

Effect of Self-Care Guideline Regarding Quality of Life for Menopausal Symptoms among Perimenopause Women

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Abstract

Background: Perimenopause represents a critical life stage encompassing a range of physiological and psychosocial changes that require adaptations to optimize health. The present study **aimed to** Evaluate the effect of self-care guidelines on the quality of life among perimenopausal women. **Design:** Quasi- experimental (pre- posttest). **Setting:** Administrative buildings of Suez Canal University in Ismailia city. **Sample:** Purposive sampling of perimenopausal women employed in Suez Canal University and having perimenopausal symptoms was recruited in study. The selected women were randomly allocated into two groups: Study and control group (102 women each). **Tools of data collection :** A structure interview questionnaire, menopausal rating scale, self-care diary and quality of life assessment questionnaire. **Results:** There were statistically significant increase in total knowledge and self-care practices for women in study group comparing to women in control group post intervention and during follow up (after 3 months) (P = 0.01, 0.02). There were highly statistically significant increases regarding total quality of life in study group comparing to women in control group post intervention & after 3 months. (P = 0.004, 0.01). The study **concluded that:** Guidelines is an effective complementary health approach for improving quality of life in perimenopausal women. **Recommendation:** Increase level of awareness among women regarding issues of menopausal symptoms. Self-care guidelines should be used in health care centers as a routine care for perimenopausal women.

***Key-words:** Perimenopause, Self-care guidelines, Quality of life.

1. Introduction

Female health at different age groups is an important issue to reach the efficiency of the women to perform all their duties according to their responsibilities and to increase their productive capacity, which will consequently promote the national

economy (El Shebini et al., 2020).

Perimenopause is the beginning of the transition phase which usually commence several years before the final stoppage of menstrual flow. It usually begins around 40 years of age and can last up to 8 to 10 years before natural menopause starts and typically

occurs between the ages of 45 and 55 years (Farotimi et al., 2020).

In Egypt, the mean age of menopause is 46.7 years, which is small relative to other countries, but this age has recently been increasing. The incidence of menopause-associated symptoms in Egyptian women is higher than in the West, possibly due to the different sociocultural attitudes (Ramadan et al., 2020).

Menopause will cause health problems or not, depending on the fertility and health of women. Including self-care preparation for dealing with change such as food care, regular exercise, vaginal muscle exercise, mental health promotion activities, support from family and society, and the use of hormone replacement drugs. The management of these menopausal symptoms is to alleviate the discomfort that affects the lives of menopause women (Afshari et al., 2020).

Self-care concept should be empowered as an essential part of all levels and strategies of women health care. Further researches are needed regarding factors and barriers associated with the utilization of self-care practices through reproductive years for women as well as for management of various perimenopausal and

gynecological problems (Saber & Masoud., 2018).

Quality of life (QOL) is a broad-ranging concept, incorporating the person's physical wellbeing, mental state, level of independence, social connections, personal convictions and their relationship with salient features of the environment. In addition quality of life is an important outcome measure of health care, and understanding the impact of menopause on quality of life is a critically important part of the care of symptomatic menopausal women (Mujchin et al., 2015).

Nurses play a vital role in health care provision; nurses provide the majority of direct patient care. In addition to performing routine medical procedures, also play many other important roles (teacher, caregiver, counselor, manager, and researcher) (Faraji et al., 2018).

2. Significance of the study:

Menopausal period is a normal physiological process that can affect the women quality of life. Thus, increasing women's self-care guidelines and dealing with their health complaints are important to decrease severity of menopausal symptoms and improve quality of life.

The aim of the study:

To evaluate the effect of self-care guidelines on the quality of life among perimenopause women.

Research Hypothesis: There will be a significant improvement in quality of life among perimenopause women who will apply the self-care guidelines.

2. Subject and Methods

Study design: Quasi-experimental research design an intervention study used to estimate the impact of intervention on target population without random assignment . A quasi experimental intervention study but doesn't' actually those criteria of manipulation and control group was assigned, self-care guidelines booklet (supportive material) was established to study group, then comparisons were made between groups regarding pre /Posttest and follow up (After 3 Month).

The sample of the study:

According the equation, the actual sample size was 204 women that were selected from the perimenopause women according to **inclusion criteria** (women ranging in age from 45 to 55 years, women with natural menopause and able to read

and write) and **Exclusion Criteria** (women who are using hormonal replacement therapy who may ovarian restriction or hysterectomy post menopause).

The sample was divided into two groups: first group for study group, second group for control group (102 for each group).

Sample size:

Since the prevalence of menopausal symptoms in Egyptian women was 84 % (*Sallem.,2006*).

This substituting in the following equation: (**Daniel., 1983**)

$$P(1-P) Z^2 \dots\dots\dots N=E^2$$

N=Sample size.

P=the proportion of menopausal symptom among women in Egypt=84%

E=Percentage of Standard Error.

Z=A percentile of the standard normal distribution determined by 95% confidence level =1

Sampling Type:

A purposive sampling technique was used in the present study to collect the study sample.

The investigator announced in Suez Canal University administrative departments to inform employee's women about the aim of study. List of all female employees aged from 45 to 55 years were accepted to participate in the study. Sample size 102 women were selected randomly from the lists were recruited as study group and from the second floor departments 102 women were selected randomly from lists were recruited as control group.

Study setting:

The study conducted at administrative buildings of Suez Canal University in Ismailia city. The buildings consists of two floors, each floor contains number of administrative departments, totally there are 18 departments.

Tools of data collection:

Tool (1): Self-administered questionnaire:

The investigator based on the relevant literatures prepared this tool. Data collection was divided into five parts. (Ramadan et al., 2020).

Part (1): It was used to assess personnel characteristic data as name, age, occupational, body mass index, and level of

education (11 questions).

Part (2): It was used to assess menstrual history as age of menarche, interval, duration in days, regularity of menstruation, and amount of blood by (number of pads) (8questions).

Part (3): It was used to assess obstetrical history as number of pregnancy, number of birth, number of abortion, number of living children and mode of last birth in addition to family planning methods (8questions).

Part (4): It was used to assess gynecological history as polycystic ovary, fibroid, previous infertility, abnormal vaginal discharge, gynecological surgery (7questions).

Part (5): It was used to assess medical and surgical history as heart disease, diabetes, renal disease, anemia and liver disease (2questions).

(II): Modified vision of (MRS) Menopause Rating Scale and menopausal symptoms list (Heinemann et al., 2004). Modified by the researcher to assess the menopausal symptoms and its severity. This part consisted 62 items (symptoms) categorized under four areas which were:

- Physical symptoms included 41symptoms.
- Vasomotor symptoms included

4 symptoms.

- Psychosocial symptoms included 12 symptoms.
- Sexual symptoms included 4 symptoms.

Scoring system

Regarding to the symptoms of Menopause Rating Scale: Each symptom was scored along 5 point according to the following scores:

- Non symptoms took 1 point
 - Mild symptoms took 2 point
 - Moderate symptoms took 3 point
 - Severe took 4 point.
- Very symptoms took 5 point.

(III) Women's self-care diary (pre/post/ follow up).

This part developed by the researcher based on the review of literatures for the purpose of assessing the different practice used by women such as care of the hot flashes of face and body, night sweats , care for dry skin and hair careetc.).

Scoring system: Self-care consisted of 7 questions about the symptoms of menopause and method to relieve menopausal symptoms. Answering each question was specified with 3 options of never, sometimes, and always scores from 1

to 3 were respectively assigned to the answers. They were scored reversely higher scores indicated higher levels of self-care and their effects each symptoms having measure according to its nature.

(IV): The Manchester health questionnaire was developed by (WHO, 2019) regarding women's quality of life (pre/post/ follow up):

It modified by the researcher for the purpose of assessing the quality of life for menopausal women, it contained of 34 items categorized under severe major area of domain as following:

Women's perception of the effect of M.S on QOL, included 3 items

- Physical limitation included 3 items (Q1, 2, 3)
- Role limitation included 3 items (Q 4, 5)
- Social limitation included 3 items (Q 6, 7, 8)
- Psychological limitation included 5 items (Q12to 16)
- Sleep/energy limitation included 2 items (Q 17, 18)
- Coping mechanism, included 16 items (Q19 to 34).

MENQOL domains is identical. The five point Likert scale used during the

administration of the MENQOL is converted for scoring and data analysis. For each of the 34 items . A Separate 5 point scale ranging from never (1) to always (5 point) was used for the measurement of each items total score in each domain were ranged between zero and 100, the higher score indicating good QOL, lower score indicating poor QOL. Those who obtained score from 0 to 33.3% were considered to have high effect of M.S on QOL poor QOL more than 33.3% to 66.7% were considered to have moderate effect of M.S on QOL (average QOL) and more than 66.7% were considered to have mild effect of M.S on QOL(good QOL). Also those who obtained score 0 to 33.3% were considered to have poor coping , more than 33.3% to 66.7% were considered to have moderate coping, and more than 66.7% were considered to have good coping.

N.B the items of coping mechanism were positive statement except the number 27, 29, 33and 34 (were negative statements. the scale of negative items ranging from (0 point) to always (4 points).

(VI):Women's satisfaction (post study group) Likert Scale: It was used to assess woman's' satisfaction towards self-care guidelines. The scale scores are; satisfied

=2, slightly satisfied =3 and dissatisfied = 1

Reliability of the Tools:

A jury of five experts in the field revised the instrument to ensure clarity, relevance, applicability, comprehensiveness ,understanding, and simplicity of use. The changes were made in accordance with their suggestions. Cronbach's alpha was used to determine the dependability of the evaluation tools.

Field work:

After the mother was selected from mentioned setting according to the previous criteria: Women ranging in age from 45 to 55 years, Women with natural menopause, Able to read and write, Free from uncontrolled medical conditions as diabetes, hypertension, and cardiac disease and thyroid disorder. Exclusion criteria Women who are using hormonal replacement therapy (HRT).Women who may ovarian restriction or hysterectomy post menopause.

The woman's knowledge assessing, self-care practices and their quality of life regarding menopause by pretest self-administered questionnaire. Then gave self-care guidelines booklet to study group. Through (3days/per week) collected the questionnaire from the women. Also, the researcher communicated with women through telephone and call for

instruction for any part in booklet needed explanations to emphasize improving woman's knowledge and self-care practices.

Follow up and evaluation phase (post-test):

Three evaluations were done for each woman in study and control groups in order to detect the effect of self-care guidelines on quality of life, knowledge and practices of women regarding menopause and self-care practice (follow up post-test). The first one was at the beginning of the study as a baseline data (pre-test). The second evaluation was conducted after one month from the guidelines booklet taken. The third evaluation was conducted after three months from the second evaluation. This data was collected through a period of 10 months from July 2016 to April 2017. After the final study evaluation self-care guidelines booklet was distributed to women in control group to improve their life style.

Administrative design:

An official letter was submitted from the Faculty of Nursing at Suez Canal University to the directors of administrative building departments of the study settings to obtain the approvals to conduct this study and enhance they co-operation.

Ethical considerations:

Full brief explanation about the aim & importance of the study were provided to the participants women. Reassuring the employee women that confidentiality of personal information and human rights were kept at all the study period, data collected were used for the research purpose only, and they has the opportunity to withdraw from study at any time. Then informed oral consent was obtained from the participants women.

Statistical design:

The collected data were organized; categorized, analyzed using the statistical package for social studies (SPSS). Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, mean and standard deviations in addition ANOVA test for quantitative variables. The statistical test such as chi-square test was to determine relation between qualitative data. Statistical significance difference was considered when $p < 0.05$ and high significance when $p\text{-value} \leq 0.001$ and no statistical significance difference was considered when $p\text{-value} > 0.05$.

3. Results

Table (1): describes that there were no

statistical significant differences between study and control group. Also the mean age of the study & control group were (47.2 ± 1.7 , 47.9 ± 1.4 SD years, about half of them had high education, the majority of them were married, More than half of them work more than fifteen years, more than two third of them wasn't having enough monthly income 52.9%, 45.1%, 71.6%, 61.8%, 52.9%, 55.9%, 66.7%, 62.7% respectively). Also highest percentage of them was overweight (38.2%, 30.4% respectively). In addition, more than three quarters of them worked full pay 82.4%, 77.5% respectively).

Table (2) clarifies that, there were a highly significant increase regarding total menopausal symptoms in study group post & after 3 months of intervention when comparing to their total menopausal symptoms pre intervention ($P = 0.001$, 0.0001 , 0.002 , 0.004 respectively). Also there were statistically significant increase in total mean score for menopausal symptoms in study group comparing to women in control group post intervention and & after 3 months ($P = 0.02$, 0.03 respectively).

Table(3) illustrates that, there were a highly significant increase women's self-

care toward perimenopausal symptoms in study group post & after 3 months of intervention when comparing to their self-care toward perimenopausal symptoms pre intervention ($P = 0.01$, 0.001 , 0.007 respectively). Except care of vaginal dryness and sexual problems (pain during intercourse - lack of desire - lack of response). Also there were a highly statistically significant increase total practices mean score of women's toward perimenopausal symptoms in study group comparing to women in control group pre ,post intervention & after 3 months ($P = 0.04$).

Table(4) clarifies that, there were a highly significant increase the effect of perimenopausal symptoms on lifestyle in study group post & after 3 months of intervention when comparing to their effect of perimenopausal symptoms on lifestyle pre intervention ($P = 0.001$). Also, there were a highly statistically significant increase in total mean score regarding the effect of perimenopausal symptoms on lifestyle in study group comparing to women in control group post intervention & after 3 months ($P = 0.0002$, 0.03).

Table(5) clarifies that, there were a highly significant increase regarding total quality of life in study group post & after 3 months of intervention when comparing to their total

quality of life pre intervention ($P = 0.0001, 0.005$ respectively). Also, there were a highly statistically significant increase regarding total quality of life in study group comparing to women in control group post intervention & after 3 months. ($P = 0.004, 0.01$).

Figure (1) shows that, less than two third of the study group were satisfied with total self-care guidelines (63.7%). Also there were about two third of them satisfied with information about menopause, overcome physical methods (71.6%, 65.7% respectively). While less than two third of the them satisfied with psychological, genital and urinary symptoms methods (61.7%, 62.7% respectively).

4. Discussion

Regarding demographic characteristics, the current study revealed that more than two third of them didn't have enough monthly income. Majority of the women were worked 8 hours per day. Near three quarters of the women was worked full pay. This result was agreement with **Ibrahim, et al, (2020)** who conducted entitled "The effect of menopausal symptoms on the quality of life among postmenopausal Egyptian women" and found that majority

of women worked 8 hours in day.

Also the current study was accordance with **Ali, et al, (2018)** who conducted entitled "Women's Adaptation Methods toward Transitional Menopausal Symptoms among Medical and Non-Medical Personnel" and found that majority of the women was worked full pay. Conversely, this result was disagreement with **Kamal, & Seedhom, (2017)** who conducted entitled "Quality of life among postmenopausal women in rural Minia" and found that majority of women ad enough income monthly.

Regarding menstrual history, the current study showed that majority of women's age of menarche ranged between 10 to 14 years old. Less than two third of women had more than 12 months before menopause. More than half of women between 45 to less than 50 years, Majority of them had gradually menstruation cessation. The present study was supported with **Ahmed, et al, (2015)** who conducted entitled "Prevalence of menopausal related symptoms and their impact on quality of life among Egyptian women" and found that majority of women's age of menarche ranged between 11 to 15 years old.

Regarding total menopausal symptoms, the current study clarified that, there were

statistically significant increase in total mean score for menopausal symptoms in study group comparing to women in study group post intervention and during follow up (after 3 months). Also, there was a highly significant increase regarding total menopausal symptoms in study group post & after 3 months of intervention when comparing to their total menopausal symptoms pre intervention. From the researcher point of view, this study may be due to self-care guidelines were very important for women during menopausal to increase their information.

The result of the present study was agreement with **Larroy, et al., (2019)** who conducted entitled "The impact of perimenopausal symptomatology, socio demographic status and knowledge of menopause on women's quality of life" and found that majority of women had no significant increase regarding total menopausal symptom. Conversely, this result was disagreement with **Mathew, et al., (2020)** who conducted entitled "Assess the Quality of Life of Perimenopausal and Post menopausal Women in Rural Etawah, Uttar Pradesh, India" and found that two thirds of women had good knowledge about Perimenopausal symptoms.

Regarding women's self-care toward peri-menopausal symptoms, the current study clarified that, there were a highly statistically significant increase women's self-care toward peri-menopausal symptoms in study group comparing to women in study group post intervention and during follow up (after 3 months). Also, there were a highly significant increase women's self-care toward peri-menopausal symptoms in study group post & after 3 months of intervention when comparing to their self-care toward peri-menopausal symptoms pre intervention. From the researcher point of view, the study may be due to women had bad knowledge about their self-care peri-menopausal symptoms thus women were more need to this guidelines.

The result of present study was agreement with **Smail, et al., (2020)** who conducted entitled "Menopause-specific quality of life among Emirati women" and found that majority of women had there were insignificant increase women's self-care toward peri-menopausal symptoms. Conversely, this result was disagreement with **Ganapathy, & Al Furaikh., (2018)** who conducted entitled "Health-related quality of life among menopausal women" and found that two thirds of women had good knowledge regarding self-care during menopausal.

Regarding total quality of life, the current study clarified that, there were a highly statistically significant increase regarding total quality of life in study group comparing to women in study group post intervention and during follow up (after 3 months). Also, there was a highly significant increase regarding total quality of life in study group post & after 3 months of intervention when comparing to their total quality of life pre intervention.

The result of current study was supported with **Ahmed, et al, (2015)** who conducted entitled "Prevalence of menopausal related symptoms and their impact on quality of life among Egyptian women" and found that were a highly statistically significant increase total quality of life to women. Also, this result was agreement with **Ibrahim, et al, (2020)** who conducted entitled "The effect of menopausal symptoms on the quality of life among postmenopausal Egyptian women" and found that were no statistically significant increase total quality of life to women

Regarding women's coping toward perimenopausal symptoms, the current study clarified that, there were statistically significant increase in total mean score

regarding the coping toward perimenopausal symptoms in study group comparing to women in study group post intervention and during follow up (after 3 months). Also, there were a highly significant increase the coping toward perimenopausal symptoms study group post & after 3 months of intervention when comparing to their the coping toward perimenopausal symptoms pre intervention.

The result of current study was supported with **Bashar, et al., (2017)** who conducted entitled "Depression and quality of Life among postmenopausal women in Bangladesh" and found that there was a highly significant increase coping toward perimenopausal symptoms. Conversely, this result was disagreement with **Essa, & Mahmoud, (2018)** who conducted entitled "Factors associated with the severity of menopausal symptoms among menopausal women" and found that there were no significant increase the coping toward perimenopausal symptoms.

Regarding women's in the study group in relation to their satisfaction with self-care guidelines for menopausal symptoms, the current study showed that less than two third of the study group were satisfied with total self-care guidelines. Also, there were about two third of them satisfied with information about

menopause, overcome physical methods, while less than two third of the them satisfied with psychological, genital and urinary symptoms methods.

The result of present study was supported with **Shrestha & Pandey., (2017)** who conducted entitled "A study of menopausal symptoms and its impact on lives of Nepalese perimenopausal and postmenopausal women" and found that more than half of women were satisfied with total self-care guidelines. Also, this result was congruence with **Abdelwahed., (2018)** who conducted entitled "Knowledge, attitude and severity of menopausal symptoms among women attending primary health care centers in Cairo" and found that majority of women were satisfied with information about menopause.

From the researcher point of view, study group were satisfied self-care guidelines due to guidelines cover all women's needed items regarding their knowledge and self-care practice about perimenopause to improve information, quality of life and how to cope with menopausal symptoms.

5. Conclusion

Based on the present study quality of life in perimenopausal women their symptoms was greatly enhanced after using self-care guidelines. We conclude that guideline is an effective complementary health approach for improving quality of life in perimenopausal women. Since perimenopausal women are one of the vulnerable groups in any society, implementation of educational interventions based on health promotion life style can be used as an appropriate strategy to reduce perimenopausal women's symptoms and promote their health. Finally, the current study was compatible with the research hypothesis and achieved the aim of the study.

6. Recommendations

1. Increase level of awareness among women regarding issues of menopausal symptoms using all available mass media as (posters, magazine, and brochure).
2. Self-care guidelines should be used in health care centers a routine care for menopausal women.
3. Development and implementation of different nursing educational programs for improving and enhancing quality of life for

menopausal women's symptoms.

4. Further study is necessary to identify factors affecting QOL for menopausal women's symptoms.

Table (1): Distribution of the study & control groups regarding demographic data

Variables		Study group (no=102)		Control group (no=102)		X ²	P Value
		No	%	No	%		
Age	• 45 < 50	53	52.0	58	56.8	0.57	0.75
	• 50 ≤ 55	49	48.0	44	43.1		
	Mean± SD	47.2 ± 1.7		47.9 ± 1.4			
Level of education	• Read & write	11	10.8	13	12.7	1.26	0.73
	• Basic	15	14.7	17	16.7		
	• Moderate	22	21.6	26	25.5		
	• High	54	52.9	46	45.1		
Marital status	• Single	5	4.9	10	9.8	2.88	0.41
	• Marriage	73	71.6	63	61.8		
	• Divorced	12	11.8	14	13.7		
	• Widow	12	11.8	15	14.7		
Monthly income	• Enough	29	28.4	26	25.5	0.22	0.63
	• Not enough	73	71.6	76	74.5		
BMI	• Below < 18.5. Under weight.	11	10.8	14	13.7	4.10	0.39
	• 18.5 – 24.9 Normal Weight.	26	25.5	29	28.4		
	• 25-29.9. Over weight	39	38.2	31	30.4		
	• ≤ 30 Obese I.	12	11.8	19	18.6		
	• above >30 Obese II	14	13.7	9	8.8		
Number of work hours	• 8 hr	97	95.1	92	90.2	1.79	0.18
	• More than 8hr	5	4.9	10	9.8		
Type of work	• 100% full pay	84	82.4	79	77.5	0.76	0.68
	• Pay 75%	11	10.7	14	13.7		
	• Pay 50%	7	6.9	9	8.8		
Number of years of work	• Less than 10 years	3	2.9	2	2.0	0.33	0.85
	• 10-15 years	45	44.2	43	42.1		
	• More than 15 years	54	52.9	57	55.9		

Table (2): Comparisons among the study & control group regarding of total menopausal symptoms (pre, after & after 3rd month).

Total symptoms	Croups	Pre	After 1 st month	After 3 rd month	F	P
		Mean ±SD	Mean ±SD	Mean ±SD		
Gynecological symptoms	Study	16.1±3.0	14.9±2.6	14.1±2.8	13.14	0.001**
	Control	16.3±3.7	16.1±3.1	15.9±3.4	0.35	0.70
Urinary symptoms	Study	16.8±2.8	15.9±2.2	15.4±2.3	8.31	0.001**
	Control	16.4±3.3	16.3±2.1	16.2±2.9	0.13	0.88
Integumentary symptoms	Study	19.2±3.9	18.1±2.7	17.1±3.0	10.71	0.0001**
	Control	19.2±3.2	19.1±4.1	18.8±3.9	0.31	0.74
Gastrointestinal symptoms	Study	25.9±4.8	24.8±3.1	23.7±2.8	9.14	0.0001**
	Control	25.6±5.7	25.4±5.1	25.2±5.3	0.14	0.86
Cardio vascular & Respiratory symptoms	Study	12.7±2.7	11.8±1.9	11.1±1.6	14.62	0.0001**
	Control	12.8±2.8	12.6±2.5	12.4±2.6	0.58	0.55
Muscles and skeletal system symptoms	Study	42.2±8.5	40.2±5.9	38.3±5.8	8.27	0.002**
	Control	42.4±8.3	41.8±8.3	41.1±7.7	0.67	0.51
Vasomotor symptoms	Study	12.9±2.4	12.3±1.3	12.0±1.3	7.03	0.001**
	Control	13.7±2.5	13.4±2.5	13.1±2.5	1.46	0.23
Psychosocial symptoms	Study	28.6±6.1	27.7±3.4	26.5±3.4	5.63	0.004**
	Control	28.6±8.2	28.6±7.5	28.3±7.8	0.51	0.94
Sexual symptoms	Study	15.6±1.8	14.6±1.7	14.2±1.3	19.30	0.0001**
	Control	15.9±2.7	15.7±2.6	15.3±2.5	1.41	0.24
	Study	190.0±26.0	182.4±24.3	179.3±24.8	4.92	0.008**
	Control	190.9±28.6	189.0±22.8	188.4±27.6	0.72	0.49
	Between Groups	T= 0.23 (P Value= 0.40)	T = 2.36 (P Value= 0.02*)	T = 1.89 (P Value= 0.03*)	F = 3.38 (P Value= 0.005**)	

(*) Statistically significant at p<0.05

(**) highly statistically significant at p<0.01

Table(3) Comparisons among the study & control group regarding to women's self-care toward perimenopausal symptoms.

Self-Care	Croups	Basic line	After 1st month	After 3rd month	F	P
		Mean ±SD	Mean ±SD	Mean ±SD		
Care of the hot flashes of face and body or night sweats	Study	1.22±0.10	1.37±0.23	1.39± 0.55	7.23	0.001**
	Control	1.19± 0.13	1.27±0.18	1.25±0.63	1.18	0.31
Care of hot flashes of face and body	Study	1.53±0.29	1.54±0.42	1.32± 0.65	5.10	0.007**
	Control	1.46± 0.37	1.48±0.29	1.50±0.19	0.48	0.62
Care of vaginal dryness and sexual problems (pain during intercourse)	Study	1.27±0.43	1.36± 0.55	1.39±0.42	1.12	0.32
	Control	1.26± 0.31	1.27± 0.32	1.28±0.06	0.15	0.86
Care for the urinary system problems (infection - frequent urination)	Study	1.12± 0.79	1.35±0.15	1.34±0.20	7.53	0.001**
	Control	1.17± 0.16	1.19±0.35	1.19±0.15	0.24	0.79
Care for dry skin and hair Care	Study	1.56± 0.11	1.62± 0.18	1.61±0.16	4.51	0.01*
	Control	1.20± 0.14	1.25± 0.22	1.21±0.19	2.06	0.13
Care of neuropsychological disorders and feelings of anxiety	Study	1.32± 0.19	1.45±0.34	1.43±0.27	6.76	0.001**
	Control	1.34± 0.23	1.35±0.19	1.37±0.42	0.27	0.76
Osteoporosis prevention	Study	1.14±0.09	1.29± 0.35	1.25±0.56	4.16	0.02*
	Control	1.13± 0.81	1.15± 0.23	1.17±0.27	1.15	0.85
	Study	9.16±2.0	9.98±2.2	9.69±2.8	3.17	0.04*
	Control	8.75±2.1	8.96±1.8	8.97±1.9	0.42	0.65
	Between Groups	T= 1.42 (P Value= 0.9)	T= 3.62 (P Value= 0.0002**)	T= 2.14 (P Value= 0.01*)	F = 5.02 (P Value= 0.0001**)	

(*) Statistically significant at p<0.05

(**) highly statistically significant at p<0.01

Table (4): Comparisons among the study & control group regarding of the effect of perimenopausal symptoms on lifestyle.

Variables	Croups	Pre	After 1st month	After 3rd month	F	
		Mean ±SD	Mean ±SD	Mean ±SD		
Menopausal symptoms effect	Study	3.1 ± 0.5	3.0±0.4	2.9±0.7	3.46	0.03*
	Control	3.2±0.7	3.3±0.6	3.2± 0.8	0.68	0.50
Generally daily life style now	Study	3.0±0.5	2.9±0.3	2.8±0.3	7.11	0.001**
	Control	3.1±0.9	3.1± 0.5	2.9±0.9	2.15	0.11
	Study	6.4±1.9	5.9±0.7	6.0±1.0	4.20	0.02*
	Control	6.3±1.6	6.4±1.1	6.1±1.5	1.10	0.31
	Between Groups	T= 0.40 (P Value= 0.34)	T = 3.87 (P Value= 0.0002**)	T = 1.78 (P Value= 0.03*)	F = 6.36 (P Value= 0.01*)	

(*) Statistically significant at p<0.05

(**) highly statistically significant at p<0.01

Table (5): Comparisons among the study & control group regarding of total quality of life.

Items	Groups	Pre	After 1 st month	After 3 rd month	F	P Value
		Mean ±SD	Mean ±SD	Mean ±SD		
Lifestyle	Study	6.4±1.9	5.9±0.7	6.0±1.0	4.20	0.02*
	Control	6.3±1.6	6.4±1.1	6.1±1.5	1.10	0.31
Physical domain	Study	15.4±2.3	14.0±2.3	13.2±1.6	28.87	0.0001**
	Control	15.0±3.3	14.9±2.1	14.4±2.0	1.64	0.19
Social domain	Study	9.7±1.6	9.2±1.4	9.0±1.2	6.67	0.001**
	Control	9.6±2.1	9.3±1.9	9.2±1.8	1.18	0.31
Psychological domain	Study	15.7±3.2	14.8±2.2	13.9±1.9	13.16	0.0001**
	Control	15.9±3.7	15.7±3.1	15.3±3.5	0.81	0.45
Sleep / Energy domain	Study	6.4±1.4	6.2±0.4	6.0±0.4	5.37	0.005**
	Control	6.4±1.3	6.4±1.4	6.3±1.4	0.18	0.83
Total Quality of Life	Study	59.5±11.7	56.8±8.3	53.9±7.4	9.21	0.0001**
	Control	59.4±13.8	58.6±11.8	57.4±12.7	0.63	0.57
	Between Groups	T= 0.05 (P Value= 0.52)	T = 2.67 (P Value= 0.004**)	T = 2.40 (P Value= 0.01*)	F = 3.64 (P Value= 0.0003**)	

(*) Statistically significant at p<0.05

(**) highly statistically significant at p<0.01

Figure (1): Distribution of the women's in the study group in relation to their satisfaction with self-care guidelines for menopausal symptoms in study group (n=102)



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