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Impact of Physical Climacteric Changes upon Quality of Life of Middle Age Women in Baghdad City

Wafaa Raheem Muhson *M.Sc.N Dr .Fatin Abdul Amir AL – Saffar**PhD
**Academic Nurse, Maternal and Child Health Nursing*
***Assistant professor, Maternal and Child Health Nursing/College of Nursing University of Baghdad.*

Abstract:
Objective: *to assess the impact of physical climacteric changes on quality of life of middle age women in Baghdad city*
Methodology: *A descriptive analytic study was conducted to study the quality of life of middle age women due to physical climacteric changes from February 2013- July 2013 A purposive sample consisted of three hundred (300) women aged (40-65) years who were attending health centers in two sectors in Baghdad / AL-Russafa and AL- karhk .The data were collected through using interview technique , and questionnaire format , which comprises two parts, first part consist (socio-demographic characteristic , the second part quality of life domains (phyical domain) .. The reliability of the questionnaire was determined through a pilot study and, the validity through a panel of (18) experts. Descriptive and inferential statistical analysis procedures were employed for data analysis; all the statistical procedures were tested at P> 0.05 or less ..*
Results*:The results show that the climacteric changes for (physical domain) was reported by more than half of study sample which assessed as (moderate) impact on quality of life .*
Recommendation:*The study recommends for more effort from health care providers to do further researches about the quality of life of middle age women. Moreover, the health care provider should implement an educational program for women about the climacteric changes and how to pass it safely*
Keywords: *Climacteric changes , Middle age women , Physical symptoms , Quality of Life .*

I. Introduction

Climacteric is used to refer to the wide variety of physiological, psychological , and social changes occurring in the year's immediately surrounding menopause. [(1).] Climacteric is a transitional phase that is immediately prior to and after menopause, when clinical, biological, and endocrinological symptoms of menstrual cessation commence, it occurring universally in all women who reach midlife. The timing of menopause as well as women's experience of menopausal symptoms varies between populations and within populations[(2).] The incidence of menopausal symptoms is influenced by socio-demographic/ sociocultural factors, economical stresses, general health status, and individual perception of menopause, genetic and racial differences and reproductive parameters like parity [(3).]

Menopause is also associated with a number of physical, psychological and social changes Many studies have found that the menopause is associated with deteriorating quality of life (QOL) [(4)] .Key event is the hormonal conversion, especially the lack of estrogens, leads to moderate or severe menopausal symptoms in two thirds of women. These menopausal symptoms are not life-threatening, but may reduce quality of life considerably.[(5)]. For middle-aged women, this loss of reproductive capability is a critical issue that represents the end of fertility and the onset of the aging process [(6)].

II. Methodology

A descriptive analytic study was conducted to study the quality of life among middle age women due to climacteric changes ., (Non probable) a purposive sample consisted of three hundred (300) women aged (40-65) years who were attending health centers in two sectors in Baghdad / AL- Russafa and AL- karhk. Data was collected by using Menopause Rating Scale (MRS) by Heinemann et al ,2003 and Quality of Life Brief (WHOQOL Brief ,1995) after such modification had been carried on self -reporting approach was used to collect the data and using a constructed study instrument which comprises two parts, first part consists **(**Socio-demographic characteristics which consist (age , education level , occupation , marital status , family type , residency , socioeconomic status , and sector) , the second part physical domain. The validity of the questionnaire determined through a panel of (18) experts. The reliability of the questionnaire determined through a pilot study . The data was analyzed through the application of descriptive & inferential statistic approaches . All the statistical procedures were tested at $p \leq 0.05$.

III. Results

Table (1): Distribution of Socio-Demographical Characteristics of study sample

Variables		F.	Percentage	Cum. Percent	C.S. (*) [P-value]
Age Groups Years	40 -44	88	29.3	29.3	χ^2= 65.767 P=0.000 HS
	45 -94	88	29.3	58.7	
	50 -54	71	23.7	82.3	
	55 -95	29	9.7	92	
	60 - 65	24	8	100	
Educational level	Illiterate	43	14.3	14.3	χ^2= 143.053 P=0.000 HS
	Reads and writes	15	5	19.3	
	Primary school graduate	28	9.3	28.7	
	Intermediate school graduate	32	10.7	39.3	
	Secondary school graduate	72	24	63.3	
	High institute graduate		33	36.7	
	College graduate and above	11	3.7	100	
Occupation –	House wife	149	49.7	49.7	χ^2= 247.813 P=0.000 HS
	Government employed	137	45.7	95.3	
	Self-employee	4	1.3	96.7	
	Retired	10	3.3	100	
Marital Status	Married	150	50	50	χ^2= 193.633 P=0.000 HS
	Single	40	13.3	63.3	
	Widowed	55	18.3	81.6	
	Separated / divorce	48	16	97.6	
	Others (prisoner of war,missing)	7	2.4	100	
Family type	Nuclear	230	76.7	76.7	Binomial P=0.000 ; HS
	Extended	70	23.3	100	
Residency	Urban	297	99	99	Binomial P=0.000 ; HS
	Rural	3	1	100	
Socioeconomic Status	Low	86	28.7	28.7	χ^2= 10.160 P=0.006 HS
	Moderate	126	42	70.7	
	High	88	29.3	100	
Sector	AL – Rusafa	150	50	50	Binomial P=0.954 ; NS
	AL –Karkh	150	50	100	

F= Frequency ;C.P =Cumulative Percentage C.S = Comparisons Significant ;HS: Highly Sig. at P<0.01;NS= None Significant ;P= level of probability ; χ2= Chi –Square Test

Table (1) shows the observed frequencies, percent of the studied Socoi_demographical Characteristics variables with their comparison significant, the results has indicated that there has been a highly significant at P<0.01 among different levels of all variables except of "Sector" which was represented a non-significant different at P>0.05 between "Al – Rusafa" and " Al - Karkh ". - The subjects, age , the majority (58. 6%) were reported at the middle age ranged (40 – 49) yrs., level of education, the highest percentage (63.3%) illustrated low levels of education, such as illiterate, read and write, primary, intermediate and secondary schools., occupation, most of them (49.7%) were house wives .,marital status, the vast majority (86.7%) were married while the minority (13.3%) were single , "Family type", the highest percentage (76.7%) were Nuclear ,while the leftover (23.3%) were "Extended", Residency" was "Urban" for the majority which accounted (99.0%),socioeconomic status , most of them (42%) were from moderate status , while high &low status were reported (29.3%) & (28.7%) respectively.

Table (2): Distribution of "Physical Domain" among study sample

Questionnaire's Items	No.	M.S.	S.D.	R.S.	Ass.
Physical Domain					
1- Vascular changes					
Suffer from hot flashes	300	1. 80	0.75	56.7	Pass
Suffer from night sweats	300	1.70	0.74	56.7	Pass
Suffer from breathing difficulty	300	1.52	0.61	50.7	Pass
Feel tight in the chest	300	1.64	0.59	54.7	Pass
Suffer from heart palpitation	300	1. 70	0.74	60.0	Pass
2- Sleep Problems					
Find it difficult to get to sleep	300	1.93	0.80	64.3	Pass
Have difficult staying asleep	300	1.99	0.81	66.3	Pass
Woke up early always	300	2.50	0.69	83.3	Failure
Woke up to more than 2-3 times per night	300	2.23	0.78	74.3	Failure
3- Muscle and Joint					
Feel pain in the joints and muscles	300	2.56	0.69	85.3	Failure
Feel pain in the back, neck and head	300	2.36	0.78	78.7	Failure

Feel numbness and parenthesis	**300**	**2.12**	**0.87**	**70.7**	**Failure**
4- Physical Exhaustion					
Feel an increase in body weight	**300**	**2.02**	**0.92**	**67.3**	**Failure**
Feel the weight and pain in the chest	**300**	**1.78**	**0.77**	**59.3**	**Pass**
Feel that my stomach swollen	**300**	**1.85**	**0.78**	**61.7**	**Pass**
Suffer from constipation	**300**	**1.53**	**0.74**	**51.0**	**Pass**
Suffer from diarrhea	**300**	**1.31**	**0.54**	**43.7**	**Pass**
Find it difficult to control the gases exit	**300**	**1.39**	**0.67**	**46.3**	**Pass**
5- Changes in the skin					
Suffer from dry skin	**300**	**2.09**	**0.71**	**69.7**	**Failure**
Suffer from itching of the skin	**300**	**1.64**	**0.75**	**54.7**	**Pass**
Suffer from skin wrinkling	**300**	**1.91**	**0.80**	**63.7**	**Pass**
6- Changes in hair and nails					
Suffer from pounding nails	**300**	**1.52**	**0.81**	**50.7**	**Pass**
Suffer from hair loss	**300**	**2.14**	**0.76**	**71.3**	**Failure**
Suffer from the appearance of hair in my face	**300**	**1.48**	**0.71**	**49.3**	**Pass**
7- Energy and Fatigue					
Feel more tired than usual	**300**	**2.33**	**0.75**	**77.7**	**Failure**
Have not enough energy to work	**300**	**2.00**	**0.72**	**66.7**	**Failure**
Feel sluggish and weak movement to accomplish day-to-day business	**300**	**2.12**	**0.66**	**70.7**	**Failure**
Need help to do house work	**300**	**2.18**	**0.70**	**72.7**	**Failure**
8- Nutrition					
Eat foods containing calcium and vitamin D, such as milk and its products	**300**	**2.67**	**0.56**	**89.0**	**Pass**
Eat foods containing fiber like vegetables	**300**	**2.71**	**0.52**	**90.3**	**Pass**
Eat fresh fruit	**300**	**2.57**	**0.56**	**85.7**	**Pass**
Eat foods containing fat	**300**	**2.19**	**0.68**	**73.0**	**Failure**
Eat foods containing carbohydrates	**300**	**2.04**	**0.75**	**68.0**	**Failure**
Eat spicy food supplied	**300**	**2.05**	**0.80**	**68.3**	**Failure**
9- Fluids Intake					
Drink fluids containing caffeine : Coffee /or tea	**300**	**2.56**	**0.63**	**85.3**	**Failure**
Drink soft drinks(Coca cola)	**300**	**2.04**	**0.72**	**68.0**	**Failure**
Drink natural juices	**300**	**2.30**	**0.70**	**76.7**	**Pass**
Drink herbal drinks green tea / ginger / cinnamon / Chamomile	**300**	**1.34**	**0.65**	**44.7**	**Failure**
10- Urogenital changes					
a- Urinary problems					
Feel the need to urinate more than normal	**300**	**1.91**	**0.81**	**63.7**	**Pass**
Suffer from the dripping of urine during sneeze or laugh	**300**	**1.87**	**0.78**	**62.3**	**Pass**
Suffer from urinary infections	**300**	**1.80**	**0.81**	**60.0**	**Pass**
Feel pain and burning when urinating	**300**	**1.62**	**0.76**	**54.0**	**Pass**
b- Vaginal Problems					
Suffer from vaginal dryness	**300**	**1.40**	**0.63**	**46.7**	**Pass**
Suffer from burn in the vagina	**300**	**1.37**	**0.64**	**45.7**	**Pass**
Suffer from itching in the vagina	**300**	**1.41**	**0.66**	**47.0**	**Pass**
Suffer from the presence of vaginal discharge	**300**	**1.70**	**0.76**	**56.7**	**Pass**
C-Sexual problem (for married women)					
Do not feel sexual desire	**150**	**1.02**	**1.19**	**34.0**	**Pass**
Do not practice sexual intercourse on a regular basis	**150**	**1.16**	**1.30**	**38.7**	**Pass**
Feel the loss of sexual pleasure	**150**	**1.01**	**1.20**	**33.7**	**Pass**
Feel pain during sexual intercourse	**150**	**0.77**	**0.95**	**25.7**	**Pass**
Feel weak in sexual activity	**150**	**0.90**	**1.10**	**30.0**	**Pass**
Feel the loss of libido	**150**	**1.09**	**1.26**	**36.3**	**Pass**
Overall assessment Psychological Domain	**300**	**1.7941**	**0.2781**	**59.80**	**Mod.**

No=Number ; M.S =Mean of Score ;S.D= Standard Deviation ; R.S – Relative Sufficiency; Ass=Assessment

Table (2) shows the summarizes of the subjects responding at the item's responses that are done by using the observed frequencies for the initial responding of questionnaire's items, mean of score (MS), standard deviation (SD), relative sufficiency (RS), and finally the two dichotomous responding Failure (Negative) and Pass (positive) assessment due to the responding of answered

"Vascular changes": subject responses for all vascular changes (5 items) shows Pass (Positive) assessment, since their relative sufficiency were under cutoff point (66.67%) for positive scale scoring and they are accounted (100%)

"Sleep Problems": assessment for the first and second item (50.0%) shows Pass (Positive) , since their relative sufficiency were under cutoff point (66.67%) for positive scale scoring ,while the other two third & fourth items assessed as Failure (Negative), since their relative sufficiency were upper cutoff point (66.67%) and they accounted (50.0%)

"Muscle and Joint": subjects responses for all items (3 items) shows Failure (Negative) assessment, since their relative sufficiency were upper cutoff point (66.67%) for positive scale scoring and they are accounted (100.0%)

"Physical Exhaustion": assessment for item 1(16.7%) shows Failure (Negative), it's relative sufficiency was upper cutoff point (66.67%) for negative scale scoring , while the leftover (5 items) assessment as Pass (Positive), their relative sufficiency were under cutoff point (66.67%) for positive scale scoring and they are accounted (83.3%)

"Changes in the skin", assessed for the first item1(33.3%), shows Failure (Negative) , it's relative sufficiency was upper cutoff point (66.67%) for positive scale scoring ,while the second & third items assessed as Pass (Positive) , their relative sufficiency were under cutoff point (66.67%) which accounted (66.7%)

"Changes in hair and nails", assessment for the first & third items (66.7%) show pass (positive), since their relative sufficiency were under cutoff point (66.67%) for positive scale scoring , while the second items assessed was Failure (Negative), their relative sufficiency were upper cutoff point (66.67%) which accounted (33.3%)

"Energy and Fatigue", subject responses for all 4 items shows Failure (negative) assessment, since their relative sufficiency were upper cutoff point (66.67%) for negative scale scoring and they are accounted (100.0%)

"Nutrition", assessment for the first, second, and third items, shows Pass (Positive) ,since their relative sufficiency were upper cutoff point (66.67%) for positive scale scoring and they are accounted (50.0%), while the fourth , fifth , and sixth items assessed as Failure (negative), their relative sufficiency were upper cutoff point (66.67%) which accounted (50.0%)

"**Fluids Intake_** ", assessment for the first, second, and fourth items, show Failure (Negative) their relative sufficiency were upper cutoff point (66.67%) for negative scale scoring and they are accounted (75.0%), while the third item assessed as Pass (Positive) , their relative sufficiency were upper cutoff point (66.67%) for positive scale scoring which accounted (25.0%)

"Urogenital changes ",in the light of subjects responses to changes due to "Urinary problems" all of items 4 show Pass (Positive) assessment, since their relative sufficiency were under cutoff point (66.67%) for positive scale scoring and they are accounted (100.0%), then followed with changes due to " Vaginal Problems "all of items 4 show "Pass (Positive) assessment, since their relative sufficiency were under cutoff point (66.67%) for positive scale scoring and they are accounted (100.0%), then finally followed with changes due to "Sexual Problems (for married women)"all of items 6 show Pass (Positive) item's assessment, since their relative sufficiency were under cutoff point (66.67%) for positive scale scoring and they are accounted (100.0%)

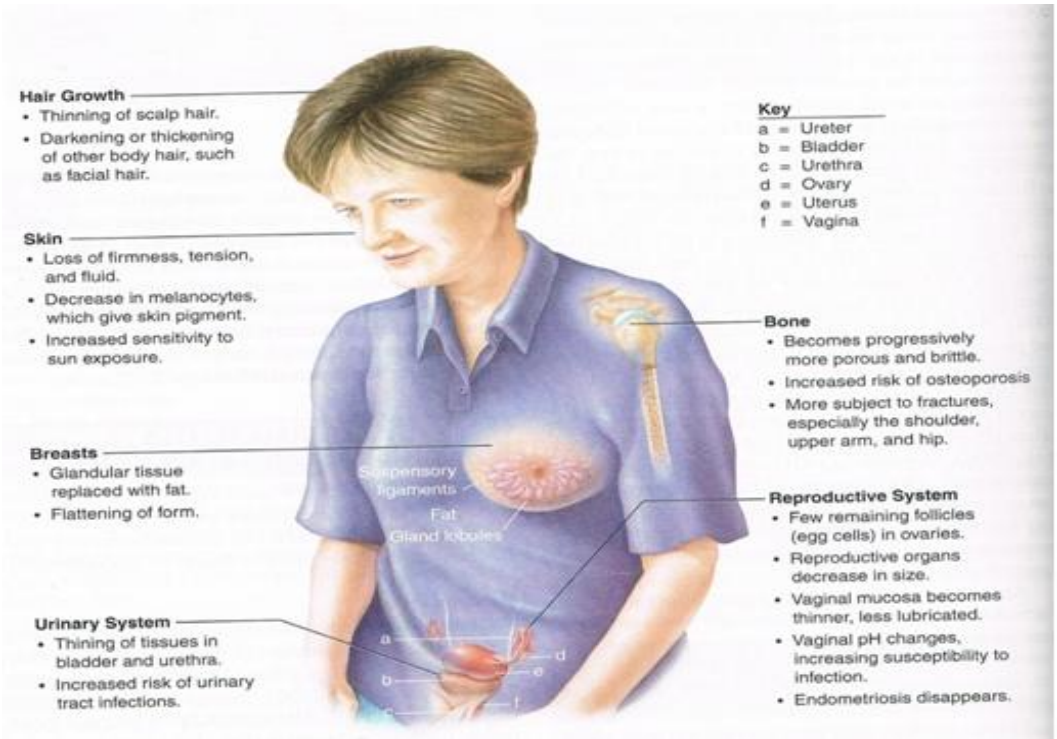

Figure **(1)** Common physical changes associated with menopause .

IV. Discussions

Table (1) the finding of this table indicate that the highest percentage (58.7%)of study sample were at **age** rang (40-49) years old with mean age &standard deviation (48.68± 6.3) .This finding agrees with a study had done by Al-Sejari (2005) who reported that the mean age at menopause among Saudi women was 48.06 years and the median age was 49 years[7] . .While this result is less near to those studies had done in Iraq / Erbil city (2012) which was(47.44±4.35) years with median age of 48 year [8], and in Baghdad city (2009)which was (47.96 + 4.2) years and the median age was 48 year [9].**Educational level** for (63.3%)of the study sample was low this finding is consist with a study in Zagazing city / Egypt (2012)which reported that more than one third(27.3%) of women were non educated and in poor quality of life compared to educated women that had good quality of life, there was no statistical significance differences between quality of life and education[10]. The highest percentage (49.7%) of study sample were **house wives** ,the finding of this study is in line with study done by Nisar& Sohoowere (2009) who reported that the highest percentage (75.6%) of the study was **house wives**[11] . Half of the study sample (50%) were **married**, this data in the line with study conducted by Nisar & Sohoo (2009) which reported that the highest percentage (76.9%) of the study was married[11]. The highest percentage (76.7%) was **nuclear family** and (99%) was **urban residency**. This study agree with the study in Alexandria / Egypt (2006) which reported that the highest percentage (66.4) was urban residency[12], the highest percentage (42%) of study sample were from moderate level of **socioeconomic status**. This study was disagree with two studies in Egypt (2012) and in Pakistan (2010) which reported poor socio-economic status for most of the study samples [3 ,10]

Table (2):the finding of this table shows the highest mean score (1.80) in item number 1 (**suffer from hot flashes)** which related to the vasomotor changes. In the united states, African American women, reported hot flashes most frequently (45.6%) following by Hispanic (35.4%), Caucasians (31,2%) Chinese (20.5%),and Japanese (17.6%) [11] .

Sleep problems the highest mean score (2.50) was reported in item number 3(**Wake up early always**) as shown in the table (2) . The incidence of sleep disturbance has been found to be higher in post-menopause, and over 60% of them suffer from insomnia.[13].Sleep complaints increase dramatically during midlife in women, with the prevalence increasing from 12 %to 40% in women during the late 40s and early 50s, consistent with the typical age of the menopausal transition from pre- to peri – to menopause.[14]

Muscle and joint pain the highest mean score (2.56) in item number 1 (**feel pain in the joints and muscles**) this finding is agreement with study in Zagazing city / Egypt done by Elsabagh & Abd Allah who reported that the women suffering from severe different menopause symptoms , such as (muscle and joint pain)[10] . In Singapore, muscle and joint ache was the most commonly reported symptom (52.6%) .[10]

Physical exhaustion the highest mean score (2.02) in item number 1 (**feel an increase in body weight**) . weight gain negatively impact on quality of life . Weight gain is a common complaint among women in the menopausal transition. Women aged 45to 54 years had significantly greater increases in weight [15] .

Changes in the skin the highest mean score (2.09) in item number 1 (**suffer from dry skin**).. The skin tends to become thinned and wrinkled after the menopause as a result of oestrogen deprivation. In addition, loss of protein from the skin and supportive tissue , especially when combined with long – term sun damage or smoking [16] .

Changes in hair and nails the highest mean score (2.14) in item number 2 (**suffer from hair loss**) . Later menopause symptoms include effects from changes in collagen production, a protein in skin, hair, and , nails . Hair thinning, dryness and the growth of unwanted hair can be explained by the lack of estrogen and the relative excess of androgens in the menopause [17]

Energy and fatigue the highest mean score (2. 33) in item number 1(**feel more tired than usual**). Many women being to have prolonged feeling of fatigue , exhaustion ,and lack of energy during menopausal transition . Fatigue may be related to night sweat and difficulty sleeping [15]

Nutrition the highest mean score (2. 71) in item number 2 (**Eat foods containing calcium and vitamin D**). WHO reported to prevent osteoporosis usually focus on a healthy lifestyle, which includes no smoking, moderate alcohol consumption, an intake of adequate amounts of calcium and vitamin D[18].

Fluid intake the highest mean score (2. 56) in item number 1 (**drink fluids containing caffeine : coffee/ or tea**), the middle age women should avoid food that may trigger symptoms, including caffeine , alcohol, and spicy food [16]

Urogenital changes (urinary problems) the highest mean score (1.91) in item number 1 (**feel the need to urinate more than normal)** , the genitourinary atrophy may lead to a variety of symptoms may include urgency , and recurrent urinary tract infections [15]

Urogenital changes (vaginal problems) the highest mean score (1. 70) in item number 4 (**suffer from the presence of vaginal discharge**) ,the prevalence of atrophic vaginitis was 54% manifested in the form of vaginal purities (61%), vaginal dryness (58%), dyspareunia (56%), aginal discharge (56%), dysuria (22%), and burning or soreness(16%) [19]

Urogenital changes (sexual problems) the highest mean score (1. 16) in item number 2 (**do not practice sexual intercourse on a regular basis**) .The Melbourne Women's Midlife Health Project found that during natural menopausal transition, there were significant decreases in desire, arousal, orgasm, and frequency of sexual activities[20] A study in Turkish (2012) found that the one-third of the women stated that the daily and sexual relationship with their husbands was affected in a negative way.[21]

The assessment of Quality of life concerning physical domain was moderate .

V. Recommendation

1. Improve the QOL for climacteric women through increasing their quality of life by increasing knowledge about body changes and how deal with this change to decrease the menopausal symptoms
2. Informed women can cope better with the physical changes that occur at this stage and improve their lifestyle
3. Researchers and health care providers should develop and implement educational programs for middle age women to provide them with information on climacteric changes and how to pass it safety .
4. enopausal clinics should be established in primary health care centers and should offered health care services including screening , treatment, and preventive care.

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