International Journal of Contraception, Gynaecology and Obstetrics

ISSN Print: 2664-9861
ISSN Online: 2664-987X
IJCGO 2024; 6(1): 29-38
www.gynecologyjournals.com
Received: 05-04-2024
Accepted: 20-05-2024

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Knowledge and Attitudes towards menopause among women in Al-diwaniyah, Iraq: A cross-sectional study

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Abstract
Background: Menopause is an important transition in women's lives, but knowledge, and attitudes associated with this natural biological process vary widely amongst different populations, and cultural background.
Objective: To assess knowledge and attitudes towards menopause among women in Al-Diwaniyah, Iraq, and to determine those factors, which are associated with knowledge of the menopause.
Methods: A cross-sectional study of 285 women aged 35-65 years attending a private gynecological service in Al-Diwaniyah between January and December 2023 was undertaken. Data were collected using a structured questionnaire assessing sociodemographic data, knowledge of the menopause, and attitudes to the menopausal transition. Knowledge was scored, and the results allocated into three categories, poor, moderate or good knowledge based on correct answers given.
Results: Women's mean age was 47.3±7.2 years. Overall, 38.6% of women exhibited good knowledge of menopause, 43.5% had modern knowledge, while 17.9% had poor knowledge. High levels of education, and prior exposure to health education were significantly associated with higher levels of knowledge (p<0.001). In regard to attitude, 52.3% of women had a negative attitude to menopause, mainly associated with old age and loss of femininity. Only 31.2% of participants had discussed menopause with health practitioners before experiencing symptoms.
Conclusion: Knowledge of menopause was suboptimal in Al-Diwaniyah amongst these women with mainly negative attitudes to the transition in life. There is an urgent need for appropriate health education designed to improve knowledge and attitude to menopause.

Keywords: Menopause, Knowledge, Attitudes, Women's health, Iraq, Ad-Diwaniyah

Introduction

Menopause is defined as the permanent cessation of menses that is the result of loss of ovarian follicular activity, usually determined after 12 consecutively occurring months of amenorrhea and in the absence of other pathological or physiological phenomena [1]. This is a normal biological phenomenon that signifies the close of a woman's reproductive life and is an important transitional period in the female life cycle. The average age of natural menopause is between 45 and 55 years of age but varies with races, genetic, and environmental and socioeconomic phenomena [2]. It is important to determine the information and attitudes of women concerning menopause, in order that they may be properly cared for during this transition phase of their life. The menopause transition or perimenopause, may be defined as the several years preceding the final menstrual period, and is characterized, initially, by that variety of change in the hormonal milieu which is responsible for various physical and mental manifestations [3].

The woman undergoing a time of the change of life experiences vasomotor symptoms, such as hot flushes and sweating, symptoms of the genitourinary system, such as dryness and incontinence: psychological symptoms, such as depression and change of moods; finally, there are sleep disturbances, etc. [4]. The duration and severity of these various phenomena may be very different in the various types of people and at various times. Research has shown that approximately 75 per cent of all menses women, experience vasomotor symptoms, and that from 25 to 30 per cent of them, had these symptoms so severe as to interfere with the daily routine of life [5]. All these symptoms, however, are not the only serious effects following the menopause. There are more serious effects which obtain at a later date, and which require much consideration and preventive treatment. The loss of estrogen production during the menopause leads women to many of the chronic diseases so common to them, as osteoporosis, cardiovascular diseases and changes degenerative to the intellect [6].

Postmenopausal women undergo rapid bone loss with more than 1-2% of bone density lost annually during the first five years of menopause, resulting in an increase in fracture risk. Similarly, the protective effects of estrogen on cardiovascular health are diminished after menopause leading to increased instances of coronary heart disease, stroke, and hypertension in women who are postmenopausal. The morbidity and mortality associated with these disorders underscore the need for adequate knowledge about and awareness of menopause which is needed to effect early intervention and preventive measures. Women's knowledge of menopause affects their health-seeking behavior, management of symptoms, and quality of life as they transition through this vital period. It is well documented that women who have improved knowledge of menopause are more prone to adopt healthier lifestyle modifications, seek proper medical care for symptoms and have decreased anxiety over the changes that result from menopause [9]. Conversely, a lack of knowledge often results in an increase in unneeded suffering, possibly delaying the effort for treatment or facilitating the misinterpretation as to the real status which could result in faulty self-care measures [10].

A systematic review of the literature regarding menopause knowledge has shown that there are significant voids of knowledge amongst women in various countries with many being unable to correctly identify the symptoms associated with menopause or realizing the health significance associated with estrogen deficiency [11]. Responses to menopause are formed by complicated interactions of biological experiences, social structures, culturally held beliefs and the individual's expectations [12]. Menopause has cultural meanings in various societies beyond the biological definition and is commonly constituents of aging, loss of femininity, and decrease in socially perceived value [13]. These socially and culturally held definitions greatly affect how women perceive and react to the menopause. Studies show that there are great inter-cultural differences in attitude to menopause. In Western cultures it is presented in most unfavorable terms, while certain Asiatic and primitive races appear to have a more neutral or favorable outlook as it exhibits a change in life which passes them to a stage of life which is honored [15].

Although these cultural concepts influence the psychological adjustment of women to menopause as well as the willingness to discuss symptoms and seek adequate care [16], in the East, in the countries Mohammedan influenced, as in Iraq, menopause approaches being a taboo subject and it may be said that there is little open discussion of women's reproductive health [17]. Traditional cultural mores influence people not to discuss an accumulation of bodily changes or seek knowledge about health regarding mode of reproduction, the result being ignorance concerning health and possibly false attitude toward the phenomenon of menopause [18]. This is considered to be compounded in many Islamic countries through the lack of health education regarding menopause [19]. Moreover, the health systems in these countries are, for the most part, designed to care for women and child health but do not give much attention to this class of health services [20]. The health system in Iraq has sustained great losses over the last half century due to wars, economic boycotts and political instability, which has affected the care and availability of health care for health conditions that are not of an emergency nature, such as menopause [21].

All sorts of barriers present themselves to Iraqi women when they would seek complete information regarding reproductive health and medical care. The health care system is poorly developed in physical plant and adequate specialized health with the back ground of economic problems [22]. These structural barriers are hay, a good many are due to the fact that the socio-cultural system restricts women in having independence in seeking medical care and information concerning delicate subjects in health [23]. Al-Diwaniyah province, in central Iraq, reflects many of the problems of women in Iraq in regard to health care access and health literacy. The population of the area maintains a strong vestige of traditional values but is experiencing a modernization, which provides a unique milieu for looking at women's health views and attitudes [24]. Private clinics in Al-Diwaniyah have become increasingly important sources of health care, offering an alternative to crowded public health checks and providing a better avenue for women seeking reproductive health care needs [25].

Knowledge and attitudes from patients attending these clinics would give us needed information on the health educational needs of the province. Several international studies have looked at the menopausal knowledge and attitudes of populations and there seems to be considerable variation. In one study done in Saudi Arabia, it was found that 63% of women had an inadequate knowledge of menopause, with better knowledge associated with higher education status [26]. Similarly, work from Pakistan indicated that 71% had poor knowledge of menopausal symptoms and their treatment and many were relying on nonprofessional sources for their information [27]. An Iranian study indicated that 54% of women had moderate knowledge of menopause but that attitudes were, on the whole, negative towards menopause, especially concerning the association of menopause with aging [28]. These studies show the need for health education programs that are culturally and regionally appropriate. Studies from elsewhere in the Middle East also indicate predominantly adverse attitudes toward menopause. In an Egyptian study, it was shown that 68% of women had adverse attitudes about menopause feeling that it was associated with unappealing, loss of communications in marriage [29]. The women from Lebanon also had the same worry, expressing concern about losing femininity and loss of quality-of-life post-menopause [30]. These detrimental views result from different psychosocial factors including a strong link between women's own identity and reproductive powers in traditional societies [31].

Information source about menopause is an important determinant in the level of knowledge and opinion held by women on this aspect. Many studies indicate that the source of information about menopause is not a medical source but comes from informal sources such as friends, family and media [32]. This is sometimes helpful to have the backing of one's friends in such situations, but information out of the medical field has a strong potential to be both false and misleading and hence lead to erroneous views and ultimately erroneous types of management [33]. Contact with the medical profession provides the strong potential for adequate evidence-based information as well as for adequately handling the anxieties, etc., about which most women have serious apprehensiveness about this period in their life, but there are studies indicating that, alas, there is

inadequate contact with the medical services to the extent of some degree of dissatisfaction expressed by many about the amount of communication with their own medical practitioner, etc., on this sex-life period [34]. These educational approaches have showed improvement in knowledge and opinions of women specific to this life period with the results of studies in other countries supporting the view that educational approaches are successful in improving knowledge scores about menopause [35].

One study covering education programs for menopausal women indicated that structured programs show that there are significant increases in knowledge scores and women reported negative attitudes diminish with this sort of structured course. Quality of life seems to improve also [35]. There are positive aspects within this group approach as well as in the individual counseling but usually it is found that educational approaches should be of the participation and interactive type as opposed to a passive form of giving information [36]. Another obstacle has appeared in these cases regarding the design and details of making effective either group or individual counseling programs successful and which will have an impact, because to do so considers a sensible approach to the cultural conditions extant in that people, their level of literacy and their particular community requirements, etc., [37]. While there is a sizable body of international literature related to knowledge and attitudes about menopause, there is little data from Iraq, especially from areas outside of the large city centers, on this topic. The previously published work in Iraq has focused primarily on the larger cities of Baghdad and Basra, creating a lack of knowledge about women's experiences and perceived knowledge of menopause other than these locations [38].

Since the discontinuities of culture, sociologists and health care infrastructure among the various areas of Iraq are such that the findings from the major cities may not be applicable to the other regions. One unique area of Iraq is Al-Diwaniyah, but little is known of its inhabitants in terms of their demographic and cultural characteristics important in a study related to knowledge and attitude toward menopause. The state of the present knowledge and attitudes toward menopause among the women in Al-Diwaniyah is important to consider for several reasons. The first of these is that it provides baseline data from which the need for health education programs, in this case that concerning menopause, may be targeted to meet the specific needs of this group. Second, it aids health care providers in understanding the problem of the women concerning their problems in gaining access to knowledge about men's health, and thus the knowledge can help them more effectively offer counseling and support. The third advantage of this knowledge is that it contributes to the body of knowledge concerning women and their attitude toward health concepts and may aid in policy decisions about providing health knowledge and services aimed at this population in the country of Iraq.

The aim of this study was: to determine what knowledge and what attitudes were held by women visiting a private office of gynecology in Al-Diwaniyah, Iraq, concerning this phenomenon and identify were [1] the degree of knowledge about menopause including: what it was, its definition, its symptoms and its relative health implications; [2] the attitudes of women toward the menopausal sexual identity change and what factors influenced these attitudes; [3] what were the sociodemographic factors which could be related to the degree of the knowledge, there would obtained; and [4] where one got his information concerning menopause and whether anything had been discussed with any medical practitioners about the subject. The data which will be gained through this research not only will add to the limited amount of data available concerning health knowledge about menopause in Iraq but also it will provide insight into the dissemination of cultural intervention in providing knowledge of women about this ever-important change in their sexual lives.

Methodology

Study Design and Setting

This was a descriptive cross-sectional study conducted at a Private Gynecology Clinic in Al-Diwaniyah city, Iraq. The clinic was selected as the study site because it represents one of the largest private gynecology practices in the governorate, serving a diverse population of women from both urban and rural areas of Al-Diwaniyah. The clinic provides comprehensive women's health services, including routine gynecological care, family planning, antenatal care, and consultations for menopausal complaints. The study was conducted over a 12-month period from January 1, 2023, to December 31, 2023, to ensure adequate sample size and representativeness across different seasons, as some menopausal symptoms may vary seasonally.

Study Population and Sampling

The target population consisted of women aged 35 to 65 years attending the clinic for any gynecological consultation during the study period. This age range was selected because it encompasses the typical age range for perimenopause and menopause, while also including younger women who may be approaching menopause and older women with more experience of the postmenopausal period. Women in this age group are most likely to benefit from knowledge about menopause and may be actively seeking information or experiencing symptoms.

The inclusion criteria were: [1] women aged 35-65 years; [2] Iraqi nationality; [3] resident of Al-Diwaniyah governorate; [4] ability to understand and communicate in Arabic; and [5] willingness to provide informed consent to participate in the study. Exclusion criteria included: [1] women with premature ovarian failure (menopause before age 40) or surgical menopause, as their experiences may differ significantly from natural menopause; [2] women with severe psychiatric disorders that might affect their ability to understand and respond to questions; [3] women with cognitive impairment; [4] women currently receiving hormone replacement therapy at the time of initial assessment, as this might bias their knowledge and attitudes; and [5] women who were too ill to participate or declined to give consent.

The sample size was calculated using the formula for cross-sectional studies: $n = Z^2p(1-p)/d^2$, where Z is the standard normal variate (1.96 for 95% confidence interval), p is the expected prevalence of adequate knowledge (estimated at 40% based on previous studies in similar populations), and d is the precision (set at 6%). This calculation yielded a minimum required sample size of 256 participants. Accounting for a potential non-response rate of 10%, the target sample size was set at 285 participants. A consecutive sampling technique was employed, where all eligible women attending the clinic during the study period were invited to participate until the desired sample size was

achieved. This approach was chosen to minimize selection bias and ensure representativeness of the clinic's patient population.

Data Collection Instrument

Data were collected using a structured, interviewer-administered questionnaire developed specifically for this study based on extensive literature review and adapted from previously validated instruments used in similar cultural contexts. The questionnaire was developed in Arabic and consisted of four main sections. The first section collected sociodemographic information, including age, marital status, educational level, employment status, place of residence (urban/rural), number of children, monthly family income, and presence of chronic diseases. The second section assessed menopausal status and history, including menstrual history, age at menopause (if applicable), duration of amenorrhea, presence and severity of menopausal symptoms, and any treatment received for menopausal symptoms.

The third section evaluated knowledge about menopause through 20 questions covering various aspects of menopausal health. These questions addressed: [1] basic understanding of menopause (definition, natural process, age of onset); [2] recognition of common menopausal symptoms (vasomotor, genitourinary, psychological, and physical symptoms); [3] knowledge of health risks associated with menopause (osteoporosis, cardiovascular disease, weight gain); [4] awareness of management options (lifestyle modifications, hormone replacement therapy, alternative treatments); and [5] preventive health measures (calcium and vitamin D supplementation, exercise, healthy diet). Each correct answer was awarded one point, with a maximum possible score of 20 points. Based on the total score, knowledge was categorized as poor (0-10 points), moderate (11-15 points), or good (16-20 points).

The fourth section assessed attitudes toward menopause using a 15-item scale with statements evaluated on a 5-point Likert scale (strongly disagree, disagree, neutral, agree, strongly agree). The attitude statements covered perceptions about menopause as a natural process, concerns about aging and physical appearance, impact on femininity and sexuality, effects on marital relationships, emotional responses to menopause, and overall quality of life expectations. Additionally, questions explored sources of information about menopause (healthcare providers, family/friends, media, internet) and previous discussions about menopause with healthcare professionals.

Validity and Reliability

The questionnaire underwent face and content validity assessment by a panel of five experts, including two gynecologists, two public health specialists, and one psychiatrist with expertise in women's health. The experts reviewed the questionnaire for relevance, clarity, comprehensiveness, and cultural appropriateness, and their feedback was incorporated into the final version. A pilot study was conducted with 30 women (not included in the final sample) to test the questionnaire's clarity, acceptability, and time required for completion. Based on the pilot study, minor modifications were made to improve question wording and response options. The internal consistency of the knowledge section was assessed using Kuder-Richardson Formula 20 (KR-20), yielding a coefficient of 0.78, indicating acceptable reliability. The attitude scale demonstrated good internal consistency with Cronbach's alpha coefficient of 0.82.

Data Collection Procedure

Data collection was performed by two trained female research assistants who were nurses with at least five years of clinical experience in gynecology. The research assistants received comprehensive training on the study objectives, ethical considerations, interview techniques, and questionnaire administration. They were instructed to maintain a non-judgmental attitude, ensure privacy during interviews, and provide clarification when needed without leading or biasing responses. Eligible women were identified through daily clinic attendance records and approached in the clinic waiting area. The research assistants explained the study purpose, procedures, voluntary nature of participation, confidentiality measures, and the right to withdraw at any time without affecting their medical care. Women who agreed to participate provided written informed consent.

Interviews were conducted in a private room within the clinic to ensure confidentiality and minimize distractions. Each interview lasted approximately 25-30 minutes. For women with limited literacy, questions were read aloud and responses were recorded by the interviewer. All questionnaires were reviewed for completeness at the end of each day, and any missing information was clarified by contacting participants when necessary. Completed questionnaires were stored securely in locked cabinets with access limited to the research team.

Ethical Considerations

All participants provided written informed consent after receiving detailed information about the study. Participation was completely voluntary, and women could decline or withdraw at any time without consequences. Confidentiality and anonymity were strictly maintained throughout the study. Questionnaires were assigned unique identification codes, and no personal identifying information was recorded. All data were stored securely and accessed only by the research team. Participants did not receive any financial compensation, but were provided with an educational brochure about menopause and healthy aging at the conclusion of their interview as a token of appreciation and to promote health literacy.

Data Analysis

Data were coded, entered into Microsoft Excel, and analyzed using Statistical Package for Social Sciences (SPSS) version 26.0. Data entry was double-checked for accuracy, and data cleaning procedures were performed to identify and correct any errors or inconsistencies. Descriptive statistics were used to summarize sociodemographic characteristics, menopausal status, knowledge scores, and attitudes. Continuous variables were expressed as means with standard deviations or medians with interquartile ranges, depending on distribution normality assessed by Shapiro-Wilk test. Categorical variables were presented as frequencies and percentages.

Bivariate analysis was conducted to examine associations between sociodemographic characteristics and knowledge categories using chi-square test for categorical variables and one-way ANOVA for continuous variables. Fisher's exact

test was used when expected cell frequencies were less than five. Independent t-test was used to compare mean knowledge scores between two groups, while one-way ANOVA followed by post-hoc Tukey test was used for comparisons among three or more groups. Pearson or Spearman correlation coefficients were calculated to assess relationships between continuous variables. Multivariable logistic regression analysis was performed to identify independent predictors of good knowledge about menopause, adjusting for potential confounders. Variables with p-value <0.20 in bivariate analysis were included in the multivariable model. Results were presented as adjusted odds ratios with 95% confidence intervals. A p-value of less than 0.05 was considered statistically significant for all tests. All tests were two-tailed.

Results

Sociodemographic Characteristics

A total of 285 women participated in the study with a 100% response rate. The mean age of participants was 47.3±7.2 years (range: 35-65 years). Table 1 presents the sociodemographic characteristics of the study participants. The majority of women were married (81.8%), while 8.4% were divorced, 6.7% were widowed, and 3.1% were single. Regarding educational level, 23.2% had no formal education, 28.8% had primary education, 27.0% had secondary education, and 21.0% had higher education. More than half of the participants (58.6%) were housewives, while 26.3% were employed in the public sector, 10.5% worked in private sector, and 4.6% were self-employed. The distribution of residence showed that 64.2% lived in urban areas and 35.8% in rural areas.

Table 1: Sociodemographic Characteristics of Study Participants (N=285)

Characteristic	n	%
Age Group (years)		
35-39	58	20.4
40-44	63	22.1
45-49	82	28.8
50-54	54	18.9
55-59	21	7.4
60-65	7	2.4
Marital Status		
Single	9	3.1
Married	233	81.8
Divorced	24	8.4
Widowed	19	6.7
Educational Level		
No formal education	66	23.2
Primary	82	28.8
Secondary	77	27.0
Higher education	60	21.0
Employment Status		
Housewife	167	58.6
Public sector	75	26.3
Private sector	30	10.5
Self-employed	13	4.6
Residence		
Urban	183	64.2
Rural	102	35.8
Monthly Family Income		
<500,000 IQD	89	31.2
500,000-1,000,000 IQD	134	47.0
>1,000,000 IQD	62	21.8

Menopausal Status and Characteristics

Regarding menopausal status, 34.4% of women were premenopausal, 28.1% were perimenopausal, and 37.5% were postmenopausal. Among postmenopausal women, the mean age at menopause was 48.6±3.4 years. The most commonly reported symptoms were hot flashes (62.8%), night sweats (58.2%), joint and muscle pain (54.7%), mood changes (51.6%), and sleep disturbances (49.5%). Only 31.2% of participants had discussed menopause with a healthcare provider prior to experiencing symptoms.

Knowledge about Menopause

Table 2 presents the distribution of participants according to their knowledge levels about menopause. Overall, 38.6% of women had good knowledge, 43.5% had moderate knowledge, and 17.9% had poor knowledge about menopause. The mean knowledge score was 13.8±4.2 out of 20 points. Specific knowledge gaps were identified in areas related to long-term health risks, particularly osteoporosis (only 42.1% were aware) and cardiovascular disease (38.6% were aware). Knowledge about hormone replacement

therapy was limited, with only 34.4% of women having heard about this treatment option.

Table 2: Distribution of Knowledge Levels about Menopause

Knowledge Category	Score Range	n	%	Mean Score ± SD
Poor knowledge	0-10	51	17.9	7.8±2.1
Moderate knowledge	11-15	124	43.5	13.2±1.4
Good knowledge	16-20	110	38.6	17.3±1.2
Total	0-20	285	100	13.8±4.2

Factors Associated with Knowledge Levels

Table 3 demonstrates the association between sociodemographic factors and knowledge categories. Educational level showed a strong significant association with knowledge (p<0.001), with good knowledge ranging from 10.6% among women with no formal education to 71.7% among those with higher education. Urban residence was associated with better knowledge compared to rural residence (p<0.001). Employment status also showed significant association (p=0.002), with employed women demonstrating better knowledge than housewives. Women who had previous health education about menopause had significantly better knowledge scores compared to those who had not (p<0.001).

Table 3: Association between Sociodemographic Factors and Knowledge Levels

Variable	Poor Knowledge n (%)	Moderate Knowledge n (%)	Good Knowledge n (%)	p-value
Educational Level				<0.001
No formal education	28 (42.4)	31 (47.0)	7 (10.6)	
Primary	15 (18.3)	48 (58.5)	19 (23.2)	
Secondary	7 (9.1)	31 (40.3)	39 (50.6)	
Higher education	1 (1.7)	14 (23.3)	45 (75.0)	
Residence				<0.001
Urban	22 (12.0)	74 (40.4)	87 (47.6)	
Rural	29 (28.4)	50 (49.0)	23 (22.6)	
Employment Status				0.002
Housewife	38 (22.8)	78 (46.7)	51 (30.5)	
Employed	13 (11.0)	46 (39.0)	59 (50.0)	
Previous Health Education				<0.001
Yes	4 (4.5)	28 (31.5)	57 (64.0)	
No	47 (23.9)	96 (48.9)	53 (27.2)	

Attitudes toward Menopause

Attitudes toward menopause were predominantly negative, with 52.3% of women viewing menopause negatively, 31.6% having neutral attitudes, and only 16.1% having positive attitudes. The most common negative perceptions included viewing menopause as a sign of aging (68.4%), belief that menopause marks the end of femininity (54.7%), concerns about decreased attractiveness (61.8%), and worries about impact on marital relationships (47.4%). Only 28.4% of women viewed menopause as a natural and positive transition. Women with better knowledge about menopause demonstrated more positive attitudes (r=0.42, p<0.001).

Sources of Information

Regarding sources of information about menopause, friends and relatives were the most common source (58.9%), followed by media and television (34.7%), healthcare providers (31.2%), and internet (12.3%). Only 25.6% of women reported that they actively sought information about menopause before experiencing symptoms. Women who obtained information from healthcare providers had significantly better knowledge scores compared to those relying on informal sources (15.8±3.1 vs. 12.9±4.3, p<0.001).

Discussion

This study evaluated knowledge and attitudes regarding menopause among women attending a private gynecology clinic in Al-Diwaniyah, Iraq. There were significant deficits in knowledge and primarily negative attitudes toward this natural life process. These data give important insight into the current level of understanding or lack of understanding related to menopause in this population and highlight the need for focused interventions to improve women's understanding and acceptance of menopause. The average knowledge score was 13.8/20, and only 38.6% of the participants had good knowledge regarding menopause and its sequelae, indicating a significant opportunity for improvement with regard to women's menopause health literacy in Al-Diwaniyah. This level of knowledge correlates with the findings in other Middle Eastern countries in that 50% to 70% of women in these countries have been documented to have inadequate menopause knowledge, suggesting that this may be a regional difficulty that might require some comprehensive approaches to health education (26,27,28).

The pattern of knowledge deficits that have been observed in this study, particularly regarding the long-term health problems associated with deficient estrogen, such as osteoporosis and cardiovascular disease, is simply a reflection of studies done in neighboring countries and indicates a universal need for comprehensive health education that goes beyond the mere management of acute symptoms and seeks to educate on the long-term implications of estrogen deficiency on health (29,30). The limited knowledge regarding hormone replacement therapy indicated in this study, with only 34.4% of women surveyed having heard about this type of treatment, is particularly alarming, given that hormone replacement therapy continues to be an important management tool for appropriately select women who experience moderate to severe menopausal

symptoms. This knowledge gap indicated may influence women's abilities to make intelligent choices about their medical care or the availability of treatments that may be beneficial for our findings are similar to those from studies in Pakistan and Egypt, which also identified lack of awareness about treatment as a major barrier to good management of menopause [27, 29].

The large number of women in this study expressing negative perceptions (52.3%) of menopause demonstrates the complex interrelation of biological, psychological, social and cultural influences which can affect women's experiences of this life transition. The relationship between menopause and the worries about aging, loss of femininity and reduced attractiveness identified in our findings is consistent with the sociocultural construct of menopause operative in many traditional cultures where the identity and worth of women is linked to their reproductive capacity [31]. In patriarchal societies such as that of Iraq, where social status and family roles are often fixed by child-bearing capacity, the cessation of reproductive capacity may be perceived as a loss of worth and value and thus contribute to the negative emotional reactions to menopause [39]. Furthermore, the negative attitudes found may be reinforced by the lack of examples of positive role models and open discussion about menopause in families and communities and help to sustain an environment of silence and stigma about menopausal health [40].

The fact that only 16.1% of women had positive feelings towards menopause stands in marked contrast to those reported from some western and Asian studies where more positive or neutral attitudes have been reported, suggesting that cultural factors have an important effect on naturally occurring menopausal experiences [15, 41]. In our study, educational level was the strongest predictor of knowledge about the menopause. Women with higher levels of education had significantly better knowledge than women with no formal education. This finding agrees with many studies in other parts of the world which have found such strong associations between educational attainment and health literacy in a variety of different health areas [26, 42]. The mechanisms underlying this association are probably multi-factored, such as better access to sources of information, a better ability to understand health information, greater health consciousness and larger resources in searching for and utilizing health care. Education gives women the thinking skills necessary to analyze health information, and to discriminate between trustworthy and untrustworthy sources of information so that they can make informed health decisions [43].

The considerable numbers of women in this sample which had no formal education or only elementary education (52%) indicates a considerable vulnerable population requiring special interventions in health education. The development of culturally appropriate, low-literacy educational materials, and the use of alternative modes of education delivery, such as audio-visual materials, community health worker projects and peer education, may offer effective means to chronic illiterates [44, 45]. The important association between urban locality and better knowledge observed in this study reflects the disparity in access to health information and services in urban compared to rural areas of Iraq. Urban dwellers usually have access to better facilities for the dispensing of health care, educational facilities, greater access to media and the internet, which facilitate the acquisition of health information [46].Women in rural areas of the country have a number of barriers to obtaining health information such as geographical isolation, inadequate health infrastructure, limited educational opportunities, and a significant reliance on traditional beliefs which can hinder health-seeking behavior [47].

The urban-rural differences in health knowledge have very important implications for health equity and support the need for targeted interventions designed specifically for rural populations. Mobile health clinics, community-based education programs and the use of locally trusted persons such as traditional birth attendants and faith-based leaders in health information dissemination may be effective options for reaching rural women [48]. The effect of employment on knowledge acquisition shown in our study suggests that exposure at the place of work, social interaction with diverse groups and economic independence may increase women's access to health information and their willingness to seek health services. Working women may have increased opportunities to discuss health topics with colleagues, greater exposure to health programs at the workplace, and access to financial resources to seek private sector health care services where the quality of information may be better [49]. In contrast, housewives may have less extensive social networks, decreased exposure to diverse information sources and less autonomy than working women in health decision-making. This is especially true where the husband or male family member controls all family finances and health related decisions in traditional societies [50]. Empowerment of housewives through initiation of community-based women's groups, mother's meetings at health care market centers, and home visit programs by community health workers would go a long way towards addressing these disparities [51].

The finding that only 31.2% of participants had discussed menopause with their health care providers before they manifested symptoms represented a significant missed opportunity for preventive health education and counseling. Healthcare providers are important sources of credible, accurate health information. Many women in our study did not benefit from provider input, however, until they were having problems. This trend may be the result of many factors, including: limitations of time while in clinical consultation, provider discomfort discussing reproductive health issues, the perception that menopause is not a medical problem needing intervention, and patient reluctance to initiate discussions about sensitive topics [52]. Studies in a variety of countries have documented that healthcare providers often underestimate the value of discussing menopause with their patients. In addition, they may lack training in the management of menopause, this being particularly true in developing countries where continuing medical education opportunities are absent [53, 54]. Incorporating routine menopausal counseling into well woman visits and providing an opportunity for physicians to learn effective methods of communication about sensitive issues might improve patient-provider discussions about menopause [55]. The widespread reliance on informal contacts with friends and relatives as sources of menopausal information in our study presents the advantage of social support, but the danger of misinformation. The information gained through social networks is often based on personal experience, anecdotal evidence, and cultural attitudes and

mores with the possible result that mistaken impressions and unsound health practices may be encountered [32, 33].

The moderate use of media and television as sources of information (34.7%) has both opportunities and problems in regards to health information and education. The mass media have the capability of reaching large populations, but the quality of health information available is highly variable. The accuracy of such information is, likewise, variable, and commercial considerations may influence presentation of information toward the sale of particular products [56]. The relatively low use reported for the Internet as an information source (12.3%) is likely reflective of the demographic characteristics of our sample, where a significant proportion of the women have limited education and possibly the limited use of the Internet or limited literacy. With the increased penetration of smartphones and social media in Iraq, new avenues for health education are available through digital health interventions for younger women approaching the menopause [57]. The very strong positive correlation observed between knowledge and attitude finds support in health behaviour theories which suggest that knowledge affects attitude, which in turn leads to health behaviour and health outcomes [58]. If women are better able to understand that menopause is a natural biological process rather than a disease or deficiency, it is likely they will have a more positive attitude and less distress during the menopausal transition. Educational interventions that provide accurate, extensive knowledge about menopause while at the same time dealing with misconceptions and cultural perspectives have been shown to be effective in improving knowledge and attitudes about menopause [35, 36]. However, the relationship between knowledge and attitude is complex and bi-directional, pre-existing attitudes affecting both information seeking and acceptance of new information [59].

It is clear that to alter negative attitudes about menopause, which are very entrenched, it is necessary to provide multi-faceted approaches for the treatment which go beyond mere provision of information, involving cognitive restructuring, peer support, and challenging sociocultural climate which undervalues postmenopausal women [60].The average age of menopause in our study (48.6 Years) is comparable to other middle-eastern studies and slightly lower than the average age in reports from western countries. This may reflect the influence of genetical, environmental, nutritional and socio-economic factors on reproductive senescence [61]. The natural age of menopause in the population is of importance in identifying women with premature and early menopause, who require special investigation and treatment, and the planning of health services aimed at the relevant age group indicates that there is a high prevalence of menopausal symptoms especially in the form of over 60%, suffering from vasomotor symptoms and a large proportion suffering from psychological and musculoskeletal problems. These findings indicate that menopause has a serious effect on the quality of life of women. The lack of knowledge on the management of these symptoms and the very low consultation rates with health care officiants indicates that much unnecessary suffering is experienced by women not accessing possible treatment. This is another evidence of the urgent need for improvement in the access to health care have related specifically to menopause and the inclusion of menopause as a special aspect of the more general women's health services [62].

Conclusion

This study showed that the knowledge about menopause and the attitudes toward it of the women attending a private clinic in Al-Diwaniyah, Iraq, are less than satisfactory. Only 38.6% of the participants had good knowledge of menopause and there were large gaps in knowledge of the long-term health risks and treatments. More than half of the women had negative attitudes toward the menopause, because they viewed it chiefly as a period of aging and loss of femininity. The only variable that was statistically significant with better knowledge were educational level, residence, employment, and prior health education. The report pointed out the heavy dependence on informal sources for information on the menopause and the small number of times the subjects were counseled by the physician about the menopause.

Certainly, there are a number of opportunities for the physician to discuss the menopause with the patients but these opportunities are wasted if they do not arise. This was the case in this study. The findings indicated that there is a definite need for comprehensive health education programs which are geared to the women in perimenopausal ages specifically, in order to better inform the women of the menopause as a natural transition point in their life and to give them information that they can use to successfully cope with the symptoms involved. Physicians should be trained to routinely discuss the menopause with women in their mid-thirties or mid-forties and especially when they are seen in the office, so that they can provide anticipatory guidance and alleviate the fears which they have about the menopause in the beginning rather than in a reactive manner.

A favorable method of reaching more women including those who live in the rural areas and who have little education would be to have community programs incorporating peer educators, community groups, women's groups and the mass media. Materials should be developed for presentation which would deal with health education but should also include not only the biological but also the aspects which have to do with cultural mores. For example, challenging the woman's sexual roles and presenting the menopause as a transitional time which does not mean the end of femininity and the loss of sexual attraction would create stimulation for both men and women to have a positive attitude toward this period in life. Future research efforts could be focused on a variety of studies. More studies which are larger in scope and involve a greater number of centers need to be done so that the generalizability of the findings can be increased. Longitudinal designed studies in which the attitude and knowledge changes and knowledge are measured may help to assess the overall impact of educational programs. Intervention studies in which the various methods of educating women would be evaluated would also be necessary. Qualitative research which would specifically address cultural and psychosocial factors determining the women's experience with menopause would also be very useful. Finally, direct collaboration among healthcare providers, public health officials, leaders of the community and organizations for women could play a significant role in designing and implementing effective means of promoting the awareness of health care for women during the menopause as well as the women's health in general in Ad-Diwaniyah and similar populations in Iraq.

References

1. Harlow SD, Gass M, Hall JE, Lobo R, Maki P, Rebar RW, *et al*. Executive summary of the Stages of Reproductive Aging Workshop +10: addressing the unfinished agenda of staging reproductive aging. J Clin Endocrinol Metab. 2012;97(4):1159-68.
2. Gold EB. The timing of the age at which natural menopause occurs. Obstet Gynecol Clin North Am. 2011;38(3):425-40.
3. Prior JC. Perimenopause: the complex endocrinology of the menopausal transition. Endocr Rev. 1998;19(4):397-428.
4. Santoro N, Epperson CN, Mathews SB. Menopausal symptoms and their management. Endocrinol Metab Clin North Am. 2015;44(3):497-515.
5. Williams RE, Kalilani L, DiBenedetti DB, Zhou X, Fehnel SE, Clark RV. Healthcare seeking and treatment for menopausal symptoms in the United States. Maturitas. 2007;58(4):348-58.
6. Lobo RA. Metabolic syndrome after menopause and the role of hormones. Maturitas. 2008;60(1):10-8.
7. Greendale GA, Sowers M, Han W, Huang MH, Finkelstein JS, Crandall CJ, *et al*. Bone mineral density loss in relation to the final menstrual period in a multiethnic cohort. J Clin Endocrinol Metab. 2012;97(10):3700-9.
8. Bairey Merz CN, Johnson BD, Sharaf BL, Bittner V, Berga SL, Braunstein GD, *et al*. Hypoestrogenemia of hypothalamic origin and coronary artery disease in premenopausal women. J Am Coll Cardiol. 2003;41(8):1358-63.
9. Ayers B, Forshaw M, Hunter MS. The impact of attitudes towards the menopause on women's symptom experience. Maturitas. 2010;65(1):28-33.
10. Hunter MS, Rendall M. Bio-psycho-socio-cultural perspectives on menopause. Best Pract Res Clin Obstet Gynaecol. 2007;21(2):261-74.
11. Yazdkhasti M, Simbar M, Abdi F. Empowerment and coping strategies in menopause women: a review. Iran Red Crescent Med J. 2015;17(3):e18944.
12. Delanoë D, Hajri S, Bachelot A, Mahfoudh Draoui D, Hassoun D, Marsicano E, *et al*. Class, gender and culture in the experience of menopause. Soc Sci Med. 2012;75(2):401-9.
13. Hoga L, Rodolpho J, Gonçalves B, Quirino B. Women's experience of menopause: a systematic review of qualitative evidence. JBI Database System Rev Implement Rep. 2015;13(8):250-337.
14. Sievert LL. Menopause across cultures: clinical considerations. Menopause. 2014;21(4):421-3.
15. Melby MK, Lock M, Kaufert P. Culture and symptom reporting at menopause. Hum Reprod Update. 2005;11(5):495-512.
16. Im EO, Meleis AI. A situation-specific theory of Korean immigrant women's menopausal transition. Image J Nurs Sch. 1999;31(4):333-8.
17. Obermeyer CM. Menopause across cultures: a review of the evidence. Menopause. 2000;7(3):184-92.
18. DeKeyser FG, Ben Natan M. Cultural aspects of menopause: an Arab woman's experience. Health Care Women Int. 2008;29(7):694-708.
19. Charandabi SM, Rezaei N, Hakimi S, Montazeri A, Taheri S, Taghinejad H, *et al*. Quality of life of postmenopausal women and their spouses: a community-based study. Iran Red Crescent Med J. 2015;17(3):e21599.
20. WHO. Research on the menopause in the 1990s: report of a WHO scientific group. Geneva: World Health Organization; 1996.
21. Cetorelli V, Burnham G, Shabila N. Health needs and care seeking behaviours of Yazidis and other minority groups displaced by ISIS into the Kurdistan Region of Iraq. PLoS One. 2017;12(8):e0181028.
22. Al-Sabbagh MQ, Aljumaily AA, Alkenani NH, Sadik SM. Health needs of Iraqi women. East Mediterr Health J. 2012;18(3):216-21.
23. Lafta RK, Al-Shatari SA. Women's health in Iraq: a health professional's perspective. Women Birth. 2013;26(2):e55-9.
24. Alwan NAS. Sociodemographic and clinical characteristics of Iraqi patients with epilepsy. Neurosciences (Riyadh). 2012;17(2):154-7.
25. Alwan IA. Primary health care in Iraq: an overview. East Mediterr Health J. 2004;10(4-5):556-63.
26. Alahmadi BA, Alenezi AM, Alhusaini TK. Knowledge and attitude towards menopause among Saudi women in Riyadh. Middle East Fertil Soc J. 2014;19(4):254-61.
27. Nisar N, Sohoo NA. Frequency of menopausal symptoms and their impact on the quality of life of women: a hospital based survey. J Pak Med Assoc. 2009;59(11):752-6.
28. Ghazanfarpour M, Kaviani M, Abdolahian S, Bonakchi H, Najmabadi KM, Naghavi M, *et al*. The relationship between women's attitude towards menopause and menopausal symptoms among postmenopausal women. Gynecol Endocrinol. 2015;31(11):860-5.
29. Elsherbiny NA, El-Sheikh M, Saleh A, Saadeldin O. Knowledge, attitude and practices of women regarding menopause at Zagazig city. Life Sci J. 2013;10(2):482-9.
30. Hamadneh J, Hamadneh S. Primary health care providers' knowledge, attitudes and practices regarding menopause. Saudi Med J. 2012;33(7):763-8.
31. Nosek M, Kennedy HP, Beyene Y, Taylor D, Gilliss C, Lee K. The effects of perceived stress and attitudes toward menopause and aging on symptoms of menopause. J Midwifery Womens Health. 2010;55(4):328-34.
32. Liao KL, Wood N, Conway GS. Premature menopause and psychological well-being. J Psychosom Obstet Gynaecol. 2000;21(3):167-74.
33. Whiteley J, DiBonaventura MD, Wagner JS, Alvir J, Shah S. The impact of menopausal symptoms on quality of life, productivity, and economic outcomes. J Womens Health (Larchmt). 2013;22(11):983-90.
34. Kingsberg SA, Wysocki S, Magnus L, Krychman ML. Vulvar and vaginal atrophy in postmenopausal women: findings from the REVIVE survey. J Sex Med. 2013;10(7):1790-9.
35. Koyuncu T, Unsal A, Arslantas D. Evaluation of the effectiveness of health education on menopause symptoms and knowledge and attitude in terms of menopause. J Epidemiol Glob Health. 2018;8(1-2):8-12.
36. Lee MS, Kim JH, Park MS, Yang J, Ko YH, Ko SD, *et al*. Factors influencing the severity of menopause symptoms in Korean post-menopausal women. J Korean Med Sci. 2010;25(5):758-65.

37. Binfa L, Castelo-Branco C, Blümel JE, Cancelo MJ, Bonilla H, Muñoz I, *et al*. Influence of psycho-social factors on climacteric symptoms. Maturitas. 2004;48(4):425-31.
38. Al-Baghdadi JA, Ewies AA. Perceptions and attitudes towards menopause and hormone replacement therapy among Iraqi women. Climacteric. 2014;17(5):564-73.
39. Obermeyer CM, Reynolds RF, Price K, Abraham A. Therapeutic decisions for menopause: results of the DAMES project in central Massachusetts. Menopause. 2004;11(4):456-65.
40. Blümel JE, Castelo-Branco C, Binfa L, Gramegna G, Tacla X, Aracena B, *et al*. Quality of life after the menopause: a population study. Maturitas. 2000;34(1):17-23.
41. Fu SY, Anderson D, Courtney M. Cross-cultural menopausal experience: comparison of Australian and Taiwanese women. Nurs Health Sci. 2003;5(1):77-84.
42. Poomalar GK, Arounassalame B. The quality of life during and after menopause among rural women. J Clin Diagn Res. 2013;7(1):135-9.
43. Berkman ND, Sheridan SL, Donahue KE, Halpern DJ, Crotty K. Low health literacy and health outcomes: an updated systematic review. Ann Intern Med. 2011;155(2):97-107.
44. Ghazanfarpour M, Kaviani M, Rezai Abdolahian S, Ghaderi E, Koochaki GM. The relationship between sexual function and body image in postmenopausal women. Electron Physician. 2016;8(4):2280-5.
45. Shuster LT, Rhodes DJ, Gostout BS, Grossardt BR, Rocca WA. Premature menopause or early menopause: long-term health consequences. Maturitas. 2010;65(2):161-6.
46. Rasheed P, Al-Dabal BK. Menopause: experiences and concerns of women in Kuwait. Women Health. 2007;46(2-3):115-32.
47. Husain T, Ali Z, Siddiqui N, Habib F. Perceptions and knowledge of menopause and its management among middle-aged working women. J Ayub Med Coll Abbottabad. 2013;25(1-2):122-5.
48. Nelson HD. Menopause. Lancet. 2008;371(9614):760-70.
49. Woods NF, Mitchell ES. Symptoms during the perimenopause: prevalence, severity, trajectory, and significance in women's lives. Am J Med. 2005;118 Suppl 12B:14-24.
50. Utian WH, Janata JW, Kingsberg SA, Schluchter M, Hamilton JC. The Utian Quality of Life (UQOL) Scale: development and validation of an instrument to quantify quality of life through and beyond menopause. Menopause. 2002;9(6):402-10.
51. Nappi RE, Climstein M, Lachowsky M. Attitudes and perceptions towards menopause and hormone therapy in different countries after the Women's Health Initiative study. Climacteric. 2006;9(4):267-78.
52. Hogervorst E, Yaffe K, Richards M, Huppert FA. Hormone replacement therapy to maintain cognitive function in women with dementia. Cochrane Database Syst Rev. 2009;(1):CD003799.
53. MacLennan AH, Broadbent JL, Lester S, Moore V. Oral oestrogen and combined oestrogen/progestogen therapy versus placebo for hot flushes. Cochrane Database Syst Rev. 2004;(4):CD002978.
54. Avis NE, Crawford SL, Greendale G, Bromberger JT, Everson-Rose SA, Gold EB, *et al*. Duration of menopausal vasomotor symptoms over the menopause transition. JAMA Intern Med. 2015;175(4):531-9.
55. Nappi RE, Palacios S. Impact of vulvovaginal atrophy on sexual health and quality of life at postmenopause. Climacteric. 2014;17(1):3-9.
56. Dennerstein L, Lehert P, Burger H, Dudley E. Factors affecting sexual functioning of women in the mid-life years. Climacteric. 1999;2(4):254-62.
57. Santoro N. The menopausal transition. Am J Med. 2005;118 Suppl 12B:8-13.
58. Shifren JL, Gass ML. The North American Menopause Society recommendations for clinical care of midlife women. Menopause. 2014;21(10):1038-62.
59. Sommer B, Avis N, Meyer P, Ory M, Madden T, Kagawa-Singer M, *et al*. Attitudes toward menopause and aging across ethnic/racial groups. Psychosom Med. 1999;61(6):868-75.
60. Kowalcek I, Rotte D, Banz C, Diedrich K. Women's attitude and perceptions towards menopause in different cultures: cross-cultural and intra-cultural comparison of pre-menopausal and post-menopausal women in Germany and in Papua New Guinea. Maturitas. 2005;51(3):227-35.
61. Henderson KD, Bernstein L, Henderson B, Kolonel L, Pike MC. Predictors of the timing of natural menopause in the Multiethnic Cohort Study. Am J Epidemiol. 2008;167(11):1287-94.
62. North American Menopause Society. The 2017 hormone therapy position statement of The North American Menopause Society. Menopause. 2017;24(7):728-53.

How to Cite This Article
Al-Shammari SMH. Knowledge and Attitudes towards menopause among women in al-diwaniyah, Iraq: A cross-sectional study. International Journal of Contraception, Gynaecology and Obstetrics 2024; 6(1): 29-38