ORIGINAL RESEARCH

Menopausal Symptom Burden: Effects on Quality of Life and Healthcare Utilization among Postmenopausal Women

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ABSTRACT

Background: Menopause is an inevitable reproductive phase when permanent cessation of mensuration occurs following loss of ovarian activity. Menopause causes changes including vasomotor symptoms (hot flashes and night sweats), anxiety, depression, decreased libido, vaginal dryness and also attitude towards loss of fertility may impair a woman's quality of life.Present study was aimed to study impact of menopausal symptoms on quality of life and health care seeking behavior in postmenopausal women. **Material and Methods:**Present study was prospective, cross-sectional study, conducted in Postmenopausal women age of group 44 to 64, with at least 1 year of amenorrhea, attained natural menopause. **Results:**In present study, we evaluated 433 postmenopausal women. Majority of women belong to 50-54 years of age (34.4 %). Mean age group study population was 53.02±5.66 years. Majority study population attained their menarche between 12-14 years (73 %), attained menopause between 41-50 years (73.9 %), had more than 5 years since menopause (50.35 %). The prevalence of postmenopausal symptoms was found to be 71.4% in the present study. In this study most common symptoms were Physical (68.4 %) followed by sexual (35.8 %), vasomotor (12.2 %) & psychosocial (10.6 %). In this study most common symptom, physical symptoms which seen in 71.1%, 62.1%,72.9% were in less than 2 years, 2 to 5 years and more than 5 years of duration of menopause respectively.Vasomotor symptoms which seen in 23.7%,12.4%,10.1% were seen in less than 2 years, 2 to 5 years and more than 5 years of duration of menopause respectively. Acceptance appeared to be most utilized coping mechanism (19.2 %). **Conclusion:**Women were found aware of menopause while women were unaware of menopausal symptoms and its consequence. However, women were accepting menopausal symptom as natural age-related changes.

Keywords: Postmenopausal period, menopause, hot flashes, copingbehaviors

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INTRODUCTION

Menopause is an inevitable reproductive phase when permanent cessation of mensuration occurs following loss of ovarian activity.[1] Menopause is defined by World Health Organization (WHO) as 12 months of amenorrhea around the menopausal age (45-54year)[2].This period starts at around age 40 and lasts until age 60-65. Post-menopausal symptoms are vasomotor symptoms, psychosocial symptoms, physical symptoms, sexual symptoms, genitourinary symptoms, osteoporosis, cardiovascular disease, cancer, and cognitive decline.[1]

Peri menopause/ menopausal transition is a defined period of until the lasts menstrual cycles come from time beginning with the onset of irregular menstrual cycles, and is marked by fluctuations in reproductive hormones.[1] This period is characterized by decreased fertility, vasomotor symptoms; menstrual irregularities; prolonged and heavy menstruation intermixed with episodes of amenorrhea, and insomnia. It occurs 4 years before menses ceases.

Pathophysiology of menopause is by depletion of oocyte. Oocyte is the source of estrogen, progesterone and androgens. Premature menopause is menopause before 40 yrs of age. Early menopause occurs because of toxic exposure, genetic, abnormalities, auto immune disorders, pelvic surgery like hysterectomy, smoke experience, chemotherapy and radiotherapy exposure. Mean of peri menopausal age is 44.69±3.79years. Mean menopausal age is 45±5.59years.[1]

Quality of life (QOL) is understood as the individual's perception of status in life according to the cultural and value system the person lives in, considering their aims, expectations, standards and worries.[3] In India most women are not aware of these symptoms, are hesitant to talk about them especially urinary or sexual problems, do not have access to medical help

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to tackle such problems or consider them as a part of normal aging process.[4]This study is therefore expected to not only assess the suffering due to menopausal symptoms among postmenopausal women but also their attitude towards seeking health care for this.

Menopause causes hormonal changes and various physical and psychological symptoms have been attributed to these changes. These changes including vasomotor symptoms (hot flashes and night sweats), anxiety, depression, decreased libido, vaginal dryness, insomnia, difficulty concentrating, and also attitude towards loss of fertility may impair a woman's quality of life.[5] Advancement in the field of medicine has increased life expectancy and women may have to spend one or two decades in an estrogen deficient state.[5] Present study was aimed to study impact of menopausal symptoms on quality of life and health care seeking behavior in postmenopausal women.

AIM AND OBJECTIVE

To study the prevalence of menopausal symptoms and their effect on quality of life and to assess the duration of menopause on menopausal symptoms and health care seeking behavior of women for the same.

MATERIAL AND METHODS

Present study was prospective, cross-sectional study, conducted in department of Obstetrics and Gynecology, Maulana Azad Medical College and Associated Lok Nayak, Hospital, New Delhi, India. Study duration was of 1 year (July 2021 to July 2022). Study approval was obtained from institutional ethical committee, study was registered under CTRI[No-051834].

Inclusion criteria

- Postmenopausal women age of group 44 to 64, with at least 1 year of amenorrhea, attained natural menopause, willing to participate in present study

Exclusion criteria

- Induced/surgical menopause
- Chronic cardiac diseases, rheumatic diseases or other autoimmune disease, migraine, cancers.

Stratified Randomisation was done based on age of participants. Strategy used for bias removal was by keeping anonymity and confidentiality. Study was explained to patients in local language & written consent was taken for participation & study. A detailed history was taken including age, marital status, education, occupation, monthly income of women, socioeconomic status, reproductive history, age at menarche, parity, ever used oral contraceptive and injectable, if yes type of pill or duration of Combined Oral Contraceptive pill, age at menopause, duration of menopause.

SAMPLE SIZE AND STATISTCAL ANALYSIS:

47% (Shukla R et al)[4] and with a relative error of 10%, the sample size estimated was 433 using the formula

$n = Z\alpha 2\ p\ q\ /\ L2$,

Where n = sample size

At 95% confidence level and taking the prevalence of postmenopausal symptoms in women as $Z\alpha = 1.96$ value of the standard normal variate corresponding to level of significance alpha 5%

p = prevalence of postmenopausal symptoms in women

$q = 1 - p$

L = Relative error

History was taken with regards of menopausal symptoms like vasomotor symptom include hot flush, night sweats, sweating. Psychosocial symptoms like dissatisfaction with my personal life, feeling anxious/nervous, poor memory, accomplishing less than I used to, feeling depressed/down/blue, being impatient with other people, feeling of wanting to be alone. Physical symptoms like flatulence/gas pain, aching in muscle/joints, feeling tired/worn out, difficulty sleeping, aches in back of head/neck, decrease in physical strength, decrease in stamina, lack of energy, dry skin, weight gain, increased facial hair, change in appearance/texture/tone of my skin, feeling bloated, low backache, frequent urination, involuntary urination while laughing/coughing & sexual symptoms like decrease in sexual desire, vaginal dryness, avoiding intimacy.

The participants were asked to fill up 2 questionnaires through test format made based on Menopause-Specific Quality of Life questionnaire (MENQOL) modified by Lewis et.al[17]& for health care seeking behavior. Also, history was taken symptoms aggravated/relieved/not affected during COVID Pandemic. Primary outcomes were to find prevalence of menopausal symptoms and see its impact on quality of life. to assess the health care seeking behavioral for menopausal symptoms & to compare the impact of menopausal symptoms with duration of menopause.

Data was collected and compiled using Microsoft Excel, analyzed using SPSS 23.0 version. Frequency, percentage, means and standard deviations (SD) was calculated for the continuous variables, while ratios and proportions were calculated for the categorical variables. Difference of proportions between qualitative variables were tested using chi- square test or Fisher exact test as applicable. P value less than 0.05 was considered as statistically significant.

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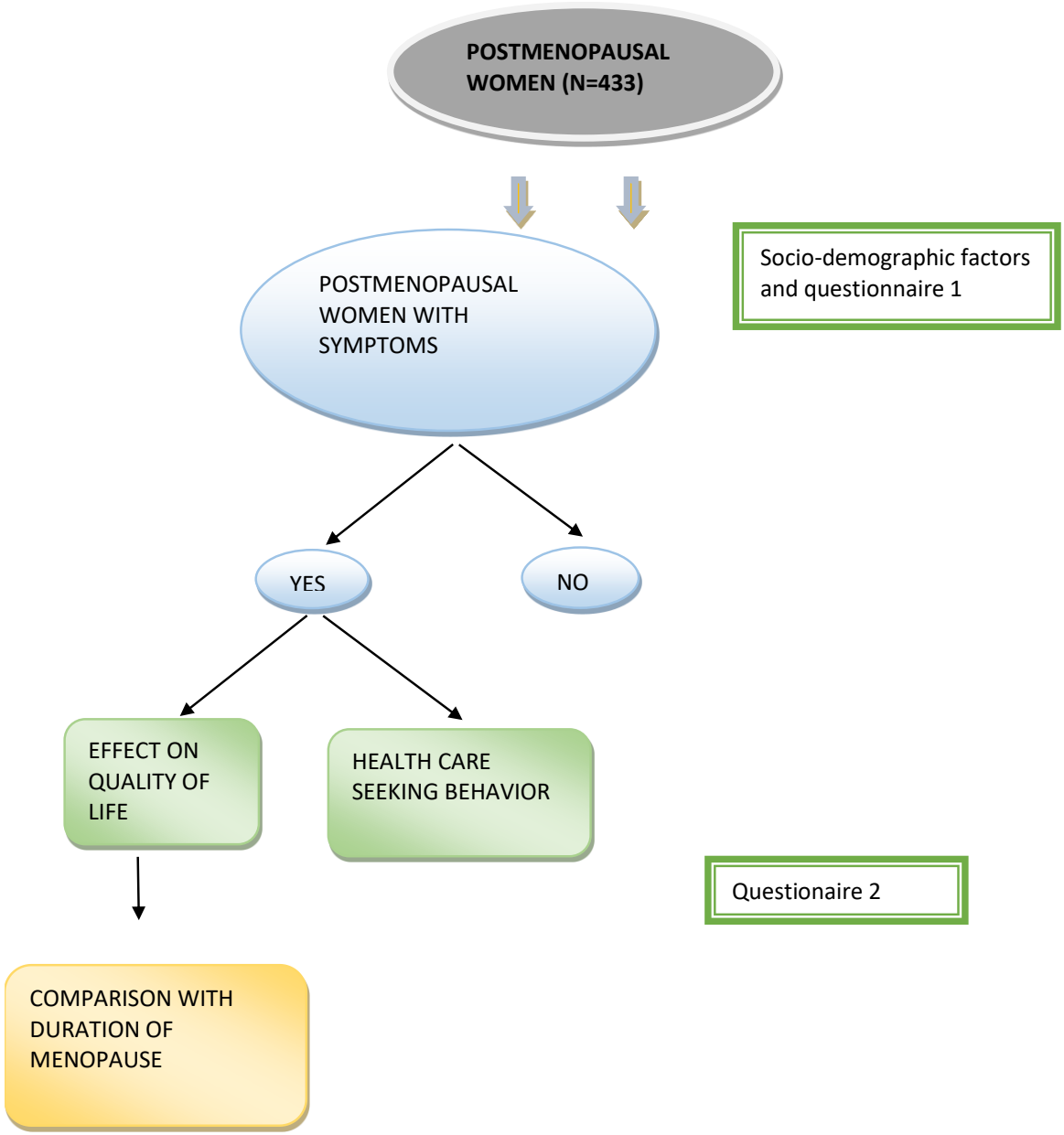

Figure: 1

RESULTS

In present study, we evaluated 433 postmenopausal women. Majority of women belong to 50-54 years of age (34.4 %). Mean age group in my study population was 53.02±5.66 years. Majority of women were married (80.6 %). 70% women were not affected by COVID pandemic while 30% were affected by COVID pandemic. Majority study population attained their menarche between 12-14 years (73 %). Mean age of Menarche was 14.06 ± 1.14 years.

Table 1- General characteristics

	No. of patients	Percentage
Age groups (in years)		
44-49	119	27.5
50-54	149	34.4
55-59	60	13.9
60-64	105	24.2
Mean age (years)	53.02±5.66	
Marital status		
Married	349	80.6
Unmarried	1	0.2
Widowed	83	19.2

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Effect of COVID pandemic		
Affected	100	30
Not affected	233	70

Majority women attained menopause between 41-50 years (73.9 %). Mean age at attaining of menopausal women were 45.6± 4.32 years.In this study, majority women had more than 5 years since menopause (50.35 %), followed by 2-5 years duration of menopause (40. 9 %). Mean age of duration of menopause age was 7.73 ± 6.14 years.

The prevalence of postmenopausal symptoms was found to be 71.4% in the present study. In this study most common symptoms were Physical (68.4 %) followed by sexual (35.8 %), vasomotor (12.2 %) & psychosocial (10.6 %). In physical symptom most common were aching in muscle and joint (40 %), decrease in physical strength (26.6 %), involuntary urination while laughing/coughing (23.8 %), flatulence gas pain (22.6 %), frequent urination (18.7 %) & feeling tired (15.7 %). Most common sexual symptoms were avoiding intimacy (27.9 %) & decrease in sexual desire (21.5 %). In vasomotor symptoms most common symptom were hot flush 6%(n=26).

In this study most of women had experienced not bothered symptoms & least were extremely bothered. Maximum women which had extremely bothered symptoms which was aching in muscle and joints. In this study vasomotor symptoms, psychological symptom, physical symptom, sexual symptom in all not bothered symptoms were found more common, while extremely bothered symptoms were less found in this study.

Table 2: Menopausal symptoms and type of botheration experienced by women

	Total	**1**	**2**	**3**
Vasomotor (n=53; 12.2%)				
Hot flushes	26	19 (4.4%)	7 (1.6%)	0
Night sweats	23	17 (3.9%)	6 (1.4%)	0
Sweating	25	15 (3.5%)	6 (1.4%)	4 (0.9%)
Psychosocial (n=46; 10.6%)				
Dissatisfaction with personal life	5	4 (0.9%)	1 (0.2%)	0
Feeling anxious/Nervous	10	9 (2.1%)	1 (0.2%)	0
Poor memory	18	12 (2.8%)	4 (0.9%)	2 (0.5%)
Accomplishing less than I used to	10	6 (1.4%)	3 (0.7%)	1 (0.2%)
Feeling depressed/down /blue	4	4 (0.9%)	0	0
Being impatient with other people	6	3 (0.7%)	1 (0.2%)	0
Feeling of wanting to be alone	8	6 (1.4%)	1 (0.2%)	1 (0.2%)
Physical (n=296; 68.4%)				
Aching in muscle and joints	173	104 (24%)	47 (10.9%)	22 (5.1%)
Decrease in physical strength	115	59 (13.6%)	40 (9.2%)	16 (3.7%)
Involuntary urination while laughing/coughing	103	56 (12.9%)	36 (8.3%)	11 (2.5%)
Flatulence/ gas pain	98	56 (12.9%)	29 (6.7%)	13 (3%)
Frequent urination	81	39 (9%)	24 (5.5%)	18 (4.2%)
Feeling tired/ worn out	68	41 (9.5%)	15 (3.5%)	12 (2.8%)
Feeling bloated	53	21 (4.8%)	23 (5.3%)	9 (2.1%)
Low backache	49	25 (5.8%)	16 (3.7%)	8 (1.8%)
Weight gain	47	28 (6.5%)	13 (3%)	6 (1.4%)
Difficulty sleeping	31	14 (3.2%)	8 (1.8%)	9 (2.1%)
Aches in back of head and neck	18	11 (2.5%)	3 (0.7%)	4 (0.9%)
Sexual (n=155; 35.8%)				
Decrease in sexual desire	93	45 (10.4%)	34 (7.9%)	14 (3.2%)
Vaginal dryness	41	23 (5.3%)	15 (3.5%)	3
Avoiding intimacy	121	71 (16.4%)	36 (8.3%)	14 (3.2%)

In this study most common symptom, physical symptoms which seen in 71.1%, 62.1%,72.9% were in less than 2 years, 2 to 5 years and more than 5 years of duration of menopause respectively. Psychosocial symptoms which seen in 13.2%,10.2%,10.6% were in less than 2 years, 2 to 5 years and more than 5 years of duration of menopause respectively. Sexual symptoms which seen in 36.8%,36.7%,34.9% were in less than 2 years, 2 to 5 years and more than 5 years of duration of menopause respectively. Vasomotor symptoms which seen in 23.7%,12.4%,10.1% were seen in less than 2 years, 2 to 5 years and more than 5 years of duration of menopause respectively.

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Table 3: Menopause-Specific Quality of Life Questionnaire symptoms and domains

	Duration of menopause			p value
	<2 years	2-5 years	>5 years	
Vasomotor				
Overall	9 (23.7%)	22 (12.4%)	22 (10.1%)	0.06
Hot flushes	4 (10.5%)	13 (7.3%)	9 (4.1%)	0.19
Night sweats	2 (5.3%)	8 (4.5%)	13 (6%)	0.81
Sweating	2 (5.3%)	11 (6.2%)	12 (5.5%)	0.94
Psychosocial				
Overall	5 (13.2%)	18 (10.2%)	23 (10.6%)	0.86
Dissatisfaction with personal life	4 (10.5%)	0	1 (0.5%)	<0.001
Feeling anxious/Nervous	0	3 (1.7%)	7 (3.2%)	0.37
Poor memory	3 (7.9%)	9 (5.1%)	6 (2.8%)	0.24
Accomplishing less than I used to	0	4 (2.3%)	6 (2.8%)	0.58
Feeling depressed/down /blue	0	0	4 (1.8%)	0.13
Being impatient with other people	1 (2.6%)	3 (1.7%)	2 (0.9%)	0.63
Feeling of wanting to be alone	0	3 (1.7%)	5 (2.3%)	0.61
Physical				
Overall	27 (71.1%)	110 (62.1%)	159 (72.9%)	0.06
Flatulence/ gas pain	9 (23.7%)	34 (19.2%)	55 (25.2%)	0.35
Aching in muscle and joints	14 (36.8%)	65 (36.7%)	94 (43.1%)	0.40
Feeling tired/ worn out	9 (23.7%)	27 (15.3%)	32 (14.7%)	0.36
Difficulty sleeping	3 (7.9%)	13 (7.3%)	15 (6.9%)	0.96
Aches in back of head and neck	3 (7.9%)	5 (2.8%)	10 (4.6%)	0.32
Decrease in physical strength	6 (15.8%)	42 (23.7%)	57 (30.7%)	0.08
Decrease in stamina	2 (5.3%)	10 (5.6%)	22 (10.1%)	0.21
Feeling bloated	8 (21.1%)	24 (13.6%)	21 (9.6%)	0.11
Low backache	4 (10.5%)	23 (13%)	22 (10.1%)	0.65
Frequent urination	9 (23.7%)	38 (21.5%)	34 (15.6%)	0.23
Involuntary urination while laughing/ coughing	8 (21.1%)	37 (22.6%)	55 (25.2%)	0.76
Sexual				
Overall	14 (36.8%)	65 (36.7%)	76 (34.9%)	0.92
Decrease in sexual desire	8 (21.1%)	38 (21.5%)	48 (22%)	0.99
Vaginal dryness	5 (13.2%)	21 (11.9%)	15 (6.9%)	0.17
Avoiding intimacy	12 (31.6%)	45 (25.4%)	64 (29.4%)	0.59

Table 4: Multivariate logistic regression analysis of menopausal domains

	Unstandardized Coefficient	Standardized coefficient	95% CI	P value
Vasomotor				
Age	-0.038	.962	0.91-1.01	0.157
Educational status	-0.583	.558	0.27-1.12	0.105
Occupation	0.520	1.681	0.65-4.33	0.282
Parity	0.145	1.156	0.99-1.34	0.060
Psychosocial				
Age	-0.026	0.975	0.922-1.03	0.374
Educational status	-0.558	0.572	0.274-1.19	0.137
Occupation	0.136	1.145	0.397-3.30	0.802
Parity	0.019	1.019	0.859-1.20	0.827
Physical				
Age	0.023	1.023	0.986-1.06	0.231
Educational status	0.403	1.496	0.884-2.53	0.134
Occupation	-0.120	0.887	0.418-1.88	0.755
Parity	0.135	1.144	0.97-1.29	0.061
Sexual				
Age in years	-0.023	0.977	0.943-1.01	0.20
Educational status	0.775	2.170	1.201-3.42	**0.01**
Occupation	0.730	2.075	0.966-4.45	0.06
Parity	0.109	1.115	0.999-1.24	0.05

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Lower educational status was associated with more sexual symptoms in menopausal women after multivariate analysis [adjusted odds ratio –2.17 (95% CI: 1.20-3.42)]. Multivariate linear regression of MENQOL was analyzed to assess factors influencing variation domains. Independent variable entered like age, education status, occupation, parity against dependent variables. There was no significant difference found in this study except lower educational women had more sexual symptoms.

Acceptance appeared to be most utilized coping mechanism which was used by 19.2% women. After that utilized coping mechanism was emotional support which was 18.3%. Least common coping domain used by women was 5.7%.

Table 5: Coping mechanism used by women

Coping mechanism	No.	%
Physical exercise	53	15.9
Emotional support	61	18.3
Spiritual	44	13.2
Yoga	38	11.4
Self-distraction	26	7.8
Denial	28	8.4
Acceptance	64	19.2
Positive reframing	19	5.7

DISCUSSION

The World Health Organization defines menopause as a natural phase in a woman's life corresponds to the transition between the reproductive and non-reproductive periods, to a decrease in the production of steroid hormones. This period starts at around age 40 and lasts until age 60-65.[2]

Menopause symptoms happens because of fluctuation in hormone levels as ovarian function begin to decline. Estradiol and Progesterone decrease. Follicle Stimulating Hormone level increase. Physiological changes and clinical symptoms occur. Post Menopause symptoms occur after menopause which is vasomotor symptoms, physical symptoms, psychosocial symptoms, sexual symptoms. Average age of menopause is 51 years with range 40 to 58 years.[3,4]

Postmenopausal women did not perceive menopausal changes as because lack of awareness. In this study 90% women were aware about menopausal symptoms. Only 10% were aware of menopausal symptoms. Similar findings were noted in other studies.[6,7]

In present study mean age of women was 53.02 ± 5.66 years. Similar findings were noted by Shukla et al.,[4] (49.74 ± 6.4 years), Dasgupta et al.,[8] (53.9±4.6 years) & M. Singh et al.,[9](52.28 ± 7.60 years). Majority women in study, attained menarche at 12-14 years (73 %). M. Singh et al.,[9] noted range of menarche 9-20 years, mean range was 13.59±1.51 years.

In this study menopause history of study population showed that 73.9%(n=320) attained menopause between 41-50 years. Mean age at attaining of menopausal women were 45.6±4.32 years. Similar result also found in study conducted by A. Sagar et al.,[10]& Dasgupta et al.,[8] This suggests that the prevalence of women attaining menopause before the age of 40 years is very low.

In present study, majority women had > 5 years duration of menopause, mean age of duration of menopause age was 7.73±6.14years. Som et al.,[3] showed that age since menopause increase, physical and psychosocial symptoms increase while vasomotor symptom decrease.

In this study prevalence of vasomotor symptoms were 12.2%. Most common symptoms were hot flushes (6 %) & night sweat (5.3 %). Shukla et al.,[4] conducted study and showed prevalence of vasomotor symptoms were 21.3% also seen that 14.9% were hot flush, 14.9% were night sweat, 17% were sweating. Sharma et al.,[6] conducted study and found that 58.86% were hot flush.Nadia et al.,[11] found hot flush more commonly were seen 77.3%,

In this study prevalence of psychosocial symptoms were 10.6%. Most common symptom was poor memory (4.2%), feeling anxious/nervous were 2.35%, accomplishing less than I used were 2.3%. Feeling depressed/down/blue were less commonly seen (0.9%). Nadia et al.,[11] conducted study psychosocial symptoms experienced among 93.9% of study population particularly among postmenopausal women. Poor memory (60.5%) and difficulty in sleeping (51.7%) were seen by Bairy et al.,[12]

In this study physical symptoms were seen in 68.4%. Sharma et al.,[6] found physical and mental exhaustion were seen in 86.5%. Bairy et al.,[12] noted a high prevalence of aching in muscles and joints (67.7%), feeling tired (64.8%), lower backache (58.8%), feeling bloated (55.1%), and among the menopausal respondents.Similar results werefound in other various studies.[13]

In this study prevalence of sexual symptoms were 35.8%. Avoiding intimacy were seen 27.9%, decrease sexual dryness were 21.55% and vaginal dryness were 9.5%. Sharma et al., reported a proportion of 50% women had vaginal dryness and irritation[6] Higher proportion was reported by Yisma E et al.,[14] study in in which vaginal dryness was found among 64.0% of postmenopausal women. In study by A. Sagar et al.,[10] in this sexual problem was most common symptom in

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postmenopausal women (31.8%) and also seen vaginal dryness (9.3%).

In this study most of women had experienced not bothered symptoms while bothered symptoms were less commonly seen than not bothered symptoms. Least common were extremely bothered. Maximum women which had extremely bothered symptoms which was aching in muscle and joints. In this study vasomotor symptoms, psychological symptom, physical symptom, sexual symptom in all not bothered symptoms were found more common while extremely bothered symptoms were less found in this study.

A study conducted by A. Sagar et al.,[10]atleast 60% of women suffer from mild symptoms, 20% suffer from no symptoms and 20% suffer severe symptoms. In study conducted by A. Singh.,[15] observed that 21.0% (mild: 18.3%, moderate: 2.7%) postmenopausal women suffered from anxiety and 32.1% (mild: 31%, moderate: 1.1%) postmenopausal women suffered from depression. Severe or very severe depression/anxiety was never seen in postmenopausal women.

Symptoms like hot flushes, sweating and depression was significantly more in perimenopausal women as compared to postmenopausal women but joint and muscular discomfort was more in postmenopausal women in a study conducted by Kalhan et al[18] supporting our study for post-menopausal women.

Education, unemployed status, a history of pregnancy, longer postmenopausal duration, positive attitudes to menopause, higher state anxiety, heightened self-esteem, and higher dyadic consensus which decreased severity of menopausal symptoms. If women had absence of a partner, alcohol consumption, a history of probable premenstrual dysphoric disorder were experience severe symptoms.[16] The study conducted by Kumari A et al.[19]found that due to lack of education and low socioeconomic level grossly affect the knowledge and treatment seeking behavior among these postmenopausal women which corroborates with our study.Coping domain has been analyzed. In general, acceptance is most used strategy while 2nd most common emotional support used strategy. Similar result also found in Shukla et al.,[4] Women are not considering menopause important in her life with respect to other priorities. They are doing coping towards menopause.

The strength of the study lies in its potential to shed light on the psychological and physical impacts of menopausal symptoms. In order to decrease menopausal symptoms and increase quality of life of postmenopausal women, we must encourage school, college, hospital and health care to spread awareness about educating women about menopause. Health care provider and education program both will help in increase awareness of postmenopausal symptoms and its consequences. However, limitations include potential biases in participant selection, self-reported data accuracy and the scope of factors considered in analyzing healthcare-seeking behavior.

Health education, awareness program about consequence of menopausal symptoms, health camp, women clinics provide treatment of menopausal symptoms will help in improving the health status. This can be achieved by specific health needs of postmenopausal women in national health programs. These all may help in significant improvement in quality of life of postmenopausal women.

CONCLUSION

In this study most of women were uneducated and from low socioeconomic status. Women were found aware of menopause while women were unaware of menopausal symptoms and its consequence. Women were accepting menopausal symptom as natural age-related changes. Lower education status was associated with more sexual symptoms. Health education, awareness program about menopausal symptoms, health camp, women clinics provide treatment of menopausal symptoms will help in improving the health status. This can be achieved by adding specific health needs of postmenopausal women in national health programs. These all may help in significant improvement in quality of life of postmenopausal women.

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