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# Menopausal Rating Scale as a Tool for Assessment of Menopausal Symptoms: a Multicentre Study in Middle Aged Women

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## Abstract

**Objective:** to determine the prevalence and severity of commonly reported menopausal symptoms among middle age women using menopausal rating scale.

Study design: Cross sectional study.

Place and Duration: this multicentre study was conducted at Benazir Bhutto hospital, Shifa International hospital, Holy Family Hospital and Punjab Employee Social Security Hospital Islamabad from 1<sup>st</sup> January 2007 till June 30<sup>th</sup> 2013.

**Methodology:** two hundred women, 50 from each hospital, beyond 45 years of age with amenorrhoea of 1 year were included in the study. Women with surgical menopause were excluded. The main outcome measures were to identify the women with menopausal symptoms and to find out the prevalence and severity of menopausal symptoms, using menopausal rating scale. Secondary outcome measure was to find out the mean age of menopause among the study population.

**Results:** mean age of women in the study was found to be 52 years. Mean age of menopause was found to be 49 years. Eighty (40%) patients were illiterate and all of them were house wives.

Most commonly reported menopausal symptom was joint problem i.e. 180(90%) of patients followed by depressive mood 170( 85%), insomnia 160(80%), palpitations 140 (70%), anxiety 130(65%),hot flushes 120(60%), bladder symptoms 60(30%), sexual problems 36(18%) and forgetfulness 20(10%).

Twenty (10%) reported no or mild symptoms, 40(20%) mild, 80(40%) moderate and 60(30%) as symptoms to be of severe degree. In our study menopausal rating scale ranged from 7-20 with a mean

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Authorship Contribution: <sup>1</sup>conceived, literature review , Data collection, <sup>3</sup>Data Analysis, <sup>2</sup> Reviewed the Study.

of 14.

**Conclusion:** the prevalence of menopausal symptoms using menopausal rating scale in this study corresponds with the other Asian studies. Menopausal rating scale is a comprehensive and reliable tool not only for identification of women with menopausal symptoms but also for finding out the prevalence and severity of the latter.

**Key words:** menopausal rating scale, Menopause, hot flush, Menopausal symptoms.

## Introduction

Menopause is recognised as permanent cessation of menstruation. It is a dynamic neuro-endocrine change associated with physical and psychological symptoms.<sup>1</sup>

Menopause is a physiological event, a transition in life that occurs in all women who reach mid life.

Modern medicine has significantly prolonged human life span.<sup>2</sup> All women who live long enough will make transition to menopause.<sup>3</sup> Menopausal symptoms directly result from depletion of oestrogen level.<sup>4</sup>

Oestrogen deficiency is associated with symptoms like hot flushes, night sweats, insomnia & vaginal dryness.<sup>5</sup>

Many other symptoms like joint pain, muscle pain, palpitations, forgetfulness and depression are associated with menopause, although these may not be directly related to oestrogen deficiency. Osteoporosis is an important associated disorder. Studies show that vasomotor, sexual and psychological symptoms are more prevalent the perimenopausal and postmenopausal women as compared to the premenopausal women.<sup>6</sup> Women in western countries tend to be better informed about menopause,<sup>7</sup> however women in eastern societies view menopause as a natural process and hold a positive attitude.<sup>8</sup> In Muslim world menopause is perceived as a 'life transition' in a positive way as growing wise and accepting aging as a part of life.<sup>9</sup> Unfortunately majority of women are unaware of the changes that will result in their life after menopause.<sup>10</sup>

To measure and assess symptoms during the menopausal transition, various tools have been designed. One of these tools is 'menopausal rating scale' as shown in Appendix 1. The purpose of menopausal rating scale is not only to measure the menopause specific health related quality of life but also to measure the severity of menopause related complaints.<sup>11</sup> The menopausal rating scale is well accepted internationally. Translations have been performed following international methodological recommendations for the linguistic and cultural adaptations of health related quality of life instruments.<sup>12</sup>

The menopausal rating scale is composed of 11 items, divided into three subscales:

- (a) Somatic symptoms (hot flushes, palpitation, ansomnia, muscle aches and joint pain)
- (b) Psychological symptoms (Mood changes, irritability, anxiety, fatigueability and mental exhaustion)
- (c) Urogenital & sexual problems (Urgency and Urg-incontinence, Stress incontinence and dyspareunia)

Each of the eleven symptoms contained a scoring scale from "0" (no symptom), "1" (Mild symptoms), 2(Moderate symptoms), "3" (Severe Symptoms) to "4" (very severe symptoms).

This multicentre study was conducted to determine the value of Menopause Rating Scale in assessing the menopausal symptoms in postmenopausal women and to assess the mean age of menopause. Menopause Rating Scale questionnaire is a self-administered instrument which has been widely used and validated

and has been used in many clinical and epidemiological studies to assess the severity of menopausal symptoms.<sup>13</sup>

## Methodology

A cross sectional multicentre study was conducted at Benazir Bhutto hospital Rawalpindi, Shifa International hospital Islamabad, Holy family hospital Rawalpindi and Punjab Social security hospital Islamabad from 1<sup>st</sup> January 2007 till June 30<sup>th</sup> 2013.

The women included in this study were beyond 45 years of age with amenorrhea of more than one year duration. A Menopause Rating Scale chart comprising of 11 symptoms, each rated on a four point scale of severity was filled for each woman to find out the menopausal symptoms (Appendix 1).

Menopause Rating Scale questionnaire was used as a basis for assessing menopausal symptoms in this study. The questionnaires have been validated and translated in many languages. It is a self-administrated questionnaire form however, in our study, modification had to be done. In order to minimize the reporting error it was explained to the patients, by face to face interview method, keeping in view their educational status.

After taking informed consent, face-to-face interviews were conducted by health personnel, as this was important for right documentation, and women were explained about the questions if they were in doubt or unclear.

Socio demographic variables, like age of the patients, time since menopause, marital status, educational status and their profession were also recorded. Data was analysed on SPSS version 15 and results were presented in the form of tables and graphs

## Results

In this study a total of 200 women fulfilling the criteria

were interviewed. Mean age of the women was 52+ 1.44 years (range 45-55). Mean age of menopause was 49+ 0.84 years (range 49-51 years). Mean duration of menopause was found to be 3 + 1.55 years. Regarding the educational status 60(30%) were illiterate, 100(50%) were educated till primary, 30 (15%) till middle while 10(5%) were graduates. Majority of the women 180 (90%) were house wives and only 20(10%) were doing job presently.

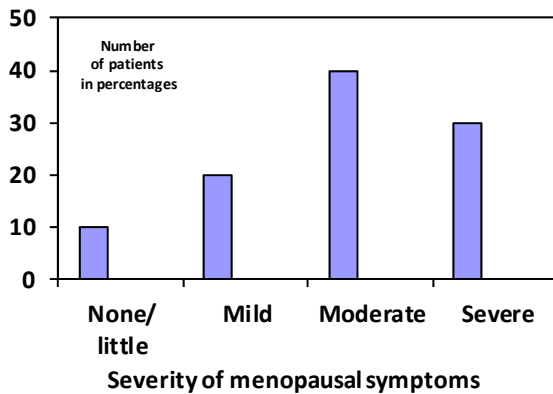
Most common menopausal symptom reported was joint problem by 180 (90%) patients followed by depressive mood (85%), insomnia (80%), palpitation (70%), anxiety (65%), hot flushes (60%), bladder symptoms (30%) and minimum frequent symptoms were forgetfulness in 21(10%) patients.

In table I distribution of menopausal symptoms in all four hospitals is given which shows that joint problem Medical Management of Ectopic Pregnancies with Injection Methotrexate was most frequent symptom in the patients followed by depressive mood. The distribution of menopausal symptoms in the four hospitals and prevalence of menopausal symptoms are shown in table I.

**Table I. Distribution and Prevalence of menopausal symptoms in participating hospitals.**

Menopausal Symptoms	Benazir Bhutto Hospital (n=50)	Shifa Int. Hospital (n=50)	Holy Family Hospital (n=50)	Social Security Hospital (n=50)	Total (n=200)
Joint problems	46	45	46	43	180(90%)
Depressive mood	42	44	44	40	170(85%)
Insomnia	36	40	44	40	160(80%)
Palpitation	32	34	36	38	140(70%)
Anxiety	30	32	40	28	130(65%)
Hot flushes	30	36	30	24	120(60%)
Bladder symptoms	15	10	20	15	60(30%)
Sexual problems	8	10	12	6	36(18%)
Forgetfulness	5	6	4	5	20(10%)

Severity of menopausal symptoms shows that majority (40%) of the patients presented with moderate symptoms and (30%) patients presented with severe menopausal symptoms. In 20% patients mild symptoms were found and 10% patients presented with none/ little symptoms as shown in figure 1.



**Figure 1: Severity of menopausal symptoms**

## Discussion

The menopause is receiving increasing attention in research studies due to increasing life expectancy of women and increase in postmenopausal life span.

Mean age of menopause, in our study, was found to be 49 years, while in the west it is (50.3)<sup>12</sup> years. It is higher as compared to other developing countries where it is found to be from 45 to 47 years.<sup>14</sup> In Thailand it is found to be 48 years.<sup>15</sup> While in India mean age of menopause is 48 years.<sup>16</sup> In Pakistan mean age at menopause is found to be 49 years which is indicated in a study conducted in rural areas of Lahore<sup>17</sup> and 49 years in Karachi.<sup>18</sup> All studies in Pakistan including ours shows mean menopausal age to be lower than western countries.

Symptoms experienced during menopause are influenced by social and cultural beliefs and this results in altered perception of symptoms in different population. Eighty percent of western women suffer from physical and psychological symptom at

menopause<sup>19</sup> the most frequently reported symptoms were hot flushes (74%), sleeplessness (58%), mood changes (57%), irritability (53%) and reduced sex drive (45%).<sup>20</sup>

One of the classical symptoms of menopause is hot flushes. In our study its prevalence is found to be 60%. In an Egyptian study it was found to be 90%.<sup>21</sup> Reason of this gross difference may be difference in life style and dietary habits. In most women, hot flushes resolve within few years of menopause, but some women report this symptom for many years after the cessation of menstruation.<sup>22</sup> It is not clear why these symptoms resolve in some women and persist in the other.

Several studies have been conducted to investigate postmenopausal symptoms among women in different countries and these suggest that menopausal status and symptoms vary across racial/ ethnic groups.<sup>23</sup>

Studies reported from Asian region show different results. The most prevalent symptoms reported in Asian population were joint and muscular discomfort in (80.1%), physical and mental exhaustion (67.1%), insomnia (52.2%) followed by symptoms of hot flushes and sweating (41.6%), irritability (37.9), dyspareunia (37.9%), anxiety (36.5%) and depressive mood (32.6%). Among the less commonly reported symptoms were sexual problem (30.9%) and bladder related complaints (13.8%).<sup>24</sup>

In Japanese population commonest symptoms were found to be musculoskeletal symptoms, vasomotor symptoms and psychological symptoms.<sup>25</sup>

In our study most commonly reported symptoms were joint problem 180(90%), depressive mood 170 (85%), insomnia 160 (80%), palpitations 140 (70%), anxiety 130 (65%), hot flushes 120(60%), bladder symptoms 60 (30%), sexual problems 36 (18%) and forgetfulness 20 (10%). Symptoms reported from different regions of Pakistan are also different. Commonest symptoms

reported from Punjab were lethargy 65.4%, urinary symptom 56.2% and agitation 50.8%.<sup>26</sup> A study from Sindh found somatic, psychological and uro-genital symptoms to be the most common in that population.<sup>27</sup>

## Conclusions

This study concludes that menopausal rating scale is a reliable tool to assess the severity of menopausal symptoms and their effect on quality of life of women. It is also helpful in follow up of these women if they are treated with hormone replacement therapy for these symptoms, etc.

**Study limitation:** Although attempts were made to ensure the study population to be the true representative of general population of Rawalpindi and Islamabad, nevertheless it has to be stated owing to the sampling technique used that this might not have been entirely possible. As the patients presenting in hospital with the menopausal symptoms were included in this study

### Appendix 1. Validated items of the Menopause Rating Scale

Rating Scale Item	Description
1	Hot flushes, sweating (episodes of sweating)
2	Heart discomfort (unusual awareness of heart beat, heart skipping, heart racing, tightness)
3	Sleep problems (difficulty falling asleep, difficulty in sleeping through the night, waking up too early)
4	Depressive mood (feeling 'down', sad, on the verge of tears, lack of drive, mood swings)
5	Irritability (feeling nervous, inner tension, feeling aggressive)
6	Anxiety (inner restlessness, feeling 'panicky')

7	Physical and mental exhaustion (general decrease in performance, impaired memory, decrease in concentration, forgetfulness)
8	Sexual problems (change in sexual desire, in sexual satisfaction) activity and
9	Bladder problems (difficulty in urinating, increased need to urinate, bladder incontinence)
10	Dryness of vagina (sensation of dryness or burning in the vagina, difficulty with intercourse)
11	Joint and muscular discomfort (pain in the joints, rheumatoid complaints)

**Conflict of Interest & Funding:** none

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