

Evaluation of Post-Menopausal Symptoms: It's Effect on Female's Quality of Life

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ABSTRACT

The present study aimed to evaluate post-menopausal symptoms: its effect on female's quality of life. **Setting:** The study was conducted at the Gynecological outpatient clinics of Mansoura University Hospitals. **Study Design:** A descriptive study design was carried. **Sample:** 143 postmenopausal females after excluded pilot study =130. **Type of sample:** a convenient sample was used. **Tools:** Three tools were used for data collection: 1st tool was the interviewing questionnaire schedule, 2nd tool was the menopause rating scale (MRS), and 3rd tool Utian (2002) Quality of Life scale. **Results:** The present study results revealed that the mean age of females was (52.09 ± 3.0); it was also showed that more than half of women 59.2% had moderate menopausal rating scale symptoms. It showed that 57.7% among them complaining of sever joint and muscular discomfort, 55.4% were complaining of moderate anxiety and 46.2% complaining of sever dryness of vagina and mild bladder problems. The results showed that 60.0% among post-menopausal females had average quality of life, There, was statistically significant association between quality of life and mean score of menopause rating scale P= (0.002). That the mean score of menopause rating scale was significantly increased with worsening the state of quality of life. **Conclusion:** it was evident from the study results that, more than half of postmenopausal females had moderate somatic, psychological and urogenital symptoms. There was statistically significant relation between menopause rating scale and quality of life. **Recommendations:** provide in services education program for nurses working in postmenopausal unite females to overcome postmenopausal problems.

Keywords: post-menopause, and, quality of life.

INTRODUCTION

Natural menopause is the permanent cessation of menstruation which is determined 12 months after the last menstrual period (Shobeiri et al., 2016). The number of postmenopausal women has been increasing in recent years due to the increase of life expectancy (Park et al., 2014).

It occurs in between the age of 45 and 55 years worldwide. Women spend a significant part of their lives in postmenopausal states. In 1990, there were about 467 million postmenopausal women worldwide it is expected to rise to 1200 million by 2030. Out of these, 76% will be living in the developing countries (Mahajan et al., 2012).

Furthermore, it is caused by aging of ovaries which leads to decline in the production of ovarian Gonadotrophins Estrogen and Progesterone. That occurs naturally or is induced by surgery chemotherapy, or radiation. The deficiency of these hormones elicits various symptoms that impair the overall quality of life of women (Moustafa et al., 2015).

Yet nurses teaching women about menopause, emphasize it's a normal event with various symptoms, which can be managed effectively through various pharmacologic and non-pharmacologic therapies assessment of the effectiveness of management, help validate their concerns, and provide additional support (Chism, 2014). Also health promotion and disease prevention provided the foundation for the

comprehensive management of women's health and were critical strategies for the responsible allocation of limited health care resources. Screening for risk factors and identification of women at increased risk were critical first steps. Providing advices, encouragement, support, as well as trusted educational resources (Kanopiené et al., 2014).

Also, the transitional age of Menopauses, women often experience a variety of symptoms affecting their quality of life. These may involve different areas such as: physical (including most frequently vasomotor symptoms); functional, social, psychosocial, mood, sleep; and the sexual sphere. The qualities of life of per menopausal and menopausal women are strongly influenced by social, cultural and economic settings in which they live (Moustafa et al., 2015).

Meanwhile quality of life (QoL) is a broad, multidimensional concept, including physiological, psychological and social factors, as well as the subjective experience of both the negative and positive aspects of an individual's life. It is a subjective measure, reflecting the woman's view of her health, rather than an objective evaluation of its components. QoL is an important public health issue. The quality of life of perimenopausal women affects the roles they perform, and thus, whole families and communities (Bieñ et al., 2015).

Significance of the study

More than 80% of post-menopausal women report physical and psychological symptoms that commonly accompany menopause, with varying degrees of severity and life disruption (Catherine et al., 2012). Assessment of quality of life has become a crucial constituent of clinical practice. During menopausal transition majority of women experience various physiological and psychological changes due to frequent alteration in the estrogens level, which ultimately affect the quality of life of menopausal women. (Kothiyal, Sharma, 2013).

Therefore, Nurses, who are constantly with most of women during different period of their lives, play a key of role in transferring information and curing the effects of menopause (Bakouei et al., 2013). So that, this study conducted to evaluate post-menopausal symptoms, its effect on female's quality of life.

Aim of the study

This study aimed to evaluate post-menopausal symptoms, its effect on female's quality of life.

Research question

1. What are symptoms commonly associated with Post-menopausal females?
2. What is the effect of post-menopausal transition on females' quality of life?

Subjects and method

Study setting:

The present study was conducted at gynecological out patient in Mansoura university hospital.

Study design:

The present study was a descriptive study.

Sampling

Sample Type:

Convenient sample was used included all post-menopausal females, available at the time of the study in the gynecological clinics in Mansoura University. The sample size was 130 post-menopausal women between ages 45-55 years, was calculated online ([https:// www.dssresearch. com/ Knowledge Center/ toolkit calculators/ sample size calculators. aspx](https://www.dssresearch.com/Knowledge Center/toolkit calculators/sample size calculators.aspx)) with the following assumptions: Previous Studies found that mean quality of life score was 45.15 and SD=13.75 with level of precision of 3% and alpha error =5% and study power 80%.

Tools of data collection:

Three Tools were used in the study; it was consisted of:

The First Tool: Interviewing Questionnaire Schedule

It was designed by the researchers after reviewing the related and current literature its purpose to collect necessary data which cover the aim of the study. It was used to assess general characteristics of post-menopausal females. The questionnaire was in the form of (MCQ), included personal data such as, name, age, education level, job, residence, telephone number, marital status, socioeconomic status and monthly income.

The Second Tool: Menopause Rating Scale (MRS)

It was adopted from (Heinemann, 2012). It was used to measure the severity of signs and symptoms associated with postmenopausal females who experience natural menopause, through 11- items grouped into three subscales domains: somatic domains formed of four items (hot flushes, heart discomfort, sleep problems and joint problems). Psychological domains formed of four items (depression, irritability, anxiety and physical mental exhaustion), and urogenital domains consisted of three items (sexual problems, bladder problems and vaginal dryness).

Scoring system: Scoring of MRS was measured on three points degree as following: 1 (mild symptoms), 2 (moderate symptoms), and 3 (severe symptoms), each graded items within subscale were summed up to provide a total subscale score. MRS total scores = (33) score. (Up to < 50 % (16.4) was considered "mild symptoms of MRS"), from 50 - < 75 % (16.5 - 24.74) was considered "moderate symptoms of MRS", and from 75% (24.75 - 33) was considered "severe symptoms of MRS". (WHO, 2001).

The Third Tool: Utian (2002) Quality of Life scale:

It was used to measure quality of life specifically during menopause. It was consisted of 23-item to measure severity of QOL Utian et al., (2002). **Scoring system:** - scoring of Utian (2002) quality of life scale designed in the form of three-choice Likert scale as following: (1) disagree, (2) uncertain, and (3) agree. The higher total scores associated with higher quality of life. Each item was graded as (up to <50% < 34.4 was considered as poor quality of life), (from 50 - < 75 % 34.5-51.7 was considered as average quality of life), and (above \geq 75% 51.75 was considered as good quality of life), graded items within each subscale were summed up to provide a total subscale score. QOL total scores = (69).

Content Validity of the Tool:

For internal validity, the questionnaire including three tools was reviewed by three experts in the field of maternal nursing care and according to the comments modifications were considered. Tools used in this study were developed by the researchers after reviewing the current local and international related literatures using books, articles and scientific magazines. This helped them to be acquainted with the problem, and guided them in the process of tools designing.

Reliability

The second and third tools questionnaire was tested for reliability by calculating Cronbach's alpha using SPSS program. For menopause rating scale (MRS) it was **0.794**. And the third tool quality of life scale (QOL) of the questionnaire was tested for reliability by using the same program it was **0.821**. Therefore, the tools were reliable.

The Pilot Study Phase

A pilot study was carried out on 13 post-menopausal women (10 % of sample), who were excluded from final study sample. To test the content validity, clarity, feasibility and objectivity of the tool as well as to determine the time needed for data collection. Data were analyzed following this pilot study; the data collection sheets were modified.

Ethical aspect of the study:

1. An ethical approval was obtained from the research ethical committee of the faculty of nursing-Mansoura University.
2. An official permission to conduct the study was obtained from the head of Obstetrics and Gynecology department at Mansoura University hospital.
3. Written informed consent was being obtained from all participants after explaining the purpose of the study.
4. Confidentiality of the collected data was being assured.
5. Privacy of the collected data was being assured.
6. Participation in research was voluntary and participants were assured that withdrawing from the study was being at any stage without responsibility.

Field work:

- The data of the study were collected for 6 months starting on June 2014 and ended on December 2014 to collect the data needed for assessment quality of life among post-menopausal women.
- Official permissions to carry out the study were obtained from the head of women's health and midwifery nursing department as well as the director of the gynecological outpatients at Mansoura University Hospital.
- The researchers visited the hospital and collect the data of the study were 3 days/week from 9 a.m. to 2 p.m.
- The researchers explained the aim of the study to each female to gain her trust and confidence also her written consent was obtained to participate in the study.
- Data were collected using a sample from gynecological outpatients in Mansoura University Hospitals.
- The time allowed to fill the questionnaire was completed within 20 min. Interviewing questionnaire schedule firstly was done. Then, menopause rating scale (MRS), and Utian (2002) quality of life scale was assessed and conducted among all sample study.
- Data and results were coding and analyzing the results.

Statistical analysis:

The statistical analysis of data was done by using SPSS program (Statistical Package for Social Science version 16.0). The description of data done in the form of mean, SD, frequency & proportion. The comparison of variables presented by frequency was done by using Chi-Square (χ^2) test, while comparison of quantitative variables (mean \pm SD) was done by using student t-test (2 groups) and F test (one way ANOVA) was used in more than two groups. The difference between the groups was considered significant at p value ≤ 0.05 and considered as highly significant at p value < 0.001 .

RESULTS**Table 1:** Frequency Distribution of Post-menopausal Females According to their General Characteristics.

General Characteristics	N. =130	100%
Age group		
≤ 50 y	45	34.6
> 50 y	85	65.4
Mean \pm SD	52.09 \pm 3.0	
Educational level		
Illiterate	56	43.1
Read and Write	32	24.6
Secondary	25	19.2
University	17	13.1
Job		
Housewife	89	68.5
Works	41	31.5
Place of residence		
Rural	84	64.6
Urban	46	35.4
Marital Status		
Married	81	62.3
Divorced	9	6.9
Widow	40	30.8
Monthly income		
Enough	54	41.5
Non enough	76	58.5

Table (1) illustrates frequency distribution of general characteristics of post-menopausal females. It showed that 65.4% of postmenopausal females aged > 50 y, with mean \pm SD 52.09 \pm 3.0. It showed that 43.1% of them were illiterate. 68.5% of these females were housewife. Regarding residence, the result showed that 64.6% of them were live in rural areas. Followed by 62.3% of post-menopausal females were married and 58.5% of them were haven't enough monthly income.

Table 2: Frequency Distribution of Females According to Somatic Symptoms in Menopausal Rating Scale (MRS):

Items of Somatic Domain	Categories	No. =130	%
1. Hot flushes, sweating (episodes of sweating).	• Mild	49	37.7
	• Moderate	39	30.0
	• Severe	42	32.3
Total		130	100%
2. Heart discomfort (unusual awareness of heart beat, heart skipping, heart racing, and tightness).	• Mild	31	23.8
	• Moderate	57	43.9
	• Severe	42	32.3
Total		130	100%
3. Sleep problems (difficulty in falling asleep, -difficulty in sleeping through, waking up early.	• Mild	32	24.6
	• Moderate	51	39.2
	• Severe	47	36.2
Total		130	100%
4. Joint and muscular discomfort (pain in the joints, rheumatoid complaints).	• Mild	15	11.5
	• Moderate	40	30.8
	• Severe	75	57.7
Total		130	100%
Somatic score	Mean ± SD	8.61 ± 2.03	

Table (2) shows frequency distribution of females according to somatic symptoms in menopausal rating scale. It showed that postmenopausal females were suffering from moderate hot flushes, heart discomfort and sleep problems by (30.0%, 42.8 and 39.2% respectively). It also showed that 57.7% of them were complaining of severe joint and muscular discomfort.

Table 3: Frequency Distribution of Females According to Psychological Symptoms in Menopausal Rating Scale.

Items of Psychological Domain	Categories	No=130	%
1. Depressive mood (feeling down, sad, on verge of tears, lack of drive, mood swings).	• Mild	37	28.5
	• Moderate	60	46.2
	• Severe	33	25.3
Total		130	100%
2. Irritability (feeling nervous, inner tension feeling aggressive, waking up early.).	• Mild	45	34.6
	• Moderate	50	38.5
	• Severe	35	26.9
Total		130	100%
2. Anxiety (inner restlessness, feeling panicky)	• Mild	33	25.4
	• Moderate	72	55.4
	• Severe	25	19.2
Total		130	100%
3. Physical and mental exhaustion (general decrease in performance, impaired memory, decrease in concentration, forgetfulness)	• Mild	15	11.6
	• Moderate	67	51.5
	• Severe	48	36.9
Psychological Score	Mean ± SD	8.12 ± 1.87	

Table (3) shows frequency distribution of females according to psychological symptoms in menopausal rating scale. It showed that post-menopausal females were complaining of moderate depressive mood, feeling of irritability, anxiety, and physical and mental exhaustion by (46.2%, 38.5%, 38.5% and 51.5% respectively).

Table 4: Frequency Distribution of Females According To Urogenital Symptoms in Menopausal Rating Scale.

Items of Urogenital Domain	Categories	No.=130	%
1. Sexual problems (change in sexual desire, in Sexual activity and satisfaction).	• Mild	52	40.0
	• Moderate	30	23.1
	• Severe	48	36.9
	Total	130	100%
2. Bladder problems (difficulty in urinating an increasing need to urinate, bladder incontinence)	• Mild	60	46.2
	• Moderate	29	22.3
	• Severe	41	31.5
	Total	130	100%
3. Dryness of vagina (sensation of dryness or burning in the vagina, difficulty while sexual intercourse)	• Mild	25	19.2
	• Moderate	45	34.6
	• Severe	60	46.2
	Total	130	100%
Urogenital score	Mean ± SD	6.09 ± 2.04	
Mean ± SD of Total score	22.78 ± 4.35		

Table (4) shows frequency distribution of urogenital symptoms in menopausal rating scale. It showed that post-menopausal females were complaining of severe sexual problems, bladder problems by and (40.0% and 46.2% respectively). While 46.2% of them were complaining of severe dryness of vagina with mean ±SD of total score of three domains was (22.78 ± 4.35).

Table 5: Distribution of Menopausal Rating Scale Levels among Menopausal Females.

Menopausal Rating Scale	NO.=130	%
Mild	9	6.9
Moderate	77	59.2
Sever	44	33.9
Total	130	100.0

Table (5) describes the distribution of menopause rating scale level among post-menopausal females. It showed that 59.2% of post-menopausal females were have moderate

menopausal symptoms, while 33.9% of them were complaining of severe menopausal symptoms and (6.9%) of them were have mild menopausal symptoms.

Table 6: frequency Distribution of Quality of Life Scale state among Menopausal Females:-

Item	NO.=130	%
Good	11	8.5
Average	78	60.0
Poor	41	31.5
Total	130	100.0

Table (6) describes distributions of quality of life scale level among post-menopausal females. It showed that 8.5% of post-menopausal females were have good quality of life, while (60.0%) were have average of quality of life and 31.5% were have poor quality of life.

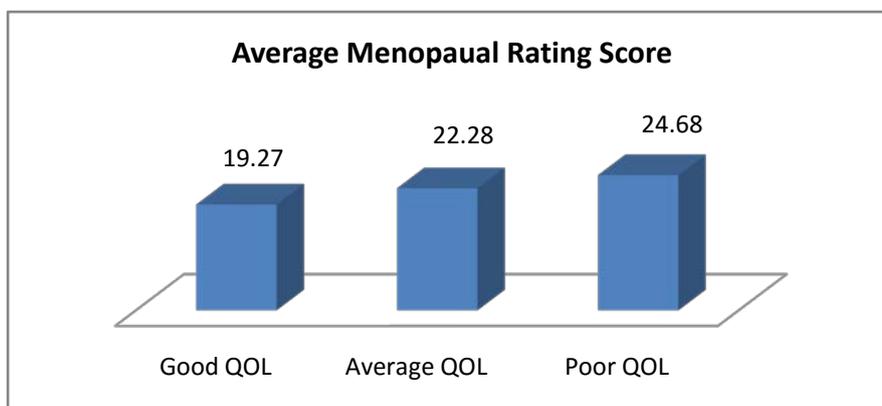


Fig (1): The association between menopause rating scale and female's quality of life.

Fig (1) showed that the mean score of menopause rating scale have an inverse relationship with the state quality of life. It showed that the mean score of menopause rating scale was high with poor quality of life (24.68 ± 3.46), followed by moderate menopausal (22.28 ± 4.38) with average quality of life, and low mean score of menopause rating scale (19.27 ± 4.34) with good quality of life. The difference was statically significant relation ($P=0.002$). This means that the mean score of menopause rating scale was significantly increased with worsening the state of quality of life.

DISCUSSION

This study aimed to evaluate the post-menopausal symptoms, its effect on female's quality of life. This aim was significantly supported through the present study research questions. The first research question was "what symptoms commonly associated with post-menopausal female?" The present study findings had revealed that more than half of females 59.2% had moderate menopausal rating scale symptoms. The main symptoms were low back pain, hot flushes, sleep problems & insomnia, joint pain, urogenital and sexual problems & dryness or burning in the vagina, and bladder problems. These findings may be due to hormonal changes which associated with menopausal age.

These findings were in agreement with **Waheed et al. (2016)** In their study about; quality of life after menopause, who found that low backache and other physical symptoms were most prevalent in their patients and most common symptoms among menopausal women were found to be backache and body aches in Pakistani women.

In addition, these results were in agreement with study conducted by **Brzyski et al. (2001)** Who reported in their about; quality of life in low-income menopausal women that, experienced menopausal symptoms such as hot flashes more severely and with greater frequency. The study results were in contrast with **Ghazanfarpour et al. (2015)** in his western studies, in which vasomotor symptoms particularly hot flushes is found as more common.

Concerning the second research question was "What is the effect of post-menopausal transition on females' quality of life?" The findings of current study had revealed that more than half of post-menopausal females had average quality of life; there was statistically significant relation between menopausal symptoms and quality of life of the post-menopausal women. Therefore, the difference was statically significant ($P=0.002$). There was inversely relation that the score of menopause rating scale was significantly increased with worsening the state of quality of life. These findings may be due to as many organs of the body are sensitive to estrogen; a reduction in estrogen level gives rise to a number of physical, psychological, and sexual changes. These symptoms vary over time and affected on their quality of life.

These findings was significantly supported the research question because it was in agreement with **Woods et al. (2009)** who revealed in their study about; is the menopausal transition stressful? Those menopausal symptoms negatively affected quality of life in his study sample however, the total effects were relatively low even when significant, and indicating that quality of life in his age group was only affected negatively by symptoms associated with menopause.

These results also in agreement with **Elsabagh and Abd Allah (2012)** Who reported in their about; Menopausal symptoms and the quality of life among menopausal women in

Zagazig city. That many post-menopausal women feel that quality of life was severely compromised by the presence of menopausal symptoms.

It was reported by **Blümel et al. (2011)** who found in their study about; quality of life after the menopause that 18.7% of women showed impaired QoL, which is slightly lower than the 23% reported among mid-aged Latin American women. This confirms that symptoms related to the menopause differ by culture and countries as occurs with individuals living in the United States.

Regarding general characteristics of the post-menopausal women the present study findings revealed that more than half of post-menopausal women were aged > 50 y, with Mean \pm SD 52.09 ± 3.0 years. These results was in agreement with the study of **Greenblum et al. (2013)** who reported in their study about; symptoms associated with menopausal transition and quality of life, that post-menopausal women generally were had a mean age of 52 years.

This findings also were in agreement with the study of **Lin et al. (2013)** who stated in their study about; comparison of age at natural menopause sample of women in Northern California that, post-menopausal women underwent natural menopause at age (median 46 years) and 7% of them were considered premature menopause (earlier age of natural menopause).

In addition, the study results were in agreement with **(Gold, 2001)** who conducted study about; Menopausal women age in Northern California. And stated that natural menopause occurs at a median age of 51.4 years, with a distribution ranging between from 40 years to 60 years.

In relation to physical problems associated with post-menopausal women. The current study findings revealed that nearly half of women were complaining of hot flushes, followed by low back pain, around half of them were complaining of Sleep problems & insomnia, and joint pain. These finding may be related to high number of parities, social participation, life satisfaction, vasomotor symptoms, hot flush intensity, and depressed mood.

It was also may be due to decreased in calcium intake resources (malnutrition), bad body mechanics ignorance, lack of exercise and the menopause transition were associated with deleterious changes in body composition and body fat distribution which causing low back pain and joint pain, Other physical psychological problems related to ageing in these groups of women, and hormonal and biological factors were associated with an increased incidence of back pain.

These results were in agreement with study stated by **Abdul-Rahman et al. (2010)** which has shown that joint pain, sleeping problems physical and mental exhaustion were the most prevalent symptoms by 90.3%, 83.3% and 80.0% respectively.

Also, **Whiteley et al. (2013)** agree this result and mentioned that less than half of women experiencing at least one of the listed symptoms as anxiety, depression, hot flushes, difficult sleeping & vaginal dryness in their study about the impact of menopausal symptoms on quality of life, productivity & economic out comes.

In addition these results were in agreement with study conducted by **Sørensen et al. (2001)**; **(Loshak, 2002)** who stated in their study in Taran about Body Composition Components with the Menopausal Status that, the menopause transition was associated with reduced lean body mass and

increased fat mass due to ageing and declining ovarian hormone secretion causing of low back pain and joint pain.

Meanwhile, these results were in disagreement with **Grasmeyer et al. (2013)** who reported in their study about; the incidence of back pain in women during menopause that, the frequency of back low pain in perimenopausal and post-menopausal women were 12.2%.

However, these results were in disagreement with **Arakane et al. (2011)** who reported in their study about; factors relating to insomnia during the menopausal transition that chronic insomnia associated with menopausal women may predispose to sleepiness, irritability, increased anxiety, depressive disorders, tiredness and impaired work or intellectual performance, cardiovascular risk and other health complications.

On the other side these results were in disagreement with **Rossouw et al. (2007)** who reported in their study about; postmenopausal hormone therapy and risk of cardiovascular disease, that the prevalence of hot flushes was 90.7%.

As regard to post-menopausal symptoms, the results of the current study revealed that the assessment of psychological symptoms associated with post-menopausal were including (irritability & feeling nervous, depressed mood & mood swings, physical and mental exhaustion and anxiety and feeling panicky ranged from low to high score respectively.

These findings may be associated with some factors such as the effect of physiological changes which associated with transient of menopause in which a drop the levels of estrogen unable to regulate cortisol levels in their bodies as effectively as before, causing them to experience stress more readily, stressful events, hot flush severity, psychotropic drug use, and also partner issues and maybe related to escaping of their children from home.

These result was in agreement with **Freitas et al. (2009)** who reported in their study about; Postmenopausal symptoms among Egyptian post-menopausal women, that the most prevalent psychological symptoms among Postmenopausal women were depression and nervousness.

Results of the current study were showed that nearly half of post-menopausal women were complaining of urogenital and sexual problems & dryness or burning in the vagina and bladder complications. These results were may be due to loss of sexual hormones during menopausal period that may impact women's health and have defining relation between quality of life psychosexual and physical changes may contribute to lower self-esteem, and diminished sexual desire and responsiveness.

Furthermore, these findings of the current study were in agreement with **Blumel et al. (2000)** who showed in their findings about quality of life after the menopause that menopausal women had worse quality of life in sexual and vasomotor domains and impaired sexual activity and satisfaction in menopausal women.

On the side study results were in disagreement with **Dennerstein et al. (2001)** who conducted study about; psychosexual implications of menopause and reported that the presence of a sexual partner, sexual relationship and desire may also have an effect on the sexual behavior of menopausal women and psychological problems were affected by women's age especially after menopause.

These results were in disagreement with **Nappi and Lachowsky (2009)** who conducted study about; Evaluation of

sexual function and sexual attitude in menopausal age and showed that, sexual problems occurs during menopause, when women often suffer from psychological symptoms. additionally **Dennerstein et al. (2001)** who observed that post-menopausal women have a notable changes in women sexual function during the menopausal transition.

As regard post-menopausal symptoms the findings of the present study revealed that, nearly half of post-menopausal women were complaining of moderate menopausal symptoms. These results may be related to underlying factors. Including psychological well-being, the quality of the woman's relationship and life situation, the level of past sexual functioning, social class, education, employment, personality factors and attitudes towards menopause.

These findings were in agreement with **Sweed et al. (2012)** who reported that, All of the symptoms of menopause were present mainly to a mild or moderate degree rather than a severe degree, except for joint pain, which more women suffered to a severe degree than mild degree, and for bladder problems, which more women suffered to a severe degree than a mild degree.

In relation to QOL the results of the present showed that nearly half of post –menopausal women was have average quality of life. These results may be related to that presence of postmenopausal symptoms affect the quality of life and vice versa as the women free from medical and gynecological disorders, recognized the stages of menopause as a natural event of their life and may be able to adapt with the natural symptoms of menopause.

These results were in agreement with **Blumel et al. (2000)** who mentioned that menopause causes a decrease in quality of life. In her study about quality of life after the menopause a population studies. Also, this result was in agreement with **Elsabagh and Abd Allah (2012)** who mentioned that many women feel that quality of life is severely compromised by the presence of menopausal symptoms in her study about measuring the impact of menopausal symptoms on quality of life

Also these results were in agreement with **(Llaneza et al., 2012)** which revealed that Scores for the three sub-domains displayed positive correlations with MRS scores (total and sub-scale scores, worse quality of life) suggesting that menopausal symptoms and insomnia are both mutually influenced and probably have interactive effects.

The findings of current study revealed that, there was statistically significant relation between menopausal symptoms and quality of life of studied post-menopausal women. Occasionally, menopausal symptoms were high with bad quality of life, moderate menopausal symptoms were accompanied with fair quality of life, and low menopausal symptoms of the post-menopausal women were associated with good quality of life. This finding showed statistical significant difference, which mean that the total mean score of menopause rating scale was significantly increased with worsening in quality of life state.

Correspondingly, these results were in agreement with **(Llaneza et al., 2012)** which revealed that, scores for the three sub-domains displayed positive correlations with MRS scores (total and sub-scale scores, worse quality of life) suggesting that menopausal symptoms and insomnia were both mutually influenced and probably had interactive effects.

In conclusion,

It was evident from the study results that more than half of females had moderate menopausal rating scale symptoms. It showed that joint and muscular discomfort, anxiety, vaginal dryness and bladder problems were the highest associated somatic, psychological and sexual symptoms. All these problems were negatively affecting the quality of life of postmenopausal females.

CONCLUSION

Based on the results of the present study, the following can be concluded:

More than half of females 59.2% had moderate menopausal rating scale symptoms. It showed that 57.7 % among them complaining of sever joint and muscular discomfort, 55.4% were complaining of moderate anxiety and 46.2% complaining of sever dryness of vagina and mild bladder problems. The results showed that 60.0% among postmenopausal females had average quality of life. There was statistically significant association between quality of life and mean score of menopause rating scale $P= (0.002)$. That the mean score of menopause rating scale was significantly increased with worsening the state of quality of life.

Recommendations

Based on the results of the present study, the following is recommended:

1. Implementation training programs for the nursing staff for per- menopausal women.
2. Assessing women's complains & problems associated with menopause for the proper interventions.
3. Counseling around healthy nutrition, exercise, psychological and physical aspects of menopause.
4. Dissemination of the present study findings to obstetrics and gynecology department at ministry of health and Mansoura university hospitals.
5. Husband and family members must be involved about menopausal changes, problems and how to cope & provide support for them.

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Further Study

Explore menopausal women family coping pattern.

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