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## **IMPACT OF MENOPAUSE ON QUALITY OF LIFE AMONG INDIAN WOMEN**

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### **Abstract**

**Research Objectives:** *The objective of the study was to assess the impact of menopause on the quality of life of Indian women.*

**Methodology:** *155 women, in the age range of 40 to 60 years, from various parts of India were included in the study based on inclusion criteria (mentally oriented women not using hormonal replacement therapy, without history of hysterectomy and medical conditions like hypertension, diabetes and thyroid problems). Menopause-specific Quality of Life (MENQOL) questionnaire was used to assess the presence of symptoms in vasomotor, psychosocial, physical and sexual domains. Menopausal status was categorized as Late perimenopausal, Early perimenopausal, Premenopausal and postmenopausal.*

**Findings:** *Descriptive statistics was used to analyze the data. The average age of participants was 50.7 years with average BMI of 25.9. A largest no. of women were in the postmenopausal status (n=115), followed by premenopausal (n=19), early perimenopausal (15) and late perimenopausal (n=6) status. Most common symptom in vasomotor domain was sweating (38.06%), in psychosocial domain feeling anxious (25.80%) and depressed (25.16), in physical domain decrease in physical strength (49.67%), feeling tired (48.38%), lack of energy (47.74%), low*

*backache (47.74%), aching in muscles and joints (46.45%) whereas in sexual domain mild vaginal dryness during intercourse (30%) and change in sexual desire (28.67%).*

**Research Outcomes:** *The menopausal symptoms lasted many years after the cessation of menstruation. 25-50% of prevalence rate in various domains indicates a need to adopt multidimensional approach, for the better management of menopausal symptoms.*

**Future Scope:** *Future study may be carried out with equal sample size in all the categories of menopausal status to identify the relationship between the severity of menopausal symptoms and the menopause status.*

## **Keywords**

Menopause, MENQOL Questionnaire, Quality of Life, Indian Women

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## **1. Introduction**

Menopause is defined as the cessation of menstrual periods for at least 12 consecutive months and not due to physiologic (e.g. lactation) or pathologic causes (National Institutes of Health, 2005). It occurs as a result of reduced level of hormones secreted by ovaries. The deficiency of these hormones elicits a whole lot of symptoms in women such as hot flashes, anxiety, sleep disturbances, night sweats, fatigue, poor memory, depression, body aches, mood swings, vaginal drying, etc. The duration, frequency and intensity of these symptoms vary from person to person, culture to culture, society to society and population to population. Study in Saudi Arabia (Al-Olayet *et al.*, 2010) found hot flashes and excessive sweating as the most common symptom of menopause whereas study in Egypt concluded hot flashes, poor memory, dissatisfaction with personal life, low backache and change in sexual desire as the most severe symptoms experienced by menopausal women (Mohamed *et al.*, 2014). Moreover, the average age of menopause also varies from place to place, for example, it is lower in developing countries as compared to developed countries.

Quality of Life is an imperative parameter to understand the impact of menopause. There are several instruments, used by the researchers and the clinicians, to examine the impact of menopausal symptoms on quality of life including the SF-36 (Short Form Health Survey), the Kupperman Index, the General Well-Being Scale and WHOQOL (World Health Organization Quality of Life). Nevertheless, MENQOL (Menopause-specific Quality of Life) questionnaire is more specific to the condition of menopause and includes all domains of menopausal symptoms (Lewis *et al.*, 2005). Therefore this study was conducted to assess the impact of menopause on the quality of life of Indian women by using MENQOL questionnaire.

In the past, many studies have been conducted to investigate the impact of menopause on

quality of life. Avis *et al.* (2004) analyzed the data of 13,874 women, aged 40-55, who participated in the multi-ethnic, multi-race study called Study of Women's Health Across the Nation (SWAN). The result showed that menopausal status is not associated with global QOL when analysis was adjusted for other variables. However, contrasting results have been reported by another study (Blumel *et al.*, 2000) conducted on four hundred and eighty one women aged 40-59 years attending the Southern Metropolitan Health Service in Santiago de Chile. The logistic regression carried out in the study demonstrated that the only variable found to cause a significant impairment in QoL was menopause. Thus, there is a debate regarding the influence of menopause on quality of life of women and therefore, there is a dire need to further explore this area so as to improve the quality of life of women in this transition stage of their physiological life.

## **2. Methodology**

### **2.1 Research Design**

A descriptive cross-sectional design was used to carry out the current study.

### **2.2 Research Setting**

The questionnaire was distributed to the postgraduate students of Physiotherapy Department, Punjabi University, Patiala, India to collect the information from their mothers and female relatives so that a diverse sample from different states could be obtained. Consequently, the study population comprised of women from various states of India namely Punjab, Haryana, Himachal Pradesh, Rajasthan, Delhi and Orissa.

### **2.3 Subjects**

A total of 155 women were included in the study as per the inclusion criteria: (1) All mentally oriented women aged between 40 to 60 years (2) Women did not using hormonal replacement therapy (3) No history of hysterectomy and (4) No history of medical conditions like hypertension, diabetes and thyroid problems.

### **2.4 Tools for Data Collection**

The data was collected using interview sheet and questionnaire.

The interview sheet was designed to obtain age, weight, height, marital status, socio-demographic details and menstrual history.

Menopause-specific quality of life questionnaire (MENQOL) was utilized to assess the presence and severity of menopausal symptoms experienced in past one month (Lewis *et al.*, 2005). It consists of 29 items categorized into four domains: vasomotor (3 items), psychosocial (7 items), physical (16 items) and sexual (3 items). The vasomotor domain assesses hot flushes, night sweats and sweating. The psychosocial domain evaluates the psychological well being of the subject by including items such as being dissatisfied with personal life, feeling anxious, depressed,

experiencing poor memory, being impatient and feeling of wanting to be alone. The physical domain includes gas pains, aches in muscles and joints, feeling tired, difficulty in sleeping, decrease in physical strength and stamina, lack of energy, weight gain, increased facial hair, bloating, low backache, frequent urination and involuntary urination. The sexual domain includes items related to change in sexual desire, vaginal dryness during intercourse and avoiding intimacy.

Numerical values observed on the seven point Likert scale of MENQOL were converted for scoring into No, mild, moderate and severe. A 'No' response corresponds to 0. A 'Yes' response is scored from 1 to 6 scale where 1 represents that symptom is least bothersome whereas a score of 6 shows that the symptom is most bothersome. A score of 1 & 2 is further designated as Mild, 3 & 4 as Moderate and 5 & 6 as Severe for data analysis.

Menopausal status was determined based on the reported length of time of last menstrual period. Women who had no menstrual bleeding in the last 12 months (not due to medication, pregnancy, lactation or severe weight loss) were categorized as postmenopausal whereas women having menses in the last 12 months, but not in the last three months were considered late perimenopausal. Early perimenopausal women were those who had menstrual bleeding in the last 3 months and also experienced increasing irregularity in the length of menstrual cycle over the past year. Premenopausal women were those who reported menses in the last 3 months, with no increase in irregularity (Avis et al, 2004).

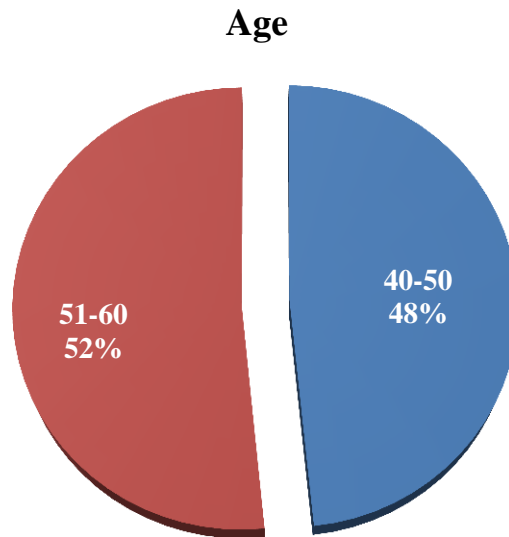
## **2.5 Statistical Analysis**

Descriptive statistics was used to analyze the data. The results have been presented in the form of tables and graphs.

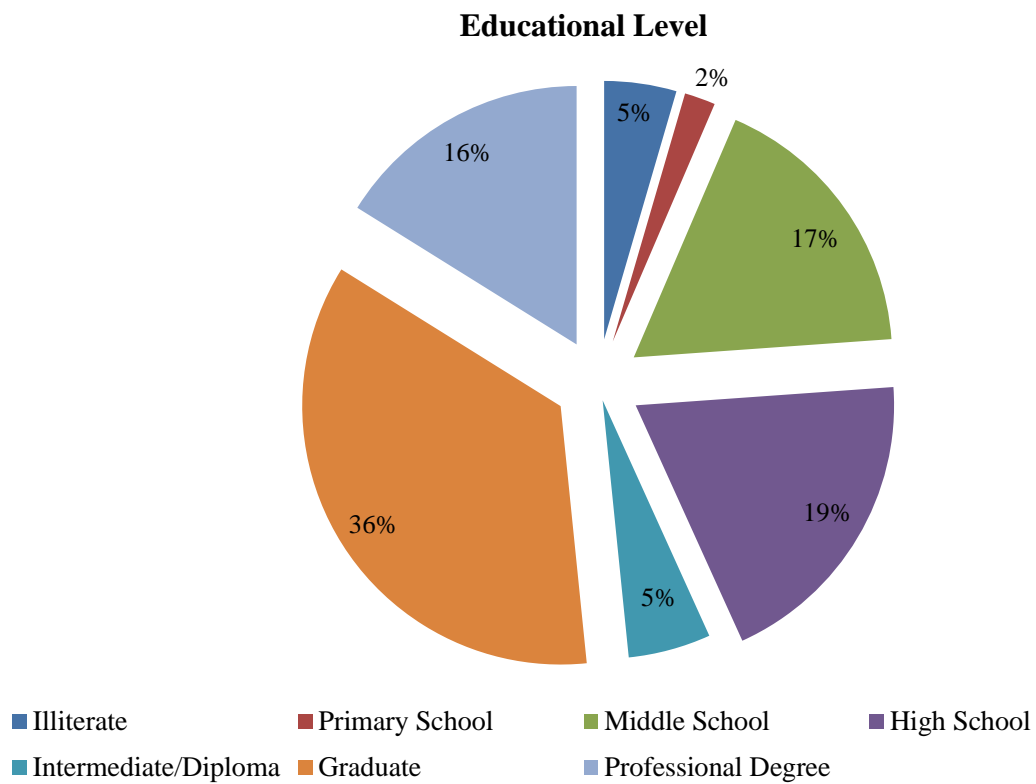
## **3. Results**

### **3.1 Socio-Demographic Characteristics of the Study Population**

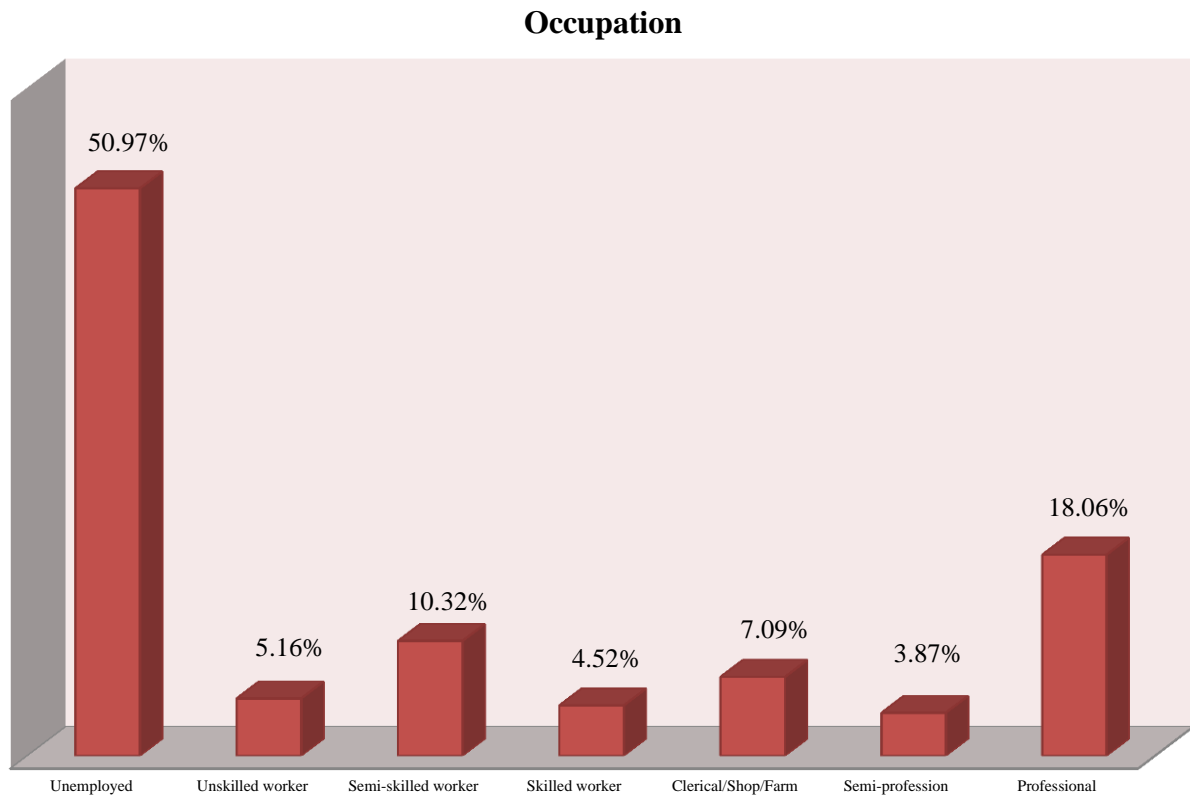
Out of the total sample, 48% women belonged to age group 40-50 years whereas 52% of women's age ranged between 51-60 years (Figure 1). 36% women were graduates and only 2% women were illiterate as shown in Figure 2. Figure 3 demonstrates distribution of women in various types of occupation. It was seen that more than 50% population was unemployed and only 18% were professional. As per their marital status, 92% women were married whereas 5% and 3% were widowed and divorced respectively as demonstrated in Figure 4.



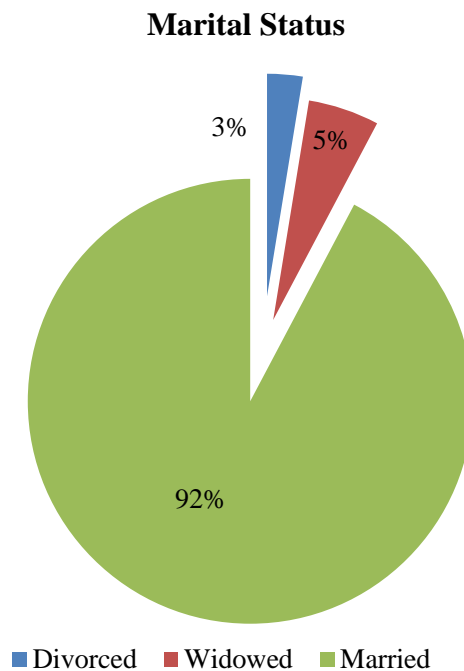
**Figure 1:** *Distribution of Women by their Age*



**Figure 2:** *Distribution of Women by their Educational Level*



**Figure 3:** *Distribution of Women by their Occupation*

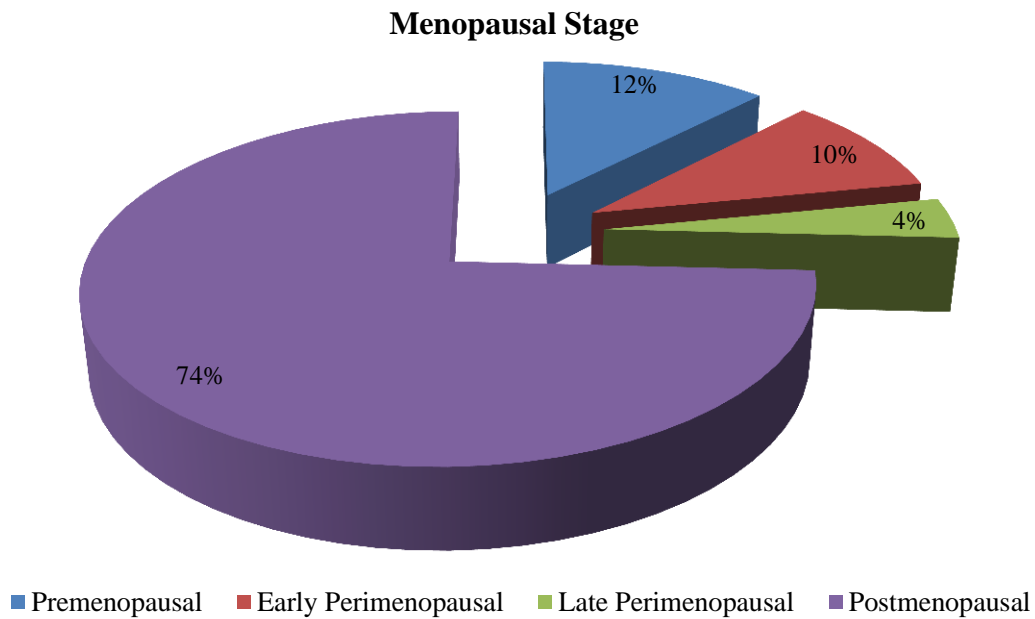


**Figure 4:** *Distribution of Women by their Marital Status*

### 3.2 Distribution of Women According to their Menopausal Status

The entire population was divided into four categories as per menopausal status. 74%

women belonged to postmenopausal stage, whereas the other three stages, premenopausal, early perimenopausal and late perimenopausal comprised of 12%, 10% and 04% of women respectively.



**Figure 5:** Distribution of Women according to Menopausal Stage

**Table 1:** Distribution of Women according to their Menopausal Status

Menopausal Status	Age (years)			Height (meters)			Weight (kgs)			BMI (kg/m <sup>2</sup> )		
	Mean ± SD	Range		Mean ± SD	Range		Mean ± SD	Range		Mean ± SD	Range	
		Min	Max		Min	Max		Min	Max		Min	Max
Premenopausal	44.95 ± 3.52	40	52	1.62 ±0.07	1.49	1.77	69.26 ±14.34	45	95	26.45 ±5.82	15.57	36.20
Early perimenopausal	46.73 ±3.53	42	54	1.62 ±0.04	1.55	1.7	67.07 ±8.65	50	85	25.52 ±3.79	20.45	34.05
Late perimenopausal	46.83 ±3.06	44	52	1.56 ±0.16	1.25	1.68	62.5 ±8.76	48	72	26.54 ±8.13	19,23	41.60
Postmenopausal	52.37 ±4.64	40	60	1.62 ±0.08	1.25	1.79	67.44 ±8.93	46	98	25.86 ±4.07	16.70	41.60

**Table 2:** Average Menopausal Age of Study Population

Menopausal age in years	Mean	SD	SE	Range	
				Min	Max
	47.03	3.4512	0.3218	33	57

### 3.3 Menopausal Symptoms Reported by Indian Women

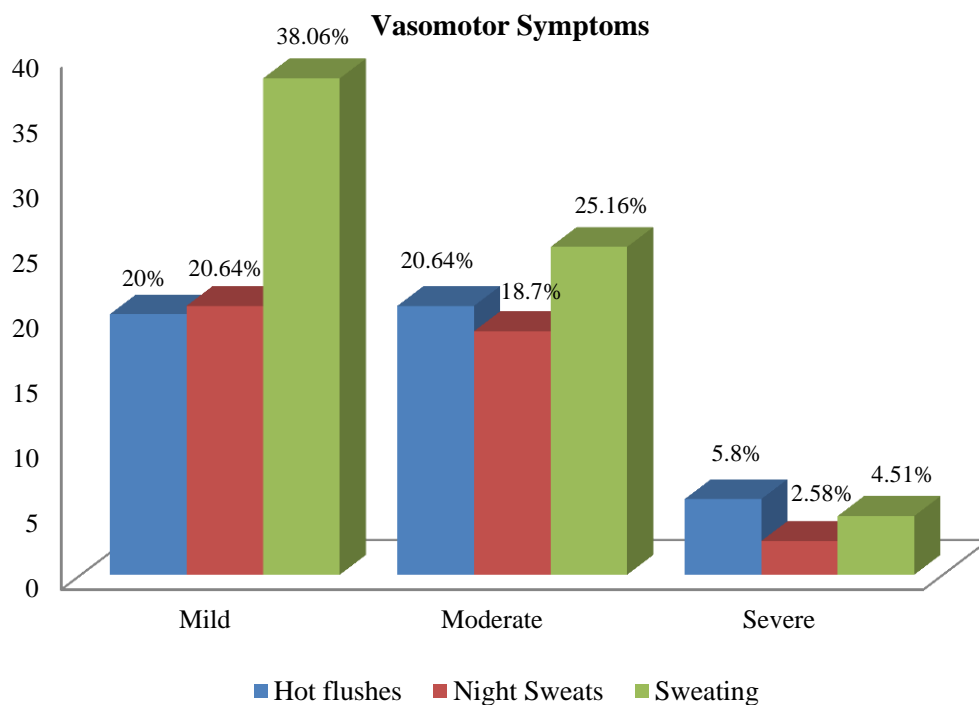
The most common symptom in vasomotor domain was sweating which was experienced

mildly by 38.06% women whereas the most severe symptom was hot flushes, though reported by only 5.8% of women (figure 6).

As displayed in figure 7, the most women experienced psychosocial symptoms moderately. The most common symptom in this domain, observed in moderation, was feeling anxious or nervous (25.8% women) followed by feeling depressed (25.16% women).

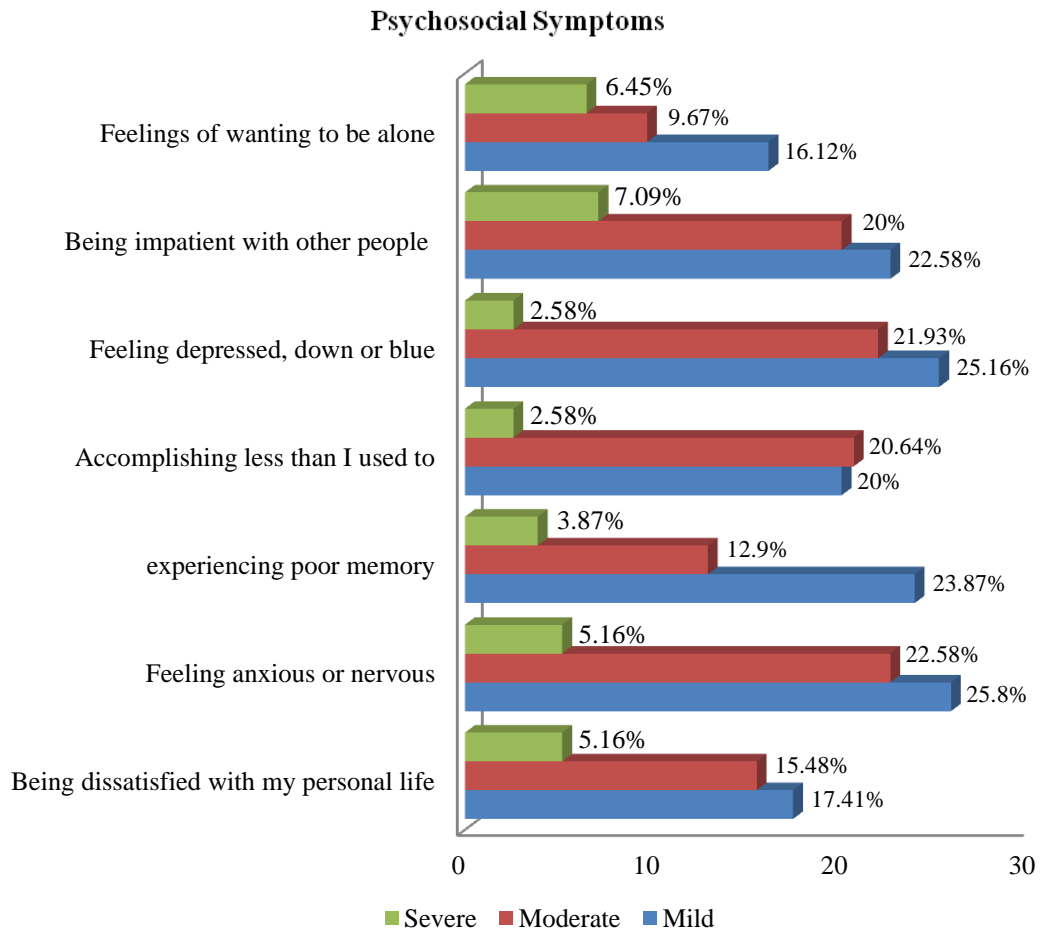
Amongst all symptoms, in physical domain, were more commonly experienced by majority of women. The moderate amount of a decrease in physical strength and feeling tired was reported by 49.67% and 48.38% of women respectively. 47.74% women experienced lack of energy and low backache moderately. The most severe symptom in physical domain was aches in muscles and joints, observed in 20.64% of women.

Most of the women reported mild level of symptoms in sexual domain including 30% of women having change in sexual desire. Nevertheless, 10.49% women experienced avoiding intimacy with their partners severely.



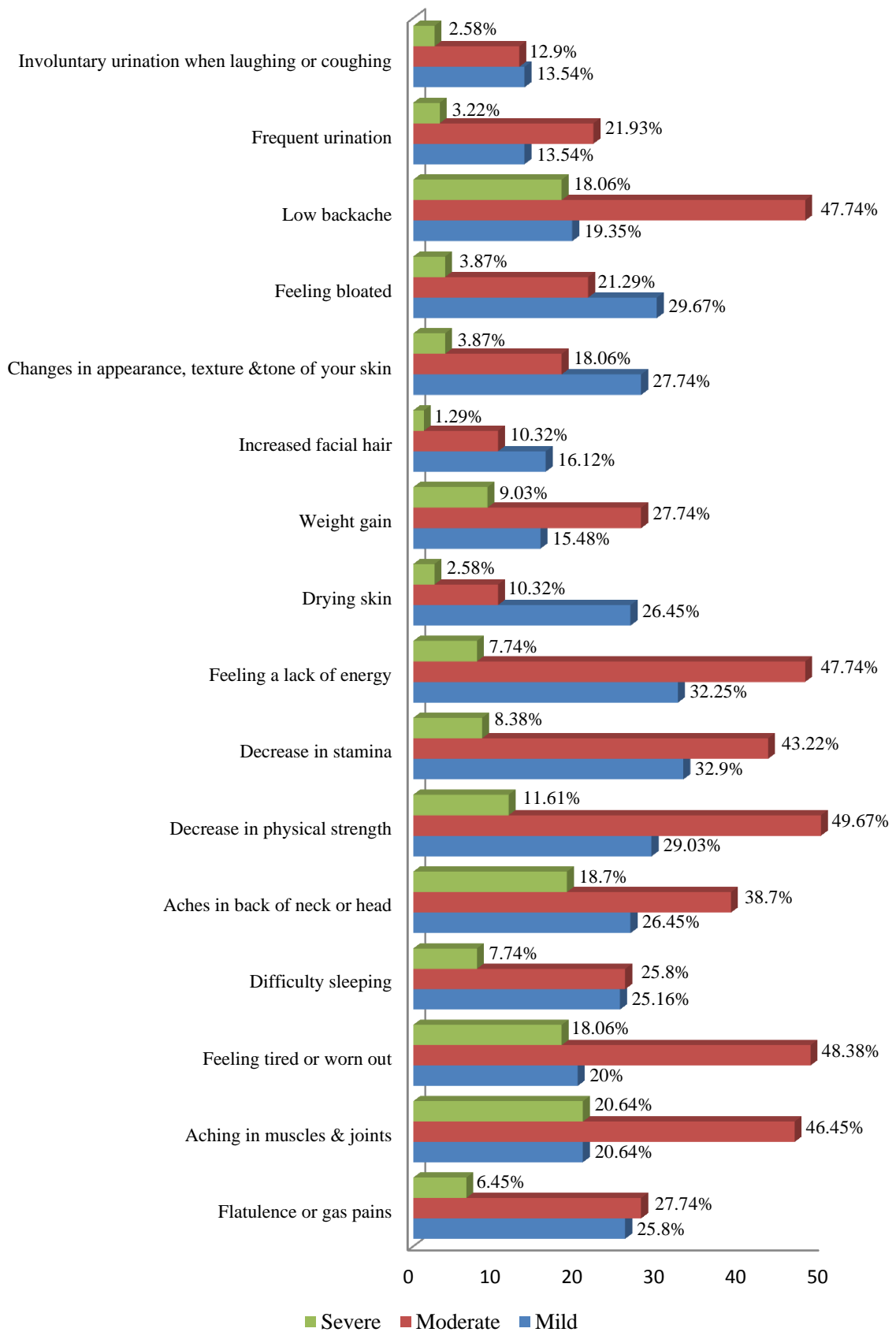
**Figure 6:** *Distribution of Symptoms in Vasomotor Domain*



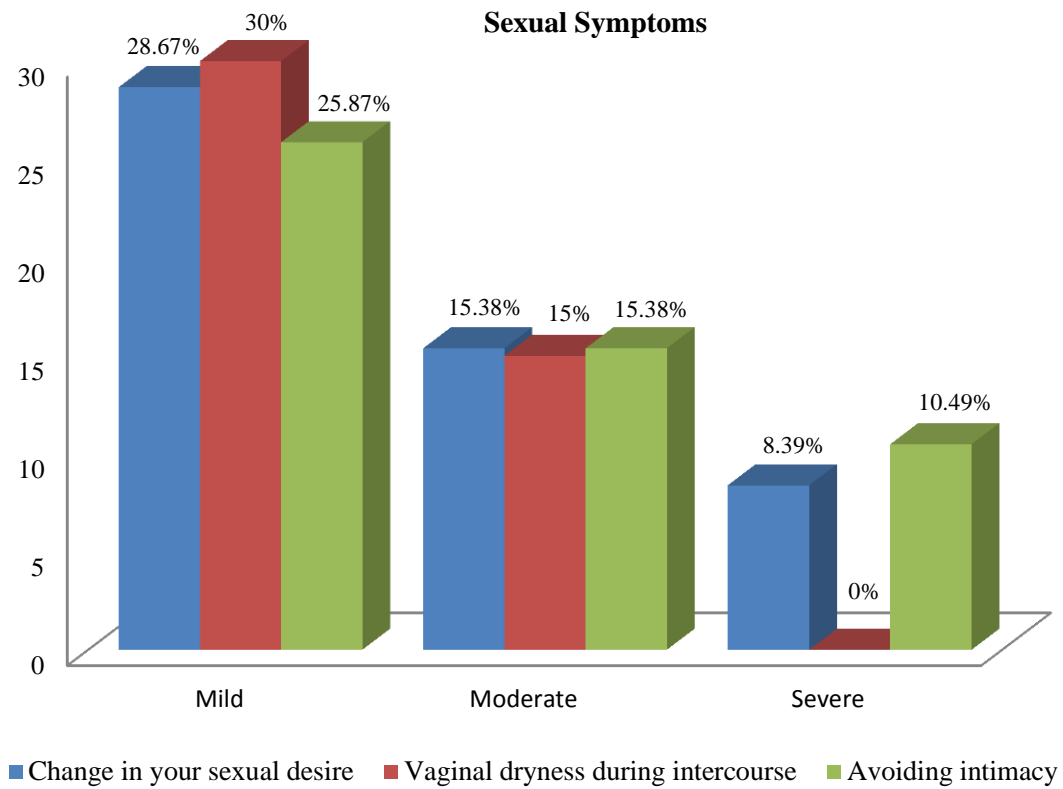


**Figure 7:** Distribution of Symptoms in Psychosocial Domain

**Physical Symptoms**



**Figure 8:** *Distribution of Symptoms in Physical Domain*



**Figure 9: Distribution of Symptoms in Sexual Domain**

## 4. Discussion

### 4.1 The Average Menopausal Age in Indian Women

The average menopausal age observed in the present study was 47.03 years. The irregularity in their menstrual function began by the age of 46 years, as identified by the average age of late perimenopausal (46.83 years) and early perimeopausal (46.73 years) women. These findings are well in line with other studies conducted recently on Indian females (Ahuja, 2016; Singh, 2012; Singh & Pradhan, 2014). Thus, it is reasonable to state that menopausal age of Indian women is much less than their Western counter parts (51 years). This suggests that the preventive measures should be started early in the middle aged women, as the lower menopausal age not only compromises the fertility status of women but is also associated with an increased risk of cardiovascular disease, osteoporosis and breast cancer (Colditz *et al.*, 1987; Khosla & Riggs, 2005; Kelsey *et al.*, 1993).

### 4.2 Impact of Menopause on Quality of Life of Indian Women

The main objective of the current study was to examine the impact of menopause on quality of life of Indian women by using Menopause-specific Quality of Life Questionnaire (MENQOL). The findings suggested that all of the four domains of quality of life were impaired. Nonetheless, with reference to the severity level of menopausal symptoms, most severe symptoms

in vasomotor domain was hot flushes; in physical domain aches in muscles and joints followed by low backache; in psychosocial domain being impatient with other people followed by feeling of wanting to be alone and in sexual domain avoiding intimacy. On the other hand, most commonly reported mild symptoms in these domains of quality of life, were sweating; decrease in stamina and feeling a lack of energy; feeling anxious or nervous and feeling depressed, down or blue; and vaginal dryness during intercourse.

It was further suggested in the present study that out of the four domains of MENQOL, physical domain exhibited most common as well as most severe symptoms. This was followed by psychosocial and vasomotor domain. These results are supported by Jahanfar *et al.* (2006) who studied Malaysian women and reported that most common and severe symptoms were found to be joint and muscle discomfort (84.3%), followed by anxiety (71.4%), physical and mental discomfort (67.2%), hot flushes and sweating (67.1%). On the contrary, there are many studies, who found that vasomotor symptoms exhibited to have the highest scores as hot flushes and night sweating (Gharaibeh *et al.*, 2010; Mohamed *et al.*, 2014). Nevertheless, a study conducted on Iranian women revealed that night sweats, joint and muscle pains and hot flushes were the most common menopausal symptoms (Ahrafi *et al.*, 2010). These differences in frequency and severity of menopausal symptoms could be because of the differences in race, society, culture, genetics and diet (Robinson, 1996).

The most frequently reported symptoms in psychosocial domain, by Indian women of the present study, were feeling anxious or nervous (25.8%) followed by feeling depressed, down or blue (25.16%) but at mild level, while with reference to most severe symptoms, 7.09% followed by 6.45% of women reported of being impatient with other people and having feelings of wanting to be alone, respectively. These findings are contradictory to earlier studies, as few of them have reported that most common and severe psychosocial symptom was poor memory (Mohamed *et al.*, 2014, Chedraui *et al.*, 2007; Elshafe *et al.*, 2011) while others demonstrated that most severe symptom was being anxious or nervous (Abedzadeh-Kalahroudi *et al.*, 2012) and depressed mood (Moustafa *et al.*, 2015). This wide variation, observed by different researchers, may be associated with variation in methodologies or the social stigma concerned with the mental disorders.

The most common symptom in physical domain, demonstrated by the present study, was low backache (47.74%) as well as feeling a lack of energy (47.74%). Well in this line, Mohamed *et al.* (2014) reported that most of the women, in their study, had a complaint of low backache while Abedzadeh Kalahroudi and his associates (2012) revealed that feeling a lack of energy was the most common complaint. However, the present study differed from the past studies in terms of severity of physical symptoms, as it was aches in back of neck or head (18.7%) followed by low

backache (18.06%) as well as feeling tired or worn out (18.06%). One study suggested the most severe symptom was aching in muscles and joints (Abedzadeh-Kalahroudi *et al.*, 2012) whereas others reported low backache to be the most severe symptom (Mohamed *et al.*, 2014; Chen *et al.*, 2007).

Previously, many studies have reported that hot flushes and sweating are the most common and severe symptoms in menopausal women (Al-Olayet *et al.*, 2010; Rachel *et al.*, 2009) Nevertheless, current findings are contradictory to these reports, as only 5.8% and 4.51% of women experienced severe hot flushes and sweating, respectively. This may be attributed to the higher number of women (56/115) who had been postmenopausal from 5-15 years, suggesting that their menopause transition phase was completely over and therefore extreme fluctuations in hormone levels might have disappeared or improved significantly once the per menopause transition was completely over, as explained by Moustafa *et al.* (2015).

With regard to sexual domain, approximately 15% of women, participated in the present investigation, had moderate symptoms whereas only 8.39% to 10.49% had severe symptoms. These findings were in sharp contrast with other studies reporting that more than one third (38.4%) had moderate sexual problems (Moustafa *et al.*, 2015) or more than half (62.5%) of women had severe problems (Yakout *et al.*, 2011).

It was further revealed by the current findings that many of the menopausal symptoms lasted years after the menopause transition. This is supported by Berecki-Gisolf and Associates (2009) who demonstrated that many symptoms persisted 7 years after the cessation of their menstrual periods. This indicates that the effects that are due to low estrogen levels (for example vaginal atrophy and skin drying) will continue after the menopause transition years are over (Moustafa *et al.*, 2015).

The average BMI in all the categories of menopause status indicated that women examined in the current investigation were overweight, though not obese. This demonstrates the need to accentuate the importance of calcium-rich, well-balanced diet and a program of regular exercise.

## **5. Conclusion**

The current findings have suggested that menopause can impair the quality of life of women in all the four domains - vasomotor, physical, psychosocial and sexual - emphasizing the need to adopt multidimensional approach, for the better management of menopausal symptoms. This includes specialists in endocrinology, radiology, psychosocial, exercise physiology, nutrition, etc. The biggest challenge is that menopause is not a life-threatening condition and therefore the family, friends and even women themselves, do not adhere to medical advice. It is in this context

that the combined endeavor of a knowledgeable physician and a sensitive psychosocial professional could improve the quality of life of menopausal women.

## 6. Limitation of the Study

The menopause age was determined by recall, hence some variations are unavoidable.

## 7. Future Scope

Future study may be carried out with equal sample size in all the categories of menopausal status to identify the relationship between the severity of menopausal symptoms and the menopause status.

## References

- Abedzadeh-Kalahroudi M, Taebi M, Sadat Z, Saberi F and Karimian Z. Prevalence and severity of menopausal symptoms and related factors among women 40-60 years in Kashan, Iran. *Nurs Midwifery Stud.* 2012; 1(2):88-93. <https://doi.org/10.5812/nms.8358>
- Ahuja M. Age of Menopause and Determinants of Menopause Age: A PAN India Survey by IMS. *J Midlife Health.* 2016; 7(3):126-131. <https://doi.org/10.4103/0976-7800.191012>
- Al-Olayet AY, Al-Qahtani IF, Al-Essa DI, Al-Saleek FH, Al-Moutary RN, Al-Mudimeg LM, Al-Marri SA and Al-Shemari SS. Severity of menopausal symptoms, and knowledge attitude and practices towards menopause among Saudi women. *Scientific Research and Essays.* 2010; 5(24):4077-4079.
- Ashrafi M, Ashtiani SK, Malekzadeh F, Amirchaghmaghi E, Kashfi F, Eshrati B and Shabani F. Symptoms of natural menopause among Iranian women living in Tehran, Iran. *Int. J. Reprod Med.* 2010; 8(1):29-32.
- Avis NE, Assmann SF, Kravitz HM, Ganz PA, Ory M. Quality of life in diverse groups of midlife women: assessing the influence of menopause, health status and psychosocial and demographic factors. *Quality of Life Research.* 2004; 13(5):933-946. <https://doi.org/10.1023/B:QURE.0000025582.91310.9f>
- Berecki-Gisolf J, Begum N, Dobson AJ. Symptoms reported by women in midlife: Menopausal transition or aging? *Menopause.* 2009; 16:1021-1029. [PubMed] [Google Scholar]. <https://doi.org/10.1097/gme.0b013e3181a8c49f>
- Chedraui P, Hidalgo L, Chavez D, Morocho N, Alvarado M and Huc A. Menopausal symptoms and associated risk factors among postmenopausal women screened for the metabolic syndrome. *Archives of gynecology and obstetrics.* 2007; 275(3):161-168. <https://doi.org/10.1007/s00404-006-0239-7>

- Chen Y, Lin SQ, Wei Y, Gao HL and Wu ZL. Menopause-specific quality of life satisfaction in community-dwelling menopausal women in China. *Gynecological endocrinology*. 2007; 23(3):166-172. <https://doi.org/10.1080/09513590701228034>
- Colditz GA, Willett WC, Stampfer MJ, Rosner B, Speizer FE, Hennekens CH. Menopause and the risk of coronary heart disease in women. *N Engl J Med*. 1987; 316:1105–10. [PubMed] [Google Scholar]. <https://doi.org/10.1056/NEJM198704303161801>
- ElShafe K, Al Farsi Y, Al Zadjali N, Al Adawi S, Al Busaidi Z, AlShafee M. Menopausal symptoms among healthy, middle-aged Omani women as assessed with the menopause rating scale. *Menopause*. 2011; 10:1113-9. <https://doi.org/10.1097/gme.0b013e31821b82ee>
- Gharaibeh M, Al-Obeisat S and Hattab J. Severity of menopausal symptoms of Jordanian women. *Climacteric*. 2010; 13(4):385-394. [Google Scholar]. <https://doi.org/10.3109/13697130903050009>
- Jahanfar S, Abdul RA, Shah RB, Nor AI, Sharifah D and Siti R. Age of menopause and menopausal symptoms among Malaysian women who referred to health clinic in Malaysia. *Shiraz E-Med J*. 2006; 7:1-9.
- Kelsey JL, Gammon MD, John EM. Reproductive factors and breast cancer. *Epidemiol Rev*. 1993; 15:36–47. [PubMed] [Google Scholar]. <https://doi.org/10.1093/oxfordjournals.epirev.a036115>
- Khosla S, Riggs BL. Pathophysiology of age-related bone loss and osteoporosis. *EndocrinolMetabClin North Am*. 2005; 34:1015–30, xi. [PubMed] [Google Scholar]. <https://doi.org/10.1016/j.ecl.2005.07.009>
- Lewis JE, Hilditch JR, Wong CJ. Further Psychometric Property Development of the Menopause-specific quality of life questionnaire and Development of a Modified Version, MENQOL-Intervention questionnaire. *Maturitas*. 2005; 50(3):209–21. <https://doi.org/10.1016/j.maturitas.2004.06.015>
- Mohamed HA, Lamadah SM and Zamil LGA. Quality of life among menopausal women. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*. 2014; 3(3): 552-61. <https://doi.org/10.5455/2320-1770.ijrcog20140906>
- Moustafa M, Ali R, Sahar El Saied and Taha SM. Impact of menopausal symptoms on quality of life among women in Qena City. *Journal of Nursing and Health Science*. 2015; 4(2):49-59.
- National Institutes of Health (NIH) State-of-the-Science Conference Statement on management of menopause-related symptoms. *NIH Consens State Sci Statements*. 2005; 22:1–38. [PubMed] [Google Scholar].
- Rachel W, Kristen L, Kalilani L, Jacqueline L, Richard V. Effects of quetiapine extended release

- on sleep and quality of life in midlife women with major depressive disorder. *Maturitas*. 2009; 62(2):153-9.
- Robinson G. Cross-cultural perspectives on menopause. *The Journal of nervous and mental disease*. 1996; 184(8):453-458. <https://doi.org/10.1097/00005053-199608000-00001>
- Singh A, Pradhan SK. Menopausal symptoms of postmenopausal women in a rural community of Delhi, India: A cross-sectional study. *J Midlife Health*. 2014; 5:62–7. [PMC free article] [PubMed] [Google Scholar]. <https://doi.org/10.4103/0976-7800.133989>
- Singh M. Early age of natural menopause in India, a biological marker for early preventive health programs. *Climacteric*. 2012; 15:581–6. [PubMed] [Google Scholar]. <https://doi.org/10.3109/13697137.2011.643514>
- Yakout SM, Kamal SM and Moawed S. Menopausal Symptoms and Quality of Life among Saudi Women in Riyadh and Taif. *Journal of American Science*. 2011; 7(5): 778- 782.