

Effect of self-care guideline on perimenopausal women's knowledge about healthy life styles

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Abstract

Background: Menopause is a natural part of women's lives, which is associated with physical and mental changes and can lead to uncertainty and consequent undesirable effects in the lives of menopausal women aimed to evaluate knowledge about healthy life styles among menopausal women **Design:** Quasi- experimental (pre- posttest). **Setting:** Administrative buildings of Suez Canal University in Ismailia city. **Sample:** Convenience sampling of menopausal women employed in Suez Canal University was recruited in study. The selected women were randomly allocated into two groups: Study and control group (102 women each). **Tools of data collection:** Self-administered questionnaire, Knowledge assessment questionnaire (pre/post/follow up) **Results:** There were statistically significant increase in total knowledge for women in study group comparing to women in control group post intervention and during follow up (after 3 months) ($P = 0.01, 0.02$). The study **concluded that:** Self-care guidelines was effective as method to improve knowledge and practice about menopause and menopausal symptoms among menopausal women.

Recommendation: Increase level of awareness among women regarding issues of menopausal symptoms. Supply the maternal health center by booklet about menopausal healthy life style information

***Key-words:** Menopause, Menopausal knowledge ,healthy life style.

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I. Introduction

Women of all ages are very precious and need to look after themselves. The mature woman has a larger role to play in the family and the society (Gangadharan&Venkatesan.,2017). Menopause is the time in a woman's life when her period stops. It usually occurs naturally, most often after age 45 years old. Menopause happens because the woman's ovaries stop producing the hormones estrogen and progesterone. Some people call the years leading up to a woman's last period "menopause," but that time actually is perimenopause (Zoe et al., 2017). The median age for menopause is 51-52 years, over an age range of 39-59 years. In the years before menopause, a woman's periods typically become irregular, which means that periods may be longer or shorter in duration or be lighter or heavier in the amount of flow (Houser .,2018).

Several factors are affected by the age of menopause, including smoking, obesity, alcohol consumption, socio-economic status, later menarche, and long menstrual cycles, multiparty and the use of oral contraceptive. Also, genetic factors, aging, dietary practices, ethnicity, reduced lean mass, resting metabolic rate and drug treatment (Khan et al., 2016) .

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 (Afshari1 et al.,2020).

Menopause is associated with problematic symptoms, including hot flashes; sleep problems, mood disorders, sexual dysfunction, weight gain, and declines in cognitive functioning. Many women seek complementary and alternative medicine (CAM) for symptom management. (Johnson et al., 2019). For the management of menopause, a panel of experts strongly advocated and prescribed on lifestyle changes as a prime methodology of care including calcium, diet rich in fiber, phytoestrogens, and low in fat, particularly saturated fats, and adequate exercise. It is also submitted that usage of meditation and yoga is helpful. Therefore, it should be kept in mind that these recommendations can be used by every single Indian woman to enhance their overall health (Malik et al., 2019).

Many women cope with mild menopausal symptoms and don't need to take any medication or use therapies. Some women manage their symptoms well with life style measures like eating well and getting regular Physical activity. Other women with symptoms that are affecting their quality of life will need to seek treatment. Coping with menopause symptoms can be helped by healthy eating, a balanced nutritious diet, exercise and relaxation. Women, who try to make their lifestyle as healthy as they can, appear to have less menopause symptoms and those symptoms are less severe. (Thomas & Daley.,2020).

Nurses educates patients regarding Knowledge about the definition of menopause, age at menopause and various symptoms, medications, life-style changes, This education can be informal, part of daily care, or given in more formal teaching and helpful to adopt to this stage of life as it is an unavoidable life event (Sarri et al .,2016).

Significance of the study:

In Egypt, women aged 50 years or more constitute about 5 million 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. The word population of these women will be per or postmenopausal 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 (Sallam et al., 2006). Thus, to improve women knowledge regarding menopause where prevention is better than their cure will decrease burden on women and society.

II. Subject and Methods

2.1. The aim of the study:

To evaluate knowledge about healthy life styles among menopausal women

2.2. Research Hypothesis: There is a significant improvement in knowledge about healthy life styles among menopausal women through apply the process of self-care guidelines.

2.3. Study design: Quasi-experimental research design was used in this study.

2.4. The sample of the study:

According the equation, the actual sample size 204 women that were selected from the perimenopause women according to inclusion and exclusion criteria. 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, 96.

2.5. Sampling Type:

A convenience 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.

2.6. 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.

2.7. Tools of data collection:

2.7.1. 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): Knowledge assessment questionnaire (pre/post/follow up) (Ahmed ., 2014): It is a self-administered assessment tool developed by the researcher after revising relevant literature. It was divided into four parts.

Part (1): It was designed to assess women's knowledge regarding menopause and menopausal symptoms as concept of the menopause stage, types of menopause, causes of menopause, initial symptoms of menopause, and Psychological symptoms of menopause (8questions).

Part (2): It was designed to assess women's knowledge regarding healthy life style during menopause as exercise, eating habits, sun exposure, and Periodic check-up (4questions).

Part (3): It was designed to assess women's knowledge about hormone replacement therapy during menopause as (meaning, benefits, methods use, side effects, contraindications) of hormone replacement therapy (5questions).

2.7.5 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.

2.8. Field work:

After the women 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, 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, 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

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 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.

2.9. 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.

2.10. Ethical considerations

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

2.11. 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 $p\text{-value} > 0.05$.

III. Results

Table (1): Comparisons among the study & control group (pre, post & after 3 months of intervention) regarding to total women's knowledge about menopause

Shows that, there were significant increase in all items of women's knowledge about menopausal symptoms in study group post & after 3 months of intervention when comparing to their knowledge pre intervention (P =0.01, 0.04, 0.002,0.001 respectively) except there were no significant increase in women's knowledge related initial symptoms in study groups comparing to women in control groups. Also, there were no significant increase in women's knowledge about menopause in control groups. In addition, there were statistically significant increase in total score of knowledge about menopausal symptoms for women in study group comparing to women in control group post intervention and during follow up (after 3 months) .(P = .004, 0.03 respectively).

Table (2): Comparisons among the study & control group (pre, post & after 3 months of intervention) regarding to total women's knowledge about healthy lifestyles during menopause :Clarifies that, there were a highly significant increase in women's knowledge about healthy life styles during menopause as (exercise, eating habits, sun exposure, periodic check-up) in study group post & after 3 months of intervention when comparing to their knowledge pre intervention (P =0.0002, 0.003, 0.001, 0.0001respectively) except the right times of sun exposure were insignificant increase in women's knowledge about it. While there were insignificant increase in women's knowledge about healthy life styles during menopause in control groups pre, post & after3 months of intervention. Also, there were statistically significant increase in total score of knowledge about healthy lifestyles during menopause for women in study group comparing to women in control group post intervention and during follow up (after 3 months) (P = 0.01, 0.04 respectively).

Table(3) : Comparisons among the study & control group (pre, post & after 3rd months of intervention) regarding to total women's knowledge about hormone replacement therapy during menopause : Describes women's knowledge about hormone replacement therapy during menopause. As shown, there were significant increases in women's knowledge for study group post & after 3 months of intervention when comparing to their knowledge pre intervention (except women's knowledge about methods use to hormone replacement therapy). While there were insignificant differences in women's knowledge in control group pre, post & after 3 months of intervention. In addition, there were statistically significant increase in total score of knowledge in study group comparing to women in control group post intervention and during follow up (after 3 months) (P = 0.01, 0.02) respectively.

Table (4): Comparisons among the study & control group (pre, Post& Follow-up) regarding to total knowledge about menopause.:

Illustrate that, women's knowledge about healthy lifestyles, and hormone replacement therapy were statistically significant increase in total knowledge for women in study group comparing to women in control group post intervention and after 3 months (P =0.004, 0.003 respectively). except women's knowledge about menopause, there were in significant increase in both group. In addition, there were statistically significant increase in total knowledge 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 respectively) when comparing to their knowledge pre intervention.

Table(5): Distribution of the women's in the study group in relation to their satisfaction with self-care guidelines for menopausal symptoms in study group: 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).

IV. Discussion

Regarding women's knowledge about perimenopause symptoms, healthy life style and hormonal replacement therapy, the current study clarified that, there were significant increase in all items of women's knowledge about perimenopause symptoms in study group post & after 3 months of intervention when comparing to their knowledge pre intervention except there were no significant increase in women's knowledge related initial symptoms in study groups comparing to women in control groups. Also, there was no significant increase in women's knowledge about menopause in control groups. From the researcher point of view, this study may be due to intervention introduced positive effectiveness for knowledge of women about perimenopause symptoms.

The result of present study was accordance with **Yisma, et al., (2017)** who conducted entitled "Prevalence and severity of menopause symptoms among perimenopause and postmenopausal women aged 30-49 years in Gulele sub-city of Addis Ababa, Ethiopia" and found that majority of women had poor knowledge about perimenopause symptoms. Also, the result was agreement with **Jaber, et al., (2017)** who conducted entitled "Patterns and severity of menopausal symptoms among Jordanian women" and found that there was no significant increase in women's knowledge about menopause symptoms.

Regarding total women's knowledge about healthy lifestyles during menopause, the current study clarified that, there were a highly significant increase in women's knowledge about healthy life styles during menopause as (exercise, eating habits, sun exposure, periodic check-up) in study group post & after 3 months of intervention when comparing to their knowledge pre intervention. While there were insignificant increase in women's knowledge about healthy life styles during menopause in control groups pre, post & after 3 months of intervention. From the researcher point of view, this study may be due to study group had good knowledge about period of menopause and how of them adapted with their life at this period.

The result of present study was congruence with **Rathnayake, et al., (2019)** who conducted entitled "Prevalence and severity of menopausal symptoms and the quality of life in middle-aged women" and found that majority of women hadn't good knowledge about life styles during menopause. Also, the result was agreement with **Agarwal, et al., (2018)** who conducted entitled "A study of assessment menopausal symptoms and coping strategies among middle age women of North Central India" and found that there were a highly significant increase in women's knowledge about healthy life styles during menopause post & after 3 months of intervention when comparing to their knowledge pre intervention.

Regarding total women's knowledge about hormone replacement therapy during menopause, the current study showed that there were significant increases in women's knowledge for study group post & after 3 months of intervention when comparing to their knowledge pre intervention (except women's knowledge about methods use to hormone replacement therapy). While there were insignificant differences in women's knowledge in control group pre, post & after 3 months of intervention. From the researcher point of view, this study may be due to the beneficence of the self-care guidelines that increase their knowledge about hormone replacement therapy that reflected in post and follow up phases.

The result of present study was agreement with **Thomas, et al., (2021)** who conducted entitled "Effect of Mind-Body Approaches on Menopausal Symptoms among Women" and found that there were significant increases in women's knowledge for post & after 3 months of intervention when comparing to their knowledge pre intervention. Conversely, this result was disagreement with **Wang, et al., (2019)** who conducted entitled "Optimizing quality of life in perimenopause" and found that majority of women had good knowledge about perimenopause symptoms.

Regarding total knowledge about menopause, the current study showed that there was significant increase in women's total knowledge about menopause among women in study group post & after 3 months of intervention when comparing to their knowledge pre intervention. In addition there was statistically significant increase in total knowledge for women in study group comparing to women in control group post intervention and during follow up (after 3 months). From the researcher point of view, this study may be due to self-care guidelines were very important for women about menopause.

This result was supported with **El Hajj, et al., (2020)** who conducted entitled "Menopausal symptoms, physical activity level and quality of life of women living in the Mediterranean" and found that majority of women had poor knowledge about menopause. Also, this result was accordance with **Hildreth, et al., (2018)** who conducted entitled "Vascular dysfunction across the stages of the menopause transition is associated with menopausal symptoms and quality of life" and found that majority of women had poor knowledge about menopause symptoms and quality of life.

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.

V. Conclusion:

The study finding concluded that self-care guidelines was effective as method to improve knowledge and practice about menopause and menopausal symptoms among menopausal women. Finally, the current study was compatible with the research hypothesis and achieved the aim of the study.

VI. Recommendations:

1. Increase level of awareness among women regarding issues of menopausal symptoms using all available mass media as (posters, magazine, and brochure).
2. . Development and implementation of different nursing educational programs for improving and enhancing women knowledge about menopausal period

Table (1): Comparisons among the study & control group (pre, post & after 3 months of intervention) regarding to total women's knowledge about perimenopause

Knowledge	Croups	Pre				Post				Follow-up				X2	P Value
		Correct		Incorrect		Correct		Incorrect		Correct		Incorrect			
		No	%	No	%	No	%	No	%	No	%	No	%		
Concept of the menopause stage	Study	47	46.1	55	53.9	27	26.5	75	73.5	72	70.6	30	29.4	10.17	0.01*
	Control	43	42.2	59	57.8	41	40.2	61	59.8	60	58.8	42	41.2	0.08	0.96
Types of menopause	Study	47	46.1	55	53.9	31	30.4	71	69.6	68	66.7	34	33.3	6.11	0.04*
	Control	53	52.0	49	48.0	48	47.1	54	52.9	53	52.0	49	48.0	0.55	0.76
Causes of menopause	Study	61	59.8	41	40.2	39	38.2	63	61.8	62	60.8	40	39.2	12.19	0.002**
	Control	63	61.8	39	38.2	59	57.8	43	42.2	42	41.2	60	58.8	0.35	0.84
Initial symptoms of menopause	Study	46	45.1	56	54.9	32	31.4	70	68.6	69	67.6	33	32.4	4.84	0.09
	Control	48	47.1	54	52.9	44	43.1	58	56.9	56	54.9	46	45.1	0.32	0.85
The factors that lead to the occurrence of menopause earlier than the normal age	Study	53	52.0	49	48.0	34	33.3	68	66.7	64	62.7	38	37.3	8.14	0.02*
	Control	61	59.8	41	40.2	58	56.9	44	43.1	43	42.2	59	57.8	0.18	0.91
Physical symptoms of menopause	Study	53	52.0	49	48.0	33	32.4	69	67.6	58	56.9	44	43.1	8.05	0.02*
	Control	55	53.9	47	46.1	52	51.0	50	49.0	50	49.0	52	51.0	0.23	0.89
Psychological symptoms of menopause	Study	56	54.9	46	45.1	30	29.4	72	70.6	57	55.9	45	44.1	13.64	0.001**
	Control	52	51.0	50	49.0	48	47.1	54	52.9	51	50.0	51	50.0	0.34	0.84
Total score	Study	45	44.1	57	55.9	64	62.7	38	37.3	64	62.7	38	37.3	9.60	0.01*
	Control	49	48.0	53	52.0	50	49.0	52	51.0	49	48.0	53	52.0	0.02	0.98
	Between Groups	X2 = 0.003(P Value= 0.95)				X2 = 3.89 (P Value= 0.04**)				X2 = 4.46 (P Value 0.03*)				X2 = 12.89 (P Value= 0.02*)	

(*) Statistically significant at p<0.05

(**) highly statistically significant at p<0.01

Table (2): Comparisons among the study & control group (pre, post & after 3 months of intervention) regarding to their total women's knowledge about healthy lifestyles during menopause

Knowledge	Croups	Pre				Post				Follow-up				X2	P Value
		Correct		Incorrect		Correct		Incorrect		Correct		Incorrect			
		No	%	No	%	No	%	No	%	No	%	No	%		
Exercise															
The importance of exercise for women during the menopause stage	Study	35	34.3	67	65.7	53	52.0	49	48.0	50	49.0	52	51.0	7.36	0.02*
	Control	37	36.3	65	63.7	41	40.2	61	59.8	40	39.2	62	60.8	0.35	0.83
Types of Exercises to be practiced during menopause	Study	30	29.4	72	70.6	58	56.9	44	43.1	51	50.0	51	50.0	16.79	0.0002**
	Control	31	30.4	71	69.6	35	34.3	67	65.7	34	33.3	68	66.7	0.38	0.82
Eating habits															
Proper nutrition during menopause	Study	43	42.2	59	57.8	74	72.5	28	27.5	73	71.6	29	28.4	6.26	0.04*
	Control	47	46.1	55	53.9	58	56.9	44	43.1	55	53.9	47	46.1	0.23	0.88
Essential vitamins in the stage of menopause	Study	38	37.3	64	62.7	60	58.8	42	41.2	58	56.9	44	43.1	11.61	0.003**
	Control	39	38.2	63	61.8	45	44.1	57	55.9	43	42.2	59	57.8	0.75	0.68
Sun exposure															
The importance of sun exposure	Study	47	46.1	55	53.9	70	68.6	32	31.4	67	65.7	35	34.3	12.78	0.001**
	Control	45	44.1	57	55.9	47	46.1	55	53.9	46	45.1	56	54.9	0.07	0.96
The right times for sun exposure	Study			63	61.8	54	52.9	48	47.1	53	52.0	49	48.0	5.53	0.06
	Control	39	38.2	64	62.7	40	39.2	62	60.8	39	38.2	63	61.8	0.08	0.96
Periodic check-ups															
The regular check-ups that a woman must do during the menopause phase	Study	41	40.2	61	59.8	71	69.6	31	30.4	58	56.9	44	43.1	17.97	0.0001**
	Control	49	48.0	53	52.0	54	52.9	48	47.1	50	49.0	52	51.0	0.54	0.76
Total score	Study	40	39.2	62	60.8	65	63.7	37	36.3	63	61.8	39	38.2	15.28	0.004**
	Control	44	43.1	58	56.9	45	44.1	57	55.9	45	44.1	57	55.9	0.11	0.96
	Between Groups	X2 = 0.11 (P Value= 0.77)				X2 = 5.68 (P Value= 0.01*)				X2 = 3.79 (P Value= 0.04*)				X2 = 10.59 (P Value= 0.01*)	

(*) Statistically significant at p<0.05

(**) highly statistically significant at p<0.01

Evaluate knowledge about healthy life styles among menopausal women

Table (3): Comparisons among the study & control group (pre, post & after 3rd months of intervention) regarding to their total women's knowledge about hormone replacement therapy during menopause

Knowledge	Croups	Pre				Post				Follow-up				X2	P Value
		Correct		Incorrect		Correct		Incorrect		Correct		Incorrect			
		No	%	No	%	No	%	No	%	No	%	No	%		
Meaning of hormone replacement therapy	Study	48	46.2	54	52.9	73	71.6	29	28.4	61	59.8	41	40.2	12.72	0.002**
	Control	50	48.0	52	51.0	53	52.0	49	48.0	51	50.0	51	50.0	0.18	0.91
Benefits of hormone replacement therapy	Study	37	35.6	65	63.7	57	55.9	45	44.1	52	51.0	50	49.0	8.51	0.01*
	Control	45	43.2	57	55.9	48	47.1	54	52.9	46	45.1	56	54.9	0.18	0.91
Methods use hormone replacement therapy	Study	40	38.4	62	60.8	55	53.9	47	46.1	52	51.0	50	49.0	4.94	0.08
	Control	37	35.6	65	63.7	40	39.2	62	60.8	38	37.3	64	62.7	0.19	0.90
Side effects of hormone therapy	Study	43	41.4	59	57.8	72	70.6	30	29.4	55	53.9	47	46.1	16.86	0.0002**
	Control	43	41.4	59	57.8	46	45.1	56	54.9	43	42.2	59	57.8	0.24	0.88
Contraindications to hormone replacement therapy	Study	38	36.6	64	62.7	61	59.8	41	40.2	50	49.0	52	51.0	10.38	0.005**
	Control	35	33.6	67	65.7	39	38.2	63	61.8	39	38.2	63	61.8	0.44	0.79
Total score	Study	42	41.2	60	58.8	64	62.7	38	37.3	60	58.8	42	41.2	10.85	0.003**
	Control	43	42.2	59	57.8	43	42.2	59	57.8	45	44.1	57	55.9	0.14	0.91
	Between Groups	X2 0.02 (P Value= 088)				X2 = 6.36 (P Value= 0.01*)				X2 = 5.66 (P Value= 0.02*)				X2 = 13.71 (P Value=0.02*)	

(*) Statistically significant at p<0.05

(**) highly statistically significant at p<0.01

Table (4): Comparisons among the study & control group (pre, Post& Follow-up) regarding to their total knowledge about menopause.

Knowledge	Croups	Pre				Post				Follow-up				X2	P Value
		Correct		Incorrect		Correct		Incorrect		Correct		Incorrect			
		No	%	No	%	No	%	No	%	No	%	No	%		
Women's knowledge about menopause	Study	45	44.1	57	55.9	64	62.7	38	37.3	61	59.8	41	40.2	8.28	0.01
	Control	48	47.1	54	52.9	48	47.1	54	52.9	49	48.0	53	52.0	0.026	0.98
Women's knowledge about healthy lifestyles during menopause	Study	40	39.2	62	60.8	65	63.7	37	36.3	63	61.8	39	38.2	15.28	0.004**
	Control	44	43.1	58	56.9	45	44.1	57	55.9	45	44.1	57	55.9	0.11	0.96
Women's knowledge about hormone replacement therapy	Study	42	41.2	60	58.8	64	62.7	38	37.3	60	58.8	42	41.2	10.85	0.003**
	Control	43	42.2	59	57.8	43	42.2	59	57.8	45	44.1	57	55.9	0.14	0.91
Total score	Study	42	41.2	60	58.8	64	62.7	38	37.3	61	61	41	40.2	11.25	0.003**
	Control	45	44.1	57	55.9	45	44.1	57	55.9	47	47	55	53.9	0.10	0.94
	Between Groups	X2 0.02 (P Value= 088)				X2 = 6.36 (P Value= 0.01*)				X2 = 5.02 (P Value= 0.02*)				X2 = 11.14 (P Value= 0.04*)	

(*) Statistically significant at p<0.05

(**) highly statistically significant at p<0.01

Table (5): Distribution of the women's in the study group in relation to their satisfaction with self-care guidelines for menopausal symptoms in study group

Satisfaction	Satisfactory		Average		satisfactory	
	No	%	No	%	No	%
Information about menopause	73	71.6	21	20.6	8	7.8
Overcome physical symptoms methods and	67	65.7	16	15.7	19	18.6
Overcome psychological symptoms	63	61.7	22	21.6	17	16.7
Overcome the genital and urinary symptoms, ways	64	62.7	25	24.6	13	12.7
Total	65	63.7	21	20.6	14	13.7

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