



IMPACT OF CLINICAL PHARMACIST EDUCATION IN THE MANAGEMENT OF POST MENOPAUSAL HEALTH

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ABSTRACT

This study aimed to assess the impact of clinical pharmacist education in the management of post menopausal health. A prospective, observational study was conducted for a period of 6 months from January to June 2017 in a tertiary care hospital. Data was collected from post menopausal women at age of 45 to 60 years using menopausal health questionnaire and menopausal rating scale (MRS). A total of 254 postmenopausal women were enrolled for the study. The mean age was found to be 54.42 ± 4.04 . To assess the impact of pharmacist education, exercise practice, stress handling capacity, menopausal knowledge and view of menopause was targeted. On

intervention by a clinical pharmacist, participated women learned to do exercise daily from 44 (17.3%) to 103 (40.6%). Participated women got very good knowledge regarding menopause from 38(15.0%) to 157 (61.81%), learned to handle stress very well from 88 (34.6%) to 131 (51.6%) changed their view towards menopause from 105 (41.3%) to 188 (74.0%). Clinical pharmacist's education achieved significant reduction in blood pressure, emphasized the need of exercise practice, thought effective methods to handle stress, improved knowledge and changed the view towards menopause.

KEYWORDS: Clinical pharmacist, Exercise, Knowledge, Education.

INTRODUCTION

Menopause is universal reproductive phenomenon. All the women who live beyond the age of 45-50 years, experience a period of transition from reproductive to the non reproductive stage of life. Natural menopause is recognized after 12 consecutive months of amenorrhea for

which there is no obvious pathological or physiological cause. Women spend a significant part of their lives in post menopausal state. In 1990, around 467 million women aged 50 years and are expected to increase to 1200 million by the year of 2030. Women attain menopause through varied reasons like natural decline of reproductive hormones, hysterectomy, due to primary ovarian insufficiency and chemotherapy or radiation therapy.^[1]

The period from the initiation of irregular menstrual cycle to the complete cessation of cycle is divided into 3 phases, namely: Pre- Menopause (time from end of last menstrual period), Peri-Menopause (Time between the changes of normal ovulation to amenorrhea) and Post Menopause (12 consecutive months of amenorrhea).

In the period heading towards menopause, generally women may experience the symptoms related to vascular instability, uro-genital atrophy, bone and muscular problems, psychological damage and sexual stagnation.^[2] These symptoms on prolonged duration can lead to complications like cardiovascular disease, osteoporosis, abnormal vaginal bleeding and metabolic syndrome.

Physical activity is fundamental in improving health when done regularly decreases stress, risk of coronary heart disease, hypertension, obesity, uncomfortable menopause and various physical psychological and social problems. Increasing physical activity directly stabilizes thermo regulation, thus decrease certain chemicals and thereby decrease in hot flushes in menopausal women.^[3]

Pharmacists play a crucial role in health services to women in preventing and treating symptoms of perimenopause and menopause. Pharmacist serves as educators to evaluate available treatment options for menopause symptoms. They can educate patients about their health, diet, pharmacotherapy and simple home practices like yoga and meditation to minimize stress. Patient information leaflets are widely accepted to educate patients about the menopausal conditions.^[4] The present study aimed to assess the importance of clinical pharmacist's involvement in providing pharmaceutical care in the management of post menopausal health.

MATERIALS AND METHODS

This observational study was conducted with post menopausal women patients visiting or admitted either as inpatient or outpatient in the department of obstetrics and gynecology at

the tertiary care hospital between January to June 2017 and approved by hospital ethical committee.

The inclusion criteria for this study consisted of women aged between 45 to 60 years and women who attained menopause above one year. In addition, the patients had a history of difficult to control hypertension; therapy regimen changed at least once in the previous year; presence of comorbidities and a history of non-adherence either reported by the patient or noticed by the clinical pharmacist. A total of 254 patients who fulfilled these criteria were included.

Exclusion criteria consisted of patients less than 45 years or above 60 years of age and women who have undergone hysterectomy and women on hormone replacement therapy.

Three hospital visits lasting approximately one hour each were scheduled, with a mean interval of 90 days between visits. The visits were made by two clinical pharmacists, who had been previously trained in data collection and pharmaceutical care. The pharmaceutical care program consists of three stages: 1) assessing the patient's condition in relation to their therapeutic needs; 2) planning the patients care or follow up; and 3) Evaluating the results of follow up.

The variable evaluated in the study included with menopausal rating scale has an 11 item questionnaire for assessing the symptoms. It contains three independent dimensions: Psychological, somatic and urogenital subscale. Each of the 11 symptoms in MRS contained in the scale can get 0 (no complaints) or up to 4 scoring points (sever symptoms) depending on the severity of the complaints perceived by the women completing the scale. The composite scores for each of the dimensions (subscales) are based on adding up the scores of each item of the respective dimensions. The total score is the sum of the dimension scores, and is proportional to their severity of subjectively perceived symptoms.

The data was entered in MS Excel and analyzed by using Statistical Package for the Social Sciences (SPSS) version 22.0 with percentage calculations.

RESULTS AND DISCUSSIONS

In our study population (n=254), 61 (24%) were in the age group of 45-49, 69 (27%) were in the age group of 50-54 years, 63 (25%) were in the age group of 55-59 years and 61(24%) were at the age group of 60. The major patient population was in the age group of 50-54

years 69 (27%). It show highest incidence of post menopausal symptoms occurred among 50-54 which is similar to the study conducted by Mohammed F et al.^[5]

On assessing the marital status, 87 (34%) was presently lead a married life, 68 (27%) was widowed, 71(28%) was found to be divorced and 28 (11%) was never married which was similar to the study conducted by Sarkar A et al.^[6]

In study population, 48 (19%) were in intermediate level of education, 41 (16%) were degree holders, 52 (20%) was found to be completed higher secondary, 69 (27%) had primary level of education and 44 (17%) was found to be illiterate.^[7] Out of 254 post menopausal women participated in the study 112(44%) were upper middle class, 84(33%) were in lower middle class and 58(23%) were in lower class. The participants reported their age in menarche as 64(25%) at <12 years, 98(39%) at 12-14 years and 92(36%) at >14 years.^[8]

Table 1: Distribution according to Socio-Demographic factors.

VARIABLE	NUMBER	PERCENTAGE (%)
Age (years) (n= 254)		
45-49	61	24
50-54	69	27
55-59	63	25
60	61	24
Educational status (n=254)		
Illiterate	44	17
Primary	69	27
Intermediate	48	19
Higher secondary	52	20
Degree	41	16
Marital status (n=254)		
Single	28	11
Married	87	34
Divorced	71	28
Widowed	68	27
Socio-Economic status (n=254)		
Upper middle	112	44
Lower middle	84	33
Upper lower	58	23
Employment status (n=254)		
Employed	92	36
Unemployed	117	46
Retired	45	18
Age at menarche (n=254)		
>12 years	64	25
12-14 years	98	39
<14 years	92	36
Age at menopause (n=254)		
40-44	92	36
45-49	101	40
<50	61	24

Exercise practice in post menopausal women before intervention 44(17.3%) found to do exercise almost daily 53(20.9%) found to do at least 3 times a week 88(34.6%) rarely do exercise and 69(27.2%) never did exercise. With the efforts and education of a clinical pharmacist in 3rd month 103(40.6%) found to do exercise almost daily, 91(35.8%) at least 3 times a week, 37(14.6%) rarely did exercise, 23(9.1%) never due to family problems.^[10] The chi square value for this analysis was found to be 37.91 and the study was found to be significant ($p=0.00$).

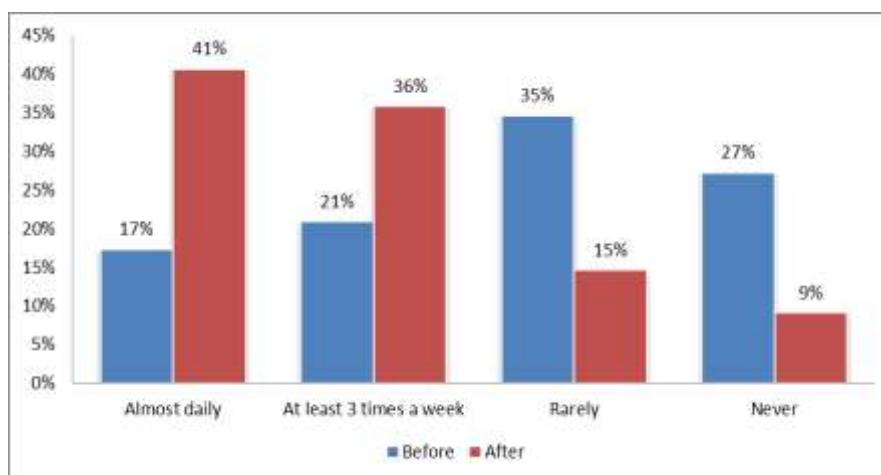


Figure 1: Exercise practice before and after intervention.

The baseline data 38(15.0%) had very good knowledge, 143(56.3%) moderate knowledge and 73(28.7%) had very little knowledge about menopause but after active intervention by a clinical pharmacist 157(61.81%) attain very good knowledge 83(32.68%) attained moderate knowledge and 14(5.51%) had very little knowledge regarding menopause.^[11] chi square value was found to be 107.647 and the study was found to be significant ($p= 0.00$).

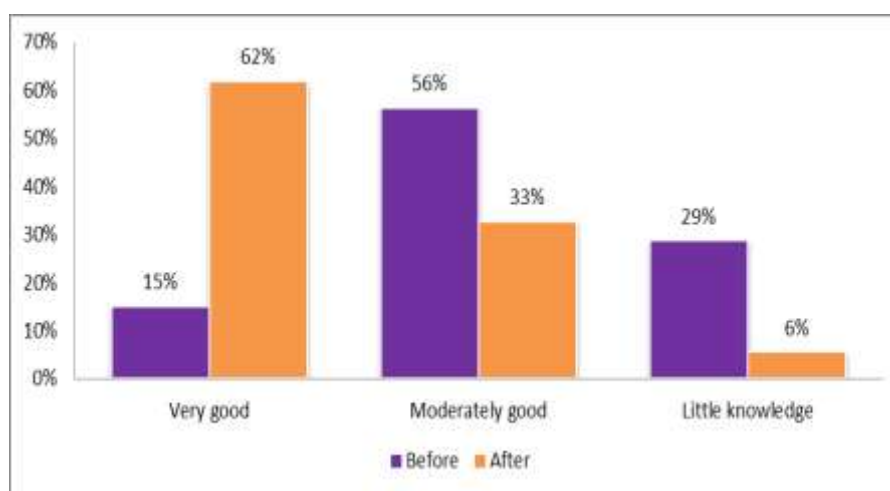


Figure 2: Knowledge of post-menopause before and after intervention.

Out of 254 patients in the base line data 88(34.6%) handled stress very well 121(47.6%) moderately, 45(17.7%) poorly. But after intervention 131(51.6%) learned to handle stress very well, 101(39.8%) moderately, 22(8.7%) poorly.^[12] The chi square value was found to be 26.9 and the study was found to be significant ($p= 0.00$).

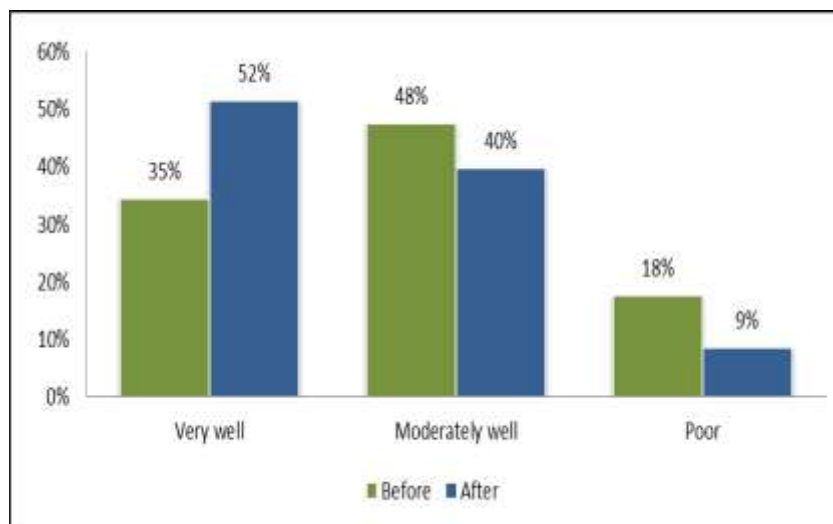


Figure 3: Stress handling capacity before and after intervention.

The study participants, before intervention 105(41.3%) had negative attitude and 149(58.7%) had positive view regarding menopause. But active intervention by the clinical pharmacist 188(74.0%) of women changed their view of menopause positively and those who viewed menopause negatively was decreased to 66(26.0%).^[13] Chi-square value was found to be 25.260, the study was found to be significant ($p= 0.00$).

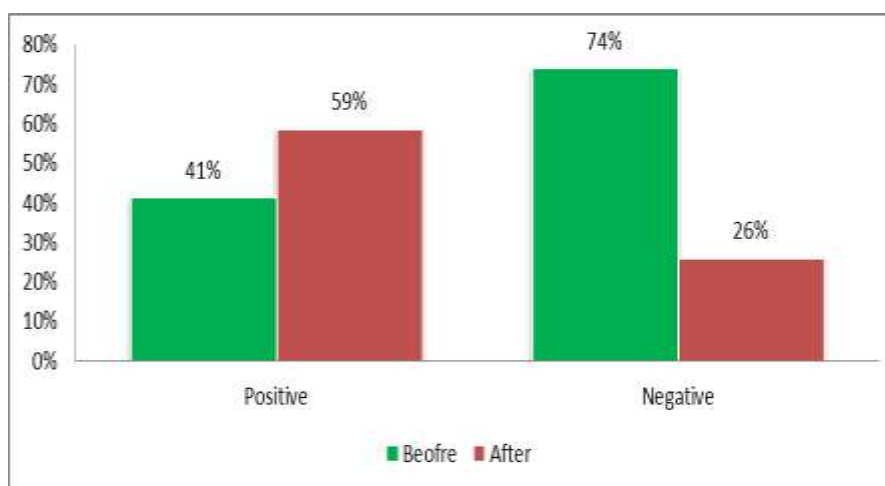


Figure 4: View of post-menopause before and after intervention.

Our study proved that knowledge of patients about the menopausal transition, identification of symptoms and awareness about post-menopause was found to be improved after patient education by a clinical pharmacist.^[14] As, before intervention 143 (56.3%) of population at least had moderate knowledge but after active participation study population showed improvement by 157 (61.81%) to very good understanding.

In study population only 121 (47.6%) were able to manage stress at least moderately during their first visit. After educating by a clinical pharmacist 131 (51.6%) of the study population learnt stress management very well. The need of education and support to manage stress was proved by the study conducted by Catherine *et al.*^[15]

In assessing patients view to menopause we found out that before intervention 149 (58.7%) of study population showed negative impact towards menopause saying that they are missing something.^[16] With the patient explanation of a clinical pharmacist 188 (74.0%) of population changed the view towards menopause.

CONCLUSION

The present study concluded that the pharmacist's education achieved significant reduction in blood pressure, emphasized the need of exercise practice, thought effective methods to handle stress, improved knowledge and changed the view towards menopause. So this emphasizes the need for the involvement of clinical pharmacist in the management of post menopausal health and preserves the quality of life.

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