ABSTRACT

Background: Menopause may be associated with vasomotor, somatic, psychological symptoms and sexual dysfunction which may have a significant impact on quality of life. Most of the postmenopausal women do not take treatment for their symptoms.

Methods: A community based cross-sectional study was conducted among 580 postmenopausal women residing in Gokulpuri (Delhi), using a predesigned, pretested, semi-structured interview schedule. The collected data was analyzed using SPSS-pc 17 version.

Results: The most common symptom reported was joint/muscle pain (89.5%). Other symptoms were irritability (71.9%), weakness/fatigue (66.4%), sleep problems (53.1%), hot flashes (44.3%), low mood/depression (41.6%) memory problems (40.2%). Only 35.5% women were taking treatment for various symptoms and none of them was taking hormone replacement therapy. Women in the age group of 41-45 years had a higher odds of seeking treatment as compared to women of higher age group. After adjusting for age the odds of literate women seeking treatment was five times (OR:5.89 [CI-3.3 -10.3]) higher than illiterate women.

Conclusions and recommendation: There was high prevalence of physical and vasomotor symptoms such as joint pain, weakness, hot flashes and psychological and cognitive symptoms such as irritability and sleep problem. About 2/3rd women did not seek treatment for any symptoms. Behaviour change communication is required among postmenopausal women for seeking health care. Components related to specific health needs of postmenopausal women should be incorporated in the National Health Mission.

Key words: postmenopausal symptoms, treatment seeking, Delhi.
Punjab among postmenopausal women, symptoms which were reported more frequently were headache (94.1%), decreased libido (81.5%), sleep disturbance (68.9%) and loss of interest in most things.

In another study done by Nayak G [4] in Karnataka, physical and psychosocial symptoms were more commonly reported among the women. The major symptoms in psychosocial domain were poor memory (73.7%), feeling anxious (40.2%). Experiences of vasomotor symptoms were relatively less such as hot flushes 32.1% and night sweats 24.9%.

Most of the postmenopausal women do not take treatment for their symptoms as either they consider these symptoms normal with age or can’t afford the treatment or with time they become accustomed with symptoms and some are not aware that treatment is available. In a study by Suwarna MK [5] in Bangalore, only (21.7%) women took treatment for menopausal symptoms. Some women took calcium or some ayurvedic treatment or over the counter drugs to treat menopausal symptoms. Majority of females took treatment without doctor’s advice. Women had the opinion that these problems are very common at this age and are self limiting. They had not taken these symptoms very seriously and some were not aware that treatment is available. About one-third of them just took some pain killers over the counter. Some women did not seek medical help due to family or financial problems. About 9% of them felt they don’t like to go to any hospitals or don’t like to take any tablets. None of them got Hormone Replacement therapy.

The prevalence of postmenopausal symptoms varies widely not only among individuals of the same population but also between different ethnic populations. Even there is a great diversity in nature of symptoms and frequencies across countries, even in the same cultures. Only few community based Indian studies have been conducted till now to explore postmenopausal symptoms. This study has made efforts to find out various postmenopausal symptoms, health care seeking behaviour and associated factors in postmenopausal women.

MATERIALS AND METHODS

Study site: A community based cross-sectional house to house survey was conducted among postmenopausal women residing in Gokulpuri (north-east Delhi), after obtaining clearance from ethical committee of Maulana Azad Medical college. Gokulpuri is an urban resettlement colony in north-east Delhi having a population of 21266. Study was conducted from the month of January 2014 to December 2014. Inclusion criteria consisted of post-menopausal women with amenorrhoea from one year. Exclusion criteria were women with surgical menopause (removal of both the ovaries with or without hysterectomy), those with severe illness, bedridden women, mentally challenged and women on chemotherapy.

Sample size and sampling method:

Considering the minimum prevalence of menopausal symptom as 16% for vasomotor and urinary problems, based on a study conducted by Govil D [6] in U.P, the sample size calculated with 20% allowable error was 525. Considering 10% non-response, the calculated sample size is 580. The study subjects were selected by systematic random sampling method. Every 4th household in the study area was considered for the study.

The first household was by selected by lottery method from the first four households. In selected household, one woman was selected. If there were more than one eligible woman then lottery method was used to select one of them. Three subsequent visits were made before declaring non-respondent and next household was selected in case of non-response.

Data collection: A predesigned, pretested, semi-structured interview schedule was prepared in English and translated in Hindi. Informed written consent was taken from
each subject prior to the interview. Interview schedule contained following sections a) socio-economic demographic profile b) menstrual and obstetric history c) detail history of menopause and menopausal symptoms d) health care seeking behaviour.

International Physical Activity Questionnaire was used to assess the level of physical activity of study participants. Modified Kuppuswamy Scale was used to determine the socioeconomic status of study participants.

Statistical analysis

The collected data was entered in MS-Excel and then analysed using SPSS-pc 17 version.

RESULTS

A total of 580 women were included in the study. It was observed that maximum number of postmenopausal women (45.2%) were in the age group of 51-55 years. The mean age at menopause was found to be 44.35 ± 2.74 years.

Table 1: Distribution of postmenopausal women according to their socio-demographic characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Number (n=580)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age groups (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41-45</td>
<td>26</td>
<td>4.5</td>
</tr>
<tr>
<td>46-50</td>
<td>216</td>
<td>37.2</td>
</tr>
<tr>
<td>51-55</td>
<td>262</td>
<td>45.2</td>
</tr>
<tr>
<td>56-60</td>
<td>76</td>
<td>13.1</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>504</td>
<td>86.9</td>
</tr>
<tr>
<td>Divorced</td>
<td>13</td>
<td>2.2</td>
</tr>
<tr>
<td>Widow</td>
<td>63</td>
<td>10.9</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hindu</td>
<td>431</td>
<td>74.3</td>
</tr>
<tr>
<td>Muslim</td>
<td>139</td>
<td>24.0</td>
</tr>
<tr>
<td>Sikh</td>
<td>10</td>
<td>1.7</td>
</tr>
<tr>
<td>Educational status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>135</td>
<td>23.3</td>
</tr>
<tr>
<td>Primary school or read/write</td>
<td>337</td>
<td>58.1</td>
</tr>
<tr>
<td>Middle school</td>
<td>80</td>
<td>13.7</td>
</tr>
<tr>
<td>High school</td>
<td>22</td>
<td>3.9</td>
</tr>
<tr>
<td>Intermediate or post high school diploma</td>
<td>5</td>
<td>0.9</td>
</tr>
<tr>
<td>Graduate and above</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Type of family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint family</td>
<td>500</td>
<td>86.2</td>
</tr>
<tr>
<td>Nuclear family</td>
<td>80</td>
<td>13.8</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>421</td>
<td>72.6</td>
</tr>
<tr>
<td>Unskilled worker</td>
<td>87</td>
<td>15</td>
</tr>
<tr>
<td>Semiskilled worker</td>
<td>57</td>
<td>9.8</td>
</tr>
<tr>
<td>Skilled worker</td>
<td>5</td>
<td>0.9</td>
</tr>
<tr>
<td>Clerk, shop owner, farm owner</td>
<td>10</td>
<td>1.7</td>
</tr>
<tr>
<td>Socio-economic status</td>
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<td></td>
</tr>
<tr>
<td>Lower</td>
<td>3</td>
<td>0.5</td>
</tr>
<tr>
<td>Upper lower</td>
<td>350</td>
<td>60.3</td>
</tr>
<tr>
<td>Lower middle</td>
<td>227</td>
<td>39.1</td>
</tr>
</tbody>
</table>

Table 2 shows distribution of postmenopausal women according to prevalence of different postmenopausal symptoms. The most common symptom reported was joint/ muscle pain (89.5%). Other common symptoms were irritability (71.9%), weakness/ fatigue (66.4%), sleep problems (53.1%), hot flashes (44.3%), low mood/ depression (41.6%) memory problems (40.2%), etc.

<table>
<thead>
<tr>
<th>Menopausal problems</th>
<th>Number (n=580)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vasomotor and physical symptoms*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hot flashes</td>
<td>257</td>
<td>44.3</td>
</tr>
<tr>
<td>Night sweats</td>
<td>63</td>
<td>10.9</td>
</tr>
<tr>
<td>Joint pain / muscle pain</td>
<td>519</td>
<td>89.5</td>
</tr>
<tr>
<td>Weakness / fatigue</td>
<td>385</td>
<td>66.4</td>
</tr>
<tr>
<td>Weight gain</td>
<td>211</td>
<td>36.4</td>
</tr>
<tr>
<td>Palpitation</td>
<td>59</td>
<td>10.2</td>
</tr>
<tr>
<td>Swelling of feet</td>
<td>48</td>
<td>8.3</td>
</tr>
<tr>
<td>Psychological and cognitive symptoms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irritability</td>
<td>417</td>
<td>71.9</td>
</tr>
<tr>
<td>Sleep problems</td>
<td>308</td>
<td>53.1</td>
</tr>
<tr>
<td>Low mood/depression</td>
<td>241</td>
<td>41.6</td>
</tr>
<tr>
<td>Memory problems</td>
<td>233</td>
<td>40.2</td>
</tr>
<tr>
<td>Decreased concentration</td>
<td>37</td>
<td>6.4</td>
</tr>
<tr>
<td>Urological and sexual Symptoms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loss of libido</td>
<td>134</td>
<td>23.1</td>
</tr>
<tr>
<td>Incontinence</td>
<td>47</td>
<td>8.1</td>
</tr>
<tr>
<td>Vaginal dryness</td>
<td>39</td>
<td>6.7</td>
</tr>
</tbody>
</table>

*Symptoms are not mutually exclusive

Physical and vasomotor symptoms during menopause: Prevalence of hot flashes was found to be 44.3% and night sweats were seen in 63 women (10.9%). Most common physical symptom seen in postmenopausal women was joint pain (89.5%), followed by weakness (66.4%). Prevalence of weight gain was 36.4%. Palpitation was seen in 59 women and least symptom was swelling of feet (8.3%).

Psychological and cognitive symptoms during menopause: Most common symptom was irritability (71.9%), sleep problems (53.1%) followed by low mood (41.6%), memory problems (40.2%), mood swings (9.1%) and decreased concentration (6.4%).

Urological and sexual problems: The common urological and genital problems during menopause were loss of libido (23.1%), followed by incontinence.
(8.1%), vaginal dryness (6.7%) and painful intercourse was least (4.5%).

**Distribution of women according to health seeking behaviour:** Majority of the postmenopausal women (64.5%) were not taking treatment. Only (35.5%) women were taking treatment for various symptoms.

**Distribution of women according to type of treatment taken by them:** For postmenopausal symptoms only 35.5% women were seeking treatment. Among these 36% were taking only calcium and iron tablets, 12.8% were taking calcium and painkillers only, calcium tablets and diet supplementation was taken by 4.1%, only painkillers by 24%, only diet supplementation by 8.0%, yoga by 6.1%.

Only 9.0% females were taking specific treatment for symptoms like hot flashes, sleep disturbances, depression and irritability. Majority of the women were taking treatment for physical problems. None of the women was taking hormone replacement therapy.

**Distribution of women according to reasons for not taking treatment:** Majority of the women believed that postmenopausal symptoms are normal with age 68.0% and they don’t need to take treatment for these symptoms. The second most common reason was that they couldn’t afford the expenses of medicines 19.5% and 12.5% women said that they don’t feel like taking medicines.

| Table 3: Determinants of health seeking behaviour among postmenopausal women |
|-----------------------------|-----------------------------|-------------------------------|-----------------------------|
| **Age**                    | Women taking treatment N(%) n=580 | Women not taking treatment N(%) n=580 | *P* value               |
| 41-45                      | 18 (8.7)                     | 8 (2.1)                       | 0.014                     |
| 46-50                      | 78 (37.9)                    | 138 (36.9)                    |                            |
| 51-55                      | 85 (41.3)                    | 177 (47.3)                    |                            |
| 56-60                      | 25 (12.1)                    | 51 (13.6)                     |                            |
| **Educational status**     |                             |                               |                            |
| Illiterate                 | 18 (8.7)                     | 117 (31.3)                    | <0.001                    |
| Literate                   | 188 (91.3)                   | 257 (68.7)                    |                            |
| **Socio-economic status**  |                             |                               |                            |
| Lower middle               | 83 (36.6)                    | 144 (63.4)                    | 0.91*                     |
| Upper lower                | 122 (34.9)                   | 228 (65.1)                    |                            |
| Lower                      | 1 (33.3)                     | 2 (66.7)                      |                            |
| **Type of family**         |                             |                               |                            |
| Joint                      | 171 (83.0)                   | 329 (88.0)                    | 0.97                       |
| Nuclear                    | 35 (17.0)                    | 45 (12.0)                     |                            |

* Extended Mantel-Haenszel chi square test for linear trend.

# Two cells have less than expected value hence chi square cannot be interpreted.

**DISCUSSION**

In the present study it was observed the most common postmenopausal symptom reported was joint / muscle pain (89.5%). In a study conducted in Bangladesh by Rahman et al [7] joint and muscular discomfort were reported in (76.2%). In a
study conducted by Vijayalakshmi S in Amritsar [8] prevalence of joint pain was seen in (43.3%) women. This difference may be due to variations in the reporting pattern of the problem in different communities and also due to differences in dietary habits.

The most common psychological symptom was irritability (71.9%), followed by sleep problems and low mood/depression. Some studies reported lower prevalence. In a study done in Amritsar by Vijayalakshmi S et al [8] prevalence of irritability was reported to be 36%. In a study done by Sarkar A et al [9] in Gujarat, irritability was found to be present in 56.6%. Another study which was done by Jahanfar et al [10] in Malaysia, reported the prevalence of irritability to be 65.7%.

In the present study sleep disturbances were found in 53.1% women. It is similar to a study conducted by Vijayalakshmi S et al (54%). [8] In a study conducted by Bansal P [3] in Punjab prevalence of sleep disturbances was found to be higher (68.9%), than present study. Prevalence of fatigue was found to be 66.4% which is similar to a study conducted by Mahajan N [11] in Himachal Pradesh (62%).

**Health seeking behaviour:** In the present study, 64.5% of the postmenopausal women were not taking treatment. Only 35.5% women were taking treatment for various symptoms and none of them was taking hormone replacement therapy. Majority of the women believed that postmenopausal symptoms are normal with age (68.0%) and they don’t need to take treatment for these symptoms. The second most common reason was that they can’t afford the expenses of medicines (19.5%) and some women said that they don’t feel like taking medicines (12.5%). In a study by Suwarna MK et al [8] only 21.7% took treatment for menopausal symptoms, which is lower than present study. Some women took calcium or some ayurvedic treatment to treat menopausal symptoms. In this study women had the opinion that all these problems are very common at this age, self limiting and they had not taken these symptoms very seriously. Some were not aware that treatment is available. Some women did not seek medical help due to family or financial problems. About 9% of them felt they don’t like to go to any hospitals or don’t like to take any tablets. None of them took hormone replacement therapy.

In a study done by Dutta R et al [12] in Tamilnadu, 46% of the women had taken treatment for the post-menopausal symptoms (which is higher than present study) in the form of anti-depressants, anti-anxiety drugs and analgesics. Apart from this, as far as hormonal replacement therapy was concerned, none of the respondents reported the use of this therapy, which is similar to present study finding. However, this was in contrast to the findings in developed countries where hormonal replacement therapy was being widely prescribed. [13] In a study which was done by Jahanfar et al [10] in Malaysia, reported that 11.4% of the postmenopausal women had taken hormonal replacement therapy.

In the present study it was seen that after adjusting for educational status women in the age group of 41-45 years had a higher odds of seeking treatment as compared to women of higher age group. In the present study after adjusting for age the odds of literate women seeking treatment was five times (OR: 5.89 [CI 3.3-10.3]) higher than illiterate women. Similar findings were noted in a study in Gujarat by Vaghela k et al, [14] that education level improves the possibility of seeking treatment by women suffering from menopausal troubles and with increasing literacy level, the health seeking behaviour of women was also improving.

**CONCLUSION**

There was high prevalence of physical and vasomotor symptoms such as joint pain, weakness, hot flashes and psychological and cognitive symptoms such as irritability and sleep problem among post-menopausal women. About 2/3rd women did not seek treatment for any
symptoms. Behaviour change communication is required among postmenopausal women for seeking health care. Components related to specific health needs of postmenopausal women should be incorporated in the National Health Mission.

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