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The prevalence of symptoms experienced during menopause, influence of socio-demographic variables on symptoms and quality of life among women at Abha, Saudi Arabia.

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Abstract

Background: The cultural practice and lifestyle, conditioned by socio-demographic factors greatly influence the perception of symptoms during menopause and in turn may affect quality of life of these women. The objective of this study is to evaluate the prevalence of symptoms during menopause, to determine the influence of socio-demographic factors on these symptoms and 'Quality of Life' among women at Abha, Saudi Arabia.

Methods: A cross-sectional study was conducted among 228 women attending the five Primary Health Care Clinics located at different regions of Abha; the study participants were grouped into three categories according to the menstrual status: premenopausal (45.6%), perimenopausal (28.1%), and postmenopausal (26.3%). The standardized, self-administered Menopause Rating Scale (MRS) and questionnaire for socio-demographic factors were used as research tool. The mean MRS score were compared in the three groups and relationship of socio-demographic factors with MRS scores and quality of life were studied.

Results: Majority of the women complained of joint and muscular discomfort (96.1%), irritability (94.7%), anxiety (89.0%) and hot flushes and sweating (80.7%). The mean total score for MRS scale was 15.25 ± 6.01. The mean score was 6.36 ± 3.01 for somatic symptoms, 6.05 ± 2.54 for psychological symptoms and 2.84 ± 2.25 for urogenital symptoms. Marital status, lower education level, parity, lack of exercise and chronic disease status were significantly associated with higher MRS and poor quality of life.

Conclusion: Our study reveals that women at Abha, Saudi Arabia have moderate MRS scores, reflecting moderately poor quality of life and ability to cope with this phase of transition in life.

Keywords: Menopause, Socio-demographic factors, Menopause rating scale, Quality of life (QoL).

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Introduction

Menopause is an inevitable part of every woman's life; about 3 out of every 4 women experience some problems during menopause [1,2]. The most common menopausal symptoms reported are; hot flashes, night sweats, fatigue, decreased libido, and mood changes including; depression, irritability, and emotional liability [3-5]. The other complaints that are also frequently reported are; impaired memory, lack of concentration, nervousness, insomnia and musculoskeletal complaints [6]. However, there appears to be substantial variation in the prevalence of menopausal symptoms, as well as symptom severity across the world [7,8] and many studies show that this variation depends on the geographic, socioeconomic and cultural context in which women live [9-12]. Importance has also been given to ethnicity and lifestyle practiced at this period of life; the later probably more importantly associated with psychiatric symptoms [13].

Geographically it has been documented in studies that most of the symptoms, except musculoskeletal symptoms, are less frequently reported in Japanese and Chinese women [14] , while vasomotor symptoms (hot flashes or night sweats) were most frequently reported by African-American or Hispanic women [15,16]. Studies documents that Asian women have fewer hot flashes while physical symptoms predominates [16], followed by psychological symptoms in them [7]. The Australian women mostly reported association of hot flushes with menopause, followed by night sweats [17]. In Nigeria, joint and muscular discomfort was the most commonly reported symptom [18]. Women in the Arabian world

including; Egypt, Riyadh-Saudi Arabia, Jordan and UAE reports more complaints related to musculoskeletal system [19-22].

Ethnical importance for menopausal symptoms has been reflected in a community-based survey that was conducted during 1995-1997 for factors related to menopausal and other symptoms in a multi-racial/ethnic sample of 16,065 women aged 40-55 years in America; according to this study "Most symptoms were reported least frequently by Japanese and Chinese compared with Caucasian women. African-American women reported vasomotor symptoms and vaginal dryness more but urine leakage and difficulty sleeping, less than Caucasians. Hispanic women reported; urine leakage, vaginal dryness, heart pounding and forgetfulness more" [16].

Lifestyle factors like lower educational level, difficulty paying for basics, increased parity, increased age, and employment have been found to be related to the prevalence of most symptoms of menopause, similarly exercise and diet (i.e. energy expenditure and caloric intake) are also considered as important factors [23]. The Japanese diet is unique in including a high proportion of soy which contains relatively large amounts of the isoflavones daidzein and genistein and these are important for the reduced reporting of menopausal symptoms [10,12]. Decreased severity of menopausal symptoms have been documented to be more associated with greater time spent in education, an employed status and heightened self-esteem while increased severity of menopausal symptoms have been studied to be associated with absence of a partner, alcohol consumption, a history of probable premenstrual dysphoric disorder, and increased severity of depressive symptoms [24].

The life expectancy of females in Saudi Arabia is 76.94 years; that means women here may spend one-third to one-half of their lifetime in perimenopausal+postmenopausal state. The menopausal symptoms and their perceived severity may affect the health-related quality of life of these females. Many research studies have confirmed this fact and that greater the severity of such symptoms, the worse is the quality of life [25].

The Arabian ladies have their unique culture, traditions and life style and those at Abha Saudi Arabia have unique geographical location, due to its high altitude; as it is situated 2,200 meters above sea level [26] and studies do show the influence of altitude on menopause [27]. There are very few studies about menopause and quality of life of women in Saudi Arabia and particularly in this region of Abha. Our study aims to determine the prevalence and severity of menopausal symptoms along with influence of socio-demographic factors on these symptoms among Saudi women at Abha, the study also highlights the effect of menopausal symptoms on the quality of life of these ladies.

Methodology

This is a cross-sectional study carried out at five Primary Health Care Clinics located at different regions of Abha. Total 228 women attending the Primary Health Care Centers were randomly selected by simple random technique. The sample size of 196 was calculated by assuming the proportion of women with menopausal symptoms to be 50% with relative precision of 7% and 95% confidence level. To compensate for the missing patients, we increased the sample size to 228. The participants were grouped into three groups according to the menstrual status: premenopausal (45.6%), perimenopausal (28.1%), and postmenopausal (26.3%).

The grouping was done according to the World Health Organization (WHO) classification [28], premenopausal women; were defined as women who had experienced regular menstrual bleeding within the last 12 months, perimenopausal women who had experienced irregular menses within the last 12 months or the absence of menstrual bleeding for more than 3 months but less than 12 months, and postmenopausal women; who have not experienced menstrual bleeding for 12 months or more. Inclusion criterion: The study included any women aged 45-70 years visiting Primary Care Center for gynaecological / non-gynaecological reasons.

Exclusion criterion

Women younger than 45 years and women with early menopause (younger than 45 years) or premature menopause (younger than 40 years), women taking hormone replacement therapy and post hysterectomy ladies, were excluded from the study.

The research tool was a validated questionnaire used previously in a similar study done at Riyadh KSA [20]. It consisted of three parts: socio-demographic data, menstrual history, and the Menopause Rating Scale (MRS). MRS is a health-related, quality-of-life scale that was developed in the early 1990s to measure severity of aging symptoms and their impact on quality of life [29]. The MRS assesses menopausal symptoms by dividing the symptoms into three categories: somatic, psychological, and urogenital. Somatic symptoms included hot flush, heart discomfort, sleeping problem, and muscle and joint pain (items 1-3 and 11, respectively). Psychological symptoms included depressive mood, irritability, anxiety, and physical and mental exhaustion (items 4-7, respectively) and urogenital symptoms included sexual problem, bladder problems, and dryness of vagina (items 8-10, respectively). In total it consisted eleven items. The scoring was done as explained below. According to the MRS the higher the score, the worse is the quality of life. Total severity score ranged as follows: no or little symptoms (0-4), mild (4-8), moderate (9-16), and severe [17,29,30].

Data was collected anonymously, by directly interviewing the participants by a group of final year students who were trained by the researcher. The study was conducted during the period of January to March 2016.

Approval from the local authority and the ethical committee of the College of Medicine, King Khalid University was taken. The participants consent was implied and all the data were kept confidential and used for research purposes only.

Statistical analysis

Data was entered on SPSS and cross-validated by random checking. Missing data was excluded from study. The significant level was kept at P value ≤ 0.05 for all inferences. Frequencies and percentages were computed for categorical variables and means with standard deviations for continuous variables.

The descriptive categorical variables of the participants including marital status, educational level, employment status, parity, smoking status, exercise status, chronic disease profile were compared for the three menstrual status by applying Chi Square test. The descriptive continuous variables like age, BMI were compared by using Kruskal-Wallis Test.

Each component of menopause rating scale was divided into three categories- None, Mild to Moderate and Severe to Very Severe. Frequencies and percentages were calculated for all categories of each component.

The Menopause rating scale total scores were calculated along with scores in three components of somatic, psychological and urogenital symptoms. The mean scores of each group of symptoms and total scores were then compared between three menstrual groups by applying ANOVA. Similarly, the presence of each symptom was compared by applying Chi-Square Test.

Generalized linear regression was applied to see the relationship between total MRS score and socio-demographic factor -unadjusted and adjusted models.

Results

A total of 260 women were invited for participation in the study, 235 consented to participate (Response rate=90.4%). However 7 forms were not entered on SPSS due to incomplete data and final analysis included complete information from 228 women.

The mean age of respondents was 48.24 ± 6.91and mean BMI was 28.49 ± 3.44. Majority (60.1%) of the women were married, housewives (70.2%), parous (80.3%), never smokers (97.4%) and exercised less than 3 times/week (71.1%). Half (45.6%) of women were premenopausal, while 28.1% perimenopausal and 26.3% were postmenopausal. Half (50.4%) of respondents had any chronic disease (Table 1).

Majority of the women complained of joint and muscular discomfort (96.1%), irritability (94.7%) and anxiety (89.0%). However, the severity of symptoms varied. The symptom of joint and muscular discomfort was most reported to be severe to very severe (35.1%) (Table 2).

The mean total score for MRS scale was reported to be 15.25 ± 6.01. The mean score is 6.36 ± 3.01 for somatic symptoms, 6.05 ± 2.54 for psychological symptoms and 2.84 ± 2.25 for urogenital symptoms Table 3.

Table 4 compares the mean MRS score between the three menstrual status groups. The mean total MRS score as well as the three groups of symptoms were highest in postmenopausal group (P-value<0.01).

Table 5 compares the presence of menopausal symptoms between the three menstrual status groups. Anxiety was significantly higher in perimenopausal women being 96.9%. (P-value=0.04). However, physical and mental exhaustion (P-value<0.01) and bladder problems (P-value 0.03) were significantly different in the three groups, being highest in postmenopausal women being 93.3% and 76.7% respectively.

Table 6 shows the unadjusted and adjusted relationship of socio-demographic and other factors with MRS Score. The MRS score has a positive association with perimenopausal status (Beta=3.79, 95% CI 3.48, 4.10, P-value<0.01) and more with postmenopausal status (Beta=5.11, 95% CI 4.79, 5.43, P-value<0.01). After adjusting for all socio-demographic co-variants, the association of MRS score and postmenopausal status became stronger (Beta=6.60, 95% CI 6.14 7.06, P-value<0.01).

Quality of life

Mean total score of the MRS in relation to menopausal status are shown in Table 4. The mean total score was higher in the postmenopausal group (17.95). All the three categories of symptoms that is; somatic symptoms (7.53), psychogenic symptoms (6.87) and urogenital symptoms (3.55) were significantly higher in the postmenopausal women followed by perimenopausal group.

Table 1. *Descriptive characteristics of respondents (n=228).*

Variable	n	%
Marital status		
Single	20	8.8
Married	137	60.1
Widowed	45	19.7
Separated	26	11.4
Education level		
Illiterate	52	22.8
Primary school	33	14.5
Intermediate	43	18.9
High school	48	21.1
University	52	22.8
Employment status		
Housewife	160	70.2
Working	44	19.3
Retired	24	10.5
Parity		
Nulliparous	45	19.7

Parous	183	80.3
Smoking		
Never smoked	222	97.4
Past smoker	4	1.8
Current smoker	2	0.9
Exercise		
<3 times/week	162	71.1
3-5 times/week	58	25.4
>5 times/week	8	3.5
Chronic disease profile		
Yes	115	50.4
No	113	49.6
Menstrual status		
Premenopause	104	45.6
Perimenopause	64	28.1
Postmenopause	60	26.3
	Mean	**SD**
Age (in years)	48.24	6.91
Body Mass Index (BMI)	28.49	3.44

Table 2. *Menopausal symptoms among respondents (n=228).*

	None	Mild to moderate	Severe to very severe
	n (%)	**n (%)**	**n (%)**
Hot flushes, sweating	44 (19.3)	158 (69.3)	26 (11.4)
Heart discomfort	56 (24.6)	137 (60.1)	35 (15.4)
Sleep problems	34 (14.9)	167 (73.2)	27 (11.8)
Depressive mood	43 (18.9)	167 (73.2)	18 (7.9)
Irritability	12 (5.3)	146 (64.0)	70 (30.7)
Anxiety	25 (11.0)	191 (83.8)	12 (5.3)
Physical and mental exhaustion	41 (18.0)	153 (67.1)	34 (14.9)
Sexual problems	99 (43.4)	112 (49.1)	17 (7.5)
Bladder problems	77 (33.8)	137 (60.1)	14 (6.1)
Vaginal dryness	88 (38.6)	126(55.3)	14 (6.1)
Joint and muscular discomfort	09 (3.9)	139 (61.0)	80 (35.1)

Table 3. *Menopause rating scale among respondents (n=228).*

Variable	Mean	SD
Somatic symptoms	6.36	3.01
Psychological symptoms	6.05	2.54
Urogenital symptoms	2.84	2.25
Total score	15.25	6.01

Table 4. *Menopause rating scale (quality of life) by menstrual status (n=228).*

	Premenopausal (n=104)	Perimenopausal (n=64)	Postmenopausal (n=60)	
Variable	**Mean ± SD**	**Mean ± SD**	**Mean ± SD**	**P-value***
Somatic symptoms	5.24 ± 2.32	7.06 ± 2.99	7.53 ± 3.43	<0.01
Psychological symptoms	5.33 ± 2.33	6.45 ± 2.25	6.87 ± 2.84	<0.01
Urogenital symptoms	2.27 ± 1.79	3.11 ± 2.521	3.55 ± 2.42	<0.01
Total score	12.84 ± 5.01	16.62 ± 5.31	17.95 ± 6.75	<0.01

*P-value calculated using ANOVA.

Table 5. *Menopausal symptoms by menstrual status (n=228).*

	Premenopausal (n=104)	Perimenopausal (n=64)	Postmenopausal (n=60)	
Variable	**n (%)**	**n (%)**	**n (%)**	**P-value***
Hot flushes, sweating	82 (78.8)	56 (87.5)	46 (76.7)	0.25
Heart discomfort	71 (68.3)	54 (84.4)	47 (78.3)	0.052
Sleep problems	91 (87.5)	57 (89.1)	46 (76.7)	0.09
Depressive mood	80 (76.9)	55 (85.9)	50 (83.3)	0.31

Irritability	98 (94.2)	62 (96.9)	56 (93.3)	0.64
Anxiety	91 (87.5)	62 (96.9)	50 (83.3)	0.04
Physical and mental exhaustion	77 (74.0)	54 (84.4)	56 (93.3)	<0.01
Sexual problems	62 (59.6)	36 (56.2)	31 (51.7)	0.61
Bladder problems	60 (57.7)	45 (70.3)	46 (76.7)	0.03
Vaginal dryness	60 (57.7)	42 (65.6)	38 (63.3)	0.55
Joint and muscular discomfort	100 (96.2)	61 (95.3)	58 (96.7)	0.92

Table 6. *Relationship of socio-demographic and other factors with MRS score (n=228).*

	Unadjusted model				**Adjusted model**			
	Beta	**S.E**	**95% CI**	**P-value**	**Beta**	**S.E**	**95% CI**	**P-value**
Menopausal status								
Premenopause	Reference				Reference			
Perimenopause	3.79	0.16	3.48, 4.10	<0.01	3.69	0.18	3.34, 4.06	<0.01
Postmenopause	5.11	0.16	4.79, 5.43	<0.01	6.6	0.23	6.14, 7.06	<0.01
Marital status								
Single	Reference				Reference			
Married	4.22	0.24	3.75, 4.69	<0.01	1.62	0.32	0.98.2.26	<0.01
Widowed	5.1	0.27	4.58, 5.63	<0.01	1.29	0.39	0.52, 2.07	<0.01
Separated	1.77	0.29	1.18, 2.35	<0.01	-0.37	0.36	-1.08, 0.33	0.29
Education level								
Illiterate	Reference				Reference			
Primary school	-2.68	0.22	-3.12, -2.24	<0.01	-0.96	0.25	-1.46, -0.46	<0.01
Intermediate	-0.86	0.21	-1.26, -0.46	<0.01	2.12	0.26	1.68, 2.70	<0.01
High school	-0.45	0.2	-0.85, -0.06	0.02	1.98	0.26	1.46, 2.49	<0.01
University	-2.92	0.19	-3.31, -2.54	<0.01	-0.03	0.35	-0.72, 0.66	0.93
Occupation								
Housewife	Reference				Reference			
Working	-2.45	0.17	-2.79, -2.12	<0.01	1.09	0.27	0.56, 1.63	<0.01
Retired	-0.06	0.22	-0.49, 0.37	0.79	0.62	0.3	0.03, 1.22	0.4
Parity								
Nulliparous	Reference				Reference			
Parous	2.74	0.17	2.42, 3.07	<0.01	1.6	0.22	1.17, 2.04	<0.01
Smoking status								
Never smoked	Reference				Reference			
Past smoker	3.79	0.5	2.80, 4.77	<0.01	3.24	0.54	2.18, 4.29	<0.01
Current smoker	-3.71	0.71	-5.10, -2.32	<0.01	-8.36	0.84	-9.99, -6.71	<0.01
Exercise*								
<3 times/week	Reference				Reference			

3-5 times/week	-2.09	0.15	-2.39, -1.79	<0.01	-0.76	0.18	-1.12, -0.39	<0.01
>5 times/week	1.26	0.36	0.56, 1.98	<0.01	2.67	0.45	1.79, 3.55	<0.01
Chronic disease status								
Yes	Reference				Reference			
No	-2.22	0.13	-2.48, -1.96	<0.01	-0.37	0.16	-0.69, -0.05	0.02

Model using generalized linear regression. OR: Odds Ratio; CI: Confidence Intervals; SE: Standard Error.

*Exercise was defined as any physical activity for a duration of 20-30 minutes and was divided into three levels: infrequent (less than 3 times/week), average (3-5 times/week), and more frequent (more than 5 times/week).

Discussion

Our study's first objectives were to find out the prevalence of menopausal symptoms among women at Abha, Saudi Arabia. The result shows that the most reported symptoms were somatic symptoms with MRS score of 6.36, followed by psychological symptoms with scores of 6.05 while urogenital symptoms were reported by least number of perimenopausal and postmenopausal women. This is consistent with study results in most Asian populations [25,31-36].

Among the somatic symptoms muscle and joint pain was reported by most of the participants (96.1%) followed by hot flushes (80.7) and heart discomfort (75.5%). The highest frequency of muscle and joint pain is similar to the findings of another study done in Saudi Arabia Riyadh [20] although in our study the percentage of women reporting this symptom are even more 96.1 % in comparison to 80.1% reported in the study from Riyadh . Also many more studies have reported joint and muscle pains as the commonest menopausal symptom in several Asian countries like India, Pakistan, Bangladesh and Singapore [31-34]. Not only is the prevalence more for muscle and joint pain' the severity of this complaint was also the highest that is; it was reported by 35.1% of ladies as severe. The symptoms of muscle and joint pain was reported by the most but this symptom was not significantly different in the three categories of menstrual status and women in all three groups reported them to be higher; this could be due to higher BMI of the reporting ladies along with lack of exercise and lower oxygen tension at Abha that is at higher altitude and not significantly due to menopause. Hence our study supports the finding of an Iranian study mentioning that these symptoms are not related to menopausal status as they are multi-factorial, rather than due to hormonal imbalance [37].

The symptoms significantly reported more by perimenopausal and postmenopausal women in comparison to premenopausal women were physical and mental exhaustion ($p<0.01$), urogenital symptoms ($p=0.03$), anxiety ($p=0.04$) and heart discomfort ($p=0.05$). Physical and mental exhaustion has been documented to be commonest symptom in many studies [33,38,39]. A study in Tehran showed that, feeling anxious or nervous was the most common problem in this domain and our study population also significantly reflects the common occurrence [40].

Our another objective was to study the socio-demographic factors that may influence the prevalence and severity of menopausal symptoms; for this we studied the relation of educational level, exercise, occupational status, smoking, marital status, parity and chronic disease conditions with MRS scale.

Higher level of education was negatively related to the symptoms of menopause with $p \leq 0.01$ on adjusted multivariate calculations. This finding may reflect that well-educated women hold a more positive attitude towards menopausal symptoms and are less complaining; similar findings are reported in many studies [24,37,41]. However there are few studies showing opposite results like one study in Taiwan showed that educated women had more menopausal symptoms compared to less-educated women [42].

Physical exercise 3-5 times/week for 20-30 minutes was significantly associated with lesser symptoms of menopause (Beta=0.18, 95% CI-1.12, -0.39, P-value<0.01) After adjusting for all socio-demographic co-variants,) showing better quality of life in women having healthier lifestyle with moderate exercise while exercise greater than five times/week was also significantly associated with lesser MRS scoring but this was slightly weaker (Beta=2.67, 95% CI 12, -0.39 , P-value<0.01) Other studies also emphasized the positive effects of physical activity on an improvement in menopausal symptoms [16,38,43]. A study narrates that 'exercise releases endorphins into the blood that helps to reduce vasomotor symptoms (hot flashes and sweats) and it also has positive effects on the women's mood, general well-being, sleep disturbance and cognitive functions' [37] however few studies does not show any correlation of MRS scoring and physical exercise [20].

Employment status significantly affected the experience of menopause symptoms; working women in comparison to those who were jobless or housewives, perceived less symptoms with a better quality of life scoring. This is consistent with other studies. Employment may act as a stress buffer for some women who are approaching menopause. Although retired status did not show any positive correlation [24,37].

Smoking status did show a significant impact on menopausal symptoms this was in contrast to a similar study done at Riyadh Saudi Arabia that showed no relation [20] and also from few other studies [37] but we cannot document the result

as very few women in this part of world smokes and we had just two women with smoking history out of 228 sample size.

Widowed women and women with parity had significantly more menopausal symptoms and poorer quality of life scores (Beta=5.10, 95% CI 4.58, 5.63; P-value<0.01) and (Beta=1.60, 95% CI 1.17, 2.04; P-value<0.01) respectively. This finding is supported by previous reports [23,24]. Parity give rise to larger family size and this may be the cause for more financial expenses leading to lower economy status which is documented to have impact on lower quality of life with higher MRS scores [21]. Chronic diseases status was also found to be significantly associated with poorer quality of life with higher MRS scores; this may be explained by confounding effects of diseases themselves, disturbed psychology due to chronic illness and the aging process that may all influence the experience of menopausal symptoms [4].

The quality of life for women at Abha Saudi Arabia was measured in our study by the MRS. The more severe the symptoms, the higher the MRS and the worse the quality of life. We found that the post-menopausal and perimenopausal women had higher MRS mean total score (17.95 ± 6.75 and 16.62 ± 5.31 respectively) in comparison to premenopausal ladies (12.84 ± 5.01). The mean total MRS scale was reported to be 15.25 ± 6.01. This indicates moderately poor QoL. These scores were found to be higher to those documented in another study from Riyadh, Saudi Arabia [20] that showed post-menopausal women having a score of (7.36 ± 5.45), perimenopausal women (8.4 ± 5.3) and premenopausal 6.42 ± 6.33, while it is comparable to severity of symptoms reported in the study of Nisar et al. [32] that reported similar scores indicating a moderate severity [9-16]. The difference in MRS and the quality of life results with that of previous study at Riyadh may be due to the differences in modes of recruitment of participants, sampling procedures and the time frame over which symptoms were assessed or may be due to the fact that women in Riyadh which is the capital city of the country have different perception for menopause but before documenting this we need to have a study in future at a larger scale as study in Riyadh was done only at one health center [20].

Conclusion

Our study clearly demonstrates that women at Abha, Saudi Arabia have moderately poor quality of life; indicated by higher MRS scores in comparison to other study done at Saudi Arabia. The symptoms commonly reported are somatic symptoms especially muscle and joint pain but the symptoms that are comparatively reported more than premenopausal females are physical and mental exhaustion (p<0.01), urogenital symptoms (p=0.03), anxiety (p=0.04) and heart discomfort (p=0.05). Widower status, parity, lower education, lack of physical exercise joblessness are determinants that significantly influences the symptoms of menopause, while higher education and a healthier lifestyle with regular exercise 3-5 times a week are associated with better QoL.

Recommendations

The moderately poor quality of life due to menopausal symptoms observed in this study group; emphasizes that menopausal symptoms are quite common and cannot be ignored.

To improve the quality of life for the women undergoing this phase of life, it is required that better care should be available for them, It is therefore suggested that menopausal clinics may be established within the current Primary Health Care System so as to focus attention to menopausal women and their needs . The Leonardo project of “care managers”, as a bridge between the General Practitioners (GP) [44], the patients and other medical specialists for chronic disease care, can be a good alternative for normal perimenopausal women’s care passing through this difficult phase of life.

We also recommend promoting education and healthier lifestyle at community levels because when females are more informed, involved, and empowered, they interact more effectively with healthcare providers and strive to take actions that will promote healthier outcomes.

Limitations

This study was carried out in only five Primary Health Care Clinics therefore the sample in this study may not represent the entire female population in Abha Saudi Arabia and it might not reveal the real magnitude of menopausal symptoms, as mild complaints are often not reported to health facilities; in future a population based study at a larger scale may be a better option. The information in MRS and the use of questionnaire are subjective more than an objective assessment and information of daily physical activity and other details may not be valid information.

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