

Effect of an Educational Package on Knowledge, Practices, and Attitude of Premenopausal Women Regarding Sexuality

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Abstract Background: pre-menopause is an important event through a woman's life. Women with accurate information about the pre-menopause can be able to manage the associated problems better. **Aim:** evaluate the effect of an educational package on knowledge, practices, and attitude of premenopausal women regarding sexuality. **Design:** A quasi-experimental research design of the study was used. **Sample:** A purposive sample of 80 premenopausal women. **Setting:** This research was conducted in the obstetrics and gynecology Outpatient Clinic at Fayoum University Hospital. **Tools:** Two tools have been used to gather data; 1) Structured questionnaire interview sheet 2) Modified Likert scale. **Results:** The study showed a highly statistically significant difference between pre and post educational package regarding knowledge, practices, and attitude of premenopausal women regarding sexuality. There was a highly significant correlation between total knowledge and total sexual history pre and post educational package. **Conclusion:** The implementation educational package significantly improved knowledge, practices, and attitude of premenopausal women regarding sexuality. **Recommendations:** Proper training of health care providers to understand women's attitudes regarding pre-menopause in order to give optimal information and help to create a positive attitude of pre-menopause. Counseling activities of premenopausal, menopausal, and post-menopausal women need to popularize and facilities and decision aids made available to those who need them.

Keywords: educational package, knowledge, practices, attitude, premenopausal women

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1. Introduction

The premenopausal means a period approximately 2 years during which menstrual cycles become erratic and estrogen level drop, ending with the cessation of menstruation for about 2 years from the last appearance of menstrual blood most often after age 45years. Premenopausal women have little interest in sexuality. [1]

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 [2]. The cultural framework under which a woman lives greatly influences the way the premenopausal transition is perceived. Pre-menopause has been described as a subjective experience, with social and cultural factors playing a prominent role in the experience and perception of menopause [3].

Changes and symptoms of pre-menopause include variations in periods, hot flashes or night sweats, sleeping disorders, vaginal dryness, mood swings, trouble focusing, and less hair on their head, more on their face. Some symptoms require treatment. The doctor should ask about medical and family history to know the risks for heart disease, osteoporosis, or breast cancer [1]. Many women cope with mild pre-menopausal symptoms and don't need to take any medication. Some women use lifestyle steps to control these symptoms well, including eating well and having daily physical exercise, while other premenopausal women with symptoms that are affecting quality of life need to seek treatment. When coping with premenopausal symptoms; women should follow these instructions: eating healthy a balanced nutritious diet, exercise, and relaxation exercise [4].

Health education is any combination of learning experiences designed to help individuals and communities improve their health by enhancing knowledge of premenopausal women or influencing the attitudes. Sexual satisfaction in women is influenced by many

factors; these include age, marital status, income level, and emotional-personality factors (e.g. self-confidence, sexual shame and guilt, empathy, supportive family attitudes [5].

Sexual knowledge is a collection of information and refers to the knowledge and awareness of the premenopausal women about sex and sexuality (including physiological aspects, reproduction, performance, and individual sexual behavior). Lack of sexual knowledge is associated with an increase in vulnerability of sexual disorders [6].

On the other hand, people have different opinions and attitudes about a wide range of issues, such as normal or abusive sexual activity, sexual role, or sexual activity. Indeed, sexual orientation is, in fact, a positive or negative perspective in the pursuit of sexual orientation or events. Researchers believe that knowledge and attitudes are related to different aspects of behavior, performance, sexual satisfaction, and sex [7,8].

1.1. Significance of the Study

Premenopausal women have significantly less knowledge about sexuality than menopausal women. This may be because primary care providers generally do not offer pre-menopause related information until the onset of menopause [9]. Few studies have targeted premenopausal women; so, according to the above data which emphasized the magnitude of the problem; the researchers were motivated to undergo this research study.

Some women find menopause free time because will not have responsibilities for children and are no longer afraid to become pregnant. Thus, compared to the time before menopause, they can feel more relaxed and be more sexually active. On the other hand, for some other women, this time marks the beginning of worries, the occurrence of symptoms of old age, and the end of attractiveness [10].

Even though women might be sexually inactive during their reproductive ages, pre-menopause might reduce their sexual capability and make showing sexual feelings disgusting for women [11]. Thus, the reduction of sexual desire and satisfaction is one of the concerns during pre-menopause. Marital satisfaction is usually one of the crucial factors in life [12].

In menopausal women, the prevalence of sexual dysfunction was 4 times higher than in reproductive-age women [13]. Also, the most common symptom after menopause was the decrease of sexual attractiveness, desire, and activity [14]. Researchers found that 35 percent of menopausal women reported a decline of sexual desire, and 62 percent reported this condition at different stages of life. The prevalence of sexual desire reduction was reported to be 47%, 54%, 42%, and 24%, respectively, in menopausal women of English, Italian, French, and German [15]. The prevalence of sexual dysfunction is varied in different countries. Nonetheless, a limited number of studies on sexual function in different races and ethnicities have been carried out in Egypt.

Considering the importance of the family in the community and the importance of sexual satisfaction and its impact on age, knowledge and attitude of premenopausal women; family empowerment, it is essential to determine

the predictors of sexual satisfaction in women. An effective educational package can be developed to strengthen partners.

1.2. Aim of the Study

The aim of this research was to evaluate the effect of an educational package on knowledge, practices and attitude of premenopausal women regarding sexuality.

1.3. Research Objectives:

1. Assess level of knowledge, practices, and attitude of premenopausal women regarding sexuality.
2. Evaluate the effectiveness of educational package on women's knowledge, practices, and attitude.

1.4. Research Hypothesis

Premenopausal women's knowledge, practices, and attitude regarding sexuality will be improved after the implementation of health educational package.

2. Subjects and Methods

2.1. Research Design

Quasi experimental by using pre-test and post-test one group only adopted for the study.

2.2. Setting

This research was conducted at obstetrics and gynecology outpatient clinic at Fayoum University.

2.3. Sampling

2.3.1. *Sample type:* Purposive sample.

2.3.2. *Sample size:* 80 premenopausal women attending to the previously mentioned setting who met the inclusion criteria

2.3.2.1. Inclusion criteria:

- Willing to participate in the study.
- Not having a history of surgery in genital tract.
- Mentally and physically capable of being interviewed
- Free from any sexual defects

2.3.2.2. Exclusion criteria:

- Premenopausal women with any sexual defects.

2.4. Tools of Data Collection

2.4.1. Tool (1): A Structured Interviewing Questionnaire Sheet Included Four Parts

Part 1: data related to socio-demographic characteristics for women and their husbands as well (age, religion, residence, occupation, level of education, etc.).

Part 2: data related to obstetric history for the participated women (duration of marriage, number of children, etc.).

Part 3: women's knowledge about premenopausal issue (age of pre-menopause, diagnosis, health risks, signs and symptoms, etc.).

Part 4: women's sexual performance (sexual performance, stimulation, orgasm, satisfaction, arousal, etc.).

2.4.2. Tool (2): Modified Likert Scale

A modified Likert scale was used to assess the attitude of premenopausal women to sexuality. The scale consisted of 18 statements related to perimenopause.

Scoring system

- a. The scoring system was prepared and applied by the researchers. Premenopausal women's knowledge regarding sexual health was evaluated by a questionnaire consists of 7 questions related to sexual health and its relation with premenopausal age multiple forms of quantitative data, some questions responded by "Correct" or "Incorrect", with score "One" or "Zero" points, respectively. The total score for knowledge was determined by summing the scores of all questions (7 points); the score was eventually measured in percentages. The level of knowledge was classified into two categories; adequate knowledge score (51% to 100%), and inadequate knowledge (0.0% to 50%).
- b. Women's sexual practices were assessed by 9 questions related to sexual performance (sexual performance, stimulation, orgasm, satisfaction, arousal, etc.), some questions responded by "Yes" or "No", with score "one" or "zero" points, respectively. The total score was determined by summing the scores of all questions (9 points); the score was eventually measured in percentages. The total practice was classified into three categories; high score (75% to 100%), moderate score (50% to 74%), and low score (< 50 %).
- c. As regards women's attitude regarding sexual health; it was measured by questions consisted of 10 statements related to sexual health in the premenopausal age and its guidelines. The responses will be based on a three-point Likert scale; they are "Disagree", "Uncertain", and "Agree" which scored by "1", "2", and "3" points, respectively. The total score for attitude was determined by summing the scores of all questions (30 points); the score was eventually measured in percentages. Women's attitude was classified into two categories; positive (50% to 100 %), and negative (< 50%).

2.4.3. Tools Validity

Content validity of the questionnaire sheet was ensured through jury of experts in the field. Modification in the tools was made according to three experts' (Obstetrics and Gynecological Nursing, Obstetrics and Gynecological Medicine) judgment on the consistency, clarity of sentences, suitability of the content, sequence of items, and accuracy of scoring and recording of items.

2.4.4. Tools Reliability

The reliability was achieved by Cronbach's Alpha coefficient test (0.84) which revealed moderate to high reliability of tool.

2.4.5. Pilot Study

Applicability of the study tools was tested through a pilot study that was carried out on 10% (8 premenopausal women) to ensure clarity, and understandability of the tool. Based on the results of the pilot study, modifications and omissions of some details were done and then the final forms were developed, so the pilot study was excluded from the study sample

2.4.6. Administrative Issue

Before conducting the study, an official permission was obtained from hospital's authorized personnel; throughout letter from the dean of Faculty of Nursing; Fayoum University to Director of Fayoum University Hospital.

2.4.7. Ethical Issue

Each Participant woman in the study was informed that all their data are highly confidential, anonymity was also assured through assigning a code number for each woman instead of names to protect her privacy. Data were only available to the researchers and the participants. Oral consent was obtained from each woman recruited in the study.

2.4.8. Fieldwork

The execution of the study was through three phases namely assessment, implementation and evaluation. This lasted for 6 months from the beginning of July 2019 till the end of December 2019.

- A. Assessment phase:** during this phase an official approval was obtained to conduct the study at antenatal outpatient clinic, the researchers made a visit to antenatal outpatient clinic to evaluate the place and saw the rate of premenopausal women. Personal communication was done with nurses and explained the purpose of the study. After that the women who met study criteria, the researcher explained the purpose of the study and obtained their oral consent. All premenopausal attending antenatal clinics according to previous criteria were interviewed to collect data related to socio demographic data. The researchers visited the previous setting two days (Saturday and Monday) per week from 9.00 A.M. to 12.00 P.M. The interview existed 15 minutes for each woman. After that the researchers collect the data related to women's medical and obstetric history that may be affect the outcomes of premenopausal period. Moreover, an educational booklet was developed and revised by a panel of expert to check it
- B. Implementation phase:** Developing the program according to the general objective. The educational program structured to improve women's knowledge, attitude, and practice to reduce the sexual problems during premenopausal period. The content of the program was revised and modified according to the related literature. During implementation phase the educational booklets were given to the premenopausal women and explained through pictures and power point. The researcher explained the booklet's content, and answered women's

questions, took a telephone number to follow up with participating women.

- C. The researchers made the discussion based on the level of women's understanding. The researchers covered the following topics: concept of pre-menopause causes of pre-menopause, sign and symptoms, the precautions during premenopausal period, and sexual life as well; then the mistakes must not be done at premenopausal period. Educational program was implemented over a period of four months and sessions ranged about 20-30 minutes and implemented either individually or with group. Through session started with a review of what was offered in the preceding session. Specific methods of teaching are used as brainstorming, presentation and, demonstration and re-demonstration. At the close of every session, the sample informed about the content of the next session and its time.

- D. **Evaluation phase:** post evaluation of the educational package was done using the same pre-test tool. Comparison between the collected data before and after two months of the implementation of the educational package was done to determine its effectiveness.

2.4.9. Statistical Analysis

The data entry and statistical analysis were carried out using the software of the SPSS computer program "version 23.0". The data entry and statistical analysis were carried out by using the software of the SPSS computer program "version 23.0". Until further statistical analysis the data were checked for normality using the Anderson-Darling test and for variances in homogeneity. Categorical variables were described by number and percent (N, %). continuous variables described by mean and standard deviation (Mean, SD) chi square test used to compare between categorical variables. One way Anova, T-test, and prision correlation used to compare between variables. Statistical significance was considered at P-value >0.05.

3. Results

Table 1: Shows socio demographic characteristics of studied sample. It was cleared that 55.0% of the studied sample their age was 45 years or more, with the mean age (44.78 ± 1.29). Also, revealed that 52.5% of studied sample lived in urban areas. In addition, 52.5% of the studied premenopausal women had secondary education, and 68.8% of husband also had secondary education. Moreover 52.6% of studied sample were Housewives. 56.3 % of husband does not work and 70.0% of studied sample had medium economic status.

Table 2: Shows obstetrical history of studied sample; more than half 61.3% had regular menstrual cycle, 68.8% of them were married for 15 to 20 years and round half (48.8%) of them had two children, around three-quarters (75% & 77.5%) of studied sample their oldest child is aged more than 20 years old >20 years while youngest child ≥10 years. All studied sample had circumcision operation and used contraceptive methods; 57.5.1% of them had used intra uterine contraceptive device.

Table 1. Frequency distribution of studied sample regarding socio demographic data (No = 80)

Socio demographic data	No	%
Age		
< 45	36	45.0
45+	44	55.0
Mean ±SD	44.78 ± 1.29	
Residence		
Urban	42	52.5
Rural	38	47.5
Educational level of the wife		
Illiterate	2	2.5
Read and write	12	15.0
Secondary education	42	52.5
University education	24	30.0
Wife's job		
Works	38	47.5
Housewives	42	52.6
Educational level of husband		
Illiterate	2	2.5
Read and write	5	6.3
Secondary education	55	68.8
University education	18	22.5
Husband's job		
Works	35	43.8
Does not work	45	56.3
Economic status		
Low	24	30.0
Medium	56	70.0

Table 2. Frequency distribution of studied sample regarding obstetric history (No = 80)

Obstetric history	No	%
First menstrual period in years		
<10 years	51	63.8
10-14 years	29	36.3
Menstrual cycle		
Irregular	31	38.8
Regular	49	61.3
Forms of irregularity		
Hypo menorrhea	11	35.4
Bleeding during menstruation	16	51.6
Sudden absence then return	4	12.9
Contraceptive methods usage		
Yes	80	100.0
No	0	0.0
Type of the used contraceptive methods		
IUD	46	57.5
Tablet	18	22.5
Injection	15	18.8
subcutaneous capsules	1	1.3
Duration of marriage		
10 - 15 years	13	16.3
>15 - 20 years	55	68.8
>20 - 30 years	12	15.0
Parity		
2	39	48.8
3-4	37	46.3
5+	4	5.0
Oldest child in years		
< 20	20	25.0
≥ 20	60	75.0
Youngest child in years		
< 10 years	18	22.5
≥ 10 years	62	77.5
Do you have circumcision operation		
Yes	80	100.0
No	0	0.0

Table 3: Presents women's knowledge before, and after intervention regarding premenopausal period. Women's knowledge was improved for all measured items; A highly statistical significant difference between pre and post-educational program was found.

Figure 1: Portrays that 16.3% of studied sample had adequate knowledge pre-educational program, while 82.5% of them had adequate knowledge post educational program.

Figure 2: display that the main source of information regarding sexuality for the studied sample was internet

(23.75%), followed by television (22.5%) while only 13.75% of women gained their information from physicians.

Table 4: Reveals a highly statistical significant difference between pre and post-educational program regarding sexual performance, sexual stimulation, sexual moisture, sexual orgasm, sexual satisfaction, sexual desire, sexual arousal and sexual pain. Otherwise, there was no statistical significant difference between pre and post educational program regarding sexual pain affects social life.

Table 3. Women's knowledge before, and 2-months after intervention regarding premenopausal period

Items	Pre-program				Post-program				X ²	P value
	correct		Incorrect		correct		Incorrect			
	No	%	No	%	No	%	No	%		
The age of pre-menopause	40	50.0	40	50.0	73	91.3	7	8.8	32.80	0.000
pre-menopause diagnosis	4	5.0	76	95.0	63	78.8	17	21.3	89.38	0.000
women's health risks caused by perimenopause	9	11.3	71	88.8	74	92.5	6	7.5	105.77	0.000
Signs of pre-menopause	7	8.8	73	91.3	71	88.8	9	11.3	102.46	0.000
Symptoms of pre-menopause	11	13.8	69	86.3	76	95.0	4	5.0	106.44	0.000
Duration of flashes	6	7.5	74	92.5	66	82.5	14	17.5	90.90	0.000
Psychological consequences of premenopausal period	6	7.5	74	92.5	76	95.0	4	5.0	122.57	0.000

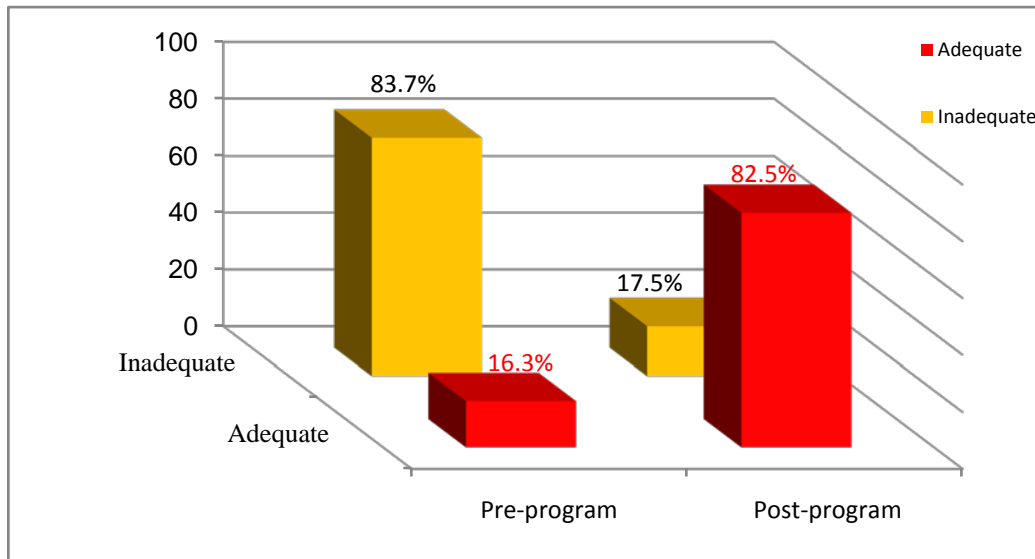


Figure 1. Total knowledge of studied sample regarding pre-menopause pre and 2-months post program implementation

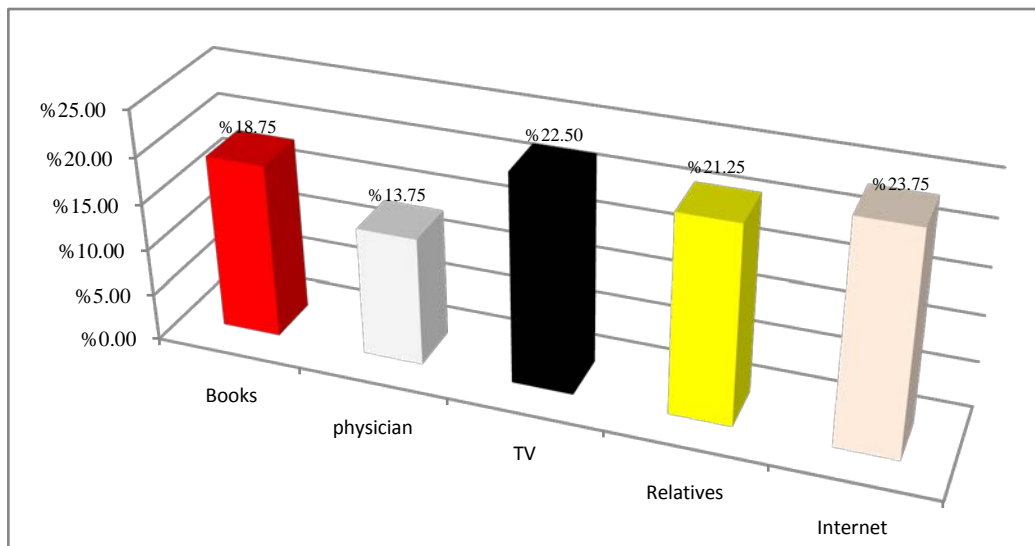


Figure 2. Sources of information for studied sample regarding sexuality

Table 4. Women's practices before and 2-months after the program regarding sexual performance

Items	Pre Program				Post program				X ²	p-value
	Yes		No		Yes		No			
	No	%	No	%	No	%	No	%		
Sexual performance at this age	33	41.3	47	58.8	59	73.8	21	26.2	17.28	0.000
Sexual stimulation	32	40.0	48	60.0	79	98.8	1	1.3	64.98	0.000
Sexual moisture	28	35.0	52	65.0	80	100.0	0	0.0	77.03	0.000
Sexual orgasm	19	23.8	61	76.3	79	98.8	1	1.3	94.79	0.000
Sexual satisfaction	22	27.5	58	72.5	80	100.0	0	0.0	90.98	0.000
Sexual desire	10	12.5	70	87.5	80	100.0	0	0.0	124.44	0.000
Sexual arousal	10	12.5	70	87.5	80	100.0	0	0.0	124.44	0.000
Sexual pain	57	71.3	23	28.8	25	31.3	55	68.8	25.61	0.000
Sexual pain affects social life	73	91.3	7	8.7	75	93.8	5	6.3	0.360	0.548

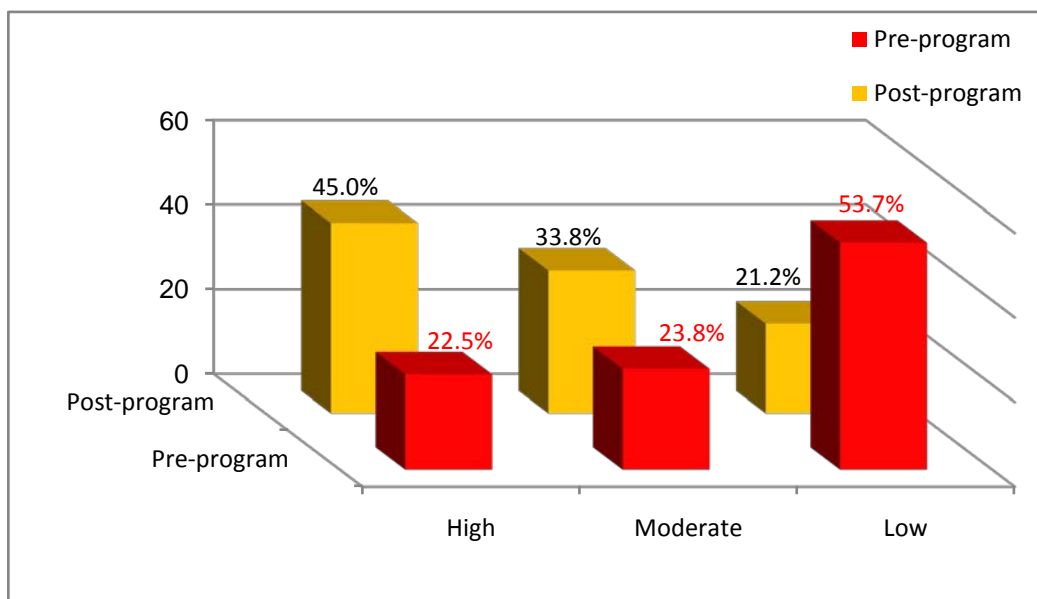


Figure 3. Women's sexual performance before and 2-months after intervention program

Table 5. Women attitude regarding sexual attitude pre and 2-months post program

Items	Pre Program						Post program						X ²	p-value
	Agree "3"		Disagree "2"		Uncertain "1"		Agree "3"		Disagree "2"		Uncertain "1"			
	No	%	No	%	No	%	No	%	No	%	No	%		
Having sexual activity is natural normal thing in pre-menopausal period	66	82.5	0	0.0	14	17.5	71	88.8	9	11.3	0	0.0	23.18	0.000
Aged people have little interest in sexuality	70	87.5	1	1.3	9	11.3	61	76.3	19	23.8	0	0.0	25.81	0.000
Having sexual activity makes the premenopausal women happy	63	78.8	4	5.0	13	16.3	65	81.3	15	18.8	0	0.0	19.40	0.000
Having sexual activity makes the premenopausal women's partners happy	53	66.3	4	5.0	23	28.8	64	80.0	12	15.0	4	5.0	18.40	0.000
No sexual activity affects the postmenopausal women's life so much	45	56.3	10	12.5	25	31.3	61	76.3	15	18.8	4	5.0	18.62	0.000
Having sexual activity in premenopausal is the embarrassing thing because of old age	50	62.5	10	12.5	20	25.0	63	78.8	17	21.3	0	0.0	23.31	0.000
Their body images are changed and make them too embarrassed to have sexual activity with their partners	57	71.3	5	6.3	18	22.5	62	77.5	18	22.5	0	0.0	25.55	0.000
Having sexual activity during the premenopausal is very happy because they don't concern about getting pregnancy	46	57.5	12	15.0	22	27.5	57	71.3	18	22.5	5	6.3	13.07	0.000
Sexual activity is a pleasurable but not a necessary part of a good relationship	44	55.0	10	12.5	26	32.5	57	71.3	19	23.8	4	5.0	20.60	0.000
Have taken medication to improve sexual functioning	35	43.8	10	12.5	35	43.8	42	52.5	19	23.8	19	23.8	8.17	0.017

Figure 3: Displays that 22.5% of studied sample had high current sexual performance pre-educational program compared to 45.0% of them post educational program.

Table 5: Reveals that highly statistical significant difference between pre and post-educational program regarding all items of sexual attitude. Otherwise, there was mild statistical significant differences between pre and

post-educational program regarding late item (Have taken medication to improve sexual functioning).

Figure 4: Displays that in pre-program; 56.3% of studied sample had negative attitude compared to 43.7% of positive one. However, at post educational program; 72.5% of women had positive attitude compared to 27.5% of negative one.

Table 6: Clarifies a statistically significant association between the total knowledge score and women’s age, residence, educational level of wife and husband with pre and post educational program. Also shows significant association between economic statuses with total knowledge score pre educational program compare to insignificant association post educational program.

Table 7: Shows no statistically significant association between women’s sexual practice and their economic status, husband’s education and job pre-program, while there are significant association between women’s sexual practice and other socio-demographic items (age, residence, educational level of wife and husband, and wife job. However in post educational program, insignificant association between all items of socio-demographic items and sexual practice.

Table 8: Demonstrates that statistically insignificant

association between residence, economic status, and educational level & job of husband, with total attitude score pre and post educational program. Otherwise there are significant associations between age, wife job, educational level of wife, and total attitude score in pre-educational program, while these significant associations disappeared in post-program.

Table 9: Shows highly significant correlation between total knowledge and total current sexual practices pre and post educational program. However, there are insignificant correlation between total knowledge and total attitude pre and post educational program.

Table 10: Shows highly significant correlation between total attitude and total current sexual practices pre educational program compared to insignificant correlation post educational program.

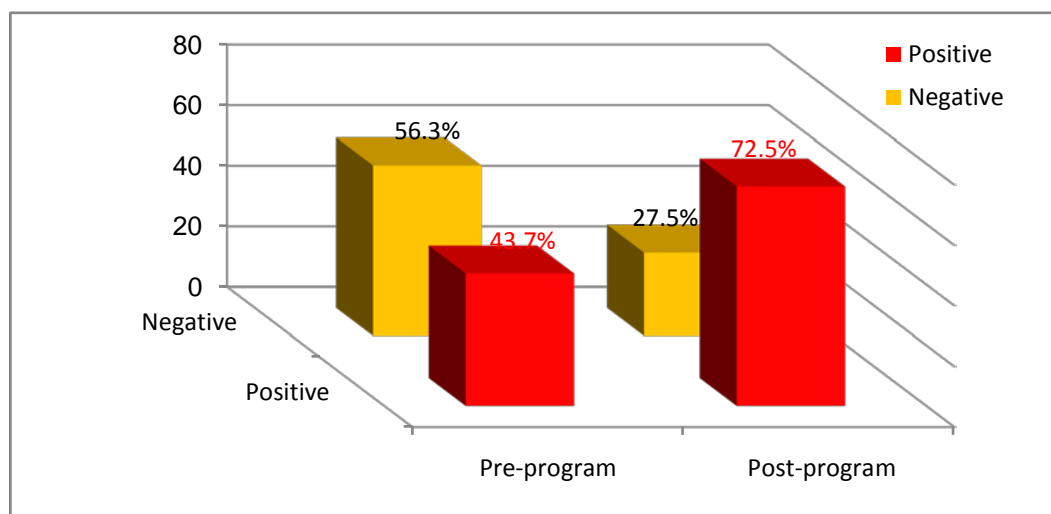


Figure 4. Total attitude of studied women regarding sexuality pre and 2-months post-program

Table 6. Women’s total knowledge level regarding premenopausal period in relation to selected demographic variables

Socio demographic characteristics	Pre-program Knowledge				X ²	p-value	2-months Post-program Knowledge				X ²	p-value
	Inadequate (N = 67)		Adequate (N = 13)				Inadequate (N = 14)		Adequate (N = 66)			
	No	%	No	%				No	%			
Age					9.843	0.002					6.468	0.011
< 45	25	37.3	11	84.6			2	14.3	34	51.5		
45 +	42	62.7	2	15.4			12	85.7	32	48.5		
Residence												
Urban	34	50.7	8	61.5	0.509	0.476	8	57.1	34	51.5	0.147	0.702
Rural	33	49.3	5	38.5			6	42.9	32	48.5		
Wife’s education												
Illiterate	2	3.0	0	0.0	8.446	0.038	1	7.1	1	1.5	6.917	0.075
Read and write	12	17.9	0	0.0			2	14.3	10	15.2		
Secondary education	37	55.2	5	38.5			10	71.4	32	48.5		
University education	16	23.9	8	61.5			1	7.1	23	34.8		
Wife’s job												
Works	33	49.3	5	38.5	4.482	0.106	7	50.0	31	47.0	8.597	0.014
Housewives	34	50.7	8	61.5			7	50.0	35	53.0		
Husband’s education												
Illiterate	2	3.0	0	0.0	13.943	0.003	1	7.1	1	1.5	3.502	0.321
Read and write	5	7.5	0	0.0			1	7.1	4	6.1		
Secondary education	50	74.6	5	38.5			11	78.6	44	66.7		
University education	10	14.9	8	61.5			1	7.1	17	25.8		
Husband’s job												
Works	31	46.3	4	30.8	1.063	0.303	5	35.7	30	45.5	0.445	0.505
does not work	36	53.7	9	69.2			9	64.3	36	54.5		
Economic status												
Low	24	35.8	0	0.0	6.652	0.01	6	42.9	18	27.3	1.336	0.248
Medium	43	64.2	13	100			8	57.1	48	72.7		

Table 7. Women's total practice score regarding premenopausal period relation to selected demographic variables.

Items	Pre-program total sexual practice						X ²	p-value	2-months Post-program total sexual practice						X ²	p-value
	Low (N = 43)		Moderate (N = 19)		High (N = 18)				Low (N = 17)		Moderate (N = 27)		High (N = 36)			
	No	%	No	%	No	%			No	%	No	%	No	%		
Age																
< 45	18	41.9	7	36.8	11	61.1	2.57	0.277	5	29.4	15	55.6	16	44.4	1.771	0.412
45 +	25	58.1	12	63.2	7	38.9			12	70.6	12	44.4	20	55.6		
Residence																
Urban	17	39.5	12	63.2	13	72.2	6.57	0.037	8	47.1	12	44.4	22	61.1	1.975	0.373
Rural	26	60.5	7	36.8	5	27.8			9	52.9	15	55.6	14	38.9		
Wife's education																
Illiterate	2	4.7	0	0.0	0	0.0	33.56	0.000	0	0.0	1	3.7	1	2.8	4.375	0.626
Read/write	5	11.6	0	0.0	7	38.9			2	11.8	3	11.1	7	19.4		
Secondary	23	53.5	18	94.7	1	5.6			8	47.1	13	48.1	21	58.3		
University	13	30.2	1	5.3	10	55.6			7	41.2	10	37.0	7	19.4		
Wife's job																
Works	18	41.9	17	89.5	3	16.7	22.13	0.000	7	41.2	13	48.1	18	50.0	5.855	0.21
Housewives	25	58.1	2	10.5	15	83.3			10	58.9	14	51.9	18	50.0		
Husband's education																
Illiterate	2	4.7	0	0.0	0	0.0	20.11	0.003	0	0.0	1	3.7	1	2.8	3.226	0.78
Read/write	5	11.6	0	0.0	0	0.0			1	5.9	1	3.7	3	8.3		
Secondary	30	69.8	17	89.5	8	44.4			10	58.8	19	70.4	26	72.2		
University	6	14.0	2	10.5	10	55.6			6	35.3	6	22.2	6	16.7		
Husband's job																
Works	20	46.5	8	42.1	7	38.9	0.327	0.849	6	35.3	14	51.9	15	41.7	1.278	0.528
does not work	23	53.5	11	57.9	11	61.1			11	64.7	13	48.1	21	58.3		
Economic status																
Low	11	25.6	7	36.8	6	33.3	0.919	0.632	5	29.4	7	25.9	12	33.3	0.407	0.816
Medium	32	74.4	12	63.2	12	66.7			12	70.6	20	74.1	24	66.7		

Table 8. Women's total attitude score regarding premenopausal period and socio-demographic characteristics

Items	Pre-program total Attitude				X ²	p-value	2-months Post-program total Attitude				X ²	p-value
	Negative (N = 45)		Positive (N = 35)				Negative (N = 22)		Positive (N = 58)			
	No	%	No	%				No	%			
Age												
<45	25	55.6	11	31.4	4.63	0.031	12	54.5	24	41.4	1.117	0.291
45+	20	44.4	24	68.6			10	45.5	34	58.6		
Residence												
Urban	22	48.9	20	57.1	0.538	0.463	11	50.0	31	53.4	0.076	0.783
Rural	23	51.1	15	42.9			11	50.0	27	46.6		
Wife's education												
Illiterate	1	2.2	1	2.9	20.233	0.000	0	0.0	2	3.4	2.944	0.400
Read/write	11	24.4	1	2.9			4	18.2	8	13.8		
Secondary	14	31.1	28	80.0			9	40.9	33	56.9		
University	19	42.2	5	14.3			9	40.9	15	25.9		
Wife's job												
Works	14	31.1	24	68.6	11.467	0.003	9	40.9	29	50.0	0.630	0.73
Housewives	31	68.9	11	31.4			13	59.1	29	50.0		
Husband's education												
Illiterate	1	2.2	1	2.9	5.860	0.119	0	0.0	2	3.4	3.904	0.272
Read/write	5	11.1	0	0.0			1	4.5	4	6.9		
Secondary	27	60.0	28	80.0			13	59.1	42	72.4		
University	12	26.7	6	17.1			8	36.4	10	17.2		
Husband's job												
Works	23	51.1	12	34.3	2.265	0.132	10	45.5	25	43.1	0.036	0.85
does not work	22	48.9	23	65.7			12	54.5	33	56.9		
Economic status												
Low	10	22.2	14	40.0	2.963	0.085	8	36.4	16	27.6	0.585	0.444
Medium	35	77.8	21	60.0			14	63.6	42	72.4		

Table 9. Correlation between total knowledge and total practices and attitude

	Total knowledge			
	Pre-program		2-months Post-program	
	R	p-value	r	p-value
Total practices	0.44	0.000	0.36	0.001
Total attitude	0.01	0.87	0.17	0.11

Table 10. Correlation between total attitude and total practices

Total practices	Total attitude			
	Pre-program		2-months Post-program	
	R	p-value	r	p-value
	0.36	0.000	0.01	0.98

4. Discussion

Pre-menopause is the depletion of the ovarian function followed by a menstrual cessation and often diagnosed when a women have no menstrual period for 12 consecutive months without any other biological or physiological cause and are considered to be a period of decreased estrogen level followed by menstrual cessation [16].

The transition to pre-menopause is an important period in female life that is associated with variable physical and psychological symptoms. Physicians and maternity nurses should be prepared to educate women about menopause. Physicians and maternity nurses, also, should be well-trained to educate and encourage premenopausal women to initiate lifestyle changes that can enhance their health for the rest of their lives. A vast majority of researches describe and focus on maternity nurse role in different settings. They act as technical specialists, researchers, teachers, and consultants; sometimes they also play an administrative role with the pregnant total health care experiences. [17,18,19,20,21,22] Health education is any mix of learning opportunities intended to help people and communities to enhance their health by improving awareness or changing attitudes [23].

The aim of the current study was to assess the impact of an educational package on premenopausal women's knowledge, practices, and attitudes toward sexuality. The study finding revealed acceptance of research hypothesis, which indicate that premenopausal women' knowledge, practices, and attitude would improve after implementation health educational package.

With regard to the socio-demographic characteristics of the premenopausal women surveyed, the present research found that more than half (55.0%) of the analyzed sample was over 45 years old. More than half (52.55) of the surveyed sample also lived in urban areas and had secondary education. Moreover, more than half (52.6%) of the studied sample were housewives, 56.3 % of the husband does not work and two-thirds (70.0%) of studied sample had medium economic status. These findings are in line with Salem's (2003) results, found that 45.5% of the study sample were in the age group (45-49 y) [24]. On the contrary, this result disagrees with Hassan (2006) who reported that the mean age of the studied women was 42.7 years, 57.5 % of them coming from rural areas, 53.7% are highly educated, 46.2% of them their husbands were highly educated also 62.5% of them were employees, 53.7% of them had ample income and 56.3% of them were

in moderate socioeconomic status [25]. The differences in this study's results and the present study results may be due to the differences between the two settings cultures and Religious beliefs.

Regarding the comparison of women's knowledge before, and after the intervention the present study revealed that a highly statistically significant difference between pre and post educational program regarding diagnosis, symptoms, signs of pre-menopause, and health risks of pre-menopause. This result was also supported by Mahmoud et al (2013) who revealed that there were significant improvements in different knowledge parameters after the program with variation in improvement level from one knowledge parameter to another [26]. This variation in improvement level from one parameter to another may be explained by that, women were more interested to know about these issues. Also, this result in agreement with another study conducted by Olofsson, et al (2000) who revealed significant improvements in different knowledge parameters after the program with variation in improvement level from one knowledge parameter to another [27].

Concerning total knowledge about premenopausal pre and post-program the present study Portrays; 16.3% of the studied sample had adequate knowledge pre educational program, while 82.5% of them had adequate knowledge post educational program. These results were in agreement with Olofsson et al (2000) who found that 14.4% of women had correct knowledge about pre-menopause before the intervention and improved to be 68.9% after a health education program [27].

Regarding the relationship between women's total knowledge score regarding the premenopausal period in relation to selected demographic variables, the study clarifies that statistically significant association between age, residence, educational level of wife and husband with total knowledge score pre and post educational program. It also shows a significant association between economic statuses with total knowledge score pre educational program compare to insignificant association post educational program. This was to some extent similar to the study done by Mahmoud et al (2013) who concluded that the improvement in knowledge was significantly higher in essentially educated and illiterate and read & writes women (66.7% and 53.0%, respectively) than secondary and highly educated women who had lower satisfying change (31.1%) [26].

However, this result was in agreement with Salem et al (2003) who found that the improvement in knowledge after the educational program was higher among secondary and highly educated women than lower educational levels and attributed this to the more awareness and easier communication of secondary and higher educated women [24]. Also, Yasmin et al (2009) reported that 27.8% of women had correct knowledge which improved to become 49.3% after the health education program. According to previous studies, it is evident that health education plays an important role in improving the information of women about pre-menopause [28].

As regarding premenopausal women's practices before, and after educational package regarding

sexual performance, the present study revealed highly statistically significant differences between pre and post educational program, regarding sexual performance, sexual stimulation, sexual moisture, sexual orgasm, sexual satisfaction, sexual desire, sexual and arousal affects social life. Otherwise there was no statistically significant difference between pre and post educational program regarding sexual pain. The results of the current study revealed an improvement in sexual performance after the implementation of the educational program.

With regard to premenopausal women's attitude before, and after the educational package regarding sexual performance, the present study revealed a highly statistically significant difference between pre and post-educational program regarding all items of sexual attitude. Most of the studied sample (72.5%) had got positive attitude post-program compared to 43.7% preprogram. This finding was in accordance with Yasmin et al (2009) who found that 30% of Swedish women had a positive attitude toward menopause and improved to be 70% after a health education program [28]. These differences may be attributed to the differences in the communities and the degree of orientation of women about menopause.

Regarding the association between women's total attitude score regarding premenopausal period and socio-demographic characteristics, the present study demonstrates that statistically insignificant association between age, residence, educational level of wife, wife job with total attitude score pre and post educational program, otherwise there are significant association between the educational level of husband, husband job and economic status with total attitude score pre and post educational program. This study was contradicted Eman et al (2017) who showed that there is no significant relationship between improvement of attitude and residence of women; so the change of attitude is nearly similar in both urban and rural women [23].

The present research indicated there is no significant correlation between attitude change progress and education. This result was in agreement with the study done by Mahmoud et al (2013) who revealed that the education of women did not affect the improvement of attitude [26]. Regard the income and the socioeconomic level of women, the present study showed that there is no significant relationship between improvement of attitude and income and socioeconomic level of women, as well. This result was in agreement with the study done by Mahmoud et al (2013) who showed that income and socioeconomic level of women did not affect the improvement of attitude [26].

5. Conclusion

Based on the findings of the present study, it could be concluded that there highly statistically significant difference between pre and post educational program on knowledge, practices, and attitude of premenopausal women regarding sexuality. Meanwhile, the implementation health educational package was effective in improving knowledge, practices, and attitude of premenopausal women regarding sexuality these support research hypotheses.

6. Recommendations

1. Proper training of health care providers in order to give optimal information about premenopausal period which in turn will enhance women's attitude towards sexuality in this period
2. Counseling activities for premenopausal, menopausal and postmenopausal women need to be popularized and made available to those who need them.
3. Empowerment and equality for women should be done during the climate stage.
4. Replication of this study on a large representative probability sample is highly recommended to achieve more generalization of the results for further research.

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