EVALUATION OF NURSING TEACHING GUIDELINE ON IMPROVING KNOWLEDGE AND ATTITUDE AMONG MENOPAUSAL WOMEN'S REGARDING VAGINAL ATROPHY

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ABSTRACT: Background: Vaginal atrophy (VA) is changing of vagina and developing when estrogen significantly decreased. **Aim:** Was to evaluate the nursing teaching guideline on improving knowledge and attitude among menopausal women's regarding vaginal atrophy. **Research Design:** A Quasi experimental, one group study design utilized. **Setting:** Administrative building at Ain-Shams University. **Sampling:** 116 sample of menopausal women according to inclusion criteria. **Tools:** A structured interviewing questionnaire, assessment of women's knowledge regarding menopause and VA and assessment of women's attitude regarding vaginal atrophy. **Results:** Minority of the studied women (12.6%) had good knowledge regarding menopause and VA pre intervention which increased to (58.0%) post intervention, However more than two thirds of the studied women (68.1 %) had positive attitude regarding VA pre intervention which increased to (79.8%) post intervention. Additionally, there were statistical significant relation between total knowledge score and total attitude score pre intervention, while there were no statistical significant relation post interventions. **Conclusion:** There were statistical significant relationship between total knowledge and total attitude score pre intervention, in contrast, no statistical relationship in post intervention. There was significant improving in women's knowledge and attitude regarding vaginal atrophy. Therefore, our hypothesis was approved. **Recommendations:** encourage healthy and positive attitude about VA in women in early age rather than teaching them when grown up.

Key words: Nursing teaching guideline, Menopausal women, Knowledge, Attitude, Vaginal atrophy.

INTRODUCTION

Menopause is a crucial stage in the life of a woman marked by the last menstrual period between ages 45 and 55 years old. Menopause occurs when the ovaries no longer release eggs. Also, it means that women stop having menstrual periods. Menopause is a associate with experiences as hot flashes. Night sweats, sleep problems, mood changes, and vaginal dryness **(Sullivan, 2017).**

Menopause is physiological phenomenon included ovarian failure and estrogen shortage. Menstruation permanent cessation and reproductive function loss, menopause should arrange of healthcare setting for woman and nurses most have more practicing in primary care and women's health and more understanding about symptoms , treatment and long-term implications of the menopause on women's health. (**Nursing Standard., 2018).**

Vaginal atrophy is changing in vagina where develops when had decreasing estrogen levels which named atrophic vaginitis. Estrogen is produce from ovaries and plays important roles to keep vaginal tissues lubricated and healthy. If estrogen was low, vaginal tissue becomes more atrophic thin, dry and shrunken. Vagina could be become more prone to inflammation **(Cagnacci et al., 2019).**

Prevalence of (VVA) in women is about 80 percentages. 65 percentage of women experience (VVA) within one year since menopause. Women aged between 40 and 55 years noted have high VVA prevalence **(Cagnacci et al., 2020).**

The etiology of (VA) is explain by deficiency in circulating estrogen which associate by natural aging process. This causes collagen breakdown and elastin fibers in vagina and loss elasticity of vaginal, loses its rugae, and shortening and narrowing of vagina. Vagina pithelium becomes more thin and pale **(Nappi et al., 2019)**.

Symptoms of VA could not only cause discomfort but negative effects on sexual health and have many aspects of life as exercise options, and general pelvic floor comfort **(North American Menopause Society, 2018).** Generally, VVA is underreported and undertreated **(Palma et al., 2018).**

Vaginal atrophy treating range from over counter moisturizers to prescription-only hormone therapy. Women can often manage mild symptoms with non-hormonal moisturizers and, during sexual intercourse, vaginal lubricants.. If none of these approaches helps, woman may need low-dose estrogen in the form of a cream, tablet, or ring inserted into the vagina **(Mitchell et al., 2018).**

Nursing is integral part of health care , preventing illness and care of both physically, mentally illness . Phenomena of particular concern to nurses are individual, families and whose are response to health problems **(Abernethy, 2019).**

Nurses should be address menopause and VA in clinical practice to prevent long-term health the consequences associated with estrogen deprivation. Individual counseling and personal treatments are key-steps to keep vaginal health **(Phillips & Bachmann, 2018).**

Maternity and Community health nurse should have vital roles in help women to cope during and after menopause period, offering individual assessment, education and support shold involved in educational programs and counseling session, she must ensure menopausal women know where to get up-to-date information and where to direct clients who are in need of further informations (Nies and McEwen, 2020).

Significance of the study:

Vaginal health is essential component of active and healthy aging in women at midlife. Hormonal deprivation and senescence, anatomy and function of urogenital tissue are affected VVA could happen. High postmenopausal ratio of women's, progressive and chronic VVA symptoms had very big effect on sexual functions and life quality **(Hunter et al., 2017).**

45% of healthy postmenopausal women's, had symptoms correlated with VA **(Nappi et al., 2019).** Up to 40 % postmenopausal women's have shortage in postmenopausal knowledge VA **(Sullivan, 2017).** Therefore, our investgation conducted to evaluated nursing teaching guideline effects on menopausal women's knowledge and attitude regarding (VA).

Aim of the study:-

Evaluate the nursing teaching guideline on improving knowledge and attitude among menopausal women's regarding vaginal atrophy

Hypothesis:

Menopausal women's knowledge's and attitude related to VA will be improved after application of nursing teaching guideline than before application.

SUBJECTS AND METHOD

Study design:

A Quasi experimental design was utilized in our study.

Study setting:

Our study conducted at administrative building of Ain- Shams University.

Sample type:

A purposive samples were used.

Sample size:

N= 165 (total number of menopausal women at Ain- Shams)

e = margin error (0.05)

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{170}{1 + 0.425}$$

$$n = \frac{165}{1.425}$$

n = 116 (Sample size from menopausal women).

Inclusion criteria:
1. Women aged of more than 45 - 60 years.
2. Women free from any medical, psychological and obstetric problems.
3. Not receiving chemotherapy or radiotherapy.

Tools of data collection:

Three tools were used for data collection:

I. A structured interviewing questionnaire:

It was designed by the researcher after reviewing related literature and under guidance of supervisors. It was written in Arabic language and encompassed of two parts;

- **Part 1:** Socio demographic data of the studied women.
- **Part 2:** Menstrual and obstetric history of the studied women.

II.   Assessment of women's knowledge regarding menopause and vaginal atrophy:

It was designed by the researcher after reviewing related literature to assess menopausal women's knowledge regarding menopause and vaginal atrophy. It was encompassed of two parts;

- **Part 1:** Assessment of women's knowledge regarding menopause encompassed of 7 items
- **Part 2:** Assessment of women's knowledge regarding VA encompassed of 9 items

Scoring system:

Each item was assigned a score of 2 when the answer was completely correct, 1 when the answer was incompletely correct and 0 when answer was unknown. The total of each part was calculated by summation of the scores of its items. The total score for the knowledge of a participant was calculated by the addition of the total score of two parts. The mean and standard deviation was calculated. As women's total knowledge score was classified as the following:

- Good when total score was 75% to 100%.
- Average when the total score was 60% to less than 75%.
- Poor when the total score was less than 60%.

III.   Assessment of women's attitude regarding vaginal atrophy:

It was adapted from **Afifi, (2015)**. The tool was designed by the researcher after reviewing related literature to assess menopausal women's attitude regarding vaginal   atrophy that was measured by three points likert scale that included degree of agreement and disagreement which encompassed of 13 items

Scoring system:-

Each item was scored as the following; score 2 for agree, score 1 for uncertain and score 0 for disagree. Women's attitude was classified to the following:

- Positive when the total score was 75% to 100%.
- Uncertain when the total score was 60% to less than 75%.
- Negative when the total score was less than 60%.

Supportive material:

Nursing teaching booklet about VA was constructed by the researcher in Arabic language after reviewing the related literature and the booklet was included general information about menopause

Tools validity and reliability:

Content validity of tool was assessed by three of expertise of the nursing fields. The expertise reviewed the tool for clarity of sentences, consistency and appropriateness of content, the sequence of items, accuracy, relevance, comprehensiveness, simplicity and applicability of the tools. No modifications were done. Reliability of tools was done by Cronbach's Alpha test and it was reliable for knowledge equal 0.84 and reliable for attitude equal 0.54

Ethical considerations:

- An official permission from the selected study setting was obtained for the fulfillment of the study.

- Explained to each woman before applying the tools to gain women confidence and trust.
- Oral consent used to obtain women agreement to participate in   the study and withdraw when women needs.
- We have not any physical, social or psychological risk on women in our study.
- The data was collected and treated confidentially.
- Each woman was informed about time throughout the study.

Administrative design:
An official approval to conduct this study was obtained from dean of faculty of nursing to president of the university and then the researcher interviewed each woman and obtained an informed consent before starting the data collection**.**

Pilot study:
A pilot study was carried out on 10% of the total sample (12women) to test the content validity, clarity and applicability of tools as well as time needed for data collection. According to the results obtained from data analysis, items correction, modification, omission and addition was done as needed.

Field work:
The study started from the beginning of March 2019 to the end of August 2019 covering period of six months. The researcher visited the pre mentioned setting from 9 A.M to 1 P.M 2 days per week (Sunday and Wednesday).
The researcher obtained essential administrative permission from the director of the selected study setting. The study was conducted through the following phases;

Preparatory and assessment phase:
The researcher introduced herself and explained the aim of the study briefly to women to gain their co-operation and obtain their oral consent to participate in the study. The data collected would be treated confidentially and used only for the purpose of the research.
The researcher interviewed each woman and took socio demographic characteristics including age, residence, level of education, marital status and work nature. The average time took 5-10 minutes.
The researcher explained questionnaire to women and complete data according to respond to questions about menstrual and obstetric history and women's knowledge regarding menopause and vaginal atrophy. The average time took 10-15 minutes. Then, the researcher asked women about their attitude toward vaginal atrophy. The average time took 10-15 minutes, so the average time needed to complete tools ranged from 25-40 minutes.

Planning phase:
The researcher designed nursing teaching guideline in Arabic language supported by figures after knowing women's deficit knowledge and health practices regarding vaginal atrophy. The nursing teaching guideline was designed according to woman's need and emphasizing the principles of adult learning and enhancing active participation, interaction, and critical thinking.

Implementation phase:
This phase was done by collecting women and distributing the nursing teaching guideline which was in clear Arabic language and has sufficient information about the topic of menopause and vaginal atrophy**.** Different teaching methods were used by the researcher, in addition to a booklet given to each woman at the end of the session.

Evaluation phase:
The evaluation of nursing teaching guideline was evaluated by using the same tools of pretest, after 2 weeks of implementation of the nursing teaching guideline the posttest was administered to women.

Statistical design:
The data collected was organized, coded, computerized and analyzed by using appropriate statistical methods. Then, results were presented in suitable tables. Data has been presented using descriptive statistics in the form of frequency and percentages. Quantitative variables have been presented in the form of mean and stander deviation. Qualitative variables have

been compared using chi-square test. Individual's correlations have been used to determine between the different qualitative variables. Qualitative data was expressed as number and percentage (No. & %).

RESULTS:

Table (1) shows that, less than half of the studied women (47.1%) aged from 45< less than 50 years with mean ± SD 51.5± 3.98. Nearly, two thirds of the studied women (64.7%) were living in rural and the majority of the studied women (96.0%) had diploma. Also, more than three quarters of the studied women (82.7%) were married. In relation to work nature, nearly two thirds of the studied women (63.0%) were neurological and physical exhaustive.

Table (1): Distribution of the studied women according to demographic characteristics (n=116).

Demographic characteristics	No.	%
Age:		
45< less than50 year	56	47.1
50< less than 55 year	32	27.5
55-60 year	28	24.1
Mean ± SD 51.5± 3.98		
Residence:		
Urban	41	35.3
Rural	75	64.6
Educational level:		
Diploma	111	96.0
High	5	4.3
Marital status:		
Married	96	82.7
Divorced	18	15.5
Widow	2	1.7
Work nature:		
Need to physical power	31	26.7
Neurological and physical exhaustive	73	63.0
Neurological exhaustive	11	9.2

Figure (1) shows that minority of the studied women (13.8%) had good knowledge about menopause and VApre intervention which increased to (53.6%) post intervention.
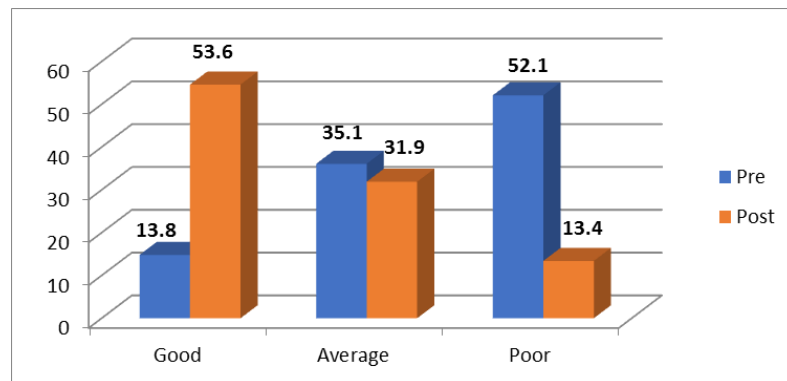

Figure (1): Distribution of the studied women according to total knowledge regarding vaginal atrophy.

Figure (2): reveals that, more than two thirds of the studied women (66.1 %) had positive attitude regarding VA pre intervention which increased to (78.8%) post intervention.
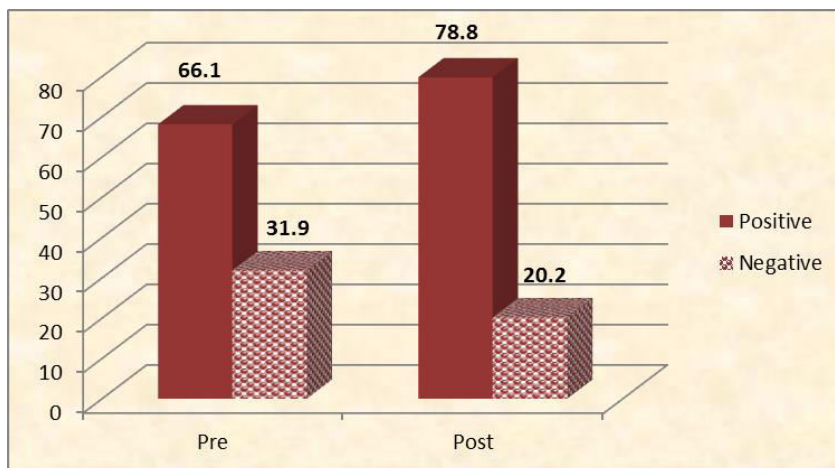

Figure (2): Distribution of the studied women according to total attitude regarding vaginal atrophy.

Table (2) shows that, there was highly statistical significant relation between total knowledge score and educational level of the studied women at pre intervention phase while there was statistical significant relation between total knowledge score of the studied women and their age and residence at pre intervention phase. In addition, there was no significant relation between total knowledge score of the studied women and their marital status and nature of work at pre intervention phase. At the post intervention phase, there was statistical significant relation between total knowledge score and educational level of the studied women, while there was no statistical significant relation between total knowledge score and the studied women's age, residence, marital status and nature of work at post intervention phase.

Table (2): Relation between total knowledge score and demographic characteristics pre and post intervention (n=116).

Total knowledge score / Demographic characteristics	Pre intervention						Post intervention					
	Poor (n=72)		Average (n=30)		Good (n=14)		Poor (n=14)		Average (n=34)		Good (n=68)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Age:												
45< less than50 y	26	36.1	16	53.3	13	92.8	2	14.2	14	41.1	38	55.8
50< less than 55 y	24	33.3	8	0.26	0	0.0	8	57.1	10	29.4	15	22.0
55-60y	22	0.30	6	16.0	1	0.07	4	28.5	10	29.4	15	22.0
	$X2=15.96$		p-value =0.003*				$X2=10.22$		p-value=0.037			
Residence:												
Urban	23	31.9	7	23.3	10	71.4	6	42.8	12	35.2	22	32.3
Rural	49	68.0	23	76.6	4	28.5	8	57.1	22	64.7	46	67.6
	$X2=10.31$		p-value =0.006*				$X2=0.58$		p-value =0.74			
Educational level:												
Diploma	66	91.6	30	100.0	14	100.0	13	92.8	33	97.0	64	94.1
High	6	8.3	0	0.0	0	0.0	1	7.1	1	2.9	4	5.8
	$X^2=13.98$		p-value =0.000**				$X^2=10.51$		p-value =0.007*			
Marital status:												
Married	54	75.0	26	86.6	14	100.0	12	85.7	25	73.5	57	83.8

Divorced	16	22.2	4	13.3	0	0.0	2	14.2	7	20.5	11	16.1
Widow	2	2.7	0	0.0	0	0.0	0	0.0	2	0.058	0	0.0
	X2=6.00		p-value =0.199				X2=5.50		p-value =0.24			
Work nature:												
Need to physical power	22	30.5	7	23.3	2	14.2	7	45.7	12	35.2	13	19.1
Neurological and physical exhaustive	41	56.9	21	70.0	12	85.7	5	35.7	18	52.9	50	73.5
Neurological exhaustive	9	12.3	2	6.6	0	7	2	14.2	4	11.7	5	7.3
	X2=5.37		p-value =0.25				X2=9.30		p-value =0.054			

** Highly statistical significant (P ≤ 0.001).   ***Statistical significant (P ≤ 0.05).**

Table (3) demonstrates that, there was highly statistical significant relation between total attitude score of the studied women and their educational level pre intervention and post intervention phase. On another hand, there were no statistical significant relation between total attitude score of the studied women and their age, residence, marital status and nature of work pre intervention and post intervention phase.

Table (3): Relation between total attitude score and demographic characteristics pre and post intervention (n=116).

Total attitudescore / Demographic characteristics	Pre intervention				Post intervention			
	Negative (n=36)		Positive (n=80)		Negative (n=23)		Positive (n=93)	
	No.	%	No.	%	No.	%	No.	%
Age:								
45 < less than50y	15	41.6	39	48.7	12	52.1	42	45.1
50< less than55 y	12	33.3	19	23.7	6	26.0	25	26.8
55-60	9	0.25	21	26.2	4	17.3	26	27.9
	X2=1.12		p-value =0.56		X2=0.98		p-value =0.61	
Residence:								
Urban	12	33.3	30	37.5	6	26.0	35	37.6
Rural	24	66.6	50	62.5	17	74.0	58	62.3
	X2=0.18		p-value =0.66		X^2=1.39		p-value =0.23	
Educational level:								
Diploma	34	94.4	76	95.0	20	91.7	90	96.7
High	2	5.5	4	4.9	3	1.3	3	3.2
	X^2=9.21		p-value =0.001**		X^2=10.68		p-value =0.000**	
Marital status:								
Married	26	72.2	68	85.0	19	82.6	76	81.7
Divorced	6	6.6	12	15.0	3	13.0	16	17.2
Widow	1	2.7	0	0.0	1	4.3	1	1.0
	X2=2.68		p-value =0.26		X2=1.34		p-value =0.51	
Work nature								
Need to physical power	12	33.3	19	23.7	8	34.7	24	25.8
Neurological and physical Exhaustive	21	58.3	53	66.2	14	60.8	60	64.5
Neurological exhaustive	3	8.3	8	0.1	1	4.3	9	9.6
	X2=1.17		p-value =0.55		X2=1.18		p-value =0.55	

** Highly statistical significant (P ≤ 0.001).

Tables (4) show that, there was statistical significant relation between total knowledge score and total attitude score pre intervention. Furthermore, there was no statistical significant relation post intervention.

Table (4): Relation between total knowledge score and total attitude score pre and post intervention (n=116).

Total knowledge score	Total attitude score							
	Pre intervention				Post intervention			
	Negative		Positive		Negative		Positive	
	No.	%	No.	%	No.	%	No.	%
Poor:	26	72.2	45	56.2	1	4.3	13	13.9
Average:	10	27.7	20	25.0	5	21.7	30	32.2
Good:	0	0.0	15	18.7	17	73.9	50	53.7
	X2=7.85		p-value =0.02*		X2=3.38		p-value =0.18	

*Statistical significant (P ≤ 0.05).

DISCUSSION:

VA is chronic and progressive condition in postmenopausal women. VA Symptoms such dyspareunia, vaginal dryness, irritation and itching can negatively effect on sexual health and. It is still an underdiagnosed and untreated entity that causes increasing symptomology and consequences in the medium and long term, which could be avoided with early approach. This due to deficiency of females information's and communication shortage about health care providers despite presence of vaginal symptoms and safety concerns, efficiency of available VA treatments **(Marina, 2018).**

Age is the most important factor that affects health of women. Less than half of the studied women were 45 – 50 years old with mean ± SD 51.5± 3.98 in our study. This result agrees with **Shobeiri et al., (2017)**, a clinical trial in Hamadan, Iran, who found that, mean± SD of the studied women in intervention group, was 55.11 ± 4.05 and mean± SD in control group was 55.70 ± 4.19.

Concerning residence, nearly two thirds of the studied women lived in rural area. Which in agreement with **Leung & Martin, (2016),** in Australian women and report that, most of the studied women lived in rural area

This result disagrees with **Ahmed, (2014),** in his study about the effect of education Guideline on menopausal symptoms in Ain shams, who mentioned that two thirds of the studied group and more than of control group lived in urban area.

Education is considered as one of the decisive and highly influential factor in reproductive behavior. Most of women studied had diploma as reported in our investgation. This result congruent with **El habashy, (2017)**, assessing effect of menopausal symptoms on female's quality of life in Ain-shams, who mentioned that, the lowest proportion of the studied women are highly educated. On the other hand, this result disagrees with **Shams-Eldin, (2018)**, reported that, the majority of the studied women were university and higher educational level. However, this may be due to differences in culture and society of women in setting of the study.

Concerning marital status, the present study showed that more than three quarters of the studied women were married. This result congruents with **Rotem et al., (2016),** in the study about a psycho-educational program for improving women's attitudes and coping with menopause symptoms, who reported that, most of the studied women were married.

On investigating women's studied knowledge's regarding menopause, current study reported less half percent of studied women's have been poor knowledge about menopause pre intervention which decreased to one tenth percent post intervention. In addition, minority of the studied women had good knowledge about menopause pre intervention which increased to more than half of them post intervention. This result revealed significant improvement of women's knowledge about menopause. This improvement in women's knowledge may be due to women's active participation and good communication with researcher who helped them to acquire information. Beside, booklet plays a very important role in helping women to acquire knowledge about menopause and VA(VA).

This result agrees with **Shams-Eldin, (2018)**, who reported that there was poor knowledge among postmenopausal women regarding menopause. In the same line, this finding agrees with **El habashy, (2017),** who mentioned that, more than two

thirds of the studied women has incomplete knowledge about menopausal. Also, which agree with observation of **Hamid et al., (2015)**, in United Arab Emirates, who mentioned that, women had poor knowledge about menopause

On the other hand, the result disagrees with **Anjaly, (2015)**, in the study about assess the knowledge on menopausal self-care among peri menopausal women, Ernakulam, India, who reported that, more than half of the respondents had moderate knowledge about menopause.

Also, the result is in contrast with **Lindh, (2015)**, in the study about women's knowledge, attitudes, and management of the menopausal transition in Sweden from Sweden, who reported that, more than half of the studied participants showed good knowledge and not varied with the menopausal stages. However, the discrepancy may be due to economic and socio demographic variation of the study population.

 Concerning knowledge of the studied women regarding VA, the common medical terms VVA and vulvar and VA were not familiar for females to reported her VVA symptoms and not aware vaginal symptoms which might caused by menopause or hormonal disturbance; About 25% of females were identify menopause from symptoms **(Kingsberg et al., 2015).**

Minority of the studied women had good knowledge about (VA) pre intervention which increased to more than half of them post intervention. This result is relevant to **Wysocki et al., (2015),** management of VA in USA, reported many postmenopausal women's had deficiency of information and   VVA miss understanding and symptoms. this finding agrees with **Kingsberg et al., (2017),** about women's empower surveys, who reported that, many women had inadequate information about (VVA) or that it is a medical condition. Mainly of women's had ever discussed symptoms with health care professional. This result is in accordance with **Naumova & Castelo-Branco, (2018)**, in the study about current treatment options for postmenopausal VA, who reported that, the majority of menopausal women had insufficient information about symptoms of VVA and its treatment.

However, poor knowledge about VA could due to most females reluctant to discuss sexual symptoms with health care professionals and consider the vaginal symptoms are normal part of aging and they just needed to cope with the symptoms. Coverage deficiency was observed for this problem in our society and less active position of specialists regarding the detection of symptoms of (VVA).

In contrast, **Nappi et al., (2019),** in Italy, who reported that, VVA symptoms reported mainly in women within per menopause/early post menopause, Italian women asking for a routine gynecological examination after menopause. However, this difference may be due to differences in cultures and society among Italian women from Egyptian women.

From our results, we reported more than 32 studied women have positive attitude about VA pre intervention which increased to majority of them at post intervention. Women had positive attitude towards VA. However, this may be due to the educated percent of women in this study affect the way of their thinking and attitude about VA.

High statistical significant differences were observed in all items related to the studied women's attitude about VA at pre and post intervention phases (p≤0.001). This ensured the positive effect of educational program.

Highly statistical relationship between knowledge and educational levels of women at pre intervention and post intervention phases were observed. These results agreed with **Bansalin et al., (2015)**, who reported education levels was associated significantly with knowledge score and higher education more adequate knowledge.

In the same line with **Orabi, (2017)**, at 10th of Ramadan city in Egypt, reported that, there was statistical significant relation between educational level of the studied women and their husbands and their knowledge.

Highly significant relation between total attitude score of females and educational levels pre and post intervention. Which in agree with **Farok et al., (2014)**, who noted that, there was significant relation between education and attitude of women. However, this may be due to women's attitude was affected by educational level and job. More knowledge also might causes favorable attitude. Education and teaching are important factors in changing attitude and people's idea.

In the same line, **Orabi, (2017)**, found that there was no statistical significant relation between residence and occupation of the studied women and their husbands and attitude before and after intervention. However, change of attitude of women was nearly similar in both urban and rural women.

Our findings that there are statistical significant relation between total knowledge score and total attitude score pre intervention while no statistical significant relation post intervention. However, this may be due to it is difficult change the attitude on menopausal women especially in the topic related to sexual health because of their culture and fixed concepts which in agreement with **Farok et al., (2014)**.

 Also, this result is in agreement with **Taherpour et al., (2015)**, who studied menopause knowledge and attitude among Iranian women in Iran, who reported that, there was significant relation between knowledge and attitude among menopausal

women before program and disagreed with these findings of the current study after program in which, there was significant relation between knowledge and attitude among menopausal women before program.

In view of the above mentioned findings, hypothesis which stated that menopausal women's knowledge and attitude regarding (VA) improved after application of instructional guideline than before application was supported.

CONCLUSION:

On the light of the current study findings, it was concluded that; the minority of the studied women had good knowledge about menopause and VA pre intervention which increased to more than half post intervention. More than two thirds of the studied women had positive attitude about VA pre intervention which increased to more than three quarters post intervention. Additionally, there were statistical significant relation between total knowledge score and total attitude score pre intervention ($P \leq 0.05$); while there were no statistical significant relation post intervention. Therefore, the study hypothesis was supported.

RECOMMENDATIONS:
- Activate the counseling program and provide guideline to couples about dyspareunia caused by (VA).
- Encourage healthy and positive attitude about VA and menopause in women in early age rather than teaching them when grown up.

RECOMMENDATION FOR FURTHER RESEARCHES:
- Replication of the study on large sample size in different settings.
- Activate the counseling program for nurses about how to deal and manage vaginal atrophy.

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