

# Inherent and Non-Inherent Factors Influencing Menopausal Symptoms and Effect of Menopause on Social Relation of Women in Qena Governorate, Egypt

Samar S. Ahmed<sup>1\*</sup>, Khaled M. Abd Elaziz<sup>2</sup>

Departments of <sup>1</sup>Community Medicine, Qena Faculty of Medicine, South Valley University, <sup>2</sup>Community, Environmental and Occupational Medicine, Faculty of Medicine, Ain Shams University, Egypt

## Abstract

**Background:** Menopause is an extremely stressful time in women's lives, as it accompanied by many different physiological and emotional changes. **Aim:** Assessing factors influence menopausal changes. In addition to; recognize the effect of menopause on social activities of women to guide researches in prevention and alleviation of menopausal symptoms. **Subjects and Methods:** A descriptive study was conducted on 150 menopausal women aged 45 years and above attending outpatient clinics of Qena general hospital and university hospital. They were interviewed by questionnaire include: socio- demographic data, knowledge, and attitude about menopause, previous history of medical conditions, menopausal symptoms, menstrual history, obstetric history, and social relation of women with their husbands and their friends. Menopausal symptoms were further classified into mild, moderate and severe and factors influencing these symptoms were investigated and analyzed. **Results:** Among socio-demographic factors associated with severe menopausal symptoms were increase of age, urban residence, higher education, and employment. Deficient knowledge and negative attitude toward menopause also show severe menopausal symptoms significantly. Moreover; menstrual history characteristics such as age of menarche above 12 or last menstrual cycle 60 years or above, scanty blood flow or flow more than 7 days or duration of menses 20 days and obstetric history presented by higher gravidity, parity and increase number of living children, all of which were associated with increase severity of menopausal symptoms. Inherent factors as menopausal age, duration of menstruation and amount of bleeding were predictors to severity of menopausal symptoms. Severity of Menopausal symptoms had influential effect on relation of women's with their husband's and women's social context. **Conclusion:** Physicians should consider the effect of gynecological and obstetric history on severity of menopausal symptoms during women's consultation of any menopausal symptoms.

**Key words:** perimenopause, menstrual, obstetric, hot flushes.

## Introduction

Menopause is the time in a woman's life when her periods (menstruation) stop. It is a natural normal body change of aging process; that most often occurs between ages 45–55<sup>(1)</sup>. However, there is no way to pre-

dict when the woman will have menopause or begin having symptoms suggestive of menopause. Menopause may occur as earlier as ages of 30s or 40s, or may not occur until a woman reaches her 60s<sup>(2)</sup>. After menopause, a woman can no longer become pregnant<sup>(1)</sup>. The term "perimen-

\*Corresponding Author: drs\_samar@yahoo.com

opause", which literally means "around the menopause", refers to the menopause transition years, a span of time both before and after the date of the final episode of flow. According to the North American Menopause Society, this transition can last for four to eight years<sup>(3)</sup>. The Centre for Menstrual Cycle and Ovulation Research describes it as a six to ten year phase ending 12 months after the last menstrual period<sup>(4)</sup>. The term "postmenopausal" describes women who have not experienced any menstrual flow for a minimum of 12 months, assuming that they do still have a uterus and are not pregnant or lactating. In women without a uterus, menopause or post-menopause can be identified by a blood test showing a very high FSH level<sup>(5)</sup>. Menopause can also sometimes be caused by drugs used for chemotherapy or hormone therapy for breast cancer. Surgical menopause takes place when surgical treatments cause a drop in estrogen. This can happen if female ovaries are removed<sup>(1)</sup>.

Along with changes in menstrual periods and gradual stop of menstruation, physical changes during perimenopause as well as menopause occur. During menopause the body produces less of estrogen and progesterone hormones<sup>(1)</sup>. Lower levels of these hormones or fluctuations cause many of physical changes in the reproductive tract including: Vaginal walls become thinner, dryer, less elastic and may become irritated (atrophic vaginitis). Sometimes sex becomes painful due to these vaginal changes, higher risk of vaginal yeast infections, external genital tissue decreases and thins (atrophy of the labia) and can become irritated (pruritus vulvae)<sup>(3)</sup>. Other common physical changes include: Hot flashes and mood changes are the most commonly mentioned symptoms of perimenopause, but lack of energy was identified by women as the most distressing effect in Twiss 2007 study<sup>(6)</sup>. Other ef-

fects can include night sweats, difficult sleeping, incontinence, osteoporosis, palpitations, psychological effects such as depression, anxiety, irritability, memory problems, and lack of concentration and urgency of urination<sup>(4)</sup>. One way of assessing the impact of these menopause effects on women are the Greene Climacteric Scale questionnaire<sup>(7)</sup>, the Cervantes Scale<sup>(8)</sup> and the Menopause Rating Scale<sup>(9)</sup>. The symptoms of menopause are diverse, unpleasant and can drastically affect women's lives. Women suffer from both physical and emotional symptoms of menopause. The emotional symptoms of menopause often leave women feeling emotionally unstable and upset, however; the physical symptoms of menopause are often embarrassing to women, because they may be unable to hide them from others<sup>(10)</sup>. Social location affects the way women perceive menopause and its related biological effects. Research indicates that whether a woman views menopause as a medical issue or an expected life change is correlated with her socio-economic status<sup>(11)</sup>. The paradigm within which a woman considers menopause also influences the way she views it: women who understand menopause as a medical condition rate it significantly more negatively than those who view it as a life transition or a symbol of aging<sup>(12)</sup>. Getting regular exercise, eating healthy foods and staying involved in activities and with friends and loved ones can help the aging process go more smoothly<sup>(3)</sup>.

Perimenopause and menopause is different for each woman. Women's experience of menopausal symptoms is affected by a myriad of factors including demographic (age, race, ethnicity), psychological (stress, anxiety), health behaviors (smoking status, physical activity) and health status (body mass index) variables<sup>(13)</sup>. Fertility levels and reproductive history have also been implicated by a small number of stud-

ies as affecting the onset of menopause or prevalence of menopausal symptoms<sup>(14)</sup>. Scientists are still trying to identify all the factors that initiate and influence this transition period<sup>(2)</sup> as there is paucity of studies which investigate influential factors on severity of menopausal symptoms and relatively little is known about the prevalence of menopausal symptoms in women in their fifth and sixth decades of life. Developing preventive strategies for such women who are undergoing social and physiological transition requires understanding multiple factors that affect women menopausal symptoms<sup>(15)</sup>. The aim of this study was to 1) identify the effect of inherent factors as menopausal age and menstrual history, along with non-inherent factors as socio-demographic, knowledge and attitude, and obstetric history on severity of menopausal symptoms. 2) explore the effects of menopause on social life of women's.

## Subjects and Methods

Subjects recruited for the study were menopausal women's attending outpatient clinic of Qena general hospital and university hospital during the 6 months started from July 2013 to the end of December 2013. Inclusion criteria included all menopausal women attending outpatient clinic at Qena general hospital and university hospital whether complaining from any menopausal symptoms or not and their age from 45 years age to above 60 years. Exclusion criteria included non-menopausal women or age less than 45 years and if women had any severe psychotic illness or any disease necessitating hospitalization.

In this descriptive study, a convenient sample of 150 women's was included based on the prevalence of severe menopausal symptoms among Egyptian women of a minimum 26% and a maximum of 50%,

power of study 80% and alpha error 5%. The program for sample size calculation is STATA 10. A specially designed interview questionnaire in Arabic language developed and reviewed thoroughly by expert panel and by the researchers to collect the relevant data, which including questions about:- Personal data (Name and address: both answers are optional), demographic factors (age, rural or urban residence, education, marital and working status) and knowledge and attitude about menopause. Knowledge is known through question asking what is meant by menopause and the answer considered correct if the woman answered end of menstrual cycle or end of reproductive age. Attitude about menopause is considered positive if women answer menopause is age of experience or end of menstrual cycle problems and considered negative attitude if answered that menopause is age of problems. History of previous medical conditions (any diseases and medication taken in the past and recently) were asked along with menopausal symptoms: hot flushes, sweating, headache, drowsiness, palpitation, dyspnea, numbness, insomnia, fatigue, stress incontinence and loss of libido. Other items included in the questionnaire: Menstrual history (age of menarche, age of last menstrual cycle, duration of menstrual cycle, amount of bleeding and duration of bleeding, obstetric history (gravidity: number of pregnancies, parity: number of live births and spacing and living children) and social effects of menopause on women. Social effect divided into 2 parts first part social relation according to marital status, the second part social relation with friends up to social isolation. Duration of the study was one year from May 2013 to April 2014. Study started by pilot testing for two months, followed by 6 months for data collection and the remaining 4 months for data entry, analysis and writing the paper. Data collec-

tion started by attaining official permission from the manager of Qena general hospital and ethical committee in Qena University hospital after explanation the purpose of the study to them. Then Pilot testing of the questionnaire was done on 28 women's in the two months preceding the study from May to June 2013 to test applicability and clarity of the questionnaire and time needed to interview the women's. Modifications were done for unclear questions and women's who asked in the pilot were excluded from the study. Finally the interviewers visited the outpatient clinics from Saturday to Thursday from 9 at the morning to 1 at the evening during the six months of data collection. The researches follow Ethical consideration during the study were the study protocol has been approved by ethical committee in Qena Faculty of Medicine and Qena General Hospital. Every woman interviewed gave informed verbal consent to share in the present study and keeping the privacy and confidentiality for each woman participated in the study. The researches classify severity of physical menopausal symptoms based on numbers of these symptoms: -from 1-2 symptoms mild severity, 3-4 symptoms moderate severity,  $\geq 5$  severe symptoms.

#### Statistical Analysis

Data was entered and analyzed using SPSS version 16.0. The qualitative tests used in this study were Chi square test or fisher exact test when numbers of subjects were less than five in the cell. Spearman's correlation was used to identify the relation between obstetric history and severity of menopausal symptoms. Binary logistic regression analysis was done for all factors that could influence menopausal symptoms to detect which factor or factors is more predictor to severity of menopausal symptoms. In binary logistic regression, the outcome variable divided into dichotomous

variables: non-severe menopausal symptoms (mild and moderate symptoms) and severe menopausal symptoms.

**Table 1:** Distribution of Menopausal Symptoms among the studied females (N=150)

Menopausal Symptoms	Negative		Positive	
	No.	%	No.	%
- S. incontinence	59	39.3	91	60.7
- Hot flushes	74	49.3	76	50.7
- Sweating	76	50.7	74	49.3
- Loss of libido	109	72.7	41	27.3
- Headache	113	75.3	37	24.7
- Insomnia	116	76.7	34	23.3
- Drowsiness	136	90.7	14	9.3
- Palpitation	136	90.7	14	9.3
- Dyspnea	140	93.3	10	6.7
- Fatigue	140	93.3	10	6.7
- Numbness	141	94.0	9	6.0

#### Results

Table 1 shows the frequency of menopausal symptoms, stress incontinence where the highest reported symptom accounted to more than half of the sample (60.7%), followed by hot flushes and sweating accounted to nearly half of the sample (50.7%, 49.3%). Table 2 depicted demographic factors in which increase women menopausal age, urban residence, higher education and employment increase menopausal symptoms significantly. From table 3 and 4 it appeared that deficient knowledge about menopause and negative attitude towards menopause associated significantly with severity of menopausal symptoms. Table 5 clarified that deviated menstrual history from normal (age of menarche above 12, last menstrual cycle 60 years or above, scanty blood flow, flow more than 7 days and duration of menses 20 days) were associated with increase severity of menopausal symptoms. In Table 6 significant positive correlation between severity of menopausal symptoms and obstetric histo-

ry “gravidity, partiy and number of living children” were noticed. Table 7 presents that inherent factors as menopausal age > 60 years, amount of bleeding “scanty blood flow” and duration of menses > 7

days were predictors of menopausal severity. Table 8 and 9 illustrate that women’s relation with their husbands and their social life is affected negatively by severity of menopausal symptoms.

**Table 2:** Demographic factors influencing Menopausal Symptoms

Demographic factors	Mild	Moderate	Severe	$\chi^2$	P value
<b>Age groups (yrs)</b>				100.2	P < 0.001
45- 49 (n=21)	16 (76.2%)	5 (23.8%)	0		
50- 54 (n=57)	32 (56.1%)	22 (38.6%)	3 (5.3%)		
55- 59 (n=48)	31 (64.6%)	17 (35.4%)	0		
60- >60 (n=24)	0	5 (20.8%)	19 (79.2%)		
<b>Residence</b>				10.6	P = 0.005
Rural (n=86)	54 (62.8%)	25 (29.1%)	7 (8.1%)		
Urban (n=64)	25 (39.1%)	24 (37.5%)	15 (23.4%)		
<b>Education</b>				30.2	P < 0.001
Illiterate (n=83)	50 (60.2%)	24 (28.9%)	9 (10.8%)		
Read & Write (n=24)	14 (58.3%)	9 (37.5%)	1 (4.2%)		
Primary (n=10)	3 (30%)	5 (50%)	2 (2%)		
Secondary (n=17)	9 (52.9%)	7 (41.2%)	1 (5.9%)		
High Education (n=16)	3 (18.8%)	4 (25%)	9 (56.2%)		
<b>Marital status</b>				8.5	P = 0.075
Married (n=96)	49 (51%)	28 (29.2%)	19 (19.8%)		
Widowed (n=50)	29 (58%)	18 (36%)	3 (6%)		
Divorced (n=4)	1 (25%)	3 (75%)	0		
<b>Working</b>				22	P = 0.005
Housewife (n=87)	48 (55.2%)	33 (37.9%)	6 (6.9%)		
Employee (n=39)	16 (41%)	11 (28.2%)	12 (30.8%)		
Free work (n=24)	15 (62.5%)	5 (20.8%)	4 (16.7%)		
<b>Total (n=150)</b>	79 (52.7%)	49 (32.7%)	22 (14.7%)		

## Discussion

The present study is an exploratory study that investigated demographic factors and women’s gynecological and obstetric history influencing menopausal symptoms in Qena governorate; which will have great implication on preventive measures. In the present study more than half of the studied women had mild menopausal symptoms (52.7%), nearly one third percent (32.7%) had moderate severity of menopausal symptoms and nearly fifteen percent (14.7%) had severe menopausal symptoms.

The classical mild menopausal symptoms hot flushes and sweating were lower in this study (50.7%, 49.3%) as the same as of Malaysian studies by Syed et al (41.6%) and Dhillon et al (53%) and other studies in Asian countries<sup>(16-18)</sup>. Contrary to the study findings and Asian studies Western women reported higher menopausal symptoms from 45-75%<sup>(18)</sup>. Demographic factors influencing menopausal symptoms in this study were: menopausal age, employment, residence and educational level.

**Table 3:** Knowledge about meaning of menopause in relation to menopausal symptoms

Knowledge about meaning of menopause	Mild	Moderate	Severe	$\chi^2$	P value
Correct answer (n=134)	76 (56.7%)	45 (33.6%)	13 (9.7%)	25.4	P<0.001
Incorrect answer (n=16)	3 (18.8%)	4 (25%)	9 (56.2%)		
Total (n=150)	79 (52.7%)	49 (32.7%)	22 (14.7%)		

**Table 4:** Attitude about menopause in relation to menopausal symptoms

Attitude about menopause	Mild	Moderate	Severe	$\chi^2$	P value
Positive attitude (n=93)	59 (63.4%)	29 (31.2%)	5 (5.4%)	25.4	P<0.001
Negative attitude (n=57)	20 (35.1%)	20 (35.1%)	17 (29.8%)		
Total (n=150)	79 (52.7%)	49 (32.7%)	22 (14.7%)		

In this study Logistic regression analysis revealed that menopausal age 60 years or above is a predictor of menopausal symptoms severity. In addition, menopausal symptoms increase with working. The effect of menopausal age and working in this study go in line with USA menopause survey<sup>(15)</sup>. Several studies have also shown the impact of working status on the severity of menopausal symptoms. In some of these studies, employment had a negative impact on menopausal symptoms, while in others employment was a modifier. This finding shows that employment is a stressor for some women; whereas for others it is an opportunity for more communication with other people and therefore they experience milder menopause symptoms<sup>(19-21)</sup>. In USA survey, the severity of menopausal symptoms was varied by site and race/ethnicity<sup>(15)</sup>. In addition, we found in this study urban residence was significantly associated with the severity of menopausal symptoms. In contrast to the study finding higher prevalence of hot flushes among rural women than their urban counterparts was found in an Indian study<sup>(21)</sup>. In the present study, higher education was significantly associated with severity of men-

opausal symptoms, which in line with Taiwan study where educated women had more menopausal symptoms compared to less-educated women<sup>(22)</sup>. Opposing to the previous result; lower educational level was related to the prevalence of most of menopausal symptoms<sup>(15)</sup> in several studies and educated women reported mild menopausal symptoms<sup>(23-24)</sup>. Another finding in the present study was no apparent relation between marriage and menopausal symptoms; although a significant association between marriage and menopause severity was found in USA menopause survey as vasomotor symptoms: urine leakage and vaginal dryness were reported less frequently among never married, widowed or divorced than currently married women<sup>(15)</sup>. While in Australian study a stable marital status was significantly related to higher well-being scores and lower severity of menopausal symptoms<sup>(25)</sup> and in Korean study; women who did not have a partner (i.e., they were separated, divorced, widowed, or single) had higher severity of menopausal symptom<sup>(23)</sup>. Women with more negative attitudes towards menopause in general report more symptoms during menopausal transition.

**Table 5:** Relation between menstrual history and menopausal symptoms

Menstrual History	Mild	Moderate	Severe	$\chi^2$	P value
<b>Age of Menarche</b>				104.6	P < 0.001
12 years (n=113)	79 (69.9%)	31 (27.4%)	3 (2.70%)		
14 years (n=20)	0	15 (75%)	5 (25%)		
16 years (n=17)	0	3 (17.6%)	14 (82.4%)		
<b>Age of last menstrual cycle</b>				120.3	P < 0.001
45- 49 (n=25)	20 (80%)	5 (20%)	0		
50- 54 (n=46)	25 (54.3%)	18 (39.1%)	3 (6.5%)		
55- 59 (n=33)	29 (87.9%)	4 (12.1%)	0		
60- 64 (n=27)	5 (18.5%)	19 (70.4%)	3 (11.1%)		
65- > 65 (n=19)	0	3 (15.8%)	16 (84.2%)		
<b>Duration of menstruation</b>				106	P < 0.001
30 days (n=96)	66 (68.8%)	27 (28.1%)	3 (3.1%)		
25 days (n=30)	13 (43.3%)	17 (56.7%)	0		
20 days (n=24)	0	5 (20.8%)	19 (79.2%)		
<b>Amount of bleeding</b>				41.7	P < 0.001
Heavy (n=34)	23 (67.6%)	11 (32.4%)	0		
Moderate (n=63)	44 (69.8%)	16 (25.4%)	3 (4.8%)		
Scanty (n=53)	12 (22.6%)	22 (41.5%)	19 (35.9%)		
<b>Duration of bleeding</b>				78.1	P < 0.001
3 days (n=59)	41 (69.5%)	18 (30.5%)	0		
5 days (n=50)	38 (76%)	9 (18%)	3 (6%)		
>7 days (n=41)	0	22 (53.7%)	19 (46.3%)		
<b>Total (n=150)</b>	<b>79 (52.7%)</b>	<b>49 (32.7%)</b>	<b>22 (14.7%)</b>		

Some studies suggested that the youth-centered culture of the Western world considers menopause as a disease and negative effect<sup>(26-27)</sup>, so they nagged of higher menopausal symptoms<sup>(18)</sup>. In this study menopausal symptoms were significantly less pronounced in women's with positive attitude towards menopause. Also;

other studies on non-Western women reached to the same result were menopausal symptoms less common in women's viewed menopause as a positive rather than a negative event<sup>(28)</sup>. Women in Western countries tend to be better informed about implication of menopause<sup>(28)</sup>.

**Table 6:** Spearman's Correlation coefficient between obstetric history and Menopausal symptoms

	Gravidity	Parity	Spacing	Living children
Severity of menopausal symptoms	R= 0.517 P<0.001	R= 0.520 P<0.001	R= -0.146 P=0.07	R= 0.520 P<0.001

P<0.001 =highly significant

One survey conducted at Mexico City by Velasco-Murrillo et al<sup>(29)</sup> reported that 83.8% of women have knowledge about

menopausal symptoms and 90% knew about osteoporosis, 37% had some knowledge about cardiovascular risk after men-

opause. In Pakistan study they found that 78.8% women were aware about menopause but only 15.9% had knowledge about menopausal symptoms and health implication of menopause<sup>(30)</sup>. In this study about 89.3% of Qena women are aware of meaning and definition of menopause and their knowledge have significant positive implication on menopausal symptoms. In the

current study result increasing age of menarche more than 12 years associated with increase of menopausal symptoms, which agrees with Schwingl et al. (1994) result; as menarche before the age of 12 decrease prevalence of hot flushes<sup>(31)</sup>. Sabia et al. (2008) recorded an absence of association between age at menarche and hot flushes<sup>(32)</sup>.

**Table 7:** Logistic Regression for Inherent and Non-Inherent Factors Influencing Severity of Menopausal Symptoms

Factors influencing Menopause	B Coefficient	Stander Error	Wald chi square	P value Significance	B Explanation Odd's ratio
- Menopause age	-2.965	1.077	7.580	0.006	0.052
- Marital status	-0.111	0.527	0.045	0.832	0.895
- Education	-0.471	0.652	0.520	0.471	0.625
- Work	-0.217	0.236	0.850	0.356	0.805
- Residence	-0.908	0.773	1.381	0.240	0.403
- Menarche age	45.524	6.966	0.000	0.995	5.900
- Menstruation duration	17.586	2.801	0.000	0.995	4.342
- Amount of bleeding	-3.547	1.506	5.548	0.018	.029
- Duration of bleeding	4.235	1.761	5.782	0.016	69.051
- Age of last menstrual cycle	0.972	0.968	1.007	0.316	2.642
- Gravidity	1.029	560.111	0.000	0.999	2.798
- Parity	-14.095	3.361	.000	0.997	0.000
- Spacing	4.227	560.108	.000	0.994	68.536
- Knowledge about menopause	1.782	1.328	1.801	0.180	5.944
- Attitude about menopause	0.327	0.984	.111	0.739	1.387
- Constant	-49.337	6.966	.000	0.994	0.000

Logistic regression in Slovak study did not confirm association between age of menarche and menopausal symptoms<sup>(33)</sup>, thus agreeing with the Sabia finding. In Slovak study longer duration of menses (in days) found in women complain of menopausal symptoms particularly palpitations ( $p < 0.05$ ) and in women present with pins and needles in hands and feet ( $p < 0.05$ ) than without them. In contrast, in the current study shorter duration of menstrual cycle (20 days) found in women complain severe menopausal symptoms than other women

with normal menses duration. We found also in this study that menstrual blood flow deviation from the normal average as scanty flow, flow more than 7 days or if last menstrual cycle at age of 60 years or above associated with severity of menopausal symptoms. Both scanty menstrual flow and duration of menses  $>7$  days were predictors of menopausal symptoms severity by logistic regression. A normal amount of blood loss during each menstrual period is between 20 and 60 ml (this is about 4 to 12 teaspoonful), bleeding can last maximum

up to eight days, but five days is the average and periods continue until the menopause which is usually around the age of 50 years<sup>(34)</sup>. A greater understanding of the relationship between reproductive history and the menopausal symptoms could inform health providers about symptoms ex-

pectations and management of their premenopausal patients<sup>(35)</sup>. The occurrence of vaginal dryness has been associated with menopausal transition<sup>(13)</sup> particularly among women with multiple pregnancies compared to women with no pregnancies.

**Table 8:** Menopausal women's social relation according to marital status

Menopausal Physical Symptoms	Women's Relationship with their Husband		Widow or divorced	$\chi^2$	P value
	Good	Disrupted			
Mild (n=79)	50 (63.3%)	0	29 (36.7%)	84.3	P<0.001
Moderate (n=49)	26 (53.1%)	2 (4.1%)	21 (42.8%)		
Severe (n=22)	4 (18.2%)	15 (68.2%)	3 (13.6%)		
Total (n=150)	80 (53.3%)	17 (11.3%)	53 (35.3%)		

**Table 9:** Menopausal women's social changes

Menopausal Physical Symptoms	Menopausal Women's Social changes			$\chi^2$	P value
	No problems	Lack of interest in friendship or work	Social isolation		
Mild (n=79)	29 (36.7%)	27 (34.2%)	23 (29.1%)	25.4	P<0.001
Moderate (n=49)	21 (42.9%)	11 (22.4%)	17 (34.7%)		
Severe (n=22)	3 (13.6%)	0 (0%)	19 (86.4%)		
Total (n=150)	53 (35.3%)	38 (25.3%)	59(39.3%)		

A longitudinal study conducted by Hess and Colleagues (2008) reported that nulligravida and nulliparous women were less likely as half to report hot flushes and vaginal dryness compared to multigravida women<sup>(36)</sup>; which concordant with the present study results as increase gravidity, parity and number of living children positively correlated with severity of menopausal symptoms. Dissimilar; Deborah study found no role of parity or any of reproductive history on severity of hot flashes, however inherent differences between variable studies may help interpreting these inconsistencies particularly given different study populations and menopausal symptom measures used<sup>(37)</sup>. Natural menopause may strongly contribute to sexual changes experienced by these women, however its need to be emphasized that there are nu-

merous factors which contribute to declining sexual activities in middle age women following menopause<sup>(17)</sup>. It is found in Yeun et al study and Cha study that menopause symptoms-based complaints by middle-aged women were negatively correlated with sexual satisfaction in Korean reports<sup>(38,39)</sup>; the same findings reached by this study in which women's relation with their husband's is disrupted and affected significantly with increasing severity of menopausal symptoms or vice versa. Also; the study shows that social relation with friends and work colleagues up to social isolation is affected negatively by severity of menopausal symptoms. Many women experience mental lapses during menopause. Some of these women their friendships and family relations are affected negatively. The mental and emotional changes

should not interfere with women daily life and cause damage to friendships or relations with the folk at work, make it impossible to manage normal activities. If such; consultation to doctor or seeking psychological help is needed<sup>(40)</sup>.

### *Limitations and Strengths*

Limitations of the study includes: the study findings confined to specific group, so it cannot be generalized beyond the research settings in Qena governorate and age could be uncontrolled confounding factor that interferes with the effect of menopause on social relations of women. Strengths of the study were: Paucity of studies investigates severity of menopausal symptoms, make this study preliminary study for further wide base studies, pilot study before beginning of the study, questionnaire reviewed thoroughly and classification of severity of menopausal symptoms to degrees.

### **Conclusions**

Inherent factors as menopausal age and menstrual history as duration of bleeding and amount of bleeding are predictors of severity of menopausal symptoms in this study, adding to non-inherent factors as obstetric history (gravidity, parity, and number of living children) have significant influence on menopausal symptoms severity. The current data results add to a growing literature suggesting that consideration of a woman's menstrual and reproductive history is a valid tool for practitioners to consider when counseling their premenopausal patients about menopause and the incidence and severity of symptoms they can expect. Positive attitude about menopause with more awareness of women that menopause is natural body change and not medical condition or disease and social activities and good friendship and staying

with loved ones could alleviate menopausal symptoms.

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