

Menopausal Transition and Its Effect on Women's Health

Omaima M. Esmat and Hala Mohamed M. Hussein

Community Health Nursing Department, Faculty of Nursing, Ain Shams University, Cairo, Egypt
mhdnawar@yahoo.com

Abstract: The menopausal transition refers to the extended period of hormonal change in women that marks the end of the reproductive phase of life. **The aim** of this study was to assess the effect of menopausal transition on women's health. **Design:** this study was descriptive research design. **Setting:** it was conducted at administration departments in 7 Faculties of Ain Shams University. **Sample:** the study sample was multistage random sample technique included 200 married women working in Faculties of Ain Shams University. **Tool:** an interviewing questionnaire for assess the socio-demographic characteristics of the menopausal women, their knowledge, following of screening test, their health complaints associated with menopausal transition and their practices of dealing with menopausal health complaints. **Results:** the mean age of perimenopausal women was 50.8 ± 5.57 year. 100% of perimenopausal women had unsatisfactory knowledge regarding to meaning and types of hormonal therapy, 81% and 79% of perimenopausal women had physical and social health complaints, while 74% and 71% of them had sexual and psychological complaints respectively, 84.5%, 83%, 82% and 67.5% of them had improper dealing with psychological, sexual, physical and social health complaints respectively. **Conclusion:** The finding of this study showed that there was statistically significant relation between women's knowledge and their following of health screening test, a highly statistically significant relation between women's knowledge and their dealing with health complaints, as well as a highly statistically significant relation between women's income and their dealing with health complaints. **Recommendations:** This study recommended that there is a need to increase women awareness through different setting as outpatient clinics, maternal and child health and family planning centres to provide more explanations about menopausal transition and its effect on marital relationships and their health. [Omaima M. Esmat and Hala Mohamed M. Hussein. **Menopausal Transition and Its Effect on Women's Health.** *J Am Sci* 2013;9(1):369-379]. (ISSN: 1545-1003). <http://www.jofamericanscience.org>. 56

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1. Introduction

The menopausal transition refers to the extended period of hormonal change in women that marks the end of the reproductive phase of life. It may also be concomitant with other biological, psychological, and sexual changes. This is a complex time make potentially influences of menopausal transition on women's health (Houck, 2008). It is a natural physiological event that normally occurs between the ages of 45 to 55 years old (Stenchever, 2010).

Perimenopause is a transition period that includes pre menopause, menopause and post menopause when the physical and hormonal changes that herald cessation of menstruation occur (Lewise, 2008).

A mechanism of natural menopause occurs when the ovaries begin to fail to respond to the Lutinizing and follicle stimulating hormones that are produced in the anterior pituitary, which is under the control of the hypothalamus. These hormones are still being secreted into the blood stream, but the ovaries are not producing oestrogen and progesterone in response and ovulation becomes somewhat erratic (Judith, 2009).

Menopausal symptoms (MS) are caused by changes in oestrogen and progesterone levels. These

symptoms include: hot flashes, night sweats, skin flushing, insomnia, less sex drive, mood swings including irritability, vaginal dryness, as well as painful sexual intercourse and vaginal infections. Moreover, the long term effects of menopause include bone loss & eventual osteoporoses besides changes in cholesterol levels and greater risk of heart disease (North American Menopause Society, 2008). Menopausal symptoms pose a very direct threat to the menopausal woman's social concerns, as any limitation in the physical wellbeing of the menopausal woman is almost effect on family and friends (Andrews, 2007).

Because many of the health consequences of menopausal transition seen to be directly related changing ovarian steroid hormone levels, hormonal therapy (HT) including oestrogen only and combination of oestrogen and progestin. It has been a cornerstone of menopausal transition for treatment of menopausal symptoms such as hot flashes and urogenital atrophy, lower rate of health consequences such as osteoporosis and cardio vascular disease (Lund, 2008).

Hormonal replacement therapy (HRT) has become a hot issue for discussion among menopausal women in their late forties and fifties. The decision to

take HRT is a personal one for most women with conflicting advice often being offered by doctors, nurses, friends and the media. As a health professional must give accurate and up to date information to menopausal women so that they can make an informed choice for themselves (*Ganger & Key, 2007*).

According to *Lowdermilk et al., (2009)* there are ways to reduce or eliminates some of the associated menopausal symptoms through: stop smoking, eating low fat diet, regular & resistance exercise to strengthen bones, take calcium and vitamin D, weight control, wear light cotton clothes to relive hot flushes, make ke'gel exercise, using analgesics according to doctor's order, periodical screening examination as well as adopted a stress management program.

Significance of the study:

In Egypt, women aged 50 years or more constitute about 5 millions from the total population. The prevalence of menopausal symptoms among these women constitute 84% and with increase life expectancy of Egyptian women from 53.8 to 71.5 years. These mean that women suffer from menopausal symptoms for a longer period of time consequently constitute psychosocial, economic problems for women burden on our community, thus increasing women awareness where prevention is better their cure will decrease burden on women and society (*Sallam et al., 2008*).

Aim of the study:

The aim of the present study was to assess the effect of menopausal transition on women's health through:

- Assessing Women's knowledge regarding menopausal transition.

Identifying women health complaints which associated with menopausal transition and dealing with their health complaints.

Research questions

1. What are the health complaints associated with menopausal transition?
2. How would women dealing with the health complaints associated to menopausal transition?
3. Is there a relation between women's knowledge and dealing with the health complaints associated to menopausal transition?

Is there a relation between income and dealing with the health complaints associated to menopausal transition?

Study Design:

A descriptive analytical design was conducted to explore the effect of menopausal transition on women's health.

Technical Design

Setting:

The present study was conducted at administration departments in Faculties of Ain Shams University (7 Faculties), to represent the sample understudy, namely: Faculties of Commercial, Art, Science, Law, Alison, Education, and Engineering.

Sampling:

Multistage randomly technique was used in this study:

The first stage:

50 % (7 Faculties) of Ain Shams University were chosen randomly from the total number of 14 Faculties.

The second stage: the total number of administrative, directors, and employee's women were 1205 who selected according to certain criteria (inclusion and exclusion) inclusion criteria: aged ranged of 44 to more than 55 years, married and exclusion criteria: pregnant women, hysterectomy and oophorectomy.

The third stage: 20 % were chosen from the total number of 1205 women, the sample 241 women. From the total sample 41 women were excluded due to 10 women participate in pilot study, 20 women refusal to cooperate and 11 women due to incomplete data collection. The final sample included in study was 200 women.

Tool for data collection:

An interviewing questionnaire was used to collect data based on literature review and presented in simple clear Arabic language to assess the following items, it included:

- a) Socio-demographic data such as age, years of marriage, monthly income and level of education.
- b) Women's knowledge regarding menopausal transition such as: meaning, onset, symptoms & signs, health consequences, meaning of hormonal therapy (HT), types, side effect, and complication of hormonal therapy.
 - **The scoring system:** Each question had 2 levels of answers as satisfactory=1 and unsatisfactory=0. Total answers of questions was 22 score equal to (100%) and according to woman answers, their satisfactory answers were categorized as satisfactory considered more than or equal (50%) and unsatisfactory considered less (50%).
- c) Women's health complaints associated with menopausal transition: It covered the following items; physical, psychological, social and sexual complaints, each answer of the women were divided into experience or no experience.

- d) Women's following health screening test among this period, such as: Breast self examination, Breast "mammogram", Clinical breast examination, Blood pressure, Pap smear, level blood cholesterol and rectal examination by using two scale (done =1 and not done =0) it was adopted from (Citra *et al* 2008) .
- e) Women's health practices through asking questions about proper dealing with health complaints associated with menopausal transition. it was adopted from (Deeks & Mc Cabe, 2009),it include physical, psychological, social, and sexual health complaints.
- **The scoring system:** Each question had 2 levels of answers: proper dealing was scored =1 and improper dealing scored =0. Total answers of questions was 26 score equal to (100%) and according to woman answers, their proper dealing with complaints were categorized as properly dealt with considered more than or equal (50%) and improperly dealt with considered less (50%).

Validity test was done through 5 experts from the Staff Faculty of Nursing, Community Health Nursing.

Pilot Study:

A pilot study was carried out in order to test the applicability and clarity of the constructed tool, as well as to estimate the average time needed to complete all parts of the tools. A pilot study was conducted on 10 perimenopausal women; those women were excluded from the main study sample.

2. Field work:

- Official permissions were obtained from the Dean of the Faculty of Nursing to the Deans and administrators of the faculties of Ain Shams University which previously mentioned to obtain their acceptance to conduct the study.
- Before each interview, the researchers introduce herself and explained briefly the nature and aim of the study. Frequent visits were conducted through pre-determined appointment with the subjects.
- Data collection was done by the researchers, who prepared a time schedule to allow their presence on Sundays ,Tuesdays and Thursday in the previously selected faculties, from three to four women were interviewed every day from 10.30 am to 1. 30 pm, in order to complete data collection of the questionnaire

tools of the demented women; it took about 45 minutes to be filled in.

- The data collection lasted for 5 months from the beginning of October 2011 till the end of February 2012.

Statistical Design:

The collected data were organized, scored tabulated and analyzed using the number and percentage distribution. Statistical analysis was done by the computer and proper statistical tests were used to determine whether there were significant differences or not. The statistical analysis included; numbers, percentage, mean, Chi-square (X^2) and (P value). Significance of the result: P value < 0.05 significant P value > 0.05 non significant.

Ethical consideration

Ethical considerations were considered as for ensuring perimenopausal women privacy and confidentiality of data during the study conduction. Perimenopausal women were informed about the nature of the study and the researcher explained the aim of the study to them before applying the tool, to gain their confidence and trust. Also, the researcher informed them that they had the right to withdraw at any time.

3.Results:

Table (1) describes that the mean age of perimenopausal women was 50.8 ± 5.57 year, 76.5% their duration of marriage was more than 15 years. As regard level of education 57.5% of them had bachelor degree, in relation to monthly income 80.5% of them had sufficient monthly income and 53.5% of them had > 3 child.

Table (2) shows that 100% of perimenopausal women had unsatisfactory knowledge regarding meaning and types of hormonal therapy. 93.5%, 88.5% had also unsatisfactory knowledge regarding side effects and complications of hormonal therapy respectively. While 57.5% of them had satisfactory knowledge regarding meaning of menopausal transition.

Table (3) reveals that 81% and 79% of perimenopausal women had physical and social complaints, while 74% and 71% of them had sexual and psychological complaints respectively.

Table (4) demonstrates that the women practices of dealing with complaints, it was found that 84.5%, 83%, 82% had improper dealing with psychological, sexual, physical complaints respectively and 67.5% of them had also improper dealing with social complaints. The total of perimenopausal women who had improper dealing with all health complaints (physical, psychological, social and sexual) was 82.5%.

Table (5) reflects that the women following the screening test it was found that 96.5% of peri-menopausal women did not do rectal examination, 88% of them did not do health screening tests during menopausal transition regarding to mammography and clinical breasts examination, while 84% of perimenopausal women did not do breast self examination and pap smear. And also, 60% of peri-menopausal women's did not do the test of blood cholesterol level. In addition 67.5% of them done measurement of blood pressure, and 16% of perimenopausal women's done breast self examination and Pap smear.

Table (6) shows that the relation between women's knowledge and their dealing with health complaints associated with menopausal transition was statistically highly significant ($P < 0.01$).

Table (7) reflects that highly statistically significant relation between women's income and their dealing with health complaints associated with menopause.

Table (8) shows that statistically significant relation between women's knowledge and following health screening test $P > 0.05$.

4. Discussion

Menopause can be seen as a natural transition encompassing not only the biological changes but also the social changes associated with the natural aging process, including how a woman views herself and how she is viewed by society (*Hunt, 2009*). In other society and for other women, menopause is prescribed as a taboo topic that represents such as loss- loss of youth, loss of attractiveness, loss of possibilities. These women may be inadequately prepared to handle the physiological and psychological changes of menopause (*Deeks & Cabe, 2009*).

Regarding menopausal women's socio demographic data, the present study revealed that the age of menopausal women' ranged between 45 – to more than 55 years with the mean age of (50.8 ± 5.57 years), the highest percentage of them were between the ages of 50 – less than 55 years (**Table1**). This finding agrees with *Reynolds & Obermeyer, (2010)*, they found that the majority of their study the women ranged between 40 up to 58 years.

Table (1): Distribution of peri-menopausal women according to their socio-demographic characteristics (n = 200)

Characteristics	No	%
Age / years :		
44-	63	31.5
50 -	71	35.5
55 -	66	33
Mean = 50.8 ± 5.57		
Marriage duration:		
< 10 yr	12	6
15 yr	35	17.5
15+	153	76.5
Monthly income/basic need:		
Sufficient	161	80.5
Insufficient	39	19.5
Educational level :		
Diploma	70	35
Bachelor	115	57.5
Post graduate education	15	7.5
Number of children		
2 child	82	41
> 3 child	107	53.5
None	11	5.5

Table (2): Distribution of peri-menopausal women according to their knowledge regarding menopausal transition (M.T) (n = 200).

Women's Knowledge	Satisfactory		Unsatisfactory	
	No.	%	No.	%
Meaning of M.T	115	57.5	85	42.5
Onset	73	36.5	127	63.5
Symptoms & signs.	41	20.5	159	79.5
Health complaints of MT.	53	26.5	147	73.5
Hormonal Therapy:	0	0.0	200	100
▲ Meaning				
▲ Types	0.0	0.0	200	100
▲ Side effects	13	6.5	187	93.5
▲ Complications	23	11.5	177	88.5
Total	62	31	138	69

M.T menopausal transition

According to research question No.1: What are the health complaints associated with menopausal transition? **Table (3).**

Table (3): Distribution of perimenopausal women according to their health complaints (n=200).

Health complaints	Experienced		No experienced	
	No.	%	No.	%
*Physical:				
Hot flushes.	168	84	32	16
Night sweats.	149	74.5	51	25.5
Headaches.	156	78	44	22
Palpitation	148	74	52	26
Difficult of breathing.	144	72	56	28
Numbness in legs & hands	122	61	78	39
Dry skin.	86	43	114	57
Muscle and joint pains.	175	87.5	25	12.5
Stress incontinence.	102	51	98	49
Insomnia.	138	69	62	31
Total Physical	162	81	38	19
*Psychological:				
Nervousness.	167	83.5	33	16.5
Difficulty in concentration.	150	75	50	25
Feel depressed.	137	68.5	63	31.5
Feeling loneliness	98	49	102	51
Low self esteem.	65	32.5	135	67.5
Total Psychological	142	71	58	29
* Social:				
Increased responsibilities toward children (n = 189)	173	91.5	16	8.5
Caring for aging family members.	113	56.5	87	43.5
Inability to work.	105	52.5	95	47.5
Change in marital relation with her husband	110	55	90	45
Feeling with unimportant from other bodies	160	80	40	20
Busy of her children with work or marriage (n=189)	31	16.5	158	83.5
Total Social	158	79	42	21
*Sexual :				
Dyspareunia.	144	72	56	28
Decrease in sexual desire.	130	65	70	35
Difficult to arrive pleasure level.	125	62.5	75	37.5
Vaginal dryness during intercourse.	122	61	78	39
Avoiding intimacy during intercourse.	112	56	88	44
Total Sexual	148	74	52	26

*Responses are not mutually exclusive

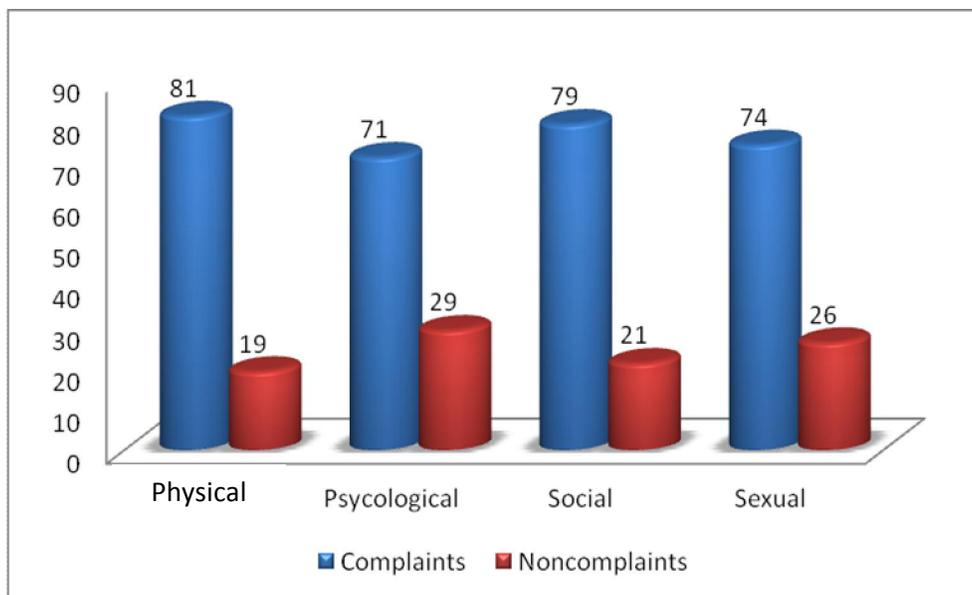


Figure (2): Percentage of Collective Health Complaints Related to Menapausal Transition

According to research question No. 2: How would women dealing with the health complaints associated to menapausal transition? Table (4)

Table (4): Distribution of perimenapausal women according to their dealing with health complaints associated with menapausal transition (n=200).

Items	Proper		Improper	
	No.	%	No.	%
* I-Physical :				
1. Lower room temperature as use fans.	97	48.5	103	51.5
2. Opening all windows.	116	58	84	42
3. Wear cotton clothes.	93	46.5	107	53.5
4. Limit coffee and alcohol intake.	74	37	126	63
5. Drink 8 to 10 glasses of water daily	48	24	152	76
6. Take vitamin E 100 mg/daily	27	13.5	177	88.5
7. Stop smoking or cut back.	18	9	182	91
8. Avoid hot drink and spicity foods.	50	25	150	75
9. Take calcium (1.200-1.500) mg and vitamin D (400-600) IU.	28	14	172	86
10. Maintain healthy weight.	33	16.5	167	83.5
11. Make kagel exercise to improve bladder function.	38	19	162	81
12. Chamomile : soothing agent	24	12	176	88
Total	36	18%	164	82%

Table (4): Continued.

Items	Proper		improper	
	No.	%	No.	%
* II- Psychological :				
1. Try relaxation techniques, and deep breathing.	71	35.5	129	64.5
2. Ginseng : help improve memory and balance hormones.	13	6.5	187	93.5
3. Take medical herbs to reduce depression and fatigue.	0	0.0	200	100
4. Participate in pleasurable activities	47	23.5	153	76.5
5. Talk with friends.	103	51.5	97	48.5
6. Renew a creative outlet or activity that fulfils mental or spiritual needs	102	51	98	49
7. Laugh as much as possible	71	35.5	129	64.5
Total	31	15.5	169	84.5
* III-Social:				
1. Identify stressors and learn to manage them.	84	42	116	58
2. Enjoy self care activities such as a massage, pedicure or even leisurely both.	63	31.5	137	68.5
3. Seek professional help if necessary	35	17.5	165	82.5
4. Join a support group.	47	23.5	153	76.5
Total	65	32.5	135	67.5
* IV-Sexual :				
1. The use of oestrogen vaginal tablets	0	0.0	200	100
2. Over the counter moisturizers and lubricants.	55	27.5	145	72.5
3. A positive outlook on sexuality and supportive partner are needed to make the sexual experience enjoyable and full filling.	37	17.5	163	81.5
Total	34	17	166	83
Total dealing with all health complaints associated with menopausal transition	35	17.5	165	82.5

***Responses are not mutually exclusive**

Table (5): Distribution of perimenopausal women according to following health screening tests during menopausal transition (n = 200)

*Health screening tests	Done		Not done	
	No.	%	No.	%
Breast self examination.	32	16	168	84
Breast "mammogram"	24	12	176	88
Clinical breast examination	24	12	176	88
Blood pressure	135	67.5	65	32.5
Pap smear	32	16	163	84
Level blood cholesterol	80	40	120	60
Rectal examination	7	3.5	193	96.5
Total	27	13.5	173	86.5

***Responses are not mutually exclusive**

According to research question No. 3: Is there a relation between women's knowledge and dealing with the health complaints associated to menopausal transition? **Table (6)**

Table (6): Relation between perimenopausal women's knowledge and their dealing with health complaints associated with menopausal transition (n = 200).

Total Dealing with all health complaints	Knowledge				Total
	Satisfactory		Unsatisfactory		
	No	%	No	%	
Improper	42	9.5	123	61.5	165
Proper	20	4.5	15	7.5	35
Chi 2 = 13.56 P value < 0.01 HS					

According to research question No. 4: Is there a relation between income and dealing with the health complaints associated to menopausal transition? **Table (7)**

Table (7): Relation between income and their dealing with health complaints associated with menopause (n = 200).

Monthly income	Total Dealing with all health complaints				Total
	Proper		improper		
	No	%	No	%	
• Sufficient	20	15	141	70.5	161
• Insufficient	15	7.5	24	12	39
Chi 2 = 14.74 P value < 0.01 HS					

Table (8): Relation between perimenopausal women's knowledge and following health screening test (n = 200).

Health screening test	Knowledge				Total
	Satisfactory		Unsatisfactory		
	No	%	No	%	
• Done.	14	7	13	6.5	27
• Not done.	48	24	125	62.5	173
Chi 2 =6.34 P value less than 0.05 significant					

Regarding menopausal women' marriage duration, level of education and number of children the current study found that more than three quarter of them the duration of marriage was more than 15 , more than half of them had bachelor degree and had more than 3 children (**table1**).

As regards menopausal women's knowledge, the present study revealed that more than two third menopausal women had unsatisfactory knowledge regarding to menopausal transition; specifically all of them had unsatisfactory knowledge regarding meaning and types of hormonal therapy (**Table 2**). This result goes in line with *Sallam et al. (2008) & Gohar, (2009)* found that menopausal women in their studies had low information about menopausal transition period and their dealing with complaints. It might be due to lack of awareness and health education about menopausal transition and how to deal with health complaints, health care centres and community services. The issue of menopause in society either not spoken about or as individual complaints discussed with private gynaecologist.

Regarding physical symptoms experienced by studied women, The present study revealed that the majority of women had muscle, joint pain & hot flashes and more than three quarter of them complained from headache, around three quarters of them had night sweat, more than two third of them complained from insomnia. Less than two third of them had numbness in leg and hands. More than half had stress incontinence (**Table 3**). This results was in contrast with *Utain (2007)* who found that more than two fifth of women in his study experienced physical symptoms. This result was in agreement with *Nelson (2008)* who found that more than half of menopausal women in his study were experienced physical symptoms, and that about 40% - 60% of them had sleep disturbance, night sweat and hot flashes.

The result of present study agree with study done by *Gohar (2009)* who found that the majority of Egyptian menopausal women experienced hot flushes and complained of tiredness. The fact that was confirmed by *Mohyi et al. (2007)* who mentioned that there are approximately 40% to 50% of million

women experienced hot flushes during menopause in world wide. Also **Obermeyer et al. (2009) & Pan et al. (2008)** they found that hot flushes, muscles and joint pain, night sweating and palpitation were most common symptoms among menopausal women. It might be due to change in oestrogen level which affects the autonomic nervous system which causing sweating and flushing.

Many studied such as **Haines et al. (2009)** mentioned that most of women had body and joint pain, **Citra et al. (2008)** reported that more than half of menopausal women had muscle and joint pain. Meanwhile **Hannested et al. (2007)** found that more than one quarter of menopausal women had complained of urinary incontinence. Also **Mishre et al. (2009)** showed that high percentage of women reported headache and tiredness. All of which confirmed by sufferings experienced studied perimenopausal women in relation to different systems of the body. It might be due to reduce of anabolic hormone level (oestrogen) which causing muscle weakness, osteoarthritis and urinary incontinence due to weakness of pelvic floor muscles.

Regarding psychological, social complaints during peri-menopausal transition, The current study showed that the majority of women had nervousness, three quarters of them had difficulty in concentration, more than two third of them felt depressed and less than half were feeling loneliness. Less than three quarters of women had psychological complaints (**table 3**). These findings come in accordance with **Study of Women's Health Across the Nation (SWAN) (2007)**, which was a project involved 10,374 women aged 50 to 55 years in base line had experienced psychological complaints during menopausal transition.

Also **Deecher et al. (2009)** reported an elevated prevalence of major psychological disorders among menopausal women. **Cohen et al. (2009)** referred to more than one third of menopausal women with self reported physical symptoms also experienced depressive symptoms. Furthermore, **Frackiewicz & Cutler (2008), Cohen et al., (2009)** mentioned that women in midlife may experience hormone related mode changes, irritability, nervousness, insomnia and depression.

The present findings agreed also with study done by **Sief et al. (2008)** reported that more than half of menopausal women were always being tired, anxieties and sometimes they had feeling of nervousness. Also more than one third had difficulty in concentration. **Mishra & Kuh (2007)** reported that more than two fifth of menopausal women ranged age between 48-45 years had psychological symptoms.

The current study findings revealed that more

than three quarter of peri menopausal women had social complaints (**table 3**) this finding was in congruence with **Paqelle & Raine (2007)** stressed that social effects can be mediated by women's internal feeling of self confidence and their relationships with significant others, entail care giving role for their children, spouses, aging parent and family members that compound the stress of daily life. Also **Hardy & Kuh (2009)** mentioned that during midlife, women commonly experienced change in their social role, the stress of parenting, adolescent, children and subsequently of children leaving home, illness of their partner or parents associated with these other life changes.

In consideration to sexual complaints, the present study showed that less than two third of menopausal women had decrease in sexual desire, difficult to arrive pleasure level and had vaginal dryness during intercourse, less than three quarters had dyspareunia and more than half avoiding intimacy during intercourse (**Table 3**). This results goes in line with **Nelson (2008) & Seif et al. (2008) Goher (2009)**, who found that less than two thirds of Egyptian women complained of loss of libido and more than half complained of vaginal dryness. There results supported of, **Dennerstein (2008) & Nicolosi et al. (2009)** reported the majority of Egyptian women had dyspareunia during intercourse and more than half had no sexual desire.. Also, **Gwad (2006)** who found that more than half of menopausal women suffer from dyspareunia. This could be due to the vaginal dryness that leads to loss of libido

As regard women's dealing with health complaints associated with menopausal transition, the current study showed that the majority of perimenopausal women were improperly dealing with of physical, sexual, psychological health complaints and more than two third of them were also improperly dealing with their social complaints (**Table 4**). This results come in accordance with **Sallam et al. (2008)** who found that studied women were in need for increased awareness regarding healthy and productive life style during this stage of their lives. This finding could be attributed to lack of knowledge regarding aspects of health promotion during menopausal transition.

This results in contrast with **Ebrahim (2007) & Seif et al. (2008)** who found that more than half of menopausal women had proper dealing with menopausal complaints, while they failed in relieving psychological and sexual symptoms.

The current study showed that the majority of perimenopausal women did not done health screening tests (mammography, clinical breast examination, breast self examination, pap smear, rectal examination and blood cholesterol level) during

menopause (**Table 5**). *Clark (2008)* emphasized the importance of the availability of health screening services for menopausal women and they should educate regarding the need for screening test.

It was also revealed a highly statistically association between women's knowledge and their dealing with complaints associated with menopausal transition (**Table 6**). In accordance with *Seif et al. (2008)* who reported a highly statistically correlation was found between women's knowledge related to menopause and their dealing with menopause.

Also highly statistically association between women's income and their dealing with their health complaints related to menopause (**Table 7**). *Seif et al. (2008)* was found that high statistically significant relation between women's level of education, income and Egyptians premenopausal women who dealing with health complaints and problems. The reason for this could be due to insufficient income which was directed for basic life needs of women's point of view.

The present study showed statistically significant relation between women's knowledge and following health screening test (**Table 8**). *Seif, et al. (2008)* reported highly statistically significant relation between women's knowledge and their compliance of health screening test. This might be due to the women who had knowledge about menopausal transition period, hormonal therapy and its problems were more interested in following health screening test.

Conclusion:

Based on results of the current study, and the research questions the following can be concluded that: all of perimenopausal women had unsatisfactory knowledge regarding meaning and types of hormonal therapy and the majority of women had improper dealing with all health complaints. There was a highly statistically association between women's knowledge and their dealing with complaints associated with menopausal transition, also between women's income and their dealing with complaints. Moreover, between women's knowledge and following health screening test.

Recommendations

On the light of the present study findings, the main recommendations can be stated as follows:

- Increase women awareness in different settings as outpatient clinic, maternal and child health and family planning centres to provide more explanations about menopausal transition and its effect on marital relationships and their health.
- Carry out health education and counselling for perimenopausal women regarding to

their dealing with physical, psychological, social, sexual health complaints and also, following the screening test.

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