

# A Study to Assess the Psychosomatic Problems of Postmenopausal Women in Slums of Dibrugarh Town, Assam

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## ABSTRACT

**Introduction:** Menopause and the postmenopausal period are very important landmarks in a woman's life since she will spend more than a third of her life during these periods without significant endogenous oestrogen production. Therefore, we have conducted this study to assess the prevalence of psychosomatic problems among postmenopausal women residing in slums of Dibrugarh town, Assam and to determine the socio-demographic factors affecting those problems.

**Method and Materials:** A community based cross-sectional study was conducted amongst 260 postmenopausal women residing in the slums of Dibrugarh town, Assam. Data were collected through house to house visit in each slum by interviewing the postmenopausal women using a pre-designed, pre-tested proforma from June 2014 to May 2015. Data were presented using percentages and mean with standard deviation. Statistical analysis was done using MS Excel 2007 and GraphPad Prism 7. Chi-square test and Fisher's exact probability test was used to test the association wherever necessary.

**Results:** In the present study, the mean age of attaining menopause was  $45.13 \pm 3.84$  years. Prevalence of psychosomatic problems among postmenopausal women were fatigue (60.4%), muscle and joint pain (55.8%), irritability (53.5%), depression (48.5%), weight gain (45.4%), low backache (43.8%), sleep disturbance (41.9%), forgetfulness (40.4%) and constipation (5.0%). Socio-demographic factors were significantly associated to some of the psychosomatic problems.

**Conclusion:** Women need to recognize these symptoms early and seek timely medical care. Camps might be organized atleast on monthly basis in the slums so that women have access to health care for their problems.

**Keywords:** Menopause, Postmenopausal Women, Prevalence, Psychosomatic Problems, Slums

Though menopause is a normal physiological phenomenon, but women at menopausal and postmenopausal age get a variety of symptoms like irritability, lethargy, depression, forgetfulness, weight gain, insomnia, joint and muscle pain and constipation.<sup>7</sup> In India, there has been an alarming increase in the slum population where the most deprived urban population lives.<sup>8</sup> So, the present study was conducted with the objectives to assess the prevalence of psychosomatic problems among postmenopausal women residing in slums of Dibrugarh town, Assam and to determine the socio-demographic factors affecting those problems.

## MATERIAL AND METHODS

The present community based cross-sectional study was conducted between June 2014 and May 2015 on 260 postmenopausal women residing in slums of Dibrugarh town, Assam. The study area selected includes ten registered slums of Dibrugarh town. Considering the prevalence of backache in postmenopausal women to be 60%,<sup>9</sup> relative error of 10% and  $\alpha = 0.05$ , the sample size required was calculated and rounded off to 260.

The total female population of each of the ten registered slums was obtained from the Town and Country Planning Office, Dibrugarh. The number of women aged 40 years and above in each of the slums was estimated considering that approximately 24.2%<sup>10</sup> of the total female population are in that age group. The number of study participants to be included from each slum was determined by proportional allocation.

In each slum, all the consecutive households were visited with a random start at any household until the required number of study subjects in each slum was obtained. At every household the presence of a postmenopausal woman was first ascertained and if present included in the study as per the inclusion and exclusion criteria. Information was recorded in a pre-designed, pre-tested proforma by interviewing the woman.

Inclusion criteria were all women aged 40 years and above having consecutive cessation of menstruation for 12 months or more, who had either natural or surgical menopause and who gave consent to participate in the study. Exclusion criteria

## INTRODUCTION

Menopause is a physiological process, which takes place universally in all women who reach midlife.<sup>1</sup> Midlife is a period of transition for both men and women. It brings about changes in women and it has an implication on women's health. Menopause may be viewed as a transition of women from middle age to old age.<sup>2</sup> Menopause is not just cessation of menstruation it is "depletion of ovarian follicles" leading to decrease in ovarian hormones.<sup>3</sup> Menopause and the postmenopausal period are very important landmarks in a woman's life since she will spend more than a third of her life during these periods without significant endogenous oestrogen production.<sup>4,5</sup>

Natural menopause occurs at or after 40 years of age and has no underlying pathologic cause.<sup>3</sup> Menopause is considered premature or late when it occurs before 40 years and after 55 years, respectively. The commonest age range at which women experience menopause is 45 to 55 years.<sup>6</sup>

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were women with serious illnesses, with any malignancy with or without chemotherapy and/or pelvic radiation, who did not give consent and women who were not present at home on three consecutive visits.

Ethical clearance was obtained from the Institutional Ethics Committee for conducting the study and written informed consent was taken from all the participants.

The socio-demographic variables age, education, marital status and socioeconomic status were noted. Psychosomatic problems were categorized as Psychological problems (depression, irritability and forgetfulness) and Somatic problems (muscle and joint pain, fatigue, low backache, sleep disturbance, weight gain and constipation). The frequency of the individual symptoms was observed in each subject. Symptoms of depression were assessed with the Center for Epidemiologic Studies Depression [CES-D] Scale,<sup>11</sup> a 20-item self-report measure of the frequency and severity of depressive symptoms experienced in the past week. Irritability was assessed with the Born-Steiner Irritability Scale: Self-rating,<sup>12</sup> a 14-item measure of frequency and severity of irritability experienced in the past week. Sleep disturbance was assessed using the Insomnia Severity Index (ISI),<sup>13</sup> a seven-item measure of the symptoms and consequences of insomnia experienced within the past two weeks.

**STATISTICAL ANALYSIS**

Data were presented using percentages and mean with standard deviation. Statistical analysis was done using MS Excel 2007 and GraphPad Prism 7. Chi-square test and Fisher’s exact probability test was used to test the association wherever necessary. Statistical significance was considered at 5% level of significance.

**RESULTS**

The mean age of the study participants was 52.19 ± 8.17 years. Most of the women were between the ages of 40 to 49 years. Majority of the women belonged to upper lower socio-economic class [Table 1].

The mean age at menopause of the study subjects was 45.13 ± 3.84 years. Most of the women (46.2%) attained menopause between 45-49 years of age. Majority of the women (88.8%) attained natural menopause. Only 11.2% women had surgical menopause. The mean age at natural menopause was 45.30 ± 3.85 years. Premature menopause was reported by 9.1% of the women.

The most frequently reported psychosomatic problem by women was fatigue [Table 2]. Prevalence of depression was significantly associated to marital status, educational status and socio-economic status of the postmenopausal women. Prevalence of irritability was significantly decreasing with increasing age. Increasing age was also significantly associated with increased prevalence of forgetfulness. Statistically significant association of forgetfulness was also found with marital status and socio-economic status of the women [Table 3].

Prevalence of muscle and joint pain, low backache, sleep disturbance and constipation were increasing with advancing age and were statistically significant. Both low backache and sleep disturbance were found to be significantly associated with marital status and educational status of the women [Table 4].

Variables	Number	Percentage
Age (in years)		
40-49	123	47.3
50-59	85	32.7
≥ 60	52	20.0
Education		
Illiterate	98	37.7
Literate	162	62.3
Marital Status		
Unmarried	10	3.9
Married	181	69.6
Widowed	69	26.5
Socio-economic status		
Class I (Upper)	0	0.0
Class II (Upper middle)	9	3.5
Class II (Lower middle)	66	25.4
Class III (Upper lower)	166	63.8
Class V (Lower)	19	7.3

**Table-1:** Socio-demographic characteristics of the study population (N = 260)

Variables	Number	Percentage
Psychological symptoms*		
Depression	126	48.5
Irritability	139	53.5
Forgetfulness	105	40.4
Somatic symptoms*		
Muscle and joint pain	145	55.8
Fatigue	157	60.4
Low backache	114	43.8
Sleep disturbance	109	41.9
Weight gain	118	45.4
Constipation	13	5.0

\*multiple response

**Table-2:** Psychosomatic problems (N = 260)

Variables	Psychological symptoms		
	Depression	Irritability	Forgetfulness
<b>Age (years)</b>			
40-49 (n = 123)	63 (51.2%)	79 (64.2%)	35 (28.5%)
50-59 (n = 85)	40 (47.1%)	40 (47.1%)	38 (44.7%)
≥ 60 (n = 52)	26 (50.0%)	20 (38.5%)	32 (61.5%)
	p > 0.05	p < 0.05	p < 0.05
Education			
Illiterate (n = 98)	64 (65.3%)	57 (58.2%)	47 (48.0%)
Literate (n = 162)	65 (40.1%)	82 (50.6%)	58 (35.8%)
	p < 0.05	p > 0.05	p > 0.05
Marital status			
Unmarried (n = 10)	9 (90.0%)	8 (80.0%)	3 (30.0%)
Married (n = 181)	80 (44.2%)	94 (51.9%)	60 (33.1%)
Widowed (n = 69)	40 (58.0%)	37 (53.6%)	42 (60.9%)
	p < 0.05	p > 0.05	p < 0.05
Socio-economic status			
Class I (n = 0)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Class II (n = 9)	1 (11.1%)	6 (66.7%)	0 (0.0%)
Class III (n = 65)	27 (41.5%)	36 (55.4%)	25 (38.5%)
Class IV (n = 167)	86 (51.5%)	90 (53.9%)	66 (39.5%)
Class V (n = 19)	15 (78.9%)	7 (36.8%)	14 (73.7%)
	p < 0.05	p > 0.05	p < 0.05

**Table-3:** Socio-Demographic factors affecting psychological symptoms

Variables	Somatic symptoms					
	Muscle and joint pain	Fatigue	Low backache	Sleep disturbance	Weight gain	Constipation
<b>Age (years)</b>						
40-49 (n = 123)	54 (43.9%)	74 (60.2%)	42 (34.1%)	36 (29.3%)	58 (47.2%)	1 (0.8%)
50-59 (n = 85)	50 (58.8%)	51 (60.0%)	38 (44.7%)	35 (41.2%)	38 (44.7%)	3 (3.5%)
≥ 60 (n= 52)	41 (78.8%)	32 (61.5%)	32 (65.4%)	38 (73.1%)	22 (42.3%)	9 (17.3%)
	p < 0.05	p > 0.05	p < 0.05	p < 0.05	p > 0.05	p < 0.05
<b>Education</b>						
Illiterate (n = 98)	58 (59.2%)	63 (64.3%)	52 (53.1%)	50 (51.0%)	48 (49.0%)	7 (7.1%)
Literate (n = 162)	87 (53.7%)	94 (58.0%)	62 (38.3%)	59 (36.4%)	70 (43.2%)	6 (3.7%)
	p > 0.05	p > 0.05	p < 0.05	p < 0.05	p > 0.05	p > 0.05
<b>Marital status</b>						
Unmarried (n=10)	7 (70.0%)	8 (80.0%)	1 (10.0%)	10 (100.0%)	6 (60.0%)	0 (0.0%)
Married (n = 181)	92 (50.8%)	104 (57.5%)	73 (40.3%)	61 (33.7%)	81 (44.8%)	7 (3.9%)
Widowed (n = 69)	46 (66.7%)	45 (65.2%)	40 (58.0%)	38 (55.1%)	31 (44.9%)	6 (8.7%)
	p > 0.05	p > 0.05	p < 0.05	p < 0.05	p > 0.05	p > 0.05
<b>Socio-economic status</b>						
Class I (n = 0)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Class II (n = 9)	6 (66.7%)	2 (22.2%)	4 (44.4%)	6 (66.7%)	2 (22.2%)	0 (0.0%)
Class III (n = 65)	41 (63.1%)	41 (63.1%)	24 (36.9%)	24 (36.9%)	33 (50.8%)	1 (1.5%)
Class IV (n = 167)	87 (52.1%)	101 (60.5%)	73 (43.7%)	67 (40.1%)	77 (46.1%)	9 (5.4%)
Class V (n = 19)	11 (57.9%)	13 (68.4%)	13 (68.4%)	12 (63.2%)	6 (31.6%)	3 (15.8%)
	p > 0.05	p > 0.05	p > 0.05	p > 0.05	p > 0.05	p > 0.05

**Table-4:** Socio-Demographic factors affecting Somatic symptoms

## DISCUSSION

The mean age at menopause in the present study was  $45.13 \pm 3.84$  years, which is in accordance with the findings of Mahajan N et al.<sup>14</sup> In this study 88.8% of women attained natural menopause and 11.2% attained surgical menopause. This is similar to the findings of Sarkar A et al.<sup>9</sup> Premature menopause was reported by 9.1% of women. This finding corroborates with the study by Mahajan N et al.<sup>14</sup>

Present study showed that depression was reported by 48.5% of the postmenopausal women which is almost similar to that reported by Setorglo J et al.<sup>15</sup> Prevalence of irritability was 53.5% amongst the study participants which is in accordance with the study by Tandon VR et al.<sup>16</sup> However, the present study recorded higher prevalence of both depression and irritability than that reported by Mahajan N et al.<sup>14</sup> Forgetfulness was reported by 40.4% of the postmenopausal women which is similar to the finding of Mahajan N et al.<sup>14</sup>

Most frequent somatic symptom reported in the current study was fatigue (60.4%) which is in concurrence with others studies,<sup>14,15</sup> followed by muscle and joint pain (55.8%) which is in accordance with another study.<sup>17</sup> The prevalence of weight gain was 45.4%; similar results were also observed by Madhukumar S et al.<sup>18</sup> Sleep disturbance was reported by 41.9% of women which is in concordance with other study.<sup>9</sup> Prevalence of low backache and constipation were 43.8% and 5.0% respectively. These findings corroborates with the findings of Mahajan N et al.<sup>14</sup>

In this study, prevalence of forgetfulness, muscle and joint pain, low backache, sleep disturbance and constipation were significantly increasing with age. However no significant relation was found for depression, fatigue and weight gain with age.

Higher levels of education have known to protect against dementia.<sup>19</sup> This concept is known as the reserve hypothesis. It

was noted in the present study that the prevalence of forgetfulness was more in illiterate women compared to literates. However, no significant association was found. This finding corroborates with the study of Gold EB et al.<sup>20</sup>

The present study has also noted a significant association between forgetfulness and socio-economic status. The study is somewhat similar to the study by Gold EB et al.<sup>20</sup> No significant relation was found between both muscle and joint pain and sleep disturbance with socio-economic status. This is against the finding of Gold EB et al.<sup>20</sup> Prevalence of depression was increasing with decline in socio-economic status and the association was statistically significant. Both constipation and irritability were increasing with decline in socio-economic status, but no statistical significance was found.

## CONCLUSION

The study findings revealed that majority of the postmenopausal women had one or more of the psychosomatic problems with the most common being fatigue, muscle and joint pain, irritability and depression. Women experience such problems due to reduction of the ovarian function. Thus, women need to recognize these symptoms early and seek timely medical care. Camps might be organized jointly by the department of Community Medicine and Obstetrics and Gynaecology, atleast on monthly basis in the slums so that women have access to health care for their problems. Preventive strategies are also need to be disseminated well in those women who are approaching their menopause, so that the frequencies and the severity of such symptoms could be minimized.

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