

Study on influence of chronic health problems on menopausal symptoms

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Abstract

Introduction: Menopause is the time of a woman's life when reproductive capacity ceases². Menopause implies the cessation of menstrual flow for at least 12 months, with the disappearance of primary oocytes and generally occurs between 45 and 55 years of age³. It is a condition every women faces in later life and can have many associated effects, which might disrupt the quality of life¹. The present study has been taken as a cross sectional study to find out the association between certain chronic health problems and menopausal symptoms. Accordingly, knowing the impact of chronic health problems on menopausal symptoms will help to improve the health care services required by the menopausal women. Thus the study will facilitate a good quality of life for menopausal women.

Keywords: Chronic health problems, Menopausal symptoms, Appropriate therapy.

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INTRODUCTION

Menopause is the time of a woman's life when reproductive capacity ceases². Menopause implies the cessation of menstrual flow for at least 12 months, with the disappearance of primary oocytes and generally occurs between 45 and 55 years of age³. In India sixty million women are above the age of 55 years. With women living longer than before, majority would spend one third of their life in the post menopausal stage. The health problems cropping up during this period and related to oestrogen deficiency of menopause are now obvious and better understood. It is important therefore to address all these menopause related symptoms and apply prophylactic measures so that these women can lead an enjoyable and healthy life⁴. The main reason for climacteric problems and menopause is the end of the ovarian function. The ovary is the only endocrine gland

that stops functioning before the final stages of life. The root of this natural transformation though lies in biological structure of women, yet it produces a wide range of effects on a woman's behaviour and psyche resulting in extremely unpleasant symptoms. The age at which natural menopause occurs is between the ages of 45 and 55 years for women worldwide². The degree of symptomatology experienced by an individual woman can be influenced by a number of factors, including age at menopause, chronic health problems and psychosocial attitude towards menopause. A multiplicity of symptoms has been attributed to the menopause. In our health system women of reproductive age group are given more importance. The post menopausal women (>45 years) both in urban and rural area are neglected.

OBJECTIVE

To assess the association between certain chronic health problems and menopausal symptoms.

MATERIAL AND METHODS

The present study was a community based cross sectional study which was conducted in a rural population in Poonamallee block of Tiruvallur district in Tamilnadu. The study population included all the women who had attained natural menopause and had their last menstrual bleeding at least one year prior to data collection. Cluster sampling method was adopted and 30 clusters were randomly selected by Probability Proportionate to Size (PPS) method. A structured questionnaire was used to

collect information regarding the background characteristics, chronic health problems, menopausal symptoms and appropriate therapy received. Ethical clearance was obtained.

Sampling Method

Cluster sampling method was adopted and 30 clusters were randomly selected by Probability Proportionate to Size (PPS) method in the manner described below.

Sample size

Assuming 50% prevalence of hypertension among menopausal women, with an alpha error of 0.05, the limit of accuracy of 10 % and a design effect of 2, the minimum sample size required for the study was 769. The sampling interval worked out was 25.63. Accordingly, 26 postmenopausal women were selected from each cluster. The final sample size arrived at was 780.

Data collection

A structured questionnaire was developed in local language to collect information such as background characteristics, chronic health problems, menopausal symptoms and appropriate therapy. Details about clinical examination (blood pressure, weight, height) were also included. Blood pressure was measured with a standard mercury sphygmomanometer using a 12.5cms wide cuff while the participants were seated comfortably as per J N C- 7 (Joint National Committee- 7) criteria⁵. Two or more readings were repeated after 3-5 minutes interval. If the

first two readings differed by more than 5mm of Hg additional reading were obtained and averaged. After getting the information on background characteristics and details of post menopausal symptoms, the women were asked about their chronic diseases during the menopausal period. The information collected was corroborated from the medical records if any, available with the women. Written informed consent was obtained prior to interview.

Data compilation and Analysis

Data entry and analysis was done using Statistical Package for Social Sciences (SPSS) version 15 software. Association between the chronic health problems and menopausal symptoms were analyzed by odds ratio and p value was calculated.

RESULTS AND DISCUSSION

A total of 780 postmenopausal women were enrolled in the study. The mean age of the study participants was 50.20 years. In this study, 706 (90.5%) women were between 45-55 years. The study population was mostly 566 (72.6%) in lower standard of living and only 3 (0.4%) women in higher standard of living. Majority of the women were married 672 (86.2%). The mean age at menopause was 44.49 years and median was 44 years.

Prevalence of Chronic health Problems

Prevalence of other health problems among post menopausal women is depicted in table no.1.

Table 1: Prevalence of Chronic health problems

Sr. No.	Other health problems	Total no of participant (N=780)	Prevalence (%)	95%CI
1.	Obesity	195	25	21.96-28.04
2.	Hypertension	217	27.8	24.66-30.94
3.	Diabetes	273	35	31.65-38.35

Among 780 individuals in the population, 195 (25%) were obese, 217 (27.8%) were known cases of hypertension as per medical records available with them

whereas 35 (4.5%) were found to have hypertension on clinical examination and 273 (35%) were known cases of diabetes as per medical records.

Table 2: Association between chronic health problems and any one post menopausal symptom

Sr. No.	Chronic health problems	Total no of participants N=780	Number of women		Odds ratio	95% CI	P value
			with any one symptom	%			
1.	Body Mass Index(BMI)						
	Obese	195	176	90.3	1.35	.788-2.284	.278
Non obese	585	511	87.4				
2.	Hypertension						
	Hypertensive	217	197	90.8	1.47	.871-2.472	.148
Normotensive	563	490	87				
3.	Diabetes						
	Diabetic	273	244	89.4	1.22	.763-1.937	.411
Non diabetic	507	443	87.4				

Obese post menopausal women were at 1.35 times higher risk of developing any one symptom than non obese. Hypertensive women were found to have 1.47 times more

risk of developing any symptom than women without hypertension.

Table 3: Association between chronic health problems and vasomotor symptoms

Sr. No.	Chronic health problems	Total no of participants N=780	Number of women with vasomotor symptoms	%	Odds ratio	95% CI	P value
1.	Body Mass Index(BMI)						
	Obese	195	135	69.2	1.63	1.14-2.29	.006
	Non obese	585	340	58.1			
2.	Hypertension						
	Hypertensive	217	150	69.1	1.64	1.17-2.28	.003
	Normotensive	563	325	57.7			
3.	Diabetes						
	Diabetic	273	182	66.7	1.47	1.07-1.99	.015
	Non diabetic	507	293	57.8			

Obese post menopausal women were at 1.63 times higher risk of developing this symptom than non obese and it was statistically significant (p value = 0.006). Hypertensive women were found to have more risk of developing vasomotor symptoms than women without

hypertension (p value = 0.003). Diabetic women suffered more from vasomotor symptoms than non diabetic women and the association was found to be statistically significant (p value = 0.015).

Table 4: Association between chronic health problems and depressive mood

Sr. No.	Various factors	Total no of participants N=780	Number of women with depressive mood	%	Odds ratio	95% CI	P value
1.	Body Mass Index(BMI)						
	Non obese	585	145	24.8	1.01	.69-1.47	.962
	Obese	195	48	24.6			
2.	Hypertension						
	Normotensive	563	142	25.2	1.10	.76-1.58	.618
	Hypertensive	217	51	23.5			
3.	Diabetes						
	Non diabetic	507	127	25	1.05	.74-1.47	.787
	Diabetic	273	66	24.2			

Hypertensive women were found to have less risk of developing depressive mood than women without hypertension. Diabetes women were suffered less from this symptom than non diabetic women and the association was found to be not statistically significant. **Association between chronic health problems and other symptoms like anxiety, irritability, sleep related symptoms, urinary symptoms and joint pain** Obese women suffered more (OR- 1.16) from anxiety than non obese. Women with hypertension were found to have more risk (OR- 1.13) of developing anxiety than women without hypertension. Diabetic women suffered more (OR- 1.18) from anxiety than non diabetic women and the association was found to be not statistically significant. Obese women suffered more (11.8%) from irritability than non obese women. Hypertensive women were found to have 1.57 times greater risk of developing irritability than women without hypertension. Diabetic women suffered more from irritability than non diabetic women and the association was found to be not statistically significant. Non obese women suffered more from this than obese. Normotensive women found to have more risk of developing sleep related symptoms than women with hypertension. Non diabetic women suffered more

from these symptoms than diabetic women and the association was found to be not statistically significant. Hypertensive women found to have 1.11 times more risk of developing urinary symptoms than women without hypertension. Diabetic women suffered more (12.1%) from this symptom than non diabetic women. However, the association was not statistically significant. Hypertensive women found to have 1.11 times more risk of developing joint pain than women without hypertension. However, the association was not statistically significant.

DISCUSSION

In the current study, the age of the participants ranged from 40 to 58 years with the mean age of 50.2 years and median age of 50 years. Jahanfar Sh *et al*¹ showed the mean age of the study participants to be 51.2 years and median 51 years which is comparable to the current study. A study done by A. Singh *et al*⁶ in Chandigarh, India involved post menopausal women aged 35-55 years. In the present study, the age at menopause ranged from 38-52 years with the mean and median ages at menopause were 44.5 years and 44 years respectively. Women who attained menopause at ages less than 40 years were only

10% while women attained menopause after the age of 45 years were 48.8%. A study done in South East Nigeria by U.M. Agwu *et al*⁷ reported the median age at menopause was 47 years. Another study done by A Singh *et al*⁶ in Chandigarh, India has reported the mean age at menopause as 44.1 years. In the current study, the prevalence of obesity was 25%. A study done in Southern Jordan by F.M.N. Shakhathreh *et al*⁸ showed 81% were reported overweight or obese. The findings of the current study were comparable with the finding of the study done by F.M.N. Shakhathreh. Among 780 post menopausal women, 217 (27.8%) were known cases of hypertension as per medical records available with them whereas 35 (4.5%) were found to have hypertension on clinical examination and aggregate into 32.3%. In a study done by F.M.N. Shakhathreh *et al*⁸ in Southern Jordan has reported 35% known cases of hypertension. In another study conducted by Sylvia Wassertheil-Smoller⁹ in Newark, the known cases of hypertension were 37.8%. In a similar study done by Qazi R.A *et al*¹⁰ the known cases of hypertension was (31.5%). The prevalence of hypertension was comparable to the present study. In the current study, 273 (35%) of women were found to have diabetes as per medical records. In Pakistan, a study done by Qazi R.A *et al*¹⁰ have reported known cases of diabetes mellitus to be (15.75%), which is less compared to the present study. This difference may be due to the differences in the dietary patterns and life style of the post menopausal women in these two provinces. Obese post menopausal women were at 1.63 times higher risk of developing this symptom than non obese (p value = 0.006). A study done by Peter Chedraui *et al*¹¹ in Latin America showed that obese post menopausal women found to have more severe menopausal symptom than non obese. Hypertensive women found to have 1.64 times more risk of developing vasomotor symptoms than women without hypertension (p value =0.003), diabetic women suffered 1.47 times more from vasomotor symptoms than non diabetic women (p value = 0.015). In 2008, a study conducted in Sri Lanka by Waidyasekera H *et al*¹² showed that chronic illness in the women was significantly associated with the presence of menopausal symptoms (P value <0.01).

CONCLUSION

Health care services should pay more attention towards the women's health in the menopausal period. Each woman should talk to her physician in order to decide how best to manage her chronic health problems and menopause. Advice regarding healthy eating and life style changes must be provided and the importance of physical exercise must be stressed upon. Family support should be ensured by creating awareness in the rural community as a whole. Use of appropriate therapy should be encouraged

whenever required. All these require intensive health education to women in post menopausal phase of life, their family and the community at large.

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