RESEARCH ARTICLE

Influence of Self-Care Guidelines on Improving Menopausal Urogenital Symptoms

Mona Ahmed ElSheikh, Aziza Ahmed Atia, Nevin Samir Metwaly, Laila Ahmed Nabwy

Abstract

Objective: To evaluate the effect of self-care guidelines on improving menopausal urogenital symptoms.

Method: The quasi-experimental study was conducted from September 2018 to February 2019 at the outpatient clinic at the maternity hospital of Ain Shams University, Egypt, and comprised menopausal women reporting urogenital symptoms. The participants were divided into 10 equal groups and were subjected to 30-minute theoretical and practical self-care sessions 3 times per week for 4 weeks. Data was collected using interviews, Day-to-Day Impact of Vaginal Aging questionnaire and Urinary Incontinence Questionnaire. Data was collected at baseline, immediately after the intervention and after 3 months from the first evaluation. The collected data were statistically analysed using the statistical package for social science (SPSS version 20), percentage (%), the arithmetic mean (), standard deviation (SD), and chi-square (X2 & P-value) were calculated.

Results: Of the 120 women with mean age 48.03±3.04 years (range: 45-50 years), 72(60%) had secondary education, 109(90.8%) were married, 44(36.7%) were working in an office and 7(55.8%) were housewives. The mean age at menopause was 46.57±2.33 years (range: 42-50 years). Urogenital symptoms post-intervention reduced significantly ($p<0.05$)

Conclusion: Self-care intervention had a significant impact in terms of improving menopausal urogenital symptoms.

Keywords: Gynaecology, Menopause, Urinary incontinence, Ambulatory care, Urinary tract, Aging, Urogenital symptoms. **DOI: 10.47391/JPMA.EGY-S4-42**

Introduction

Menopause is an adaptation process during which women go through a process entailing many biological and psychosocial changes. During menopause, loss of skin flexibility, decrease in libido, sexual dysfunction, increase in the risk of cardiovascular diseases, urinary tract infections (UTIs), incontinence, bone loss as well as somatic and vasomotor symptoms may appear. Depressed mood, sleep disorders and other psychological problems reduce the quality of life in menopausal women. A wide range of signs and symptoms may occur during the transition and early menopausal years. The urogenital symptoms of menopause include chronic and progressive vulvo-vaginal, sexual and lower urinary tract conditions. It is characterised by symptoms that are secondary to the clinical state of hypo-oestronism post-menopause. In 2014, the International Society for the Study of Women's Sexual Health and the North American Menopause Society established detailed urogenital symptoms of menopause, which was previously known as 'atrophic virginities' or 'urogenital atrophy'.[1]

Department of Maternity and Gynaecology Nursing, Ain Shams University; Egypt.
Corrospondience: Laila Ahmed Nabwy
email: lailaahmad2023@gmail.com

Urogenital symptoms are defined as a collection of symptoms and signs associated with the decrease of oestrogens and other steroid hormones. It produces changes in major and minor lips, clitoris, vestibule/introits, vagina, urethra and bladder. Postmenopausal women (50%) have urogenital symptoms related to low oestrogen levels.[2]

Nurses play a crucial role in patients' decision-making process concerning treatment options available for menopausal women. There are many different roles of nurses for managing urogenital and aging vaginal symptoms. Both types of nurses, practitioners as well as other nurses specifically educated in menopausal care, can be of great benefit in providing care and counselling to menopausal women.[3]

There is effect of self-care guideline on improving menopausal urogenital symptoms.

To the best of our knowledge, studies on menopausal urogenital symptoms have not been conducted in Egypt. The current study was planned to fill the gap by evaluating the effect of self-care guidelines on improving menopausal urogenital symptoms.

Subjects and Methods

The quasi-experimental study was conducted from September 2018 to February 2019 at the outpatient clinic

at the maternity hospital of Ain Shams University, Egypt. The sample size was based on the statistics of the Obstetrics and Gynaecology outpatient clinic. After obtaining the required approval from the Institute Review Board of the University, the sample was raised using purposive sampling technique. Those included were menopausal women suffering from urogenital symptoms in different menopausal stages with no pelvic surgery or history of hormonal medication use, who could read and write. Informed consent was obtained from all the participants. Those who did not meet the inclusion criteria or were not willing to participate were excluded.

Data was collected after the Dean of the institutional nursing faculty issued a formal letter to the Dean of the outpatient clinic for relevant permission to collect data which was done using various tools. The first tool was a structured interview using a self-designed questionnaire. The interviews were conducted individually face-to-face in the waiting area of the clinics.

The first part of the questionnaire assessed general characteristics and sociodemographic details, like age, educational level, occupation, marital status and family income.

The second part looked for obstetric and gynaecological history, such as regularity of menses, number of pregnancies, -and menopausal symptoms.

Also used was the Day-to-Day Impact of Vaginal Aging (DIVA) questionnaire adapted from Huang et al.[4] to examine how vaginal symptoms affected functioning and wellbeing. It included four multi-item domain scales measuring everyday activities, mental wellbeing, sexual function, and self-concept. The vaginal symptoms were quantified on a 5-point scoring system; 0 = not at all, 1 = slightly, 2 = moderately, 3 = quite a bit, and 4 = extremely.

The third data-collection tool was the Urinary Incontinence Questionnaire (UIQ) adapted from Frekson et al.[5] which explored women's sexual activity and urine incontinence. The impact of each of the three questionnaires was scored 1-3; 1= low, 2 = moderate, and 3 = high.

Validity and reliability of the tools were tested through a panel of three specialised university professors at the nursing faculty of Ain Shams University who reviewed the tool to be sure about comprehensiveness, accuracy, clarity and relevance. Reliability of the tools was tested using Cronbach's alpha model whose value for the study tools was 0.79.

Pilot study of 10% of the total sample size was conducted to test clarity and reliability of the tools. Corrections, modifications, omissions and additions were incorporated in the light of the pilot study. Those who took part in the pilot study were excluded.

Baseline data represented the completion of the first of the four phases of the study: assessment, planning, implementation and evaluation. On the basis of this data, supportive material and nursing guidelines were designed about pelvic floor exercises and other instructions to relieve menopausal urogenital symptoms. An educational programme and self-care guidelines booklet was prepared in Arabic language which included definition of menopause, causes, manifestations, complications, laboratory findings, measures, pelvic floor exercises and other instructions to improve menopausal urogenital symptoms.

In the second phase, implementation of the intervention was planned. The women were divided into 10 equal groups which in the third phase received 30-minute sessions 3 times every week for 4 weeks. The sessions were conducted at the training unit with the permission of the supervisor nurse. Of the 12 sessions, 4 were theoretical, while 6 related to practical exercises.

The self-designed manual booklet was handed to each participant to clarify the desired knowledge and skills. It also contained coloured illustrations related to different types of pelvic floor exercises and the main points of each session of the intervention.

The data-collection tools used at the baseline were repeated immediately at the end of the intervention, and then again after 3 months from the first evaluation.

Data was expressed as mean and standard deviation or as frequencies and percentages, as appropriate, using the correlation coefficient (r-test). $P<0.05$ was considered statistically significant. The collected data were statistically analyzed using the statistical package for social science (SPSS) version 20. Percentages (%), the arithmetic mean with standard deviation (SD), and chi-square (X2) were utilized to calculate the P-value, which if less than 0.05 was considered significant.

Results

Of the 120 women with mean age 48.03±3.04 years (range: 45-50 years), 72(60%) had secondary education, 109(90.8%) were married, 44(36.7%) were working in an office and 7(55.8%) were housewives. The mean age at menopause was 46.57±2.33 years (range: 42-50 years) (Table 1).

Natural Menopause was reported by 118(98.4%) women and all 120(100%) had physical symptoms. Hot flashes

were reported by 115(95.3%), and psychological symptoms, like stress, by 118(98.4%) (Table 2).

The most common reported urogenital symptom was vaginal dryness in 89(74.2%) women, followed by urinary incontinence in 78(65 %) and dyspareunia in 65(54.2 %) (Table 3).

The effect of menopause at the three data-collection time points showed significant improvement (p≤0.001) (Table 4).

At baseline, 86(71.7%) subjects, had reported severe vaginal aging, but post-intervention there were 12(10%) such subjects. However, the number rose to 19(15.8%) at follow-up (Figure).

Table-1: Socio-demographic characteristics of the study subjects (n=120).

Demographic characteristics	Frequency n (%)
Age (in years)	
45	96 (80)
46-60	24 (20)
Rang 45-60	Mean ±SD = 48.03 ± 3.04
Marital Status	
Married	109 (90.8)
Widow	9 (7.5)
Divorced	2 (1.7)
Educational level	
Primary	33 (27.5)
Secondary	72 (60.0)
University	15 (12.5)
Number of children	
No children	3 (2.5)
1-3children	82 (68.3)
More than 3children	35 (29.2)
Family life	
Lives with others	9 (7.5)
Lives with husband& children	111 (92.5)
Job	
Housewife	67 (55.8)
Working (technical work)	9 (7.5)
Office work	44 (36.7)

SD: Standard deviation.

Table-2: Menopausal history (n=120).

Menopausal history Age of menopause	Frequency n (%)
Range & mean	(42-50 yrs) 46.57 ± 2.33
Type of Menopause	
Natural Menopause	118 (98.4)
Surgical Menopause	2 (1.6)
Type of Menopausal symptoms:	
Psychological symptoms	
Experiencing stress,	118 (98.4)
Irritability	1 (0.8)
Anxiety	1 (0.8)
physical symptoms	
Hot flashes	115 (95.3)
Palpitation	2 (1.6)
Headache	3 (3.1)
Urogenital symptoms	
urinary incontinence	78 (65)
Vaginal dryness	89 (74.2)
atrophic vulvovaginitis	65 (54.2)
Sexual symptoms:	
lack of lubrication	75
Discomfort	81
Dyspareunia	65 (54.2)
Investigation for menopause	
No	109 (90.8)
Triglycerides	5 (4.2)
Pelvic U/S & Pelvic X- ray	5 (4.2)
Pap smear	1 (0.8)

U/S: Ultrasound.

Table-3: Symptom severity.

Severity of symptom.	Vaginal dryness (n= 120) n (%)	Dyspareunia (n= 120) n (%)	Urinary incontinence (n= 120) n (%)
No symptom	31 (25.8)	55 (45.8)	42 (35)
With symptoms	89 (74.2)	65 (54.2)	78 (65)
Mild symptoms	35 (29.2)	29 (24.2)	44 (36.6)
Moderate symptoms	37 (30.8)	25 (20.8)	17 (14.2)
Severe symptoms	17 (14.2)	11 (9.2)	17 (14.2)

Table-4: Baseline, post-intervention and follow-up data (N=120).

Effects of menopause about body systems	Pre-guideline			post –guideline			Follow up (3months)			Paired t test	*p-value*
	Always	Sometimes	Never	Always	Sometimes	Never	Always	Sometimes	Never		
Urinary system	60.0	30.0	10.0	15.1	20.7	64.2	20.2	23.6	56.2	**178.63	<0.001**
Physical effects	65.0	20.0	15.0	20.0	30.0	50.0	17	41.5	41.5	**165.28	<0.001**
Skin and soft tissues	50.0	30.0	20.0	10.0	20.0	70.0	12.2	23.1	64.7	**216.90	<0.001**
Psychological effects	60.0	30.0	10.0	18.5	15.5	46.0	25.1	12.4	62.5	**189.12	<0.001**
Sexual relation and genital system	45.0	50.0	15.0	18.0	12.0	70.0	22.1	10.5	67.4	**97.40	<0.001**
Circulatory system	62.0	30.0	8.0	17.0	15.0	68.0	31.8	11.1	57.1	**175.18	<0.001**

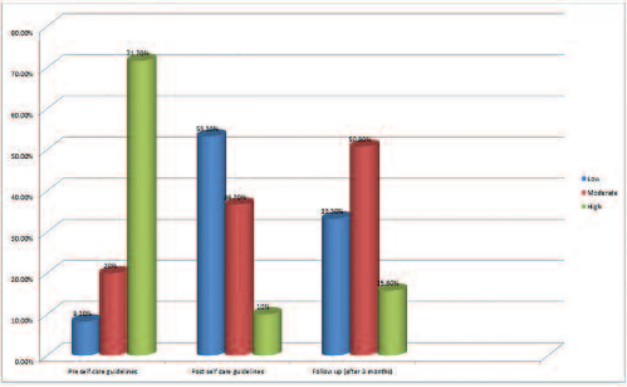

Figure: Influence of self-care guidelines on vaginal aging at baseline, post-intervention and follow-up (n=120).

Discussion

In the current study, majority (80%) of women were aged 45-50 years with mean age 48.03 ± 3.04 years. A study[6] in China reported a mean age of 50.69 years, while an Indian study[7] reported 53.65 years.

Majority of the current sample's income was just enough, while a few reported not having enough income. A study in Spain[8] had most participants with enough income and savings.

The present study had more than half of the sample from among housewives, which is similar to studies done in Iran[9] and China[10].

The current study demonstrated that the majority of the sample had regular menses, which is similar to some studies[11], and in contrast to some others.[12]

Majority of current subjects had used intra uterine devices (IUD) as the preferred family planning, which is in line with an Indian study.[7]

The age of menopause in the current study ranged between 42-50 years with a mean of 46.57 ± 2.33 years. A study[13] reported age range 40-51 years.

All the current subjects had physical symptoms and many had psychological symptoms as well. Abasi et al.[9] reported that the most common physical complaint was muscular discomfort (89.5%), followed by hot flashes and night sweating (85.5%), sleep problems (79%), and heart discomfort (19%). In the psychological domain, the most common symptom was physical and mental exhaustion (82%), followed by irritability (80%), anxiety (75.5%), and depressive mood (70%). Rathnayake et al.[14] in a study in Sri Lanka revealed that the frequently reported menopausal symptoms were physical and mental exhaustion (53%), irritability (48.2%), depressive mood (43.4%) and hot flushes (42.2%) of mild to moderate severity.

The current results showed that the most common urogenital symptoms were vaginal dryness, followed by urinary incontinence and dyspareunia. These findings are similar to literature.[15].

The vaginal dryness among the studied menopausal women was because of their aging process as the majority of the sample was aged 45-50 years when oestrogen production starts to decline.

Urinary incontinence was reported by majority of current participants, which is in contrast to a study in which the symptom was reported by 26.8% participants.[16]

More than two-thirds of the current sample had severe urogenital symptoms, less than one-quarter had moderate and only a minority had mild symptoms. A study in Spain[11] reported that 66.1% of the subjects had severe urogenital symptoms. On other hand, Gupta et al.[15] reported 20.4%.

The mean score of vaginal aging in the current study was 109.79±17.35. This disagreed with Singhania et al.[7] who in India reported a corresponding score of 11.88±6.36.

The limitation of the current study is that the sample size was not calculated, which could have influenced the power of the study.

Based on the findings, it is recommended that training programmes be introduced for improving the urogenital symptoms among menopausal women. Further studies, especially qualitative research, should be conducted to explore the factors that influence urogenital symptoms among menopausal women.

Conclusion

Self-care intervention had a significant impact in terms of improving menopausal urogenital symptoms.

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Conflict of Interest: None.

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