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Original Research Article

Assessment of menopausal symptoms using modified menopause rating scale among urban women doctors of India

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ABSTRACT

Background: The study was conducted to assess the commonly reported menopausal symptoms among urban women doctors using modified menopause rating scale (MRS).

Methods: The study was carried out in the society by google link. Convenient sample of 100 women doctors were included in the study. Menopausal symptoms were assessed using modified MRS.

Results: In present study, 3 (3%) female doctors had premature menopause, 5 had menopause at 40-44 years, 15 (15%) had menopause at 45-49 years, 77 (77%) had menopause while no patient had menopause after 55 years. Hot flushes were seen in 70 (79%) women, heart discomfort/ palpitation was seen in 2 (2%) women, muscle and joint problems were seen in 30 (30%) women, sleeping problems were seen in 20 (20%) women. Depressive mood was seen in 2 (2%) women, irritability was seen in 12 (12%) women, an anxiety was seen in 22 (22%) women while physical and mental exhaustion was seen in 34 (34%) women. Sexual problems were seen in 32 (32%) women, bladder problems were seen in 8 (8%) women dryness of the vagina was seen in 35 (35%) women (Table 6).

Conclusions: Hot flushes and joint problems were the most common followed by urogenital symptom, sleep disturbance, and anxiety in the study. Menopausal symptoms were less prevalent. Busy schedule, self-confidence due to independent nature and constructive work might be the reason.

Keywords: Menopausal symptoms, MRS, Observational cross-sectional study

INTRODUCTION

The world health organization defines menopause as the permanent cessation of menstruation as a result of the loss of ovarian activity.¹ The menopausal symptoms directly result from depletion of estrogen level as women approaches menopausal stage. Some of these women

experience menopausal symptoms early in the perimenopausal phase.¹

Menopause is defined as complete cessation of menstruation for twelve months or more. It is a normal physiological change experienced by middle age women.² This transition from a potentially reproductive to a non-reproductive state is due to the changes in female hormonal production by the ovaries.³

Menopause is a natural process resulting in atresia of almost all oocytes in ovaries. It causes an increase in follicle-stimulating hormone and luteinizing hormone levels and a decrease in estrogen levels. This decrease in estrogen levels cause perimenopausal symptoms.⁴

Menopause occurs at an average age of 52 years with a range of 40 to 58 years. In the current situation, there is better availability of health services so the life expectancy has increased. So, women are more likely to spend a significant part of their life during this phase of menopause.⁵

The average age of menopause in Indian women is 47.5 years according to Indian menopause society (IMS) research. It is much less than their western counter parts (51 years). So, menopausal health demands even higher priority in Indian scenario.⁶

In India, an average female life expectancy in 2011 was 68 years and is projected to 73 years by 2021.⁷

The common climacteric symptoms experienced by women can be group into: vasomotor, physical, psychological or sexual. In some postmenopausal women with long term estrogen deficiency, changes in the cardiovascular or bone were seen which leads to osteoporosis. Menopausal symptoms experienced by women affect their quality of life.⁸

MRS questionnaire is used as a basis for assessing menopausal symptoms. This is a self-administered instrument which has been widely used and validated. It has been used in many clinical and epidemiological studies, and in research on the etiology of menopausal symptoms. It is used to assess the severity of menopausal symptoms.⁹

Genitourinary syndrome of menopause (GSM) is characterized by changes in the levels of sex hormones which results in changes in the labia majora and minora, clitoris, vestibule, vagina, urethra, and bladder.¹⁰

The genitourinary syndrome that occurs during menopause causes dryness and dyspareunia, staining or bleeding, burning, discomfort, and irritability.¹⁰

Aims and objectives

Aim and objectives were to assess menopausal symptoms in urban female doctors.

METHODS

This is an observational cross-sectional study carried out in the society by google link. Convenient sample of 100 women doctors were included in the study. Menopausal symptoms were assessed using modified MRS) in December 2021. Doctors between 40 years and 70 years were enrolled for the study.

Inclusion criteria

Women of age 40-70 years having natural menopause and women who gave consent to participate in the study were included in the study.

Exclusion criteria

Women with artificial menopause like after hysterectomy, radiation or chemotherapy, pregnant and breast-feeding women, women with uncontrolled medical conditions such as hypertension, diabetes mellitus or heart disease, women who were undergoing treatment for serious diseases like cancer or who were in remission, women who had history of drug or alcohol abuse, women who were on hormone replacement therapy and women who did not give consent to participate in the study were excluded from the study.

MRS as a guide, a questionnaire was prepared for assessing menopausal symptoms.

MRS is composed of 11 items and is divided into three subscales, somatic, psychological and urogenital. Accordingly, questionnaire was prepared (Table 1).

Table 1: The study tool modified MRS questionnaire.

S. no.	Demographic study characteristics of study subjects
1.	Age (Years)
2.	Marital status
3.	Education
4.	Working status
5.	Income class
6.	Menopausal characteristic of study subjects
7.	Menopausal status
8.	Somatic symptoms
9.	Hot flushes
10.	Heart discomfort/palpitation
11.	Sleeping problems
12.	Muscle and joint problems
13.	Psychological symptoms
14.	Depressive mood irritability
15.	Anxiety
16.	Physical exhaustion
17.	Mental exhaustion.
18.	Urogenital symptoms
19.	Sexual problems
20.	Bladder problems
21.	Dryness of the vagina

All the doctors who fulfilled the criteria were invited to participate with informed verbal consent. Women were interviewed by google link. They were asked about their experience of 11 menopausal symptoms. Other parameters including demographic data were also collected.

All the parameters were separately analyzed.

The menopausal status was classified according to STRAW (Stages of reproductive aging workshop) classification. It divides menopause into: Postmenopausal: no menstrual bleeding in last 12 months. 2. Late perimenopause: had menstruation in last 2-12 months but not in last 2 months. 3. Early perimenopause: had increasing irregularity of menses without skipping periods and 4. Premenopausal: minor changes in cycle length particularly, decreasing length of cycle.

RESULTS

In present study, 3 (3%) female doctors had premature menopause, 5 (5%) had menopause at 40-44 years, 15 (15%) had menopause at 45-49 years, 77 (77%) had menopause while no patient had menopause after 55 years (Table 2).

Table 2: Age at menopause of study subjects.

Age at menopause (Years)	No. of subjects	Percentage (%)
<40	3	3
40-44	5	5
45-49	15	15
50-54	77	77
>55	0	0

In present study, 80 (80%) women were postmenopausal, 15 (15%) were perimenopausal and 5 (5%) women were premenopausal (Table 3).

Table 3: Menopausal status of study subjects, (n=100).

Menopausal status	No. of subjects	Percentage (%)
Premenopausal	5	5
Perimenopausal	15	15
Postmenopausal	80	80

In present study, hot flushes were seen in 70 (70%) (60-78.7%, 95% CI) women, heart discomfort/palpitation was seen in 2 (2%) (0.24-7.04%, 95% CI) women, muscle and joint problems were seen in 30 (30%) (21.2-40.0%, 95% CI) women, sleeping problems were seen in 20 (20%) (12.7-29.2%, 95% CI) women (Table 4).

Table 4: Somatic symptoms of subjects, (n=100).

Somatic symptoms	No. of subjects	Percentage (95% CI)
Hot flushes	70	70 (60-78.7%)
Heart discomfort or palpitation	2	2 (0.24-7.04%)
Sleeping problems	20	20 (12.7-29.2%)
Muscle and joint problems	30	30 (21.2-40.0%)

In present study, depressive mood was seen in 2 (2%) (0.24-7.04%, 95% CI) women, irritability was seen in 12 (12%) (6.4-20.0%, 95% CI) women, an anxiety was seen in 22 (22%) (14.3-31.4%, 95% CI) women while physical and mental exhaustion was seen in 34 (34%, (24.8-44.2%) women (Table 5).

Table 5: Psychological symptoms in subjects, (n=100).

Psychological symptoms	No. of subjects	Percentage (95% CI)
Depressive mood	02	2 (0.24-7.04%)
Irritability	12	12 (6.4-20.0%)
Anxiety	22	22 (14.3-31.4%)
Physical and mental exhaustion	34	34 (24.8-44.2%)

In present study, sexual problems were seen in 32 (32%) (23-42%) (3.5-15.25%) 95% CI women, bladder problems were seen in 8 (8%) 95% CI women dryness of the vagina was seen in 35 (35%) (25.7-45.2%) 95% CI women (Table 6).

Table 6: Urogenital symptoms of subjects, (n=100).

Urogenital symptoms	No. of subjects	Percentage (95% CI)
Sexual problems	32	32 (23-42%)
Bladder problems	8	8 (3.5-15.25%)
Dryness of the vagina	35	35 (25.7-45.2%)

DISCUSSION

In present study, majority of 92 (92%) subjects had menopause at normal age (Table 2).

Similar to our study, Velez et al found that mean ANM was 49.8 (95% confidence interval: 49.7-50.0). Premature menopause was present in 3.8% of women and early menopause in 8.7%.¹¹

In present study, majority of 80 (80%) women were postmenopausal, 15 (15%) were perimenopausal and 5 (5%) women were premenopausal (Table 3).

Similar to our study, Rahman et al found that 23.96% were premenopausal, 42.43% perimenopausal and 33.59% postmenopausal.¹²

Similar to our study, Resmi et al found that out of 400 women, 28 (7%) were premenopausal. The 55 (13.8%) perimenopausal and 156 (39%) postmenopausal, n=161, 40.3% did not have any change in cycle length.¹³

In present study, hot flushes were seen in majority i.e., 70 (70%) (60-78.7%, 95% CI) women, muscle and joint problems were seen in 30 (30%) (21.2-40.0%, 95% CI)

women, sleeping problems were seen in 20 (20%) (12.7-29.2%, 95% CI) women (Table 4).

Contrast to our study, Armo et al found that the most prevalent menopausal symptom in 180 (90.45%) women out of 199 were, joint and muscular discomfort, bladder problems in 175 (87.93%) women, vaginal dryness in 164 (82.41%) women, mental and physical exhaustion in 159 (79.89%) women and sleep problems in 157 (78.89%) women.¹⁴

Contrast to our study, Syed et al found that most common symptoms were joint and muscular discomfort (80.1%). Physical and mental exhaustion were seen in (67.1%); and sleeping problems in (52.2%). Hot flushes and sweating were seen in (41.6%); irritability in (37.9%); dryness of vagina in (37.9%); anxiety in (36.5%). Depressive mood was seen in (32.6%), sexual problem in (30.9%); bladder problem in (13.8%) and heart discomfort in (18.3%). Perimenopausal women (n=141) experienced higher prevalence of somatic and psychological symptoms compared to premenopausal (n=82) and postmenopausal (n=133) women. Urogenital symptoms mostly occur in the postmenopausal group of two women.¹⁵

Similar to our study, Gharaibeh et al found that vasomotor signs were the highest manifested by hot flushes and night sweats. Women in the perimenopausal period had more frequent complaints of menopausal symptoms compared to premenopausal and postmenopausal women. Postmenopausal women reported higher scores for sexuality symptoms. There was a significant relationship between the severity and occurrence of menopausal symptoms and age, family income, level of education, number of children, perceived health status and menopausal status.¹⁶

In present study, anxiety was seen in 22 (22%) (14.3-31.4%, 95% CI) women while physical and mental exhaustion was seen in 34 (34%, (24.8-44.2%) women (Table 5).

Contrast to our study, Khatoon et al reported that the most prevalent menopausal symptom was joint and muscular pain 261 (87%). Depressive mood was seen in 210 (70%). Heart discomfort was seen in 181 (60.3%), physical and mental exhaustion in 180 (60%), sleep problems in 168 (56%), hot flushes in 160 (53.3%), irritability in 140 (46.6%), anxiety in 121 (40.3%), bladder problems in 78 (26%), dryness of vagina in 69 (23%) and sexual problems in 60 (20%).¹⁷

In present study, 2 problems were seen equally, sexual problems were seen in 32 (32%) (23-42%) (3.5-15.25%) 95% CI women, dryness of the vagina was seen in 35 (35%) (25.7-45.2%) 95% CI women (Table 6).

Similar to our study, Simon et al reported that 64% of women had painful sexual intercourse and loss of libido. 58% of women avoided sexual intercourse.¹⁸

Contrast to our study, Karakoç et al found that the incidence of GSM in less educated women was 0.61 times (p=0.004) higher than highly educated women. In women with chronic illness, it was 0.44 times (p=0.042) higher than that in those without. In women with urinary incontinence, it was 2.45 times higher (p=0.000) than that in those without.¹⁹

Limitations

Limitations of the study were-small sample size, case control study needed. Pertaining investigations and treatment to be included.

CONCLUSION

Hot flushes and joint and muscle problems were the most commonly reported ones followed by urogenital symptom, sleep disturbance, and anxiety in the study.

Menopausal symptoms were less prevalent among middle-aged women in this study. Busy schedule, self-confidence due to independent nature and constructive work might be the reason of being menopausal symptoms less prevalent.

Finally, the government could concentrate on providing health services by incorporating components specific to menopause in the national health program.

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Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. NA. Research on the menopause in the 1990s. Report of a WHO scientific group. World Health Organ Tech Rep Ser. 1996;866:1-107.
2. Rahman SASA, Zainudin SR, Kar Mun VL. Assessment of menopausal symptoms using modified Menopause Rating Scale (MRS) among middle age women in Kuching, Sarawak, Malaysia. *Asia Pacific Family Med.* 2010;9:5-10.
3. Avis NE, Colvin A, Bromberger JT. Change in health-related quality of life over the menopausal transition in a multiethnic cohort of middle-aged women: study of Women's Health across the Nation (SWAN). *Menopause.* 2009;16(5):860-9.
4. Mustaq S. Post-menopausal women: a study of their psycho-physical changes with an impact on family. *Anthropologist.* 2011;13(2):131-5.
5. Khatoon F, Sinha P, Shahid S, Gupta U. Assessment of menopausal symptoms using modified menopause rating scale (MRS) in women of Northern India. *Int J Reprod Contracept Obst Gynecol.* 2018;7(3):947-51
6. Unni J. Third consensus meeting of Indian Menopause Society 2008 A summary. *J Midlife Health.* 2010;1(1):43-7.

7. WHO Scientific Group on Research on the Menopause in the 1990s (1994: Geneva, Switzerland) & World Health Organization, (1996). Research on the menopause in the 1990s: report of a WHO scientific group. Available at: <https://apps.who.int/iris/handle/10665/41841>. Accessed on 15 May 2022.
8. Dhillon HK, Singh HJ, Rashidah S, Abdul Manaf H, Nik Mohd Zaki NM. Prevalence of menopausal symptoms in women in Kelantan, Malaysia. *Maturitas.* 2006;54:213-21.
9. Heinemann LAJ, Potthoff P, Schneider HP: International version of the menopause rating scale (MRS). *Health Qual Life Outcomes.* 2003;1:28
10. Portman D, Gass M. Vulvovaginal Atrophy Terminology Consensus Conference Panel. Genitourinary syndrome of menopause: new terminology for vulvovaginal atrophy from the International Society for the Study of Women's Sexual Health and the North American Menopause Society. *Climacteric.* 2014;557-63.
11. Velez MP, Alvarado BE. Age at natural menopause and physical functioning in postmenopausal women: the Canadian Longitudinal Study on Aging. *Menopause.* 2019;26(9):958-65.
12. Rahman S, Salehin F, Iqbal A. Menopausal symptoms assessment among middle age women in Kushtia, Bangladesh. *BMC Res Notes.* 2011;4:188.
13. Resmi S, Anil Bindu S, Benny PV, Climacteric symptoms among woman in a rural area of Kerala state- A cross sectional study. *Clin Epidemiol Global Health.* 2020;8(4):1341-4.
14. Armo M, Sainik S. Assessment of Menopausal Symptom Using Modified Menopause Rating Scale among Rural Women of Rajnandgaon in Chhattisgarh, a Central India Region. *J South Asian Feder Obst Gynae.* 2020;12(4):209-14.
15. Rahman SR, Zainudin SR, Mun VL. Assessment of menopausal symptoms using modified Menopause Rating Scale (MRS) among middle age women in Kuching, Sarawak, Malaysia, *Asia Pac Fam Med.* 2010;9(1):5.
16. Gharaibeh M, Al-Obeisat S, Hattab J. Severity of menopausal symptoms of Jordanian women. *Climacteric.* 2010;13(4):385-94.
17. Khatoon F, Sinha P, Shahid S, Gupta U. Assessment of menopausal symptoms using modified menopause rating scale (MRS) in women of Northern India. *Int J Reprod Contracept Obstet Gynecol.* 2018;7:947-51
18. Simon J, Nappi R, Kingsberg S. Clarifying vaginal atrophys impact on sex and relationships (CLOSER) survey: emotional and physical impact of vaginal discomfort on North American postmenopausal women and their partners. *Menopause.* 2014;21:137-42.
19. Karakoç H, Uçtu A, Özerdoğan N. Genitourinary syndrome of menopause: effects on related factors, quality of life, and self-care power. *Menopause Review/ Przegląd Menopauzalny.* 2019;18(1):15-22.

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