"Assessment of menopausal symptoms in perimenopause and postmenopause women above 40 years in rural area"

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Abstract:
Introduction: Menopause currently affects the lives of millions of women globally and will be an issue of increasing concern as the population ages over the next few decades. With this background in consideration the study was planned to find out menopausal symptoms in perimenopause and postmenopause women.

Materials & Methods: The present study carried out on 30 participants using Menopausal Rating Scale (MRS) to evaluate the menopausal symptoms.

Results: Menopausal symptoms as assessed by modified MRS for all women (n=30). The most prevalent symptoms reported include from somatic/vasomotor subscale which was followed by Psychological subscale. However, urogenital symptoms were noted less. Mean age of menopause is 48.9±3.2 years ranging from 45-52 years. After onset of menopause as age increases gradually there is increase in the symptoms.

Conclusions: Perimenopausal and postmenopausal women experienced higher prevalence of somatic and psychological symptoms. However, urogenital symptoms mostly occur in the postmenopausal group of women, similar findings were reported from other studies.

Key words: Menopausal symptoms, Post menopause, Menopausal Rating Scale.

INTRODUCTION:
Menopause is a unique stage of female reproductive life cycle. In present era with increased life expectancy, women are likely to face long periods of menopause accounting to approximately a third of her life. The average age of menopause in the western world is 51 years while according to Indian Menopause Society (IMS) research, the average age of Indian menopausal women is 47.5 years. Average age of menopause is around 45-55. So menopausal health demands even higher priority in Indian Scenario.

Early symptoms of menopause include: Menstrual periods that occur less often and eventually stop, heart pounding or racing, hot flashes, usually worst during the first 1 - 2 years, night sweats, skin flushing, sleeping problems (insomnia), decreased interest in sex, possibly decreased response to sexual stimulation; forgetfulness (in some women), headaches, mood swings including irritability, depression, and anxiety; urine
leakage, vaginal dryness and painful sexual intercourse, vaginal infections, joint aches and pains, irregular heartbeat (palpitations).

The common climacteric symptoms experienced by them can be grouped into: vasomotor, physical, psychological or sexual complaints. It is well documented that menopausal symptoms experienced by women affect their quality of life. With this background in consideration the present study was planned to assess the menopausal symptoms in perimenopausal and postmenopausal women above 40 years in rural area.

Materials & methods:

In present observational study of perimenopausal and postmenopausal women of age group between 40-70 years were assessed out of which 7 were perimenopausal and 23 were postmenopausal. A total of 30 women above 40 years were subject of this study. The participants were classified into two groups; perimenopausal and postmenopausal group. Data collection for this study was 3 weeks conducted during Dec-Jan 2012-13. The inclusion criteria of women between 40 to 70 years who had given consent to participate in this study. Pregnant and breast feeding women, women with uncontrolled medical conditions such as hypertension, diabetes mellitus or heart disease, musculoskeletal conditions or who were undergoing treatment for cancer, or were in remission, or who had history of drug or alcohol abuse and on hormone replacement therapy were excluded from the study.

Early and late perimenopause transition stages were grouped together as perimenopause. While, early and late postmenopause transition stages were grouped together as postmenopause.

Tool: The study procedure consisted of collecting data by way of interview questionnaire. Menopausal Rating scale (MRS) questionnaire were used as a basis for assessing menopausal symptoms in this study, it is self-administered instrument which has been widely used and validated. It is used in many clinical and epidemiological studies, and in research on aetiology of menopausal symptoms to assess the severity of menopausal symptoms.

The MRS is composed of 11 items and was divided into three subscales: (a) somatic- hot flushes, heart discomfort/palpitation, sleeping problems and muscle and joint problems; (b) psychological- depressive mood, irritability, anxiety and physical and mental exhaustion and (c) urogenital- sexual problems, bladder problems and dryness of vagina. Each of 11 symptoms contained a scoring scale from “0” (no complaints) to “4” (very severe symptoms).

Data analysis-

The data was analyzed by using scientific statistics GraphPad software, Inc. (InStat) 3.1, Mac OS X and windows, California. Percentage was calculated and Pearson’s correlation test was also used.
**Observation & Results:** The mean age of menopause of participants in this study was 48.9±3.2 years ranging from 45-55 years.

**Table no 1:** Demographic representations of menopausal symptoms in participants according to menopausal status.

<table>
<thead>
<tr>
<th>Menopausal symptoms</th>
<th>Symptoms</th>
<th>No. Of Post menopausal women affected</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological Symptoms</td>
<td>Depression</td>
<td>12</td>
<td>40.2%</td>
</tr>
<tr>
<td></td>
<td>Irritable</td>
<td>8</td>
<td>26.6%</td>
</tr>
<tr>
<td></td>
<td>Anxious</td>
<td>7</td>
<td>23.3%</td>
</tr>
<tr>
<td></td>
<td>Exhausted (physical &amp; mental)</td>
<td>26</td>
<td>86.6%</td>
</tr>
<tr>
<td>Somato-vegetative symptoms</td>
<td>Hot flushes/ Night sweat</td>
<td>10</td>
<td>33.3%</td>
</tr>
<tr>
<td></td>
<td>Cardiac problems</td>
<td>8</td>
<td>26.6%</td>
</tr>
<tr>
<td></td>
<td>Sleeping disorders</td>
<td>17</td>
<td>56.6%</td>
</tr>
<tr>
<td></td>
<td>Joint &amp; muscle discomfort</td>
<td>23</td>
<td>76.6%</td>
</tr>
<tr>
<td>Urogenital Symptoms</td>
<td>Sexual problems</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Bladder problems</td>
<td>17</td>
<td>56.6%</td>
</tr>
<tr>
<td></td>
<td>Vaginal dryness</td>
<td>16</td>
<td>53.3%</td>
</tr>
</tbody>
</table>

**Table no.2 :** Demographic representation of Percentage of the sub-scale of Menopause Rating Scale (MRS).

<table>
<thead>
<tr>
<th>Menopausal Symptoms</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological symptoms</td>
<td>34.44%</td>
</tr>
<tr>
<td>Somatological Symptoms</td>
<td>44.66%</td>
</tr>
<tr>
<td>Urogenital Symptoms</td>
<td>20.66%</td>
</tr>
</tbody>
</table>
Table no 3: Demographic representation of Menopausal symptoms according to age group.

<table>
<thead>
<tr>
<th>Age group</th>
<th>Psychological Symptoms</th>
<th>Somatic Symptoms</th>
<th>Urogenital Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>40-50 yrs</td>
<td>40%</td>
<td>80%</td>
<td>40%</td>
</tr>
<tr>
<td>51-60 yrs</td>
<td>68%</td>
<td>78%</td>
<td>42%</td>
</tr>
<tr>
<td>61-70 yrs</td>
<td>76%</td>
<td>83%</td>
<td>40%</td>
</tr>
<tr>
<td>71-80 yrs</td>
<td>54%</td>
<td>80%</td>
<td>60%</td>
</tr>
</tbody>
</table>

Table no. 4- Demographic representations of frequency of menopausal symptoms during years spend in menopause.

<table>
<thead>
<tr>
<th>Years spend in menopause</th>
<th>Psychological Symptoms</th>
<th>Somatic Symptoms</th>
<th>Urogenital Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10 yrs</td>
<td>64%</td>
<td>94%</td>
<td>42%</td>
</tr>
<tr>
<td>11-20 yrs</td>
<td>72%</td>
<td>83%</td>
<td>40%</td>
</tr>
<tr>
<td>21-30 yrs</td>
<td>58%</td>
<td>80%</td>
<td>61%</td>
</tr>
</tbody>
</table>

Fig. 5 Correlation between MRS & age by Pearson’s correlation coefficient

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As presented in figure (5, 6) the correlation between the participant’s age and menopausal symptoms showed statistically insignificant (p >0.7888) i.e correlation coefficient r= 0.05105. Hence a negative correlation. Representing, as age increases there is no increase in the menopausal symptoms. The correlation between the years spend in menopause and menopausal symptoms showed considerable significant (p >0.0155) i.e. correlation coefficient r= 0.04379. Thus results show that after onset of menopause as age increases gradually there is increase in the symptoms. Hence shows positive correlation.

**Discussion:**

The results of present study denotes, the mean age of menopause was 48.9±3.2years ranging from 45-52 years, which is somewhat earlier in Indian women as compared to western countries which slightly higher, 51.14±2.11 years worldwide\(^7\). For instance an average menopause age of 50-51 was reported in studies on women in the USA, Italy, Iran and Slovenia, whereas the average age was reported as being between 47 and 50 in Korea, Lebanon, Turkey, Singapore, Greece, Morocco, Mexico and Taiwan\(^{6,11-16}\) However, comparing with other research our findings still falls between normal ranges of menopausal age \(^{14-15}\).
Some studies show the common symptoms of menopause are hot flushes and/or night sweats, trouble sleeping, vaginal dryness, mood swings, trouble focusing, impaired memory, nervousness, bone and joint complaints, experience an age-related decline of physical and mental capacity. (Shahedur Rahman, 2011). These menopausal symptoms are directly resulted from depletion of oestrogen level as women approaches menopausal stage and some of these women begin to experiences these menopausal symptoms early in the perimenopausal phase, hence they experience more of vasomotor symptoms i.e 75% followed by psychological symptoms. Urogenital symptoms are mostly seen in post menopause women. (Rahman SASA, 2010).

Role of physiotherapy in women’s health plays an important role in multidisiplinary approach to prevent and manage these menopausal symptoms. Physiotherapists use strength training, manual therapy, balance training, ergonomic advice, postural re-education, relaxation techniques, deep breathing exercises, weight bearing exercises and behavioural modifications. Hence this study is useful to assess of the menopausal symptoms in perimenopausal and postmenopausal women. Menopausal symptoms experienced by these women can be severe enough to affect their normal lifestyle. Hence by treating menopausal symptoms in early phase may improve the quality of life of these women as she is going to spend her 1/3rd of life in menopause. Women consulting a physician in this specific period can easily deal with the problems related with the menopause. Also early detection of menopausal risks can be managed. Menopause is a negative event in every woman’s life, so we have to spend more effort to promote a positive attitude towards menopause. Also to study the changes taking place in women after menopause, it’s after effects and coping strategies.

The classical presentation of menopause symptoms were physical and mental exhaustion (86.60%), feeling tired, joint and muscular discomfort (76.60%) which is quite similar when compare to other study(11,12,17). The other classical presentation of menopause symptoms; hot flushes and sweating (33.30%); irritability (26.6%); cardiac discomfort (26.6%); anxiety (23.30%) were noted to be lower in comparison to findings from studies done on western women which were reported to be from 45% to 75%. However, our findings of low menopausal classical symptoms were shared by studies done in other Asian countries. (6,8,11,14). Our findings were also corresponding to study conducted among Bangladesh and Malaysian women. (6,11)

In our study, vasomotor/ somatic symptoms were experienced most by late perimenopausal and early postmenopausal women, which was followed by psychological and urogenital symptoms; this may be because
of the low, unreliable Progesterone and fluctuating Oestrogen.\textsuperscript{10,19} As menopause is a natural process which occurs as a part of woman’s normal aging process. It results in atresia of almost all oocytes in ovaries, causing increase in FSH and LH levels and thus decreasing in oestrogen levels. This decrease in production of oestrogen leads to perimenopausal symptoms of hot flashes, insomnia, mood changes, generalized physical and mental exhaustion as well as post menopausal symptoms like vaginal atrophy, bladder problems, and osteoporosis\textsuperscript{10}.

The body’s overall vascular and neural functions are closely related.\textsuperscript{11} After the onset of menopause, initially there are more complaints of vasomotor and psychological symptoms, so as years increase, there is gradual increase in the symptoms due to fluctuation of Oestrogen levels. Later, the vasomotor and psychological symptom fades; resulting in urogenital symptoms. Urogenital symptoms occur due to atrophic changes in vaginal wall and the epithelium of bladder makes them more prone to infection (UTI, vulvitis). Thus correlation between them found in this study was considerable significant. Hence there is positive correlation. After the onset of menopause as age increases there is increase in the menopausal symptoms. No such study has been documented before.

However in our study, variability was seen in symptoms according to age group i.e. 80% of vasomotor symptoms are seen in 40-50 age group, in which particular symptoms of physical and mental exhaustion, joint discomfort and sleep disorders were experienced more and fewer symptoms of hot flushes and night sweats were noted. While in 51-60 age group mental exhaustion and irritability was less. While from 61 – 80 age group urogenital symptoms were experienced more. Similar study was done in Srinagar and J& K which resulted in statistical insignificant.\textsuperscript{5} Thus correlation between the particular age group and that of symptoms in our study was also found to be insignificant. Hence there is negative correlation showing as age increases there is no increase in the menopausal symptoms.

**Study limitations:** Although attempts were made to Ensure – study population was a representative as a general population owing to sampling technique won’t be possible. Another limitation was, as cross sectional study, it does not exclude other confounding effects of natural aging process that may influence experience of symptoms. This study used modified MRS, a self- administrated questionnaire, and this was not possible among our study group due to their low educational level. In collecting data, women were asked to provide some retrospective information, such as menopausal symptoms experienced in the receding one month, last menstruation etc. Hence recall bias is unavoidable, especially for some elderly women. This study also lack information on regularity of menstruation. Some subjects could have been misclassified.
into the incorrect menopause status group.\textsuperscript{6,11} The present study is an interim study; we need more sample size for its validity.

\textbf{Conclusion:} Thus we may conclude perimenopausal and postmenopausal women experienced higher prevalence of somatic and psychological symptoms. However urogenital symptoms mostly occur in the postmenopausal group of women, similar findings were reported from other studies. Vasomotor symptoms had significantly positive correlation after the onset of menopause.

\textbf{References:}

2. S. Puri, V. Bhatia, C. Mangat; Perceptions of Menopause And Postmenopausal Bleeding In Women Of Chandigarh, India. The Internet Journal of Family Practice, 2008 Vol 6 Number 2.

Date of submission: 20 February 2013
Date of provisional acceptance: 11 March 2013
Date of Final acceptance: 28 March 2013
Date of Publication: 03 April 2013
Source of support: Nil; Conflict of Interest: Nil