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A COMMUNITY BASED STUDY OF SYMPTOM PROFILE IN PERIMENOPAUSAL AND MENOPAUSAL WOMEN IN INDIA

Community Medicine

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ABSTRACT

Background and objectives: Menopausal and perimenopausal period brings a host of physical and psychological symptoms in life of women. Due to lack of information to females and clinicians, majority of these females do not receive any timely intervention and suffer quietly. Despite lots of research, no study has focused on global health status of perimenopausal women. The present study was designed to evaluate physical health of perimenopausal and menopausal women in a community setting in a city in central India.

Methods: 431 women in age group 40-55years were assessed with respect to Socio demographic profile, Perimenopausal symptom checklist, Clinical profile Performa and General Health Questionnaire.

Results: 17% had high blood pressure. 19% reported hot flushes with flushes being experienced most often once a day and face being most common site. About one fourth of patients experienced sweating. 80% reported experiencing joint pains with knee and back reported to be most common. About half had urgency of micturation with high percentage reporting pain during intercourse, disinterest towards sex and skin changes. High number reported irritability, feeling sad and feeling like crying. Majority felt that they get fatigued easily and slept poorly. About one third reported being forgetful and scored poorly on General Health Questionnaire.

Interpretations and conclusions: Majority of the findings were in keeping with earlier studies in this area. The study highlights the importance of identification of these symptoms and the treatment in this population.

KEYWORDS

Menopause, Perimenopause, Physical, Psychological, Symptoms

INTRODUCTION

Menopause is the permanent cessation of menstruation resulting from the loss of ovarian follicular activity. The term "premenopause" is often used ambiguously to refer to the 1 or 2 years immediately before the menopause. During "premenopause", ovarian hormone production is declining and fluctuating, causing changes in their menstrual cycle and a host of disturbing physical and psychological symptoms. While menopause is not a disease, the symptoms associated with it can make a woman's life miserable. Some women may have all of the symptoms of menopause; others may have just a few. The intensity of menopausal symptoms can also range from mild to quite severe. These include Hot flushes and night sweats, Menstrual irregularities leading to very irregular periods, stopping and starting with no apparent pattern; Sleep disturbances; Vaginal dryness/thinning, Urinary problems as dysuria, urgency, frequency and suprapubic pain may occur in the absence of infection. Changes in the vagina, urethra and bladder at menopause can make women more susceptible to urinary tract infections. The drop in oestrogen levels can aggravate existing pelvic floor muscle weakness resulting in incontinence problems. Psychological symptoms commonly attributed to menopause include depression, forgetfulness, anxiety, irritability or other mood changes and weight gain.

Post-menopausal women have an increased risk of a number of health conditions such as Osteoporosis (leading to backaches, and joint pain. Problems in the smaller joints start soon after menopause. Larger joints, such as hips, shoulders and knees, are affected later), Skin changes, Cognition and Cardiovascular disease.

Due to lack of information to females and clinicians, majority of these females do not receive any timely intervention and suffer quietly. Despite perimenopausal period being a universal phenomenon and morbid experience of almost half of population, unfortunately this area has been poorly researched. Although there are number of studies focusing on certain aspects of menopause, surprising very few studies has focused on global health status of perimenopausal women. Identification of these symptoms as a disease entity, studying them in totality would pave the way for intervention strategies, which would alleviate the suffering of this better half of human society. The present study was designed to evaluate physical health of perimenopausal and menopausal women in a community setting in a city in Central India.

MATERIALS AND METHODS

The present study was a community-based study. The data pertaining to the study were collected from door to door survey in municipal wards (urban and urban slums) of Gwalior city. The study population composed of females in the age group of 40-55 years. A total of 431 subjects were included in the study. Cluster sampling method was used. Women of age group 40-55years who were willing to take part were included in the study. Women with any major illness which interferes with menopausal symptoms, gross psychiatric disorder and those who were not willing to participate were excluded. Informed consent obtained from the subject after explaining the purpose, nature and procedure of the study. They were assured that confidentiality would be strictly maintained. The option to withdraw from study was always available. To conduct the survey, self administered questionnaire was prepared, having 4 parts:

A) Socio demographic profile: a semi-structured, pre tested, performa was administered on the subjects. This Performa assists in collecting information on age, sex, education, occupation, marital status etc. of subjects

B) Perimenopausal symptom checklist: A Performa was prepared which included questions regarding frequency, duration, timings etc. of various symptoms. It was crosschecked and verified by a senior gynecologist of Kamla Raja Hospital, Gwalior. Subjects having clear history of amenorrhea for more than 12 months were included in postmenopausal group and others in premenopausal group.

C) Clinical profile Performa: This Performa was designed to collect information about general health. Height, weight, pulse, blood pressure etc. were measured. Information was collected regarding other illnesses, (if any), their duration, treatment, response to treatment etc.

D) General health questionnaire (GHQ): This is a standard questionnaire consisting of 30 items which measures the psychological and emotional wellbeing of an individual [1]. It has been translated in Hindi by team of experts from P.G.I Chandigarh, and is easy to administer and score. For scoring, it merely needs counting of positive responses i.e. counting responses in either III or IV column. The total score is therefore the total number of responses in either III or IV column. In general terms, the higher the score the more likely the subject is to be emotionally disturbed. Subjects are divided into "probable normal" and "probable emotionally disturbed". Subjects having score 11 or less (11or < symptoms) are labeled as probable

normal and subjects with > 11 score (symptoms) as probable emotionally disturbed.

Data collected was analyzed using SPSS Software. The basic characteristics of the subjects were presented in percentage and frequency.

OBSERVATIONS AND RESULT

Majority (36.9%) were in the age group 51-55 years. 33.2 % of the sample was composed of age group 46-50 years and 29.9% was formed by females in the age group 40-45. Maximum number (88.9%) of subjects were Hindu. 9.3% were Muslim and 1.9% were Sikh. 43.2% of sample population was illiterate, 8.1 % had primary education, 11.6% were middle pass, 20.6% did high school and only 16.5% were graduate or had higher education. 57.5% of the respondents belonged to urban area where as 42.5% population was formed by respondents from urban slums. Majority (58.5%) of the sample was composed of house wives. 21.3% were unskilled laborers, 16.9% were professionals and 3.2% were skilled workers.

53.8% sample population had sedentary life style (defined as lifting maximum 10ib and occasionally carrying such article as books, ledgers, and small tools.), 44.3% were moderate workers (defined as lifting 50ib maximum with frequent lifting and or carrying of objects weighing up to 50ib) and only1.9% were heavy workers (defined as lifting objects in excess of 100ib with frequent lifting and or carrying objects weighing 50ib or more). 81.7% of the sample composition was of married females, 16.9% were widows, and 1.4% was separated from their spouses. Majority (54.1) of respondents belonged to joint family, 42% were from nuclear family, and 3.9% were single persons. Majority (45.7%) of respondents had more than four children, 34.3% had three or four children, 16.9% had one or two children. There was no gross difference in distribution of pre and postmenopausal women in different social classes.

Majority (69.4%) of respondents were in the range of normal Body Mass Index (BMI). 16.9% were thin (BMI less than 18.5) and13.7% were over weight (BMI more than 25).

10 (2.3%) had respiratory problems, 76 (17.6%) had high blood pressure, 5 (1.2%) had other cardiovascular problems, 2 (0.5%) had major psychiatric illness, 10 (2.3%) had thyroid dysfunction, 6 (1.4%) had diabetes, 30 (7.0%) had undergone hysterectomy and 4 (0.9%) had both diabetes and hypertension

In this study, perception of hot flushes by sample population was only 19.3%. 10.2% felt hot flushes once a day, 7.4% felt them for 2-3 times/day while 1.2% experienced them for many times/day. The face (10.7%) was the most common site of hot flushes followed by whole body (5.8%), neck (1.9%) and chest (1.9%). Majority of positive respondent's perceived hot flushes during any time of the day (13.7%). 3.7% of patients perceived hot flushes during morning hours and 1.4% during evening. Some patients (0.9%) were troubled by hot flushes even during sleep. Hot flushes lasted for 3-5 min in majority (10.2%) of females in the sample whereas 7.0% of females experienced them for half an hour.

57.3% of the sample did not report any sweating or ghabrahat (palpitation). 21.8% of patients experienced sweating alone whereas 20.9% felt both sweating and ghabrahat (palpitations). 9.3% of sample suffered from these symptoms during sleep but majority (33.4%) did not report any specific time of these symptoms.

33.4% sample population had no specific pattern of perception of sweating/ ghabhrahat, 9.3% felt them during sleep causing disturb sleep while majority (57.3%) had no such symptom.

A very high percentage (82.4%) of sample reported experiencing joint pains in one or the other joint. Knee along with back was reported to be most common (26.5%) affected joint, followed by knee and back separately (19.3%) each, then knee and ankle (10%) .17.6% had no joint pain.

58.9% of females had urgency of micturation. 41.1% had no such problem. 53.8% of respondents reported the symptom of increased frequency of urination. Stress incontinence was reported by 46.6%, while 53.4% had no such symptom.

With regards to burning micturation, majority (81.2%) did not report this symptom; positive response was given by only (18.8%) of the sample. 36% reported pain during intercourse. 80% of respondents (68.4% pre and91.1% of postmenopausal) reported disinterest towards sex. Majority (61%) of the sample reported skin changes.

47.3% of perimenopausal women reported irritability. High percentage (39.7%) of the sample reported that they feel sad and felt like crying on trivial matters. 42.6% sample feels that they became more tense and worried on routine life matters. 42.7% felt that they have become more lethargic and don't feel like doing anything on their own, while 57.3 % had no such feeling. Majority (68.9%) of respondent felt that they get fatigued easily or had this feeling even without doing any work. 36.9% reported numbness and tingling. 52.9% of the sample felt that they are unable to enjoy good night sleep, while 47.1% do not had such problem.29.2% reported headache.

32.9% accepted that they have become forgetful though there was no difference in the two groups. General Health questionnaire.35.5% of respondents scored poorly on general health questionnaire, which means they had poorly perceived emotional and psychological health.

DISCUSSION

Various socio demographic variables such as religion, level of education, locality of origin, occupational status, marital status, family composition, number of children and monthly income are in keeping with these variables in general population in this age group. Majority were in the range of normal Body Mass Index which indicates that respondents were healthy.

The most common co morbid physical illness was high blood pressure (17.6%) with 2.3% presenting with respiratory problems and thyroid disorder. Only 1.2% had other cardiovascular problems and 1.4% had diabetes. 0.9% had both diabetes and hypertension. It emphasizes the need to be on look out for these physical illnesses in this particular patient group. Only 0.5% had major psychiatric illness. 7.0% had undergone hysterectomy. This high rate was expected in this population group.

Prevalence of vasomotor symptoms ie. hot flushes and sweating varies widely across populations and is strongly influenced by culture and ethnicity. Various western studies including the Study of Women's Health Across the Nation (SWAN) have found hot flushes in 45-85% of their sample [2]. Another study reported association of frequency of hot flushes and sweating to be 80.7% [3]. In one study occurrence of vasomotor symptoms was average with 60% of women reporting hot flushes and 47% sweating [4]. Gharaibeh et al [5] results on the severity of menopausal symptoms showed that 15.7%, 66.9% and 17.4% were experiencing severe, moderate and mild menopausal symptoms, respectively. Vasomotor signs scores highest for severity for hot flushes and night sweating. Mishra and Dobson [6] said that vasomotor symptoms vary through menopause: 11% of women have the "early severe" profile of symptoms that begin at premenopause, whereas 29% have the "late severe" profile, with symptoms peaking during postmenopause and persisting more than a decade after menopause. The remaining women with the "moderate" or "mild" profiles report occasional symptoms that tend to peak around menopause. In this study, perception of hot flushes by sample population was only 19.3% various plausible explanations such as dietary patterns, climates differences and acceptance of symptoms in different cultures have been discussed for this variability in perception of hot flushes.

Several researchers have reviewed the timing and frequency of hot flushes. SWAN data indicated that flushes were more frequently reported by women in late perimenopause [2], frequency varies but tends to remain consistent for an individual. Many women have hot flushes on a daily basis, some as frequently as every hour, whereas others have flushes infrequently (i.e., weekly or monthly). In present study, 10.2% felt hot flushes once a day, 7.4% felt them for 2-3 times/day while 1.2% experienced them for many times/day. Hot flushes may occur at any time of the day or night and can be triggered by a variety of common situations, such as sleeping or dozing, work activities, recreation and relaxation or housework. In present study, majority of positive respondent's perceived hot flushes during any time of the day (13.7%). 3.7% of patients perceived hot flushes during morning hours and 1.4% during evening. When these episodes occur during the night they may lead to insomnia. These episodes may also

be coupled with irritability and general lethargy. All these associated symptoms have been shown repeatedly to respond to successful treatment of flushes [7-8]. Thus most of the findings regarding hot flushes in current study are consistent with findings of other studies In present study, 57.3% of the sample did not report any sweating or ghabrahat (palpitation). 21.8% of patients experienced sweating alone whereas 20.9% felt both sweating and ghabrahat (palpitations). The National Co-morbidity Study demonstrates that 56% of their study population had night sweats [9]. The night sweats produce insomnia with lethargy and loss of concentration during the day. They are often manifested by giddiness and falling attacks, which may have the disastrous consequence of femoral neck fractures in women with osteoporosis.

In a study by Al-Musa et al, 96.1% of the women complained of joint and muscular discomfort [3]. Joint pain are said to be among the most common reported symptoms among perimenopause women in Taiwan [10]. Most other studies have found that that more than half of all postmenopausal women experience varying degrees of joint pain [11]. Like other studies in literature, this study population also reported very high frequency of joint pain. 82.4% of sample population had reported pain in one or the other joint. Knee along with back was reported to be most common (26.5%) affected joint, followed by knee and back separately (19.3%) each, then knee and ankle (10%) .17.6% had no joint pain. Apart from biological reasons, which are hormonally mediated and are still poorly understood some probable psychosocial explanations for this high frequency of joint pain in our population could be lifestyle of typical Indian female involve a lot of unhealthy usage of weight bearing joints while squatting, bending, sitting on floor cross legged, which subjects joints to undue stress leading to pain.

Urogenital complaints are one of the most common reasons for menopausal and postmenopausal women seeking consultation these symptoms cause considerable suffering and interference with their quality of life. The Andorran Women's Research Group (WRG) found that the prevalence of urinary symptoms was 59% amongst 45 to 64 and to 71% among the women aged over 64 [12]. The debate as to whether ovarian failure leads to incontinence still rages. Nisar and Sohoo [13] scores for urogenital symptoms were found to be higher in perimenopause women (P=<0.001) than post menopause status. Al-Musa et al [3], found the mean score for MRS scale was 2.84 ± 2.25 for urogenital symptoms. Marital status, lower education level, parity, lack of exercise and chronic disease status were significantly associated with higher MRS and poor quality of life [3]. Genuine stress incontinence, detrusor instability, and voiding difficulties were the most commonly found abnormalities. In our study nearly half of sample reported urinary symptoms like frequency, urgency, and stress incontinence and about 20 % of sample reported burning micturition. This is supportive of results of previous studies that urinary symptoms are very common in this population and associated with significant morbidity.

In Indian culture females are not expected to discuss explicit topic such as dysparuenia so reporting of this symptom is expected to be poor as compared to other studies but physical symptoms were quite varying in occurrence with some symptoms such as feeling tired or worn out, decrease in physical strength and lack of energy occurring in 93% of the women to only 5% suffering from growth of facial hair. In one study overall sexual changes were reported among 49% who reported of avoiding intimacy with a partner and 26% complained of vaginal dryness [4].

The skin is the largest organ of the body and also under goes changes after the menopause. Many of these changes have formerly been attributed to the ageing process but are in reality due to oestrogen deficiency. In this study more than 60% of sample reported wrinkling of skin, excessive dryness and black pigmentation of skin thus confirming the finding of previous studies.

Psychosexual symptoms have proved very difficult to study because of the lack of objective analysis for carrying out libido studies. Studies have also shown that loss of libido and lethargy are two other common psychological symptoms attributed to the menopause [14]. Various reasons are- hormonal i.e. decrease in estrogen, vaginal dryness leading to dyspareunia and vaginismus. More over these patients have frequent depressive symptoms and emotional distress, which can cause loss of libido. Several investigators and previous reviews describe increased reporting of severe psychological and emotional complaints among perimenopausal women[15-16]. Al-Musa et al [3], found the mean score for MRS scale was 6.05 ± 2.54 for psychological symptoms with irritability (94.7%), anxiety (89.0%) [3]. Karmakar reported the most prevalent psychosocial symptoms to be feeling of anxiety and nervousness in 94% and overall depression in 88% [4]. Despite methodological limitations associated with inconsistent definitions of menopausal status and with variable criteria, most cross-sectional and prospective community-based studies suggest an association between perimenopause and the occurrence of depressive symptoms [17]. Joyce et al [18] reported the rates of psychologic distress were highest in early perimenopause (28.9%) and lowest in premenopause (20.9%) and postmenopause (22%). Also he found that in comparison with premenopausal women, early perimenopausal women were at a greater risk of distress, with and without adjustment for vasomotor and sleep symptoms and covariates. Odds of distress were significantly higher for Whites than for the other racial/ethnic groups [18]. Nisar and Sohoo [13] reported the psychological symptoms were more severe for women in perimenopause and post menopause status (P=<0.001). The mean scores for the physical, psychological, social and environmental domains of WHO QOL questionnaire were found significantly impaired for all women at different status of menopause [13]. In our study various depressive symptoms were assessed and no cut off measure was used to diagnose depression. Only psychological symptoms were studied and no attempt was made to make a syndromal diagnosis of depression. Fatigability and insomnia were the most common symptoms reported. In the present study about 40-50% of patients reported worries, loss of interest, sadness and irritability. Therefore this is in concordance with previous numerous studies that perimenopause was significantly related to depressive and emotional symptoms. There is significant interest in defining the role of menopause in relation to memory. A number of trials have shown improvement in memory and cognition with relation to hormone but not universally reported. Forgetfulness could be biological or secondary to depression. The National Co morbidity Study has reported memory problems in 44% of their sample of perimenopausal women. In current study 39.2% reported forgetfulness, which is in keeping with earlier studies. It has been suggested that estrogen replacement may conserve cognitive function after menopause. Case control studies have been hampered by numerous methodological problems and have produced mixed results [19-20].

35.5% of respondents scored poorly on general health questionnaire, which means they had poorly perceived emotional and psychological health. In another study 217 female medical outpatients (aged 40—54 years) were screened using the General Health Questionnaire, 52.5% were identified as having poor over all general health questionnaire in essence measures areas ranging from health status, life satisfaction, coping, and depression, measures, which are very similar to concept of perceived quality of life [21]. Li et al reported that compared to the premenopausal period, women during perimenopause experienced slightly, yet significantly decreased levels of Quality of Life [22]. Multiple regression analysis demonstrated that the psychosomatic symptom category was the sole predictor of the Quality of Life during perimenopause.

CONCLUSIONS

To conclude, this is a kind of study which evaluates physical health of perimenopausal and menopausal women in community setting in a Central Indian city. A high proportion of women reported symptoms of joint pain, urinary problems such as frequency, urgency, and stress incontinence and burning maturation, skin changes symptoms of worries, loss of interest, sadness and irritability followed by symptoms of poor memory, ghabrahat and hot flushes. High blood pressure was the commonest comorbid physical disorder. A third of women scored poorly on general health questionnaire, which means they had poorly perceived emotional and psychological health.

The study has some important limitations. Firstly, the symptom checklist was not standardized. Secondly, only subjective assessment was carried out to determine symptoms such as memory, sadness etc and no structured instrument were used. Nevertheless, it's an important study highlighting the physical and emotional symptomatology of this important group of women which remains largely ignored.

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