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Influence of demographic characteristics on menopausal problems of rural and urban middle-aged women of Dharwad and Bagalkot, Karnataka

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ABSTRACT

The study was aimed at exploring the influence of demographic characteristics on menopausal problems among 160 rural and urban middle-aged women. The study was conducted in 2015-16 on the women who attained menopause and belonged to 40-55 years age and were from 8 villages of 4 Talukas of Dharwad and Bagalkot districts of Karnataka. A self-structured interview schedule was used to elicit the information regarding general information, history, effects, care and management of menopause. It consisted of 29 questions categorized as low, medium and high. The menopausal problems were measured by using menopause rating scale (MRS) with 11 items. The responses on each item were scored from 0 to 4 as none to very severe. In Dharwad among rural women 60.00 per cent reported moderate and 27.50 per cent severe menopausal problems. Among urban women half (50.00%) of the participants had moderate followed by 37.50 per cent who had mild menopausal problems. In Bagalkot 50.00 per cent of rural women had moderate and 35.00 per cent had severe menopausal problems. As against this 57.50 per cent urban women had moderate and 27.50 per cent mild menopausal problems. The age, socio-economic status (SES) and education were negatively associated whereas occupation was positively associated with menopausal problems.

Keywords: Menopause; women; problems; demographic characteristics

INTRODUCTION

Menopause, a natural step in aging process represents the end of menstruation after the last menstrual period in the previous 12 months. It occurs gradually in women and indicates the transition from the reproductive to the post-productive era of a woman's life (Mishell et al 1997). A natural menopause is recognized to have occurred after 12 consecutive months of amenorrhea for which there are no other obvious pathological or physiological causes. The severity of the menopausal symptoms is determined from the symptoms experienced including hot flashes, night sweat, vaginal bleeding, mood swings, vaginal dryness, insomnia, headache and fatigue.

During the transition to menopause women may experience vasomotor, urogenital, psychosomatic and psychological symptoms as well as sexual dysfunction. The prevalence of these symptoms related to menopause varies across ethnic and socio-economic groups and between rural and urban women (Malacara et al 2002). Some researchers have observed socio-economic (eg working status and income), lifestyle (eg smoking and dietary practices) and biological (eg body weight and parity) variables as predictors of menopausal symptoms. A pan India survey conducted during 2014 in Bangalore, Karnataka by Institute for Social and Economic Change, Bangalore has highlighted that a typical Indian woman fears of her menopausal health. The findings highlighted that on an average nearly 4 per cent of Indian women are already menopausal between the age of 29-34 years. It goes up to 8 per cent in the case of women between 35 and 39 years. This is shocking because normal menopause starts between the age of 45 and 55 years with a mean age of around 51 years worldwide (Jothi and Jubilet 2014).

The present study was conducted with an objective to explore the influence of demographic characteristics on menopausal problems among rural and urban middle-aged women in Karnataka comprising Dharwad and Bagalkot districts.

METHODOLOGY

The study was conducted on women who attained menopause and belonged to 35-55 years of age selected from 8 villages of 4 Talukas of Dharwad and Bagalkot districts of Karnataka state. A self-structured questionnaire was formulated to elicit the information regarding general and family information. Menopausal symptoms were assessed by using menopause rating scale (MRS) to know the age-related decline of physical and mental capacity (http://www.menopause-rating-scale.info/development.htm). It consisted of 11 questions divided into 3 sub-scales such as psychological (4 to 7), somatic (1, 2, 3 and 11) and uro-genital (8 to 10). The responses on each item were scored 0-4 as none to very severe. The total score was categorized as low (0-14), medium (15-29) and high (30-44) and further it was divided into somatic, psychological and urinary symptoms. Socio-economic status (SES) scale was used to assess the socio-economic status of the family (Aggarwal et al 2005).

RESULTS and DISCUSSION

The demographic characteristics included age, education, occupation, caste, number of children and socio-economic status of post-menopausal women (Table 1).

In Dharwad 50.00, 30.00 and 20.00 per cent rural and 52.50, 25.00 and 22.00 per cent urban women belonged to 51-55, 46-50 and 40-45 years of age groups respectively. In Bagalkot 50.00, 35.00 and 15.00 per cent rural and 45.00, 42.50 and 12.50 per cent urban women belonged to 51-55, 46-50 and 40-45 years of age groups respectively. In total 49.37, 33.12 and 17.50 per cent women belonged to 51-55, 46-50 and 40-45 years of age.

In case of Dharwad maximum number of rural women (80.00%) were housewives whereas more number of women (52.50%) in urban areas were in government jobs. In Bagalkot 22.50 and 27.50 per cent rural women were involved in household and farm activities respectively and 50 per cent were working in private sector whereas maximum urban women (60.00%) were housewives. Totally 50.00 per cent women were housewives.

In Dharwad 62.50 per cent rural women were illiterate as against 20.00 per cent of urban women. In Bagalkot 77.50 per cent rural respondents were found illiterate as against 25.00 per cent urban women. Overall 46.25 per cent women were found illiterate followed by 22.50 per cent having education up to primary school.

In both the districts OBC population was higher as compared to others. In Dharwad 45.00 per cent rural and 72.00 per cent urban women belonged to OBC whereas in Bagalkot more population was of Dalits (27.00%) in rural area but in urban area more women belonged to OBC (52.50%).

In rural Dharwad 52.50 per cent women had 3-4 and in urban area 47.50 per cent had 1-2 children. In Baglkot 47.50 and 40.0 per cent rural and urban women had 3-4 children. In overall 43.75 per cent women possessed 3-4 followed by 26.25 per cent who had 1-2 children.

In Dharwad 70.0 and 75.0 per cent whereas in Bagalkot 52.40 and 65.0 per cent rural and urban women respectively belonged to middle class.

Data given in Table 2a show that in Dharwad district 60.00 and 50.00 per cent women experienced moderate and 27.50 and 12.50 per cent women experienced severe menopausal symptoms in rural and urban areas respectively. In rural Bagalkot 50.00 and 35.00 per cent and in urban area 57.50 and 15.00 per cent women reported moderate and severe symptoms respectively.

The mean scores of menopausal symptoms of rural women were higher (16.50 ± 6.17) than urban women (13.62 ± 8.35) in Dharwad (Table 2b). The t-value 2.919 was found to be significant hence there was significant difference in menopausal symptoms between rural and urban women.

In case of Bagalkot also there was significant difference in t-value of 2.76 in menopausal symptoms of rural and urban women. The mean value of menopausal symptoms in rural women was higher (22.47 ± 3.71) than mean value of urban (20.22 ± 3.57) women.

Sharma and Mahajan (2015) reported high proportion and the scores of menopause rating scale (MRS) in both rural and the urban women. The severity of symptoms was found more distressing for rural women. The quality of life (QoL) in urban society where the symptoms experienced were less severe was

Table 1. Demographic characteristics of post-menopausal women of Dharwad and Bagalkot districts

Variable	Dharwad		Bagalkot		Total n= 160)
	Rural (n= 40)	Urban (n= 40)	Rural (n= 40)	Urban (n= 40)	
Age (years)					
40-45	8 (20.00)	9 (22.00)	6 (15.00)	5 (12.50)	28 (17.50)
46-50	12 (30.00)	10 (25.00)	14 (35.00)	17 (42.50)	53 (33.13)
51-55	20 (50.00)	21 (52.00)	20 (50.00)	18 (45.00)	79 (49.37)
Occupation					
Housewife	32 (80.00)	15 (37.50)	9 (22.50)	24 (60.00)	80 (50.00)
Farm woman	5 (12.50)	0 (0.00)	11 (27.50)	-	16 (10.00)
Government job (teacher, bank employee etc)	2 (5.00)	21 (52.50)	-	12 (30.00)	34 (21.25)
Private job (hostel cook, clerk etc)	1 (2.50)	5 (12.50)	20 (50.00)	4 (10.00)	30 (18.75)
Educational qualification					
Illiterate	25 (62.50)	8 (20.00)	31 (77.50)	10 (25.00)	74 (46.25)
Primary	11 (27.50)	5 (12.50)	8 (20.00)	12 (30.00)	36 (22.50)
High school	2 (5.00)	3 (7.50)	1 (2.50)	6 (15.00)	12 (7.50)
College	2 (5.00)	8 (20.00)	-	3 (7.50)	13 (8.13)
>Degree/PG	-	16 (40.00)	-	9 (22.50)	25 (15.60)
Caste					
Upper caste	14 (35.00)	8 (20.00)	5 (12.50)	15 (37.50)	42 (26.25)
OBC	18 (45.00)	29 (72.00)	20 (20.00)	21 (52.50)	88 (55.00)
Dalit	5 (12.50)	2(5.00)	11 (27.00)	3 (7.50)	21 (13.12)
Tribal	3 (7.50)	1 (1.25)	4 (10.00)	1 (2.50)	9 (5.65)
Number of children					
1-2	6 (15.00)	19 (47.50)	3 (7.50)	14 (35.00	42 (26.25)
3-4	21 (52.50)	14 (35.00)	19 (47.50)	16 (40.00)	70 (43.75)
5 -6	8 (20.00)	5 (12.50)	6 (15.00)	4 (10.00)	23 (14.38)
>6	5 (12.50)	2 (5.00)	12 (30.00)	6 (15.00)	25 (15.63)
Socio-economic status					
High	1 (2.50)	7 (17.50)	-	4 (10.00)	12 (7.50)
Middle	28 (70.00)	30 (75.00)	21 (52.40)	26 (65.00)	105 (65.62)
Poor	11(27.50)	3 (7.50)	19 (47.50)	10 (25.00)	43 (26.88)

Figures in the parentheses indicate per cent values

Table 2a. Frequency distribution of menopausal symptoms of post-menopausal women (n= 160)

District	Area	Menopause symptoms			r-value	Chi-square value
		Mild	Moderate	Severe		
Dharwad	Rural (n= 40)	5 (12.50)	24 (60.00)	11 (27.50)	0.29*	26.07*
	Urban (n= 40)	15 (37.50)	20 (50.00)	5 (12.50)		
Bagalkot	Rural (n= 40)	6 (15.00)	20 (50.00)	14 (35.00)	0.75**	31.02*
	Urban (n= 40)	11 (27.50)	23 (57.50)	6 (15.00)		

Figures in the parentheses indicate per cent values, *Significant at 0.05 level, **Significant at 0.01 level

average and better than the QoL in rural women having severe menopausal symptoms. A study conducted by Rahman et al (2010) reported that rural women experienced more menopausal problems than urban women.

Data given in Table 3 show that in rural Dharwad maximum number of women (48.28%) having moderate symptoms belonged to middle followed by 45.46 per cent who belonged to poor SES. In urban area maximum (76.66%) women having moderate

Table 2b. Comparison of mean scores of menopausal symptoms among post-menopausal women (n= 160)

District	Area	Mean	SD	t-value
Dharwad	Ruarl (n= 40)	16.50	6.17	2.919*
	Urban (n= 40)	13.62	8.35	
Bagalkot	Rural (n= 40)	22.47	3.71	2.76*
	Urban (n= 40)	20.22	3.57	

Figures in the parentheses indicate per cent values, *Significant at 0.05 level

Table 3. Correlation coefficient between menopausal symptoms and socio-economic status of rural and urban women of Dharwad and Bagalkot (n= 160)

Area	SES	Menopausal symptoms			Modified χ^2	r-value
		Mild	Moderate	Severe		
Dharwad (n= 80)						
Rural (n= 40)	Middle (n= 29)	10 (34.48)	14 (48.28)	5 (17.24)	0.98^{NS}	-0.21*
	Poor (n= 11)	2 (18.18)	5 (45.46)	4 (36.36)		
Urban (n= 40)	High (n= 7)	2 (28.57)	4 (57.14)	1 (14.29)	2.13^{NS}	-0.34*
	Middle (n= 30)	3 (10.00)	23 (76.66)	4 (13.33)		
	Poor (n= 3)	-	1 (33.33)	2 (66.67)		
Bagalkot (n= 80)						
Rural (n= 40)	Middle (n= 21)	8 (38.09)	11 (52.39)	2 (9.52)	0.65^{NS}	-0.35*
	Poor (n= 19)	3 (15.79)	7 (36.85)	9 (47.36)		
Urban (n= 40)	High (n= 4)	2 (50.00)	1 (10.00)	1 (10.00)	1.71^{NS}	-0.27*
	Middle (n= 26)	5 (19.23)	15 (57.69)	6 (23.88)		
	Poor (n= 10)	1 (10.00)	4 (40.00)	5 (50.00)		

Figures in the parentheses indicate per cent values, *Significant at 0.05 level, SES= Socio-economic status, NS= Non-significant

symptoms belonged to middle followed by 66.67 per cent having severe symptoms who belonged to poor SES. In rural Bagalkot maximum number of women (52.39%) having moderate symptoms belonged to middle followed by 47.36 per cent having severe symptoms who belonged to poor SES. In urban area maximum (57.69%) women having moderate symptoms belonged to middle followed by 50.00 per cent having severe symptoms who belonged to poor SES.

There was negatively significant relationship found between SES and menopausal symptoms. Abdollahi et al (2013) reported that socio-economic status of women and income level of family and reproductive factors are negatively influencing and correlated with menopausal symptoms.

Data given in Table 4 depict that 66.66 per cent rural Dharwad women having moderate symptoms belonged to 46-50 years followed by 65.00 per cent having mild symptoms to 51-55 years age group. In urban area 80.95 per cent women having mild symptoms belonged to 51-55 years followed by 60.00 per cent to 46-50 years of age group. In rural Bagalkot 75.00 per cent women with mild symptoms were of 51-55 years of age. In urban area however 80.00 per cent women having severe symptoms were from 40-45 years of age group.

There was significant association found between menopausal symptoms and age of the post-menopausal women in rural and urban localities of Dharwad and Bagalkot. A study conducted by Sirivole and Eturi (2014) pointed out that there was negatively significant association between demographic factors such as age, education and monthly income and menopausal symptoms.

The relationship between menopausal symptoms and education is presented in Table 5. In rural Dharwad 56.00 per cent women having moderate

Table 4. Association between menopausal symptoms and age of rural and urban women of Dharwad and Bagalkot districts (n= 160)

Area	Age group (years)	n	Menopausal symptoms			χ^2	r-value
			Mild	Moderate	Severe		
Dharwad (n= 80)							
Rural (n= 40)	40-45	8	1 (12.50)	4 (50.00)	3 (37.50)	12.623*	-0.41*
	46-50	12	2 (16.67)	8 (66.66)	2 (16.67)		
	51-55	20	13 (65.00)	6 (30.00)	1 (5.00)		
Urban (n= 40)	40-45	9	1 (11.11)	5 (55.56)	3 (33.33)	14.92*	-0.596**
	46-50	10	6 (60.00)	3 (30.00)	1 (10.00)		
	51-55	21	17 (80.95)	4 (19.05)	-		
Bagalkot (n= 80)							
Rural (n= 40)	40-45	6	1 (16.67)	2 (33.33)	3 (50.00)	11.13*	-0.487*
	46-50	14	5 (35.72)	7 (50.00)	2 (14.28)		
	51-55	20	15 (75.00)	4 (20.00)	1 (5.00)		
Urban (n= 40)	40-45	5	-	1 (20.00)	4 (80.00)	11.43*	-0.46*
	46-50	17	9 (52.55)	5 (29.41)	3 (17.64)		
	51-55	18	10 (55.56)	5 (27.77)	3 (16.67)		

Figures in the parentheses indicate per cent values, *Significant at 0.05 level, **Significant at 0.01 level

Table 5. Correlation coefficient between menopausal symptoms and education of rural and urban women of Dharwad and Bagalkot districts (n= 160)

Area	Education	Menopausal symptoms			χ^2	r-value
		Mild	Moderate	Severe		
Dharwad (n= 80)						
Rural (n= 40)	Illiterate (n= 25)	2 (8.00)	14 (56.00)	9 (36.00)	12.456*	-0.418*
	Primary (n= 11)	3 (27.27)	4 (36.36)	4 (36.26)		
	High school (n= 2)	1 (50.00)	1 (50.00)	-		
	College (n= 2)	2 (100)	-	-		
	>Degree/PG	-	-	-		
Urban (n= 40)	Illiterate (n= 8)	1 (12.50)	2 (25.00)	5 (62.50)	13.972*	-0.383*
	Primary (n= 5)	2 (40.00)	1 (20.00)	2 (40.00)		
	High school (n= 3)	-	2 (66.67)	1 (33.33)		
	College (n= 8)	2 (25.00)	4 (50.00)	2 (25.00)		
	>Degree/PG (n= 16)	6 (37.56)	9 (56.23)	1 (6.25)		
Bagalkot (n= 80)						
Rural (n= 40)	Illiterate (n= 31)	2 (6.45)	20 (64.57)	9 (29.03)	17.227*	-0.20*
	Primary (n= 8)	4 (50.00)	1 (12.50)	3 (37.50)		
	High school (n= 1)	1 (100)	-	-		
	>Degree/PG	-	-	-		
Urban (n= 40)	Illiterate (n= 10)	-	6 (60.00)	4 (40.00)	13.562*	-0.482*
	Primary (n= 12)	2 (16.67)	8 (66.67)	2 (16.67)		
	High school (n= 6)	3 (50.0)	3 (50.00)	-		
	College (n= 3)	2 (66.67)	1 (33.33)	-		
	>Degree/PG (n= 9)	4 (44.44)	5 (55.56)	-		

Figures in the parentheses indicate per cent values, *Significant at 0.05 level

symptoms were illiterate and 66.67 per cent in urban area had education up to high school. In rural Bagalkot hundred per cent women with mild symptoms were educated up to high school and equal number of women (66.67%) having mild and moderate symptoms had education up to college and primary levels respectively. There was significant association found between menopausal symptoms and education of the respondents among rural and urban women of Dharwad and Bagalkot.

The relationship between menopausal symptoms and occupation is represented in Table 6. In rural Dharwad 50.00 per cent women each with moderate symptoms belonged to working and non-working classes whereas as 52.00 per cent in urban area were working. In Bagalkot 70.96 per cent rural women with moderate symptoms were working and 54.16 per cent urban were non-working. There was negatively significant relationship between occupation and menopausal symptoms among rural and urban women of Dharwad and Bagalkot and significant association observed between occupation and menopausal symptoms among rural and urban women.

The study is supported by the findings of Bouzari et al (2013) who revealed that age, household income and education were associated with all menopausal symptoms. Education level and occupation of women were appropriate predictors of menopausal symptoms.

The study conducted by Salik and Kamal (2015) pointed out that working women experienced lesser menopausal symptoms than housewives. Women with lower level of education had experienced more menopausal symptoms than women with high education. Stadberg et al (2000) reported that women with a lower level of education, occupation and exercise activity as well as few free-time activities had more climacteric symptoms.

Inter-correlations among components are presented in Table 7. Menopausal symptoms were high negatively significantly related with SES, age, education and occupation means women belonged to better SES category experienced less menopausal symptoms. It also indicated that advance in aging did reduction of menopausal symptoms. There is thus need of education and empowering of women to overcome menopausal problems.

Table 6. Correlation coefficient between menopausal symptoms and occupation of rural and urban women of Dharwad and Bagalkot districts (n= 160)

Area	Occupation	n	Menopausal symptoms			Modified χ^2	r-value
			Mild	Moderate	Severe		
Dharwad (n= 80)							
Rural (n= 40)	Working	8	3 (37.50)	4 (50.00)	1 (12.50)	8.040*	-0.387*
	Non-working	32	4 (12.50)	16 (50.00)	12 (37.50)		
Urban (n= 40)	Working	25	10 (40.00)	13 (52.00)	2 (8.00)	10.528*	-0.467*
	Non-working	15	2 (13.33)	6 (40.00)	7 (46.67)		
Bagalkot (n= 80)							
Rural (n= 40)	Working	31	6 (19.35)	22 (70.96)	3 (9.67)	7.127*	-0.323*
	Non-working	9	5 (55.55)	3 (33.33)	1 (11.11)		
Urban (n= 40)	Working	16	7 (43.75)	7 (43.75)	2 (12.50)	4.810*	-0.338*
	Non-working	24	7 (29.16)	13 (54.16)	4 (16.67)		

Figures in the parentheses indicate per cent values, *Significant at 0.05 level

Table 7. Inter-correlation among different demographic characteristics of post-menopausal women of Dharwad and Bagalkot districts (n= 160)

	SES	Age	Education	Occupation
Menopausal symptoms	-0.41**	-0.53**	-0.37**	-0.21*

Figures in the parentheses indicate per cent values, *Significant at 0.05 level, **Significant at 0.01 level, SES= Socio-economic status

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