

COMPARISON OF VASOMOTOR SYMPTOMS IN POSTMENOPAUSAL WOMEN WITH DIFFERENT SOCIO-ECONOMIC STATUS

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ABSTRACT

Background: Menopause is the permanent cessation of menstruation resulting from loss of ovarian follicular activity. The diagnosis of menopause can usually be ascertained from vasomotor symptoms and prolonged episode of amenorrhea. Many factors including the socioeconomic status may affect the prevalence of menopausal symptoms in a society. The objective of this study was to compare the frequency of vasomotor symptoms in postmenopausal women with low and high socioeconomic status.

Material & Methods: This cross-sectional study was conducted in Outpatient Department of Obstetrics & Gynecology, Lady Reading Hospital, Peshawar, from April 2009 to April 2010. Sample size was calculated to be 102, using WHO formula for sample size determination. Purposive non-probability sampling technique was used. Inclusion criteria was women with physiological menopause of ≤ 3 years. Women with induced menopause, simple hysterectomy, premature menopause, receiving any kind of hormone therapy, presence of medical conditions like diabetes, hypertension, cardiac disease, and thyroid disorders were excluded from the study. Sample was divided into 2 groups on the basis of socio-economic status. Those with monthly income \leq PKR. 10,000 as low and $> 10,000$ as high socio-economic group. Menopausal status and vasomotor symptoms were determined on history. The data was analyzed by using Statistical Package for Social Science (SPSS) version 10.0. Chi-square test was used and p-value less than 0.05 was considered as statistically significant.

Results: The mean age of the study women was 51.23 ± 2.32 years. Comparison of vasomotor symptoms in the two socio-economic groups revealed; hot flushes in 15(29.41%) in low and 51(100%) in high socio-economic group ($p < 0.001$), palpitation in 11(21.57%) in low and 45(88.24%) in high socio-economic group ($p < 0.001$), and night sweats in 21(41.18%) in low and 49(96.08%) in high socio-economic group ($p < 0.001$).

Conclusion: Postmenopausal vasomotor symptoms i.e. hot flushes, sweating and palpitation are more common in the high socioeconomic group in our community.

KEY WORDS: Menopause; Postmenopausal women; Vasomotor symptoms.

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INTRODUCTION

The term menopause is used for the permanent cessation of menstruation, after 12 consecutive months of amenorrhea, resulting from the loss of ovarian follicular activity.¹ According to WHO the term post-menopause is defined as dating from the final menstrual period regardless of whether the menopause was induced or spontaneous.²

Concentration of ovarian hormones falls gradually during menopause giving rise to physiological

and psychological changes in form of vasomotor symptoms, mood & sleep disturbances, vaginal and urinary symptoms. The diagnosis of menopause can usually be ascertained from some of the vasomotor symptoms and prolonged episode of amenorrhea.³ Vasomotor symptoms include hot flushes, night sweats and palpitations. These symptoms are due to falling estrogen concentrations.

Hot flushes are sudden transient sensations ranging from warmth to intense heat spreading over the body particularly on the chest, face and head and less frequently the upper trunk and abdomen.⁴ Night sweats are the perspiration that occur along with hot flushes and are often followed by a chill. This occurs often at night and hence called night sweats.⁴ Women often experience palpitations which are characterized by awareness of beating of the heart.^{4,6}

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Factors like weight, diet, cultural values, ethical issues, smoking (active, passive), and the socioeconomic status may affect the prevalence of vasomotor symptoms in a society. Lower educational status, lack of full time employment, forgetfulness and difficulty in sleeping, influence the quality of life in post-menopausal women.⁷⁻¹⁰

The objective of this study was to compare the frequency of vasomotor symptoms in postmenopausal women with low and high socioeconomic status.

MATERIAL AND METHODS

This cross-sectional survey was conducted from April 2009 to April 2010, in the Outpatient Department of Obstetrics & Gynecology, Lady Reading Hospital, Peshawar, Pakistan.

Inclusion criterion was women with physiological menopause of ≤ 3 years. Women with induced menopause, simple hysterectomy, premature menopause, receiving any kind of hormone therapy, presence of medical conditions like diabetes, hypertension, cardiac disease, and thyroid disorders, were excluded from the study.

A total of 102 women constituted the present study. Sample was divided into 2 groups on the basis of socio-economic status. Those with monthly income of less than PKR. 10,000 were grouped as low and more than PKR. 10,000 as high socio-economic group. Menopausal status and vasomotor symptoms were determined on history.

The data was analyzed by using Statistical Package for Social Science (SPSS) version 10. Chi-square test was used and p-value of less than 0.05 was considered as statistically significant.

RESULTS

The mean age of study patients was 51.23 \pm 2.32 years.

Hot flushes were reported in 66 (65%), night sweats in 56 (54%), and palpitation in 70 (68%) women. Comparison of vasomotor symptoms in the two socio-economic groups revealed; hot flushes in 15(29.41%) in low and 51(100%) in high socio-economic group ($p < 0.001$), palpitation in 11(21.57%) in low and 45(88.24%) in high socio-economic group ($p < 0.001$), and night sweats in 21(41.18%) in low and 49(96.08%) in high socio-economic group ($p < 0.001$).

Comparison of these symptoms in the two socio-economic groups revealed statistically significant difference between the two groups. Hot flushes, palpitation, and night sweats were more common in the high socio-economic class as compared to low socio-economic class. (Table 1)

Table 1: Frequency of vasomotor symptoms in women with high and low socio-economic status.

Vasomotor symptoms	Low socio-economic status (n=51)	High socio-economic status (n=51)	p-value
Hot flushes	15 (29.41%)	51 (100%)	<0.001
Palpitations	11 (21.57%)	45 (88.24%)	<0.001
Night sweats	21 (41.18%)	49 (96.08%)	<0.001

DISCUSSION

Vasomotor symptoms have significant physiological, psychological and economical impacts on menopausal women. Our study unveiled the importance of socioeconomic issues on occurrence of these symptoms.

In this study hot flushes were reported in 65%, night sweats in 54%, and palpitation in 68% women. Comparison of these symptoms in the two socio-economic groups revealed; hot flushes in 29.41% in low and 100% in high socio-economic group ($p < 0.001$), palpitation in 21.57% in low and 88.24% in high socio-economic group ($p < 0.001$), and night sweats in 41.18% in low and 96.08% in high socio-economic group ($p < 0.001$).

The frequencies of menopausal symptoms in our study population were much higher than those found in several other studies.¹¹⁻¹³ In United States, Hispanics reported hot flushes most frequently (49%) followed by African-American women (45.6%), Caucasians (37%), Japanese-Americans (34%) and Chinese-Americans (29%).¹⁴ In our study 66.3% of women reported hot flushes, almost similar results were reported from Sydney¹⁵ and other studies from Pakistan.¹⁶

In our study frequency of vasomotor symptoms were higher than those reported frequency from China 18%, and 52% respectively, but almost similar to those reported from Thailand i.e. 72.3% and 98.3% respectively.¹⁴ Similar findings were reported from China, but much higher to study from UAE that is 69% and 37% respectively.¹⁷

Prevalence of menopausal symptoms was found to be relatively low in Asian women as compared to Western women.^{1,14,15}

A study from USA,¹⁸ reported significant differences in frequency of symptoms across ethnic groups in this study. Caucasian women were found to have more symptoms in all domains specially the

psychosomatic symptoms than other ethnic groups. Overall the frequency of vasomotor symptoms was high in African-American woman but the difference was found according to ethnicity. Chinese and Japanese American reported significantly fewer symptoms than the Caucasians, Africans-Americans or Hispanics.¹⁴ The reasons for these different frequencies can be many. The high proportion of phytoestrogen content of Asian diet seems to prevent against menopausal symptoms.¹⁹ Unprocessed grains, cereals, legumes are good source of them. However not all studies have observed uniformly lower symptoms in Asian countries.²⁰

In our study vasomotor symptoms were least bothered in patients belonging to poor socio-economic status that welcomed menopause because they felt relaxed after getting freedom from stress of repeated child bearing. While those from high socio-economic class experienced vasomotor symptoms more significantly as they were taking loss of fertility as loss of status and self-esteem especially those who have deferred their child bearing to the later age.

Their main worries were loss of youth, changes in skin and hair and changes in figure and psychology due to menopause. This was the group willing to take Hormone Replacement Therapy and in whom it was found to be most effective. They needed counseling, social support and adequate follow up apart from hormone replacement therapy to improve their quality of life.²¹

There are several limitations to the present study. This survey was hospital based, cross-sectional, having small sample size. Moreover the definitions of socioeconomic status might not reflect the situation of community. Menopausal symptoms are also influenced by socio-demographic/ socio-cultural factors, economical stresses, general health status and individuals perception. Apart from ethnic and other demographic divergences, the different designs of the studies, sample size, age range, distribution of menopausal status of participants and the instruments used may also account for discrepant findings.

CONCLUSION

Vasomotor symptoms in menopause are more common in the high socio-economic class in our community. Health professionals should not only identify the symptoms but they should have the knowledge of cultural and socioeconomic background of the woman, so that appropriate counseling should be given and treatment instituted depending upon the needs of the woman.

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CONFLICT OF INTEREST
Authors declare no conflict of interest.
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