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Association Between Menopausal Symptoms and Occupational Performance Among Women in Menopausal Transition - A Pilot Study

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Abstract: ***One of the most important life transitions for women is menopause, which is accompanied by a number of physiological changes that have long-lasting effects on a woman's quality of life. Aim: To find the association between menopausal symptoms & occupational performance among women in menopausal transition living in the community of Eastern suburb of Mumbai. Materials and methods: Study was conducted among 53 women with the age 45-55 years. Menopause Rating Scale (MRS) was used to assess menopause related symptoms and occupational performance was measured on 3-point Likert's scale stating how much percentage of occupational performance was affected due to severity of menopausal symptoms. Results: The mean age of the participants was 48.38 ± 3.16 years & the average MRS score was 22.70 ± 4.3. Majority of the women reported moderate symptoms for hot flashes (43.4%), sleep disturbances (62.3%), depressive mood (64.2%), anxiety (41.5%). A statistically significant association was observed between menopausal symptom severity and occupational performance (p = 0.0028), suggesting that increased symptom severity may adversely impact women's functional roles. Conclusion: The study found that the severity of menopausal symptoms inversely affects the occupational performance among women in menopausal transition.***

Keywords: Menopausal symptoms, occupational performance, women's health, functional decline, Mumbai community

1. Introduction

Menopause is physiological process which signals the end of the reproductive phase in the lives of women. For most women, natural menopause takes place between the ages of 45 and 55 years.[1]

The onset of menopause is associated with varied symptoms like vasomotor symptoms, sleep disturbances, mental disorders, physical exhaustion and joint and muscle discomfort.

These symptoms inversely affect their health related quality of life as well as occupational performance.[2] Occupational performance means "the ability to choose, organize, and satisfactorily perform meaningful occupations that are culturally defined and age appropriate for looking after one's self, enjoying life, and contributing to the social and economic fabric of community"[3]

2. Materials and Methods

A prospective cross sectional study in 53 women was conducted in the community of Eastern Suburb of Mumbai. The women with of 45-55 years of age were included in this study. Women undergoing hormone replacement therapy, those with surgical menopause, or a known history of psychiatric illness were excluded. Data collection was conducted after obtaining approval from the Institutional Ethics Committee. Written informed consent was taken from all participants. The duration of the study was one year. Menopause Rating Scale(MRS) was used to assess menopausal symptoms severity and occupational performance was assessed on 3-point Likert's scale.

3. Assessment Measures

1) Menopause Rating Scale (MRS)[4,5]

It comprises of 11 items assessing menopausal symptoms, divided into three subscales. It was developed by **Hauser GA, Huber IC, Keller PJ, Lauritzen C, Schneider HPG** at ZEG Berlin a private research institute in the early 1990s. The time taken to administer MRS questionnaire ranged from 3 to 7 minutes. It is available in 25 languages.

a) Somatic: Hot flushes, heart discomfort, sleep problem and muscles and joint problems.
b) Psychological: depression, irritability, anxiety and physical and mental exhaustion.
c) Urogenital: Sexual problems, bladder problems and dryness of vagina.

Each item can be graded from 0-4, (0= not present), (1=mild), (2=moderate), (3=severe), (4=very severe). The higher the score of a domain, the more severe the problem. A cut off value of score up to 8 revealed good QOL.

2) Occupational performance measure: [6]

The participants were asked to indicate how often the menopausal symptoms interfered and they perceived that their occupational performance was affected by rating on 3-pont Likert's scale where 0= Not at all, 1= < 50 % of the time, 2=> 50 % of the time.

Socio-demographic data were also collected on participants' age, education, employment, marital status, physical activity characteristics.

Statistical Analysis

Data was analyzed using statistical package for social sciences (SPSS v21). Descriptive analysis of data was done

by calculating mean, standard deviation (SD), median. Normality of the data was checked with Shapiro Wilk Test. Correlation analysis was done with the help of Pearson's Correlation Test. Statistical significance was set at $p < 0.05$.

4. Results

Table 1: Socio-demographic factors

	Mean ± SD	
Age (years)	48.38 ± 3.16	
Education level	Illiterate	7(13.2%)
	Primary	19(35.8 %)
	Secondary	14(26.4 %)
	Graduate	13(24.5%)
Marital status	Unmarried	2(3.8)
	Married	49(92.4%)
	Widowed	2(3.8%)
Exercise	Never	31(58.4%)
	<3 days per week	11(20.8%)
	>3 days per week	11(20.8%)

Table 2: Menopause Rating Scale score

Variable	Menopause Rating Scale		
	Mean ± SD	Median (IQR)	Normality Distribution by Shapiro Wilk Test
Menopause Rating Scale	22.70 ± 4.31	22.00 (20.00, 26.00)	p = 0.783; normal

Table 3: Menopause symptoms severity of the participants (n = 53)

Symptoms	None	Mild	Moderate	Severe	Very severe	Total
Hot flashes	0 (0.0%)	6 (11.3%)	23 (43.4%)	**18 (34.0%)**	6 (11.3%)	53 (100.0%)
Heart discomfort	6 (11.3%)	17 (32.1%)	26 (49.1%)	2 (3.8%)	2 (3.8%)	53 (100.0%)
Sleep problems	0 (0.0%)	7 (13.2%)	33 (62.3%)	10 (18.9%)	3 (5.7%)	53 (100.0%)
Depressive mood	4 (7.5%)	11 (20.8%)	34 (64.2%)	4 (7.5%)	0 (0.0%)	53 (100.0%)
Irritability	0 (0.0%)	1 (1.9%)	27 (50.9%)	**22 (41.5%)**	3 (5.7%)	53 (100.0%)
Anxiety	0 (0.0%)	11 (20.8%)	22 (41.5%)	**19 (35.8%)**	1 (1.9%)	53 (100.0%)
Physical exhaustion	0 (0.0%)	7 (13.2%)	26 (49.1%)	16 (30.2%)	4 (7.5%)	53 (100.0%)
Sexual problems	3 (5.7%)	24 (45.3%)	21 (39.6%)	4 (7.5%)	1 (1.9%)	53 (100.0%)
Bladder problems	4 (7.5%)	13 (24.5%)	29 (54.7%)	5 (9.4%)	2 (3.8%)	53 (100.0%)
Vaginal dryness	3 (5.7%)	25 (47.2%)	16 (30.2%)	8 (15.1%)	1 (1.9%)	53 (100.0%)
Joint and muscle discomfort	0 (0.0%)	2 (3.8%)	10 (18.9%)	**33 (62.3%)**	8 (15.1%)	53 (100.0%)

Table 4: Occupational performance score

Variable	Occupational performance		
	Mean ± SD	Median (IQR)	Normality Distribution by Shapiro Wilk Test
Occupational performance	2.19 ± 0.62	2.00 (2.00, 3.00)	p < 0.001; non-normal

Table 5: Correlation between MRS and occupational performance

		MRS	Occupational performance
MRS	Pearson Correlation	1	0.401*
	Sig.(2-tailed)		0.002
	N	53	53
Occupational performance	Pearson Correlation	0.401*	1
	Sig.(2-tailed)	0.002	
	N	53	53

Correlation is significant at the 0.05 level.

5. Discussion

Menopause is described as a period of psychological difficulties that changes the lifestyle of women in multiple ways. Increasing women's awareness and adaptation to menopause can contribute in improving the perception of this stage and the importance of self-care.[7]

Therefore, it is essential to increase women's awareness of and adaptation to menopause, by using health promotional and awareness programs.

Currently, the women's inability to cope with the symptoms of menopause, especially vasomotor, is the most common cause of referral to health centers. Many of the cases, menopause symptoms are so severe that negatively affects their QOL. (Rotem M, Kushnir T et.al,2005)

The women in this study had a mean age of 48.38 ± 3.16 years. A majority (92.4%) were married, 35.8% had education up to the primary level, and over half of the participants reported not engaging in any form of regular exercise**. (Table 1)**

This finding is consistent with previous studies by Amrita S. and Pradeep P. (2017), as well as Divyangkumar N. Patel (2018), which reported that physiological menopause typically occurs between the ages of 45 and 55 among Indian women [8,9,10]

The majority of participants in the present study had education only up to the primary level, which may contribute to a lack of awareness regarding the importance of regular physical activity. Additionally, some participants reported the

absence of suitable walking tracks and living in congested areas as barriers to exercising regularly.

As shown in **Tables 2 and 3,** the mean MRS (Menopause Rating Scale) score was 22.70 ± 4.31, with a median of 22.0, indicating that the women in this study were experiencing severe menopausal distress. According to the findings, 50% of participants reported that the symptoms had a moderate impact on their daily lives. Notably, a considerable proportion of women reported severe symptoms, including hot flashes (34.0%), irritability (41.5%), anxiety (35.8%), and joint and muscle discomfort (62.3%).

Similar findings were reported by Nirmala Rathnayake et al. (2019), where women experienced physical and mental exhaustion (49.5%), joint and muscular discomfort (50.5%), and irritability (41.3%) of mild to moderate severity.[11] Previous studies by Leena A. Joseph (2017) and Laxminarayana Bairy (2009) also highlighted the prevalence of menopausal symptoms such as hot flashes, anxiety, sleep disturbances, physical exhaustion, and joint and muscle discomfort, all of which were found to severely affect women's quality of life. Similar results have also been reported in other studies.[12,13,14]

As shown in **Table 4**, the mean occupational performance score was 2.19 ± 0.62, with a median of 2.00, suggesting that menopausal symptoms had a moderate impact on women's occupational performance. Jennifer Whiteley et al. (2013) examined the effects of menopausal symptoms on quality of life, productivity, and economic outcomes, finding that women experiencing such symptoms reported impaired health-related quality of life (HRQoL), which was associated with decreased productivity [15]

Similarly, Stephanie S. Faubion et al. (2023), in a cross-sectional study, reported a significant negative impact of menopausal symptoms (mean MRS score of 15.6) on performance outcomes, emphasizing the need for more supportive environment.[16]

Thus, it can be evidenced by the significant positive correlation observed between menopausal symptoms and occupational performance scores **(Table 5).**

Limitations of our study include the use of self-reported occupational performance measure was used of which the validity was not confirmed.

6. Conclusion

The present study shows that as symptom severity increases, occupational performance decreases in women. Thus, it is suggestive of need for increased awareness, tailored therapy, and accessible health education to improve productivity in menopausal women.

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