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Original Research Article

Menopausal Symptoms in Premenopausal Women Among the Cohort of Gynecological Patients Attending Outpatient Department of Dhulikhel Hospital

Dongol A[a,b] Deoju S[a,e,] Shikharakar S[a,e] Rayamajhi SJ[a,d] Pradhan N[a,c] Tripathi P[a,c]

ABSTRACT:

Introduction: Perimenopause is the time when ovaries gradually produce less estrogen. The menopausal symptoms in perimenopausal women cause severe disturbance in the women's life. This study aimed to identify menopausal symptoms in perimenopausal women. **Methods:** This was a hospital-based descriptive, cross-sectional study conducted among 243 women aged between 45 to 55 years.The categorical variables were presented as frequency and percentage. The associations between categorical variables were tested using Chi square or Fisher exact test. **Result:** The total prevalence of menopausal symptoms was 91.8%. Physical symptoms were identified to be prevailing symptom (n=184, 75.7%) followed by psychological (n=167, 69.5%). There were 136 (55.5%) women experiencing poor memory and 148 (60.9%) women having genitourinary symptoms. Stress urinary incontinence (n=73, 30.04%) was predominantover urge (n=58, 23.8%), mixed (n=43, 17.6%) and prolapse (n=49, 20.1%) symptoms. Vasomotor symptoms were experienced by123 (50.6%). Excessive sweating (n=114, 46.9%) was leading over hot flush(n=113, 46.5%), night sweat (n=107, 44.03%) and palpitation (n=96, 39.5%). A total of 114 (46.9%) women were facing sexual symptoms. The common sexual symptom was dyspareunia 68 (27.9%). The Menopausal Rating Scale (MRS) rating of overall symptoms showed women mostly suffer from mild symptoms during the perimenopausal period. **Conclusion:** Physical symptoms were identified to be predominating followed by psychological, genitourinary, vasomotor and sexual. However rating of symptoms using MRS showed majority of symptoms were mild. This study signifies the need to use the tool for assessment of severity of menopausal symptoms from the perimenopausal group. findings are noted in most of the cases of chronic LBP, degenerative changes being the most common and ranging from congenital to malignant lesions.

Keywords: Menopause, Menopause Rating Scale, Perimenopause, Symptoms

INTRODUCTION:

Menopause is defined as the permanent cessation of menstruation. The diagnosis is made when individuals have amenorrhea for at least 12 months and there is a drop in the levels of estrogen and progesterone, the two most important hormones in the female body.[1] The mean age of menopause is 51±2 years in the high-income countries and 49±2 years in the middle- and low-income countries. Ideally, menopause should occur by the age of 55 years.[2] Studies conducted in Nepal showed an average age of menopause as 48±2 years.[3,4,5]

Perimenopause as defined by the WHO and North American Menopause Society is a period two to eight years preceding and one year after the final menstruation. Perimenopause, therefore occurs well before women officially hit menopause.[6]

The menopausal symptoms include vasomotor

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a - Department of Obstetrics and Gynaecology, Dhulikhel Hospital, Kathmandu University Hospital, Dhulikhel, Kavre
b - Associate Professor
c - Lecturer
d - Medical Officer
e- Intern

Corresponding Author:
Anjana Dongol
Department of Obstetrics and Gynaecology,
Dhulikhel Hospital, Kathmandu University Hospital
Kathmandu University School of Medical Sciences
Dhulikhel, Kavre, Nepal
e-mail: anjanadongol@yahoo.com
ORCID: https://orcid.org/0000-0002-8942-4904

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symptoms (i.e. hot flushes, night sweating), abnormal uterine bleeding, psychological symptoms (i.e. depression, anxiety, irritability, poor memory), urogenital symptoms (i.e. loss of libido, dyspareunia, loss of bladder control) and other physical symptoms (i.e. bloating, musculoskeletal pain and fatigue). These symptoms may initiate during the perimenopausal period.[7]

Menopausal symptoms in perimenopausal and menopausal women can vary from mild to severe. They cannot be avoided, but can be managed successfully. With an increased life expectancy women are spending longer duration of their lives in menopause. Maintaining a healthy life at this age becomes a major responsibility for the family and also for the nation. Hence, this study aimed to identify various menopausal symptoms amongst Nepalese women in perimenopausal groups seeking treatment in Dhulikhel Hospital. This study is then expected to create an awareness about menopause amongst the Nepalese women and encourage them seek medical care for managing menopausal symptoms.

METHODS:

This was a hospital based, descriptive, cross-sectional study conducted at the out-patient department of Obstetrics and Gynecology in Dhulikhel Hospital. The sample size for the study was determined using Cochrane formula:

sample size (N) = (1.96)2 X P (1-P) / M2. Taking the

Table 1. Socio-demographic and behavioral characteristics of the study population (n=243)

Characteristics	Frequency (n)	Percent (%)
Mean age, in years (mean ± SD)	48.65±3.32	
Education		
Uneducated and adult education	78	32.1
Primary schooling	63	25.9
Secondary schooling	73	30
Higher secondary and above	29	11.9
Menstrual Cycle		
Absent	39	16.04
Regular	85	35
Irregular	119	48.9
Age at marriage (years) (mean±SD)	18.98±4.16	
Age at menarche (years) (mean±SD)	14.16±1.42	
Menopause in mothers and sibling(mean±SD)	48.85±3.87	
Parity		
Nullipara	2	0.8
Multipara	211	86.8
Grand Multipara	30	13.2
Diet		
Vegetarian	28	11.5
Non-vegetarian	215	88.5
Exercise		
No	194	79.8
Yes	49	20.2
Total	231	95.1
Missing	12	4.9
Smoking		
No	220	90.5
Yes	23	9.5
Alcohol		
No	201	82.7
Yes	42	17.3

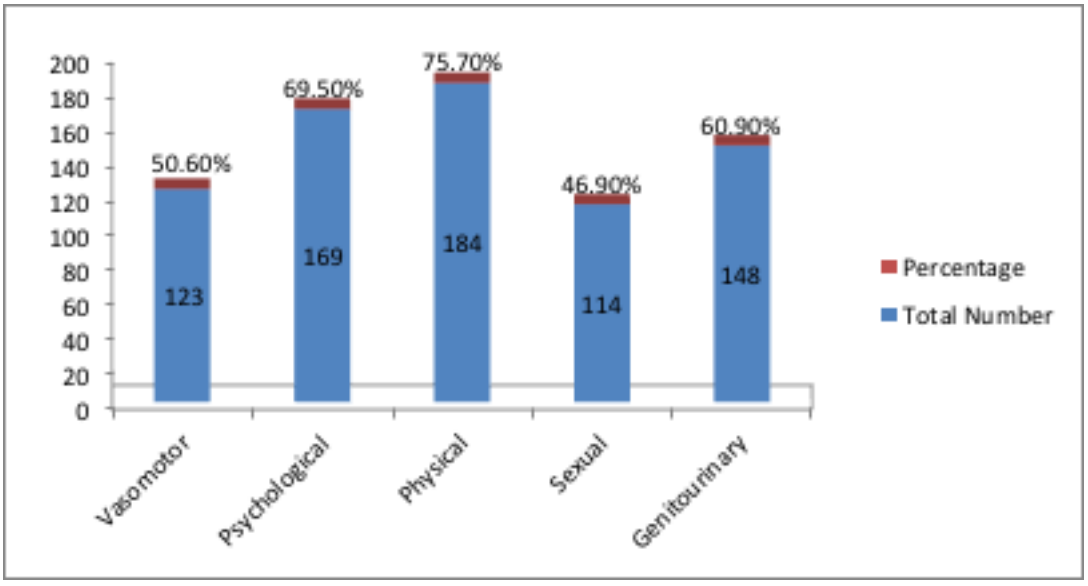

Figure 1: Categorization of major menopausal symptoms

prevalence (p) as 0.14 with reference to the study Dennerstein L et al.[8] the minimum total sample size calculated was 183. However, a total of 250 women of age between 45 to 55 years were included. Women with a history of surgical menopause, chemotherapy or pelvic radiotherapy, those receiving hormone replacement therapy, suffering from psychiatric illness and those not willing to give consent were excluded from the study.

A structured questionnaire was administered to collect information related to socio-demographic characteristics, obstetric, contraceptive, menstrual histories, awareness about menopause and various menopausal symptoms. After obtaining details about menopausal symptoms its severity was rated by using the menopausal rating scale (MRS).The data was entered into the Microsoft excel and analyzed usingStatistical Package for Social Sciences (SPSS) softwareversion 20.0. All the continuous variables were presented asmeans with standard deviation whereas categorical variables were presented as frequency and percentage. The associations between categorical variables were tested with Chi square or Fisher exact test. A p-value <0.05 was taken for statistical significance.

RESULTS:

A total of 250 women were enrolled on this study whereseven were excluded due to lack of needed information in the questionnaire. The mean age of the women participated in this study was 48.65±3.32 years. Among all the participants 80 (32.9%) women were aware about the menopausal symptoms. The socio-demographic status is presented in Table 1.

The total prevalence of menopausal symptoms was 91.8%. There were only 20 (8.2%) participants without any symptoms. Physical symptoms were identified to be predominating(n=184, 75.7%) followed by psychological (n=167, 69.5%) and genitourinary (n=148, 60.9%) symptoms. The categorization of major menopausal symptoms and its prevalence is presented in figure 1.

The common vasomotor symptoms identified were sweating (n=114, 46.91%), hot flush (n=113, 46.5%) and night sweat (n=107, 44.03%). Heart discomfort or palpitation was identified among 96 (39.5%) patients. Within psychological symptoms, women experienced poor memory (n=136, 55.5%), irritability (n=109, 44.8%), sleep disturbance (n=92, 37.9%), feeling depressed and anxiety(n=79, 32.5%) as prevailing symptoms while other symptoms were feeling less accomplished (n=78, 32.09%) and having dissatisfaction with life (n=60, 24.6%). Physical symptom assessments revealed that muscle and joint pain (n=138, 56%) were the main problems. The other symptoms were feeling fatigue (n=118, 48.5%), tingling sensation (n=110, 45.3%), flatulence (n=82, 33%), and breast tenderness (n=73, 30.04%). However, weight gain (n=49, 20%), dry skin (n=39,16%) and facial hair growth (n=17, 6.9%) were identified less. In genitourinary symptoms the assessment finding for pelvic organ prolapse was 49 (20.2%) and 68 (27.9%) having lax vagina. The different types of incontinence were identified to be of stress in 73 (30.04%), urge in 58 (23.9%), mixed

in 43 (17.7%) and fecal incontinence in 14 (5.7%). The common sexual symptom was dyspareunia in 68 (27.9%). There were 66 (27.2%) women experiencing dry vagina. Only 13 (5.3%) women complained of decreased libido while 230 (94.6%) were having normal sexual desire.

The bivariate analysis showed that menopausal symptoms had statistical significant association with premenstrual symptoms (p=0.007). However,they had no statistical association with diet (p=0.412) and education (p=0.897).

The severity of menopausal symptoms experienced by perimenopausal women was assessed using MRS presented in table 3.

DISCUSSION:

This study assessed menopausal symptoms in women aged 45to 55 years. The symptoms checklist to identify the menopausal symptoms was utilized and then rated by the MRS to assess the severity of symptoms. The MRS is a validated tool for screening for the menopausal symptoms; it has also proved to be effective in finding the frequency and severity of symptoms.

Perimenopausal symptoms as shown from previous studies have racial and ethnic variations. Studies reported that overall classical menopausal symptoms are shown to be higher in Caucasians and lower in Asians.[9,10,11] In our study, we found the prevalence of perimenopausal symptoms to be 91%. The physical symptoms (n=184, 75.7%) were identified to be predominating. The predominating result is comparable to other studies in Nepal. However, these studies only identified symptoms and not the severity.[4,5]

Hot flushes, sweating, vaginal dryness and sleep disturbances are considered the main climacteric complains in western countries.[12] The menopausal symptoms may vary in peri-menopausal women. Kakkar showed the symptoms vary according socio-cultural and economic factors at this age. Working women suffer more from psychological symptoms

Table 3. Rating of menopausal symptoms using 'Menopausal Rating Scale'(n=243)

Symptoms	Absent n (%)	Mild n (%)	Moderate n (%)	Severe n (%)	Very severe n (%)
Hot flushes, sweating (episodes of sweating)	125 (51.4%)	91 (37.4%)	22 (9.1%)	3 (1.2%)	2 (0.8%)
Heart discomfort (unusual awareness of heart beat, heart skipping, heart racing, tightness)	147 (60.5%)	78 (32.1%)	15 (6.2%)	2 (0.8%)	1 (0.4%)
Sleep problems (difficulty in falling asleep, difficulty in sleeping through, waking up early)	151 (62.13%)	71 (29.2%)	14 (5.7%)	7 (2.9%)	0
Depressive mood (feeling down, sad, on the verge of tears, lack of drive, mood swings)	164 (67.48%)	61 (25.1%)	13 (5.3%)	4 (1.6%)	1 (0.4%)
Irritability (feeling nervous, inner tension, feeling aggressive)	134 (55.1%)	80 (32.9%)	23 (9.5%)	6 (2.5%)	0
Anxiety (inner restlessness, feeling panic)	164 (67.5%)	60 (24.7%)	16 (6.6%)	2 (0.8%)	1 (0.4%)
Physical and mental exhaustion (general decrease in performance, impaired memory, decrease in concentration, forgetfulness)	125 (51.4%)	88 (36.2%)	25 (10.3%)	4 (1.6%)	1 (0.4%)
Sexual problems (change in sexual desire, in sexual activity and satisfaction)	139 (57.2%)	69 (28.4%)	28 (11.5%)	6 (2.5%)	1 (0.4%)
Bladder problems (difficulty in urinating, increased need to urinate, bladder incontinence)	155 (63.8%)	73 (30%)	13 (5.3%)	2 (0.8%)	0
Dryness of vagina (sensation of dryness or burning in the vagina, difficulty with sexual intercourse)	177 (72.8%)	54 (22.2%)	8 (3.29%)	4 (1.6%)	0
Joint and muscular discomfort (pain in the joints, rheumatoid complains)	95(39.1%)	131 (53.9%)	12 (4.9%)	4 (1.6%)	1 (0.4%)

while non-working had somatic symptoms.[13] However, there is no statistical significance to support the evidence to Kakkar's study as most of the women participants were housewives and got no formal education or up to secondary education only. The other symptoms identified in this study apart from predominating physical were psychological (n=167, 69.5%) and genitourinary (n=148, 60.9%) vasomotor (n=123, 50.6%) and sexual (n=114, 46.9%). The research from Nepal showed the commonest menopausal symptom identified as mood swing (80%) and irritability (68%).[3]Whereas the other studies conducted in Nepal showed the foremost symptom as loss of sexual desire (95%) and urinary symptoms (45%).[4,5]

Menopausal symptoms can vary in severity. The utilization of MRS in this study showed that the severity of symptoms were mostly in the form of mild to moderate (table 3). The factors that might have influenced the severity in Nepalese settings may be due to the relatively more active agricultural occupation continuing even up to this age group that might be attributable to better outcomes in Nepalese. The outdoor nature of their occupation also contributes to better vitamin D levels and lesser osteoporosis. Majority of Nepalese are non-vegetarians, however, even the vegetarians also have good amounts of phytoestrogen in the staple Nepalese diet. Phytoestrogens particularly isoflavone-rich soya foods are now believed to play a role in alleviating symptoms of menopause, maintaining bone density, reducing blood cholesterol levels and protecting against cancer development.[14,15]

The pathophysiology behind the climacteric is multiple and interconnected.[1] However, the bivariate analysis showed that menopausal symptoms had statistical significant association with premenstrual symptoms. This supports the hormonal theory rather than other contributors. Lack of estrogen invites issues such as cardiovascular, orthopedic, oncology and genitourinary problems. Beside the most accepted hormonal theory, it is also attributed to physical and mental stress, genetic factors, or from aging. The influences from women's psychology, lifestyle, body image, interpersonal relationships increase the risk of depression and anxiety in the menopausal patient. Menopause, thus signifies the need for assessment of symptoms in perimenopausal group regularly.

The optimistic results of our survey are suggested to be interpreted in light of some limitations of our study. Firstly, being a single-centered study, our sample is not representative of Nepalese women and is subject to limited external validity. However, our center is a referral center in the mid-northern region of Nepal, which makes the study population a good representation of Nepalese women. Secondly, multiple subjectivities might have influenced the results. Some degree of the retrospective nature of our study contributed to recall bias, which might have further worsened owing to the perimenopausal or age related poor memory at this age. In addition, inclusion of women presenting to the hospital with complaints other than menopausal problems may have caused apparently decreased prevalence as these participants may not have ever paid attention to the assessment of menopausal symptoms. Thirdly, MRS is a self-administrated questionnaire; however, taking into account the substantial number of women lacking formal education in Nepal, face-to-face interviews was applied in an attempt to minimize the reporting error.

CONCLUSION:

Menopausal symptoms varied in spectrum and severity amongst perimenopausal women. Women suffered in the past from premenstrual symptoms were more likely to develop menopausal symptoms. Physical symptoms were identified to be predominating followed by psychological, genitourinary, vasomotor and sexual. However rating of symptoms using MRS showed majority of suffered symptoms were in the range from mild to moderate. MRS can be considered a useful screening tool to assess for severity of menopausal symptoms. Awareness about menopausal symptoms was identified to be less (32%). In order to identify the risk related with menopause this study signifies the need to use the tool for assessment of menopausal symptoms from the perimenopausal group on regular basis.Identified severe symptoms thus can be managed timely.

Conflict of interest:

None Declared.

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