

ORIGINAL ARTICLE

WOMEN'S KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS MENOPAUSE AND HORMONE REPLACEMENT THERAPY: A FACILITY BASED STUDY IN AL-AIN, UNITED ARAB EMIRATES

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Background: Hormone replacement therapy (HRT) is an effective treatment for menopausal symptoms like vasomotor symptoms, sleep disturbances, mood alteration, depression, urinary tract infection, vaginal atrophy and increased health risks for osteoporosis, cardiovascular diseases and loss of cognitive function. This study was conducted to determine knowledge, attitude and practice toward menopause among women in UAE. **Methods:** A clinic-based cross-sectional study was carried out among women of age 40 and above. Study subjects were recruited from four Primary Health Care centres in Al Ain city. The participants were administered a questionnaire in Arabic and English, which included 33 items; socio-demographic variables, and questions related to knowledge, attitude and practices regarding menopause and HRT. **Results:** Out of 177 study subjects selected, 150 (85%) completed the survey. Almost half of the participants (51%) had already experienced menopause. A substantial number of women had poor know knowledge about menopause (67%) and HRT (73%). Sixty percent of women had positive attitude towards menopause. Of the fifty three percent of women with symptoms, 35% of them did not use anything to relieve their symptoms. Knowledge about menopause varied significantly ($p<0.05$) with the level of education and nationality. The association between reported symptoms and attitude towards menopause and HRT was found to be statistically significant. Women with reported symptoms that were bothersome had positive attitude towards HRT uptake. **Conclusion:** The study indicated that there is poor knowledge about menopause and HRT among the participants. Level of knowledge was associated with the level of education. There was a positive attitude towards menopause, with women suffering the most from menopausal symptoms showing positive attitude towards HRT.

Keywords: HRT, Menopause, UAE

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INTRODUCTION

Menopause is a physiological event marking the end of women's reproductive life due to ovarian failure. The natural onset of menopause occurs between the ages of 45–55 years.¹ Hormonal changes at menopause are associated with numerous physical and psychological symptoms like vasomotor symptoms, sleep disturbances, mood alteration, depression, urinary tract infection, vaginal atrophy and increased health risks for several chronic disorders including osteoporosis cardiovascular disease and loss of cognitive function.¹ Some women experience menopausal symptoms that can be severe enough to affect their normal daily activities with long term health implications.^{2–7} Literature shows variations in reported symptoms in women across regions; Asian women suffer less vasomotor and psychological symptoms than Western women.⁴ According to the UN world population projections, due to the rising life expectancy globally, many

women can expect to live approximately one third of their lives after experiencing menopause.^{7,8}

Hormone replacement therapy (HRT) is an effective treatment for menopausal symptoms.^{9–15} It can protect women from developing osteoporosis, and reduce risk of cardiovascular diseases e.g., by altering the lipid profile.¹⁶ and reducing serum uric acid level.¹⁷ HRT use has shown to reduce the risk of hip fracture in post-menopausal women by 30% and spinal fracture by 50%.¹⁸ At the same time, HRT use has been associated with increased risk of breast cancer, endometrial cancer and venous thromboembolism.^{9,19} However, according to Blumming¹⁰, “recent reports attributing a significant increased risk of breast cancer development, cardiac events, and Alzheimer's disease to the administration of oestrogen-progestin hormone replacement therapy (HRT) require critical review, and not blind acceptance”. He argues that in the absence of concrete evidence of the risks of HRT, the clinicians should rely on the reported benefit of HRT on

longevity and accept such studies as guidelines for patient management. In spite of the acknowledged benefits of hormone replacement therapy, there is low HRT use mainly because the majority of women are poorly informed about its availability and utility. Research shows that, women's attitudes towards menopause and their knowledge of the benefits and risks of HRT (have an effect on) affect their use of HRT.²⁰⁻²⁴ Furthermore, the attitudes differ across ethnicity.^{20,21,23-25} A study in the UK showed that women who had ever taken hormone replacement therapy reported a higher incidence of menopausal symptoms than those post-menopausal women who had never taken the treatment. The majority of women understood menopause to be brought on by diminished hormone levels and viewed it as a medical condition that needed treatment with HRT for women experiencing distressing symptoms. However, those taking HRT represented only a small proportion of the post-menopausal women, i.e., 16%. The most commonly stated reason for non-use of HRT was that women had never considered the treatment and neither had they discussed it with their doctors. Women had poor knowledge of potential risks and benefits of oestrogen, especially older women and women with less education.²⁵ A study in Scandinavian countries revealed that the gynaecologists were generally well informed about HRT and liberally recommending HRT for women not having any contraindications for its use.²⁶ Studies in developing countries however show poor recognition of menopausal symptoms requiring treatment.^{6,7,24}

A population based survey in United Arab Emirates conducted in 2000, showed the mean age of natural menopause to be 48 years, which is lower than that in the West.²⁷ Another study in the UAE revealed that the post-menopausal women reported fewer symptoms and of less severity than in Western women. The post-menopausal women reported fewer symptoms of menopause which they perceived as part of a normal life stage and were thus able to cope with the menopausal stress.²⁴

The aim of this study carried out in the City of Al-Ain, UAE was to survey women's knowledge and attitudes towards menopause and hormone replacement therapy. Comparisons were made to determine whether age, educational background, use of HRT and socio-cultural differences influenced women's knowledge and attitudes.

MATERIAL AND METHODS

A clinic based cross-sectional interviewer administered survey was carried out among women over the age of 40 years who were registered at the Primary Health Care Centres in Al Ain City. Women

were recruited from four Primary Health Care (PHC) centres in Al Ain city (Khabisi, Masaudi, Al Jahili, Naema clinics). Jahili and Naema clinics were selected as all nationals in Al Ain are registered in these clinics. Others (Khabisi and Masoudi) were selected to get a sample of non-local women. All Females, local and non-local, of age 40 and above and who spoke Arabic or English were asked to participate in the study. Those who refused to participate, those who were unable to complete the questionnaire and those who could not speak Arabic or English were excluded.

Ethical clearance was granted by the Research Ethics Subcommittee at the Faculty of Medicine and Health Sciences. In addition permission from the administration of the PHC centres was obtained and all participants who agreed to participate were requested to sign a written consent. For the illiterate participants only verbal consent was taken.

The survey instrument consisted of 33 items. The first part of the questionnaire collected socio-demographic data including: age, nationality, marital status, educational level and approximate monthly income, occupation, and menstrual status. The remaining sections of the questionnaire focused on knowledge, attitude, and practice toward menopause and HRT, respectively. The questionnaire was pre-tested on 10 women prior to its implementation in the study area.

Women who were age 40 and above were selected to be interviewed using systematic random sampling from the list of registering women in the clinics. The participants were provided with an information sheet which explained the nature and the purpose of the study. They were assured their confidentiality will be maintained and the data will be used for scientific purposes. All participants were explained that they had the right to withdraw from the study at any time. The data were collected from the four PHC centres in five days and the completed questionnaires were kept in a locked room in the Department of Community Medicine at the Faculty of Medicine and Health Sciences.

Data was coded and entered into MS Excel Windows based program and then transferred for analysis to the SPSS-16.0. Sample characteristics including age, and approximate monthly income were described as mean±standard deviation. Categorical variables like gender, marital status, menstrual status, and education level were described as frequencies and proportions. Associations were explored by using either *t*-test or ANOVA in the case of continuous variables and chi-square test for categorical variables taking $p \leq 0.05$ as statistically significant.

When assessing menopause knowledge level, we developed a specific knowledge scale, consisting of questions taken from the knowledge section in the survey. The questions included were: average age at menopause, menopausal symptoms (ability to identify the main symptoms of menopause), menopause as risk for osteoporosis, whether menopause is a risk for cardiovascular diseases, and if they are aware of any treatment for menopause. A negative value was given for wrong answers to certain well known facts. The total score was out of 20. In our sample, women scored in a range from -7 to 19. A cut of value of 11 was used to consider women who scored ≥ 11 as having “good knowledge” and who scored < 11 as having “poor knowledge”.

To assess women’s attitude toward menopause, we developed a scale consisting of six statements taken from the attitude section in the survey. The statements included are shown in table-1. They were given 1 for any affirmative answer, -1 for any negative answer and 0 for neutral. The score was calculated and it ranged between -6 and 6. A total score of ≥ 1 was considered “positive” attitude, 0 as “neutral” and ≤ -1 “negative” attitude.

For assessing women's attitude toward HRT, a scale consisting of six statements was developed. The statements included are shown in table-2. They were given 1 for any affirmative response, -1 for any negative one and 0 for neutral. The score ranged between -8 and 8. A total score of ≥ 1 was considered “positive” attitude, 0 as “neutral” and ≤ -1 “negative” attitude.

RESULTS

Of a total of 177 women who attended the four PHC centres, 19 did not complete the questionnaire or refused participation either due to time conflict with their appointment or because of being severely sick. Eight were excluded because of language barrier. Thus, a total of 150 questionnaires/interviews were completed and included in the analysis with a response rate of 85%. We intended to have the questionnaires as interviewer-administered, however, few participants felt more comfortable answering the questionnaires by themselves. The mean age of the participants was 52 ± 8.1 years. Table-1 shows the general characteristics of the participants.

Majority of the participants were Emirati nationals while 13% were from other foreign countries such as India, Iran, the Philippines and Pakistan. Participants who responded to the income question were 120. Thirty participants (20%) had a monthly income of less than UAE dirham (Dhs) 5000, while 53 participants (44%) had a monthly income between 5,000–10,000 Dhs. Thirty seven

participants (31%) had more than 10,000 monthly income. Almost half of the participants (46%) were illiterate, while 21% had attended universities or finished postgraduate studies. With respect to education, 16% had had primary school education, 8% preparatory and 9% secondary school education. Most of the participants were housewives (80%) while others (20%) were working as teachers or with the government. Seventy six (76) of the women (51%) reported cessation of menses, while 28 (19%) reported irregular and changes in the period pattern, and 46 (31%) had regular periods. One hundred and eleven participants (74%) perceived their health as good while 22 (15%) as not good, 15 (10%) as excellent and 2 (1%) as poor health perception.

Ninety seven participants (65%) knew about the right age at menopause, the mean age reported being 48 years. However majority of participants (76%) considered menopause as a natural transition in a woman’s life, while 11% regarded menopause as a medical problem needing treatment. The symptoms of menopause known by participants are detailed in table-2.

More than half (59%) women knew about menopause being a risk for osteoporosis while 21% were aware of treatment availability for menopausal symptoms like HRT, multivitamins, soybean and milk, *Salvia officinalis*. Fifteen percent of women were aware of HRT as an option for treatment of menopausal symptoms. Issues related to menopause were not discussed by doctors with 130 of the participants (87%). Twenty five percent of participants received the information from doctors or friends, while media was the main source of information for 24% of participants. The remaining 14% and 12% got their information from either family or self-experience, respectively. The knowledge score analysis revealed that 100 (67%) of women had “poor knowledge” while 50 (33%) had “good knowledge” about menopause.

Regarding the attitude towards menopause, 63 (42%) of women agreed that menopause was a bothersome stage in a woman's life, while 77 (51%) of women agreed that menopause was good in a way that there were no more periods and 102 (68%) deemed it to be a good thing as there were no more worries about pregnancy and contraception. Moreover, 67 (45%), 78 (52%) of women, disagreed that menopause meant loss of youth and loss of femininity, respectively. The attitude score showed that 90 (60%) of women had positive attitude towards menopause while 39 (26%) had negative attitude and 14% of women were neutral. Table-3 gives an account of the attitudes towards menopause. Eighty 80 (53%) women reported having menopausal symptoms. Out of them, 15% were really bothered by

the symptoms while in 51%, the symptoms didn't affect their lives that much. The most reported symptoms were hot flashes (63%), sweating (31%) and irritability (24%). Among women who reported having symptoms, 35% didn't use or take anything to relieve the symptoms, while 33% used multivitamins and calcium, which was, in all these cases, prescribed by their doctors. Other treatments stated were; layered clothing (16%), exercise (14%), hormones (10%), herbs (8%), dietary changes (5%), acupuncture and others (5%). However, 79(53%) women thought that it was necessary to treat menopausal symptoms while 46 (31%) did not. Twenty six 26 (45%) women got the advice regarding treatment of menopausal symptoms from a doctor and only 2 % from studying in school and university. Other stated sources of information were friends (12%), family (12%) and media (10%).

A hundred and ten women (73%) did not know anything about HRT. Thirty two (21%) women knew that HRT can protect from osteoporosis and 16 (11 %) thought that HRT can prevent breast cancer. Table-5 displays the knowledge of benefits and risks of HRT. Sixty seven (45%) women believed that natural approaches were better than HRT. Only 50 (34%) women considered HRT to be a good solution. Majority of women were unsure of HRT and its complications. According to the attitude score, 59 (40%) of women had a negative attitude towards HRT, while 54 (36%) of the women had a positive attitude and the rest of the women were unsure. Table-4 shows data in this regard.

Assessment of women's practice of HRT revealed that 7% of women (10 out of 149) used HRT. Eight of them got it from specialists (mainly gynaecologists) who, in 90% of the cases, were in governmental hospitals or clinics. For 8 of them, the doctors discussed benefits and risks of HRT. However, 9 participants expressed the need for more education regarding menopause and benefits and risks of HRT.

The association between the level of knowledge and educational level was statistically significant ($p=0.003$), i.e., women with high educational level (university) had "good" knowledge. Other Arab women had better knowledge (higher mean score =0.97) than the UAE, GCC, and Non-Arabs participants ($p=0.003$). There was no significant difference in the level of knowledge between menopausal or pre-menopausal women (Chi-square test, Fisher's exact test, $p=0.39$). Contrary to our expectations, there was no significant difference (one way ANOVA $p=0.419$) in attitude across different nationalities. Similarly, being pre- or post-menopause did not reflect in women's attitude toward menopause (t -test $p=0.599$).

Women who did not have menopausal symptoms (47%) and those who reported having symptoms but were not bothered by it (34%) had

positive attitude towards menopause (t -test $p=0.04$) however they were negative toward HRT (t -test, $p=0.031$). On the contrary, women who reported being bothered "somewhat" (51%) and "great deal" (15%) by the menopausal symptoms had negative attitude towards menopause (t -test $p=0.04$) and were positive toward HRT (t -test $p=0.031$).

Although a small percentage of the participants used HRT (7%; 10 out of 149), among them, 50% had high education level (university) and all of them had "good knowledge". Eighty percent perceived their health as "good" and thought of menopause as natural transition, most of them were "bothered" by menopausal symptoms, and all of them had positive attitude towards HRT.

Table-1: Socio-demographic profile of participants

Demographic variables	n=150	Percentage
Nationality		
Emirates	91	61
Arab	35	23
Non-Arab	19	13
GCC	5	3
Marital Status		
Single	4	3
Married	102	68
Divorced	16	11
Widowed	28	19
Monthly Income in Dirhams		
<5000	30	25
5000-15000	53	44
>15000	37	31
Occupation		
House wife	118	80
Student	0	0
Employee	30	20

Table 2: Knowledge of symptoms of menopause

Symptoms	Percentage n=150
Hot flashes	58
Mood swings	58
Feeling more tired than usual	54
Irritability	54
Depression	49
Insomnia	49
Night sweats	47
Hair thinning	42
Weight gain	41
Leak of urine when coughing, sneezing/laughing	37
Having difficulty concentrating	35
Vaginal dryness	35
Breast pain	19
Facial hair growth	15

Table-3: Statements for assessment of attitudes towards menopause

Statements
1. It is a bothersome stage in a woman's life
2. Psychological problems are due to life changes, not hormonal changes
3. Menopause is good in a way that there are no more periods
4. Menopause means no more worries about pregnancy and contraception
5. Menopause means loss of femininity
6. Menopause means loss of youth
7. Menopause means loss of fertility

Table-4: Statements for assessment of attitudes towards HRT

Statements
1. HRT is a good solution, if you have symptoms
2. HRT is appropriate for some women
3. HRT is to be avoided
4. HRT is good for preventing age-related health problems
5. HRT has many complications and side effects
6. Natural approaches are better than HRT
7. Risks of taking HRT outweigh the benefits
8. Menopause can have harmful consequences if not treated

Table-5: Knowledge of benefits and risks of HRT

Stated Benefits and Risks of HRT	Percentage n=150
Prevent Osteoporosis	21
Improve the mood	17
Improve Hot flashes	15
Prevent breast cancer	11
Prevent Obesity	7
Improve energy level	12
Improve memory	9
Protect from the heart disease	7
Improve vaginal dryness	11
To look younger	10

DISCUSSION

Globally with the increasing life expectancy, there is growing population of elderly women living after experiencing menopause and thus exposed to potential long term consequences of menopause. HRT can have significant benefits for these post-menopausal women. Studies show that knowledge about menopause and HRT and attitudes towards HRT are greatly influenced by socio-cultural and economic status of women.^{7,25} This study reveals similar findings in UAE. The participants in the study were poorly informed about menopause (67%) and HRT (73%). The poor knowledge of the participants was associated ($p<0.05$) with low level of education as has been shown in studies conducted in other settings.^{6,20,21,25} In this study this could be attributed to the fact that issues pertaining to sexual and reproductive health were neither taught formally (in schools, university) nor were they addressed by physicians.

This study shows that physicians, despite contact with the patients, did not discuss issues related to menopause with 87% of the participants. Women had gained information mainly from family, friends, media, and through their own experiences. A vast majority (76%) perceived menopause as natural transition of a women's life. These results were similar to studies carried out in Bahrain and Italy in 2009, which showed that the lack of knowledge about menopause was associated with women's low educational level.^{14,21,28}

Our sample included participants from different nationalities. Although studies show variation in women's attitudes towards menopause

and HRT based on their cultural beliefs and customs, this study did not show any significant differences across nationalities. One possible explanation could be the lack or poor knowledge of most of the participants. Most of the participants came from South East Asia, the regions where literature shows poor knowledge.^{3,6} In our study, women who reported being bothered by the menopausal symptoms (35%) had negative attitude towards menopause ($p=0.04$) and were positive toward HRT ($p=0.031$). These women having experienced the symptoms were possibly suffering in silence and were proactively looking for options for relief from (of) their symptoms. This is consistent with several studies that there is a strong correlation between menopausal symptoms and the attitude towards it; a systematic review in which 13 studies were included, 10 concluded that women with more negative attitude towards menopause were the ones who reported menopausal symptoms the most.²⁹

In addition, our study revealed that "hot flashes" was the most frequently reported symptom (in 63% of women who had symptoms $n=80$). A previous study in the UAE reported that "hot flashes" was reported by 45% of the population.²⁷

In our study, overall, women's attitude towards menopause was positive (60%) among the participants. This is probably a reflection of the impact of the culture in (cultural context, within) which women live; the way women perceive and react "positively or negatively" towards menopausal transition or menopause. Comprehensive reviews on the relationship between culture and menopause show that the socio-cultural aspects and the geographical location profoundly influence the meanings and experience of menopause.^{29,30} Cultural factors involved in the review by Meby *et al* included: cultural attitudes towards and expectations about the menopause; meanings assigned to menopause (whether it is recognized as natural and normal or as an illness); prior health condition; mother's experience of menopause; attitudes toward childrearing and women's roles; marital status/relationships with partners and their attitudes toward symptoms of menopause; social support and the extended family; socioeconomic status; education; career and religious beliefs.³⁰

The positive attitude towards menopause among the participants in this study was reflected on their practices. Thirty-five percent of women who had symptoms ($n=80$) did not use anything to relieve their symptoms and 33% used supplements such as calcium, which were, in all these cases, routinely prescribed for elderly women by their doctors. However, 53% of the participants expressed a necessity to treat menopausal symptoms and 90% of

participants expressed the need for more education regarding menopause and benefits and risks of HRT.

With regards to HRT several shortfalls in knowledge were identified, poor knowledge about the effect of HRT was observed in 73% of the participants which is similar to findings in other countries. In Egypt, 91% of women had never heard about hormone replacement therapy.³¹ In the UK, women's knowledge of the effects of HRT and of risk factors for osteoporosis had decreased especially after the conflicting research evidence of The Women's Health Initiative study conducted in 1991.²³ In our study, women's attitude towards HRT was mainly negative (40% of participants), however, women who reported being bothered by the menopausal symptoms (35%) were positive toward HRT ($p=0.031$). This clearly indicates the need to view menopause related symptoms such as vasomotor instability, urogenital atrophy, and urinary incontinence as distressing and to offer treatment effectively.

This study can form the basis for wider surveys to determine the epidemiological spectrum of knowledge, attitude, and practice towards menopause and HRT among women in the UAE. However, there is need to explore through qualitative studies how women perceive menopause, at what threshold they take the decision to seek medical interventions like HRT and what the medically and socially constructed explanations about menopause and HRT are. It is important to carry out studies with the health care providers as to how they perceive menopause and the need for HRT as clearly it is not discussed or prescribed much. Such anthropological studies will help design effect context specific interventions.

Some women could not participate due to language barrier and this could have led to selection bias, although the number of such women was small. Using interviewer-administered questionnaires might have produced "interview bias". Some element of recall bias for older menopausal women was present since such women had to recall symptoms which they had experienced a long time ago.

CONCLUSION

There was poor knowledge about menopause and HRT among Emirati women, specifically, and other women in our sample. This poor level of knowledge was associated with low level of education. Generally, there was a positive attitude towards menopause, with women suffering the most from menopausal symptoms showing positive attitude towards HRT. The study identifies the need for wide educational campaigns about menopause and risk and benefits of HRT for the population. Furthermore, there is need to train the health care providers

particularly those working at the primary care level to discuss and educate patients about menopause; the risk for major adverse health outcomes such as vascular disease, malignancy, and osteoporosis; treatment options for menopausal symptoms; and risks and benefits of HRT.

Authors' contributions: SH took a lead in the drafting the manuscript and revising it critically for important intellectual content after feedback from other co-authors. FRAG under supervision of HAR, KMAD, NSAD, FAM, SS, IB and SMS conceptualized the project design and collected and analyzed the data. SH, IB and SMS were involved in critically reviewing the entire project. All authors have seen the final draft and have approved it.

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