women in the present study. It is reported that perimenopausal women have 2-4 fold increase in the risk of suffering depressive episode compared with the premenopausal women [42].

Urogenital and sexual symptoms were also prevalent among the perimenopausal and postmenopausal women in this study with a significant high mean scoring among perimenopausal and postmenopausal of 4.1± 2.6 and 3.4 ± 2.8, respectively. The sexual problems and dryness of vagina was found in 35% and 30% among perimenopausal and 40% and representing 37% among postmenopausal women. Consistent with these findings, several population-based studies have confirmed that about 27% to 60% of women report moderate to severe symptoms of vaginal dryness or dyspareunia during menopausal and menopausal transition [43,44].

According to available knowledge, the study is the first to assess knowledge and attitude towards menopause among women in Cairo city on the level of primary health care services. The results of study will add to the Egyptian literature concerning menopause and its associated symptoms. Finally, the questionnaires used in data collection; including the questions of knowledge and attitude items as well as the Menopausal Rating Scale (MRS) were structured and validated. Using validated tools are known to increase the confidence in obtaining sound and standard information.

As this study was conducted in only one city, it is difficult to generalize about the study finding to all Egyptian women overall the country. However, the main scope of this study was to renew the literature about menopausal issues in a sample of Egyptian women. Although the data collection was based on subjective experiences of the studied women, self-reporting in such types of studies is the most practical way to obtain information on symptom reporting, particularly in communities with special culture and tradition. However, the use of structured valid questionnaire and the use of menopausal Rating Scale (MRS) have facilitated the confidence in obtaining sound information in a standardized manner.

Conclusion

In conclusion, the mean age at menopause among the studied

women were low compared with that in similar regional and international studies. Although most of the studied women were highly educated, the study results revealed low level of good knowledge about menopause among them. This finding necessitates the need to include knowledge about menopause in higher educational curriculum, and to do more efforts for creating mass awareness about this issue. As menopausal symptoms scoring was high among the studied women during their menopausal and menopausal transition, future studies have to address the methods used in the management of menopausal associated symptoms. Such studies have to include large cohort of women from different regions and belonging to different socio-cultural and educational levels. Finally, designing and implementing a proper health education program and disseminating it on a large scale through different mass media can have an effective and valuable role in improving women's knowledge about menopause in the country.

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