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Quality of Life among Postmenopausal Egyptian Women: A Cross-Sectional Study

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Abstract

***Objective:** The study aims to assess the quality of life (QOL) among postmenopausal women in Beni-Suef, Upper Egypt.*

***Methods:** A cross-sectional study was carried out on 800 women in the menopausal period. The participants were attending four urban and four rural primary health care facilities in Beni-Suef governorate, Upper Egypt in the period between March and December, 2018. The assigned participants fulfilled the Menopause-Specific QOL questionnaire (MENQOL) for assessment of the psychosocial, vasomotor, physical and sexual domains of QOL in the postmenopausal women.*

***Results:** The study revealed that only less than quarter of the participants (21.8%) had good psychological assessment, 15.5% had good physical assessment, 46.5% had good sexual assessment, 78.6% had good healthy food assessment and 89.1% had good lifestyle assessment.*

***Conclusions:** Menopause could induce both physical and psychiatric problems among Egyptian women. Education, creating awareness and providing suitable intervention to improve their QOL are important which should be imparted to menopausal women at both individual and community level.*

Keywords: *Menopause; Quality of life; psychological; sexual.*

Introduction

In women, post-menopause is a critical period due to a series of endocrinological changes that are caused by the decline of production of estrogens by the ovaries that lead to low estrogen levels [1]. Natural menopause is the permanent cessation of menstruation which is determined 12 months after the last menstrual period [2]. The number of postmenopausal women has been increasing in recent years due to the increase of life expectancy. Nowadays, most women spend more than one-third of their life beyond their menopause [3]. Induced menopause refers to the cessation of menstruation that occurs after either bilateral oophorectomy or iatrogenic ablation of ovarian function (e.g., by chemotherapy or pelvic radiation) [4].

In this context, estrogen depletion affects many tissues of the body, including brain cells. Furthermore, the presence of steroid hormone receptors in various brain regions has been demonstrated [5], and it is known that estrogens increase the cerebral blood flow, which prevents neuronal atrophy and enhances sleep, memory, cognition and other neurologic functions that are affected with low level of estrogens once menopause happens [6]. Menopause can have vasomotor disturbances, hot flashes, night sweats, and psychological changes (mood disorders, depression, anxiety, loss of concentration, memory loss and irrigation, sexual dysfunction) [7].

One of the challenges regarding menopause is unawareness and lack of access to related information and issues in menopausal women. The key to solve this problem is increasing women's awareness related to learning methods suitable with the social background and norms [8]. These symptoms can affect the quality of life (QOL). According to the World Health Organization (WHO), QOL is defined as "an individual's perception of their position in the context of the culture and value systems in which they live and in relation to their goals" [9]. The Menopause-Specific Quality of Life (MENQOL) questionnaire is a validated and widely used research tool aimed at measuring condition-specific quality of life in postmenopausal women. Its use in both clinical and epidemiological research has been steadily increasing over the past two decades since it was first published [10].

Thus, this study was designed to assess the QOL among postmenopausal women in Beni-Suef, Upper Egypt.

Patients and Methods

A descriptive cross-sectional study was carried out among postmenopausal women (40-60 years) in Beni-Suef governorate, Upper Egypt. The participants were attendants or relatives of attendants of primary health care facilities (four urban and four rural) which provide primary health care services. The current study was achieved during in the period between March and December 2018. A multi-stage random sampling technique was carried out to enroll 800 women in the menopausal period.

Beni-Suef Governorate is one of the upper Egypt governorate which consists of 7 districts: Beni-Suef, Elwasta , Nasser, Somosta , Beba , El Fashn and Ehnasia. Four districts were selected randomly to be involved in the study. From each randomly chosen district an urban and a rural primary health care facility were selected randomly by card withdrawal. The sample size was estimated by using Epi-Info version 7 Stat Calc, [Center for Disease Control (CDC), WHO], considering that the confidence level of 95% and margin of error of 5%. Informed written consent was obtained from each patient to be included in this study. The institutional Ethical Review Board approved the study protocol.

The study included women 40 to 60 years old, had at least 12 months of spontaneous amenorrhea and/or serum estradiol levels below 25 pg/mL and FSH levels higher than 50 MU/mL, had intact uterus and ovaries, had no history of physical and mental disorders and had not used hormone replacement therapy. We excluded women participated in classes of promoting QOL and those with cardiovascular and cancer diseases.

Data Collection

We used the Menopause-Specific QOL (MENQOL) questionnaire for measuring the QOL in postmenopausal women. The MENQOL is self-administered and consists of a total of 29 items. Each item assesses the impact of one of four domains of menopausal symptoms, as experienced over the last month: Vasomotor (items 1–3), psychosocial (items 4–10), physical (items 11–26), and sexual (items 27–29). Items pertaining to a specific symptom are rated as present or not present, and if present, how bothersome on a zero (not bothersome) to six (extremely bothersome) point scale. Means are computed for each subscale by dividing the sum of the domain's items by the number of items within that domain.

Knowledge Score

Totally 29 questions were used to assess respondents' QOL. One mark was awarded for every correct answer and 0 mark for every wrong answer. All scores were added and the mean score calculated. In each domain of MENQOL, respondents who scored equal and below the mean value were categorized as having good QOL while those that scored above the mean value were categorized as having poor QOL.

Some socio-demographic variables were asked from these women including age, marital status, number of children, residence, employment status, education, husband's education, menopause duration, menopause age and menopause duration.

Statistical Analysis

Collected data were entered into a Microsoft Access database and then analyzed by using Statistical Package for Social Science (SPSS Inc, Chicago, Illinois, version 21). We tested the normality of the continuous data using the Shapiro-Wilk test. Normally distributed data are presented as mean and standard deviation (SD) and analyzed by student's t-test. Chi-square test was used to estimate the significant value in the categorical variables. $P < 0.05$ was considered to be significant.

Results

The study included 800 women. The mean age was 52.37±6.557 years. The majority of them were high school (33.3%), 45.6% were housewives and the majority of them from urban places (56%) (Table 1).

Table1. *Socio-demographic characteristics of the participating women (n= 800)*

Characteristics	n (%)
Age (Mean ± SD) years	52.37±6.557
Marital status	
Not Married	73 (9.1%)
Married	375 (46.9%)
Divorced	101 (12.6%)
Widow	251 (31.4%)
Duration of marriage (Mean ± SD) years	24.44±13.440
Number of children	3.10±2.012
Educational level	
Illiterate	145 (18.1%)
Primary	107 (13.4%)
Secondary	37 (4.6%)
High School	266 (33.3%)
University	245 (30.6%)
Occupation	
Employer	316 (39.5%)
Worker	119 (14.9%)
Housewife	365 (45.6%)
Residence	
Rural	352(44%)
Urban	448(56%)
Age at Menopause (Mean±SD) years	43.41±10.27
Duration of Menopause (Mean±SD) years	6.43±5.961

The most prevalent psychosocial symptoms reported were dissatisfaction with personal life (42.1%) and feeling depressed (23.4%). Among other psychological symptoms such as feeling of anxiety and nervousness was 42.45%, experiencing poor memory was 32.4% and accomplishing less than I used to do" was 21.9% (Table 2). Physical symptoms were quite varying in occurrence with some symptoms such 63.7% involuntary urination, 48.5% frequent urination, 45.4% feeling tired or worn out, 37.4% facial hair, 35.3% night sweating, 35.1% aches in back of neck or head, 34.8% flatulence or gas pains, 32.1% drying skin, 32% low backache, 31.1% changes in appearance, texture, tone of skin, 26.3% difficulty in sleeping, 24.5% feeling bloated, 23.8% feeling lack of energy, 22.4% aching in muscles or joints, 20.1% decrease in physical strength, 17.6% tone of skin, 15.3% weight gain and 15.1% decrease in stamina.

Table2. *Assessment of quality of life by Menopause Specific Quality of Life Questionnaire and Lifestyle (n= 800)*

Characteristics	n (%)
Vasomotor	
Hot flashes	363(45.4%)
Night Sweating	282(35.3%)
Psychological	
Dissatisfaction with personal life	339(42.45)
Feeling anxious or nervous	337(42.1%)
Experiencing poor memory	259(32.4%)
Accomplishing less than I used to do	175(21.9%)
Being Impatient with other people	187(23.4%)
Willing to be alone	347(43.4%)

Physical	
Flatulence or gas pains	278(34.8%)
Aching in muscles or joints	179(22.4%)
Feeling tired or worn out	190(23.8%)
Difficulty in sleeping	210(26.3%)
Aches in back of neck or head	281(35.1%)
Decrease in physical strength	161(20.1%)
Decrease in stamina	249(31.1%)
Feeling lack of energy	121(15.1%)
Drying skin	257(32.1%)
Weight gain	122(15.3%)
Increased facial hair	299(37.4%)
Changes in appearance, texture, tone of skin	141(17.6%)
Feeling bloated	196(24.5%)
Low backache	256(32%)
Frequent urination	388(48.5%)
Involuntary urination	510(63.7%)
Sexual	
Change in sexual desire	356(44.5%)
Vaginal dryness during intercourse	357(44.6%)
Avoiding intimacy	370(46.3%)
Lifestyle	
Breakfast	108(13.5%)
Vegetable and Fruits	202(25.3%)
Avoid carbohydrates	397(49.6%)
Avoid Salt and Sugar	429(53.6%)
Drink Enough Water	315(39.4%)
Eat dairy products	219(27.4%)
Eat white meat	344(43%)
Sport	683(85.4%)
Social Activist	491(61.4%)
Helping your family in home affairs	202(25.3%)
Husband psychologically support	641(80.1%)

Among sexual changes reported by participants were 46.3% reporting avoiding intimacy, 44.5% changes in sexual desire and 44.6% of them complaining of vaginal dryness. Eating Healthy Food reported that 53.6% avoid Salt and Sugar, 49.6% avoid carbohydrates, 43% eat white meat, 39.4% drink enough water, 27.4% eat dairy products, 25.3% vegetable and fruits and 13.5% breakfast. Lifestyle reported that the majority were playing sport 85.4%, 80.1% husband support his wife, 61.4% had social activity and 25.3% helping family in home affairs.

Assessment of quality of life by Menopause score show that 49.3% had good vasomotor assessment, 65.6% had good psychological assessment, 44.5% had good physical assessment and 54.6% had good sexual assessment (Table 3).

Table3. *Assessment of quality of life by Menopause Specific Quality of Life Questionnaire*

	Bad	Good
Vasomotor	406(50.7%)	394(49.3%)
Psychological	275(34.4%)	525(65.6%)
Physical	444(55.5%)	356(44.5%)
Sexual	363(45.4%)	437(54.6%)

Finally, table (4) shows significant differences between good and bad lifestyle according to age, duration of marriage, education level, residence and occupation where P <0.001, 0.001, <0.001, 0.043 and <0.001 respectively.

Table4. *Comparison between lifestyle group regard to demographic data*

	Lifestyle		P value
	Bad	Good	
Age	52.17±7.676	52.67±4.503	<0.001*
Marital Status			
Not Married	44(9.4%)	29(8.8%)	0.279
Married	207(44.0%)	168(50.9%)	
Divorced	64(13.6%)	37(11.2%)	
Widow	155(33.0%)	96(29.1%)	
Duration of Marriage	23.28±13.530	26.27±13.115	0.001*
Number of children	3.08±2.045	3.12±1.966	0.451
Educational Level			
Illiterate	49(10.4%)	96(29.1%)	<0.001*
Primary	57(12.1%)	50(15.2%)	
Secondary	30(6.4%)	7(2.1%)	
High School	177(37.7%)	89(27.0%)	
University	157(33.4%)	88(26.7%)	
Residence			
Rural	221(47.0%)	131(39.7%)	0.043*
Urban	249(53.0%)	199(60.3%)	
Occupation			
Employer	213(45.3%)	103(31.2%)	<0.001*
Worker	65(13.8%)	54(16.4%)	
Housewife	192(40.9%)	173(52.4%)	
Age at Menopause	45.42±3.383	40.75±14.761	0.297
Duration of Menopause	7.07±6.980	5.57±4.109	0.119

*Statistically significant difference

Discussion

Today, health systems plan their most important programs based on family health. Women are the center of family health and are the main role model for the next generation of teaching and promoting healthy living. Menopause is part of the critical phases of a woman's life, which characterizes the transition from fertility to infertility [11]. Menopause is accompanied by biological and psychological changes that affect women's health and sense of wellbeing. Menopause happens because the woman's ovaries stop producing the hormones estrogen and progesterone. They include changes in periods (shorter or longer, lighter or heavier with more or less time in between), hot flushes and/or night sweats, trouble sleeping, vaginal dryness, mood swings, trouble focusing and less hair on the head, more on the face, experience age-related decline of physical and mental capacity. The physiological, emotional and psychological changes leave women vulnerable in total and reduce the QOL [12].

The present study aimed to measure the QOL in Egyptian postmenopausal women. We adopted a quantitative research approach with comparative survey design. The socioeconomic profile of postmenopausal women highlighted that the mean age of participant women was 52.37±6.557 years. The majority of them were high school (33.3%), 45.6% were housewives and the majority of them were from urban places (56%). In comparison with the study of Paulose and Kamath in which 52% of the study participants women were in the age group of 51 to 55 years [13]. Waidyasekera et al. conducted a study in Srilanka where 59.4% of the study participants were in the age group of 51 to 60 years [14]. Shirvani and Heidari in Iran reported that the participants' age was over 55 years [11] Another study by Karmakar et al. reported that the mean age was 49.55 ± 4.69 years [15].

During menopausal transition, there is a lot of fluctuation in the hormone levels, and thus women may experience many symptoms and conditions. The present study revealed that the most prevalent psychosocial symptoms reported were dissatisfaction with personal life (42.1%) and feeling depressed (23.4%). Among other psychological symptoms feeling of anxiety and nervousness was in 42.45%,

experiencing poor memory was in 32.4% and accomplishing less than I used to do" was in 21.9% of the study participants. Paulose and Kamath reported that the psychological symptoms such as loss of memory, anxiety, feeling lonely, sadness was reported more (42.6%) among urban women [13]. Regarding vasomotor and sexual domains, the difference in QOL score is very minimal among the rural and urban women [16]. Similar findings were reported in a study of Membrive et al. which shows that the rural women had less prevalence of anxiety attack (7.3% vs. 4.2%) than urban women [17]. Karmakar et al. demonstrated that the occurrence of vasomotor symptoms in the study population was average with 60% of them reporting hot flushes, 47% reporting sweating, and 41% complaining of night sweats [15]. The most prevalent psychosocial symptoms reported were feeling of anxiety and nervousness (94%) and feeling depressed (88%). Among other psychological symptoms such as "accomplishing less than I used to do" was in 79%, experiencing poor memory was in 57%, dissatisfaction with personal life was in 55% of the study participants.

Regarding the physical symptoms, the current study demonstrated that they were quite varying in occurrence with some symptoms such 63.7% involuntary urination, 48.5% frequent urination, and 45.4% feeling tired or worn out. Sagdeo and Arora in a comparative study between rural and urban women showed that most common problem was joint and muscular symptoms (60.4%) followed by hot flushes and night sweats (36.7%) [18]. In the current study, most prevalent symptoms reported were feeling of anxiety and nervousness (94%) and feeling tired, decrease stamina (93%). The occurrence of vasomotor symptoms was average with 60% of them reporting hot flushes and 47% reporting sweating. Madhukumar et al. [19] in rural Bengaluru and Nayak et al. [20] in coastal areas of Karnataka, India showed that physical and psychosocial symptoms were reported more (56.92% of the menopausal women felt firmly that they were affected by menopause in negative manner) than vasomotor and sexual symptoms. While, the study of Paulose and Kamath [13] revealed that the physical symptoms were more among rural women (7.71%) compared to urban women. This includes symptoms such as feeling tired, aches and pains, joint pain and bloating.

Regarding sexual changes reported by participants; 46.3% reporting of avoiding intimacy, 44.5% changes in sexual desire and 44.6% of them complaining of vaginal dryness, which was comparable with the study of Karmakar et al. which reported that most frequently reported was decreased libido (81.5%) [15].

Menopause is a part of the normal aging process, but considerably affects the different aspects of women and their spouse lifestyle; stabilizing a healthy lifestyle is important way to control predisposing factors of disease conditions in menopause women. Balance calorie intake and physical activity to achieve and maintain a healthy range of body weight, selection of healthy food programs, and avoiding alcohol use are the main advices and fundaments of a healthy lifestyle in these women. For those struggling with women's health and menopause symptoms such as mood swings, mild depression and anxiety or stress related to handling a busy life, counseling may be an effective option [21, 22].

Furthermore, the present study demonstrated that as regard Eating Healthy Food, they reported that 53.6% avoid salt and sugar, 49.6% avoid carbohydrates, 43% eat white meat, 39.4% drink enough water, 27.4% eat dairy products, 25.3% vegetable and fruits and 13.5% breakfast, while as regard lifestyle; results reported that the majority were playing sport 85.4%, 80.1% husband support his wife, 61.4% had social activity and 25.3% helping family in home affairs. Comparing with the study of Marlatt et al. which revealed that 42% reporting that they 'haven't tried' using diet/ lifestyle changes to manage symptoms [23]. For exercise frequency, 33% and 32% of women reported exercising 'occasionally' or 'at least 3 times per week', respectively; the vast majority of women (83%) reported being interested in a structured lifestyle program to help minimize menopausal symptoms.

Finally, Assessment of QOL by Menopause final results showed that 21.8% had good psychological assessment, 15.5% had good physical assessment, 46.5% had good sexual assessment, 78.6% had good healthy food assessment and 89.1% had good lifestyle assessment. This was in comparison with the study of Paulose and Kamath [13], which revealed that QOL score of physical domain was 71.5% in urban and 74.7% in rural with difference 2.8, in sexual domain was 71.0% in urban 72.0% among rural women with difference 1.0%, in vasomotor domain was 45.2% in rural and in urban 43.0% with difference 2.2, in

psychological domain was 41.8% in rural and in urban 42.6% with difference 0.8.

In conclusion, the results support the popular belief that menopause causes both physical and psychiatric problems. Almost all areas or domains evaluated were impaired in menopausal women. Education, creating awareness and providing suitable intervention to improve the QOL are important social and medical issues which need to be addressed.

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