

Influence of Demographic Characteristics on Menopausal Problems among Rural and Urban Middle Aged Women

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Abstract

This study aims to explore the influence of demographic characteristics on menopausal problems among rural and urban middle aged women. The subjects were 160 rural and urban middle-aged women were studied during 2015-16. The women who attained menopause and belonging to 40-55 years age range were selected from 8 villages of 4 talukas of Dharwad and Bagalkote Districts. The self-structured interview schedule was used to elicit the information regarding general information, history of menopause, effects of menopause, care and management of menopause. It consists of 29 questions, categorized as low, medium and high. The menopausal problems were measured by using Menopause Rating Scale (MRS) developed by Barlin (1992) with 11 items. The responses on each item was scored as 0-4 as none to very severe. SES (Socio Economic Status) scale developed by Agarwal et al. (2005) was used to assess the socio-economic status of family. The results revealed that 49.37% of respondents aged between 51-55 years, 55% of the belonged to OBC category, 80% of women were housewife and 68.15% were belonged to middle SES. 15% and 27.50% of the women reported high knowledge in rural and urban women respectively. In Dharwad, among rural women 60% respondents reported moderate menopausal problems and 27.50% were had severe problems. While among urban, half (50%) of the participants pointed out they had moderate menopausal problems followed by 37.50% had mild problems. In Bagalkote district, 50% of rural women had moderate and 35% of the respondents had severe menopausal problems. In case of urban women, 57.50% of women had moderate followed by 27.50% suffering from mild menopausal problems. The age, SES and education were negatively significantly associated with menopausal problems and occupation was positively highly significantly associated with menopausal problems. Concluded that there is need of education and empowering of women to overcome menopausal problems.

Keywords: Menopause; Middle-age; Problems

Introduction

Menopause, a natural step in aging process, represents the end of menstruation after the last menstrual periods 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 [1]. A natural menopause is recognized to have occurred after 12 consecutive months of amenorrhea, for which there is 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 each of these symptoms related to menopause varies across ethnic and socioeconomic groups, and between rural and urban women. Some researchers have observed socioeconomic (e.g., working status and income); lifestyle (e.g., smoking and dietary practices); and biological variables (e.g., body weight and parity) as predictors of menopausal symptoms. A pan India survey conducted during 2014 Bangalore by Institute for Social and Economic Change, Bangalore has highlighted that a typical Indian woman fears with regards to her menopausal health. The study from 1,00,000 women, across 26 states. The findings of the ISEC survey highlighted that on an average nearly 4 percent of Indian women are already menopausal between the ages of 29-34 years. It goes up to 8 percent in the case of women between 35 and 39 years. This is shocking because normal menopause starts between the ages of 45 and 55 years, with a mean age of around 51 years worldwide. Hence the study was conducted with an objective to explore the influence of demographic characteristics on menopausal problems among rural and urban middle-aged women.

Method

The present study was conducted among women who attained menopause and belonging to 35-55 years age range were selected from 4 villages of 2 talukas of Dharwad District, Karnataka state.

The tools for the study were the self-structured questionnaire to elicit the information regarding general and family information. Menopausal symptoms were assessed by using Menopause rating scale developed by Berlin.1992 to know the age-related decline of physical and mental capacity. It consists of 11 questions divided into 3 sub scale such as Psychological subscale (4 to 7), Somatic Subscale (1, 2, 3 and 11) and Urogenital Subscale (8 to 10). The respondent has to indicate her problems with intensity of each are by using 5-point likart scale. Then the responses on each item was scored as 0-4 as none to very severe. The total score was categorized as low (0-14), medium (15-29) and high (30-44) further it was divided into somatic, psychological and urinary symptoms. To assess Socio Economic Status (SES) of the family assessed by using SES scale used developed by Agrawal. The scale consists of 22 statements which assess education, occupation, monthly per capital

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income from all sources, family possessions, number of children, number of earning members in family, education of children, domestic servants in home, possession of agricultural land and non-agricultural land along with animals and social status of the family.

Results and Discussion

The demographic characteristics of the respondents included age, education, occupation, caste, number of children and socio-economic status of postmenopausal women are presented in Table 1. In the rural women of Dharwad 50 percent belonged to 51-55 years, while 30 per cent belonged to 46-50 years and 20 per cent were to age between 40-45 years. Among urban women of Dharwad district similar trend was observed i.e. majority (52.50%) belonged to 51-55 years, while 25 per cent in 46-50 years and 22.50 per cent belonged to 40-45 years.

In case of rural women of Bagalkote, 45% belonged to 51-55 years, while 42.50% belonged to 46-50 years and 15% in 40-45 years. In case of urban, 45%, 42.50% and 12.50% women belonged to 51-55, 46-50 and 40-45 years respectively. Totally 49.37% belonged to 51-55 years, while 33.12% of women aged between 46-50 years and 17.50% in 40-45 years of aged.

With respect to occupation 80% of rural women of Dharwad were found to be housewives, while 12.50% of the women involved in farm

activities, 5% working in government jobs and only 2.50% of women were working in private jobs. Whereas in urban area, 37.50% women found to be housewife, while 52.50% working in government employee and 12.50% working in private employee.

In case of Bagalkote, 22.50%, 27.50% women were involved in household and farm activities respectively, and 50% working in private sectors, whereas in urban women 60% women were found to be housewife, while 30% working in government sectors and 10% of women working in private sectors. Totally 50% women were housewife, 10% involved in farm activities, 21.25% were working in government sectors and 18.75% were working in private sectors in Bagalkote district.

In case of respondent's education rural women of Dharwad, 62.50% found to illiterate, 27.50% respondents completed their primary level of education, 5% high school as well as college education. Whereas 20% of urban women were illiterate, 12.50% of respondent completed primary school, 7.50% had their high school, while 20% of respondents completed their college and 40% possessed graduation or post-graduation whereas in Bagalk, 77.50% of rural respondents found illiterate, while 20% completed primary school and only 2.50% the women had their high school level of education. Among urban women, 25% found illiterate, 30% of women were had primary school education,

SI No	Variables	Dharwad		Bagalkotee		Total (N=160)
		Rural (n=40)	Urban (n=40)	Rural (n=40)	Urban (n=40)	
I	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)
II	Occupation of women					
	Housewives	32 (80.00)	15 (37.50)	9 (22.50)	24 (60.00)	80 (80.00)
	Farm women	5 (12.50)	0 (0.00)	11 (27.50)	-	16 (10.00)
	Government employed (teachers, bank works)	2 (5.00)	21 (52.50)	-	12 (30.00)	34 (21.25)
	Private employed (hostel cooks, clerks)	1 (2.50)	5 (12.50)	20 (50.00)	4 (10.00)	30 (18.75)
III	Education of women					
	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)
	>graduation and Post Graduate	-	16 (40.00)	-	9 (22.50)	25 (15.60)
IV	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)
	Dalits	5 (12.50)	2(5.00)	11 (27.00)	3 (7.50)	21 (13.12)
	Tribals	3 (7.50)	1 (1.25)	4 (10.00)	1 (2.50)	9 (5.65)
V	No 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)
VI	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 parenthesis indicates percentage

Table 1: Demographic characteristics of postmenopausal women of Dharwad and Bagalkotee.

15% of respondents completed their high school, while 7.50% college and 22.50% of the women possessed degree or post-graduation level of education. Overall 46.25% found illiterate, 22.50% were had their primary school, 7.50% college and 8.31% were completed college level of education.

The respondents among Dharwad district, 35% rural women belonged to upper caste, while 45% belonged to OBC caste, 12.50% dalits and 7.50% tribals. Similarly, in Dharwad district urban women, 72.50% belonged to OBC caste, while 20% belonged to upper caste, 5% dalits and only 2.50% tribal caste. In case of Bagalkote district, 50% of rural women belonged to OBC caste followed by 27% dalits caste, while 12.50% belonged to upper caste and 10% tribal caste. Similar trend was seen in urban women of Bagalkote. On the whole 55% women belonged to OBC followed by 26.25% in upper caste, 13% in dalits and 5.65% in tribal category.

It is clearly pointed out that 52.50% of the Dharwad rural women possessed 3-4 children followed by 20% with 5-6 children, 15% had 1-2 children and 12.50% possessed more than six children. Whereas in Dharwad urban, 47.50% women possessed 1-2 children followed by 35% with 3-4 children, 12.50% with 5-6 children and only 5% possessed more than 6 children.

In case of Bagalkote rural women, 47.50% of the women possessed 3-4 children followed by 30% with more than six children, 15% with 5-6 children and 7.50% of respondents possessed 1-2 children. Whereas in Bagalkote urban women, 40% possessed 3-4 children followed by 35% with 1-2 children, 15% and 10% possessed more than six and 5-6 children respectively. Overall 43.75% women possessed 3-4 children followed by 26.25% had 1-2 children, 15.63% with 5-6 children and 14.38% possessed more than 6 children.

With respect to Socio-Economic Status in Dharwad district, 70% of rural women belonged to middle class of SES followed by 27.50% to poor and 2.50% to high class of SES. Whereas among urban women, 75% belonged to middle class SES category followed by 17.50% to high SES and 7.50% of them belonged to poor SES. In case of Bagalkote district, 52.40% of rural postmenopausal women belonged to middle SES followed by 47.50% belonged to poor SES and none of the respondents belonged to high SES category. Among urban women, 65% belonged to middle SES category followed by 25% and 10% of women belonged poor and high SES category respectively.

The results of menopausal symptoms among middle aged women according to residential area Table 2A. In Dharwad district, 60% of the women experienced moderate menopausal symptoms, 27.50% reported severe and 12.50% of them had mild symptoms of menopause. Among urban women, 50% of the women reported moderate, while 37.50% of them showed mild and 12.50% were indicated severe symptoms of menopause. Whereas in Bagalkote district, 50% rural women experienced moderate symptoms, while 35% of them reported severe and 15% expressed mild symptoms of menopause. Whereas from urban women, 57.50%, 27.50% and 15% of them were reported moderate, mild and severe menopausal symptoms respectively.

The difference in menopausal symptoms between rural and urban women is given in Table 2B. The mean scores of menopausal symptoms of rural women were higher (16.50 ± 6.17) than mean scores of urban women (13.62 ± 8.35) in Dharwad. The 't' value 2.92 was found to be significant hence there was significant difference in menopausal symptoms between rural and urban women of Dharwad. In case of Bagalkote, 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 is higher (22.47 ± 3.71) than mean value of (20.22 ± 3.57) urban women). Martinez et al. [2] found that there was a greater frequency of menopausal symptoms in rural women than urban women. The women experienced symptoms included hot flushes, depression, joint pain and tingling. A study conducted by Alwi et al. [3] reported that rural women were experienced more menopausal problems than urban women.

The relationship between menopausal symptoms of postmenopausal women belonging to different Socio-Economic Status (SES) category is indicated in Table 3. In case of Dharwad district rural women, 48.48% of them expressed moderate menopausal symptoms, while 34.48% and 17.24% of the women reported mild and moderate menopausal symptoms respectively women belonged to middle SES category. While 45.46% showed moderate, 36.26% of them reported severe menopausal symptoms and only 18.18% of the women exhibited mild menopausal symptoms belonged to poor SES category. There was negatively significant relationship found between SES and menopausal symptoms. Ali et al. [4] reported that socio-economic status of women and income level of family and reproductive factors are negatively influencing and correlated with menopausal symptoms.

Whereas in Dharwad district urban women, 28.57% of them showed mild, 57.14% reported moderate and 14.29% expressed severe menopausal symptoms belonged to high SES category. In case of middle SES group women, 10% of them mild menopausal symptoms, 76.66% showed moderate symptoms and 13.33% expressed severe menopausal symptoms. In case of poor SES group women, 66.67% of them reported severe menopausal symptoms, while 33.33% of the women expressed moderate menopausal symptoms. There was negatively significant relationship found between SES status of respondents and menopausal symptoms.

In case of Bagalkote district rural women, 38.09% of women showed mild, while 52.39% reported moderate and 9.52% expressed severe status of menopausal symptoms belonged to middle SES category. Among poor SES category women, 15.79% had mild symptoms, 36.85% and 47.36% of women reported moderate and severe menopausal symptoms respectively. There was negatively significant relationship observed between menopausal symptoms and SES.

N=160

Districts	Locality	Menopause symptoms			n	r-value	χ ²
		Mild	Moderate	Severe			
Dharwad	Rural	5 (12.50)	24 (60.00)	11 (27.50)	40 (100)	0.29*	26.07*
	Urban	15 (37.50)	20 (50.00)	5 (12.50)	40 (100)		
Bagalkote	Rural	6 (15.00)	20 (50.00)	14 (35.00)	40 (100)	0.75**	31.02*
	Urban	11 (27.50)	23 (57.50)	6 (15.00)	40 (100)		

Figures in the parenthesis indicates percentage.

*significant at 0.05 level **significant at 0.01 level.

Table 2A: Frequency distribution of menopausal symptoms of postmenopausal women.

Area	Locality	N	Mean	SD	t-value
Dharwad (n=80)	Rural	40	16.50	6.17	2.919*
	Urban	40	13.62	8.35	
Bagalkote (n=80)	Rural	40	22.47	3.71	2.76*
	Urban	40	20.22	3.57	

Figures in the parenthesis indicates percentage.

*significant at 0.05 level.

Table 2B: Comparison of mean scores of menopausal symptoms among postmenopausal women.

Whereas Bagalkote district urban women, 50% of urban women showed mild menopausal symptoms, while 10% reported moderate as well as severe menopausal symptoms belonged to high SES category. In middle SES urban women group, 19.23%, 57.69% and 23.88% of them reported mild, moderate and severe menopausal symptoms respectively. In poor SES category 10% of women reported mild menopausal symptoms, 40% and 50% of women expressed moderate and severe menopausal symptoms respectively. There was negatively significant relationship found between SES categories and menopausal symptoms among urban women. There was non-significant association observed between socio-economic status and menopausal symptoms among rural and urban women of Dharwad and Bagalkote.

The relationship between menopausal symptoms of women and age is shown in Table 4. In case of Dharwad district, rural women belonged to 40-45 years age group, only 12.5% had mild menopausal symptoms, while 50% and 37.5% showed moderate and severe menopausal symptoms respectively. Whereas 16.67% of them reported mild as well as severe menopausal symptoms and 66.66% of the women showed moderate menopausal symptoms from 46-50 years of age group. In 51-55 years age group, 65% of the women reported mild menopausal symptoms, while 30% the women had moderate and only 5% of them expressed severe menopausal symptoms. There was negatively significant relationship and association found between

menopausal symptoms and age. Whereas in case of urban women, 11.11% expressed mild menopausal symptoms, 55.56% of respondents shown moderate and 33.33% of them showed severe menopausal symptoms from 40-45 years age group. In 46-50 years of age group, 60% of them showed mild, while 30% moderate symptoms and 10% of respondents expressed severe symptoms of menopause. Whereas in 51-55 years of age group, 80.95% of women showed mild and 19.05% of respondents were had moderate menopausal symptoms. There was highly negatively significant relationship found between age and menopausal symptoms.

In case of Bagalkote district rural women, 16.67% of them showed mild menopausal symptoms, 33.33% had moderate and 50% of respondents expressed severe menopausal symptoms belonged to 40-45 years of age group. In 46-50 years of aged women, 35.72% reported mild, 50% and 14.28% showed moderate and severe menopausal symptoms respectively. In 51-55 years of age group, 75%, 20% and 5% of respondents reported mild, moderate and severe menopausal symptoms respectively. There was negatively significant relationship between age and status of menopausal symptoms. In case of urban women, only 20% of them reported moderate menopausal symptoms, while 80% of the respondents expressed severe menopausal symptoms from 40-45 years age group. In 46-50 years of age group, 52.55% of them showed mild, 29.41% of them reported moderate and 17.64%

N=160

Area	Locality	SES	n	Menopausal symptoms			Modified χ^2	r-value
				Mild	Moderate	Severe		
Dharwad (n=80)	Rural (n=40)	Middle	29	10 (34.48)	14 (48.28)	5 (17.24)	0.98 ^{NS}	-0.21 [*]
		Poor	11	2 (18.18)	5 (45.46)	4 (36.36)		
	Urban (n=40)	High	7	2 (28.57)	4 (57.14)	1 (14.29)	2.13 ^{NS}	-0.34 [*]
		Middle	30	3(10.00)	23 (76.66)	4 (13.33)		
Bagalkote (n=80)	Rural (n=40)	Poor	3	-	1 (33.33)	2 (66.67)	0.65 ^{NS}	-0.35 [*]
		Middle	21	8 (38.09)	11 (52.39)	2 (9.52)		
		Poor	19	3 (15.79)	7 (36.85)	9 (47.36)		
	Urban (n=40)	High	4	2 (50.00)	1 (10.00)	1 (10.00)	1.71 ^{NS}	-0.27 [*]
		Middle	26	5 (19.23)	15 (57.69)	16 (23.88)		
		Poor	10	1 (10.00)	4 (40.00)	5 (50.00)		

Figures in the parenthesis indicates percentage.

*significant at 0.05 level.

NS - non-significant.

Table 3: Correlation coefficient between menopausal symptoms and Socio-Economic Status among rural and urban women of Dharwad and Bagalkote.

N=160

Area	Locality	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)		
Bagalkote (n=80)	Rural (n=40)	51-55	21	17 (80.95)	4 (19.05)	-	11.13 [*]	-0.487 [*]
		40-45	6	1 (16.67)	2 (33.33)	3 (50.00)		
		46-50	14	5 (35.72)	7 (50.00)	2 (14.28)		
	Urban (n=40)	51-55	20	15 (75.00)	4 (20.00)	1 (5.00)	11.43 [*]	-0.46 [*]
		40-45	5	-	1 (20.00)	4 (80.00)		
		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 parenthesis indicates percentage

*significant at 0.05 level ** significant at 0.01 level

Table 4: Association between menopausal symptoms and age among rural and urban women of Dharwad and Bagalkote districts.

expressed severe menopausal symptoms. In 51-55 years of age group, 55.56% of the women reported mild menopausal symptoms, while 27.77% moderate and 16.67% severe menopausal symptoms. There was negatively significant relationship observed between age and menopausal symptoms. There was significant association found between menopausal symptoms and age of the postmenopausal women in rural and urban locality of Dharwad and Bagalkote. A study conducted by Madhusudhan and Sadvimani [5] pointed out that there was negatively significant association between demographic factors such as age, education and monthly income and menopausal symptoms. Vareeckan reported that menopausal problems negatively significantly associated with aging.

The relationship between menopausal symptoms and education is presented in Table 5. In Dharwad, among illiterate rural women, 36% of them reported severe menopausal symptoms, while 56% moderate and only 8% of the women showed mild menopausal symptoms. Women who completed primary school education, 27.27% had mild and 36.36% of them reported moderate as well as severe menopausal symptoms. The women who educated till high school, 50% of them indicated mild as well as moderate menopausal symptoms. Whereas among urban illiterate women, 62.50% of them had severe menopausal symptoms, while 25% and 12.50% of the women showed moderate and mild symptoms respectively. Women who completed primary school, 40% of them reported severe as well as mild menopausal symptoms and only 20% of them showed moderate symptoms. Women who educated till high school, 66.67% and 33.33% of women indicated moderate and severe menopausal symptoms respectively. Among women completed college level of education, 50% of them moderate, 25% of them indicated severe as well as mild menopausal symptoms. Women who educated degree/PG education 56.23% of them moderate menopausal symptoms, while 37.56% mild and only 6.25% of them indicated severe menopausal symptoms.

In case of Bagalkote, among illiterate rural women, 64.57% of them reported moderate, while 29.03% severe and only 6.45% of the women showed mild menopausal symptoms. Women who educated

till primary school, 50% of them reported mild menopausal symptoms, while 37.50% severe and only 12.50% showed moderate menopausal symptoms. Whereas from illiterate urban women, 60% of them indicated moderate menopausal symptoms followed by 40% of them exhibited severe menopausal symptoms. While 66.66%, 16.67% and only 8.33% of women reported moderate, mild and severe menopausal symptoms respectively from women educated till primary school education. Among women who completed high school education, 50% of them expressed mild as well as moderate menopausal symptoms. Whereas who educated till college education, 66.66% of them reported mild menopausal symptoms followed by 33.33% of the women exhibited moderate menopausal symptoms. Among women who educated till degree/PG, 55.56% reported moderate, while 44.44% of them expressed mild menopausal symptoms. There was positively significant relationship found between menopausal symptoms and education of respondents. There was significant association found between menopausal symptoms and education of the respondents among rural and urban women of Dharwad and Bagalkote.

The relationship between menopausal symptoms and occupation is represented in Table 6. In Dharwad, 50% of working rural women reported moderate menopausal symptoms, while 37.50% of them experienced mild and only 12.50% of the women reported severe menopausal symptoms. Among non-working women, 50% and 12.50% of them exhibited moderate, severe and mild menopausal symptoms respectively. Whereas in urban, 52% of the working women experienced moderate menopausal symptoms, while 40% of them reported mild and only 8% of them reported severe menopausal symptoms. Among non-working women, 46.67%, 40% and 13.33% of them exhibited severe, moderate and mild menopausal symptoms respectively.

In Bagalkote, 70.96% of working rural women reported moderate menopausal symptoms, while 19.35% and 9.67% of them expressed mild and severe menopausal symptoms respectively. Whereas among non-working women, 55.56% of the women reported severe menopausal symptoms followed by 33.33% and 11.11% of them

N=160

Area	Locality	Education	n	Menopausal symptoms			χ ²	r-value
				Mild	Moderate	Severe		
Dharwad (n=40)	Rural (n=40)	Illiterate	25	2(8.00)	14(56.00)	9(36.00)	12.456*	-0.418*
		Primary	11	3(27.27)	4(36.36)	4(36.26)		
		High school	2	1(50.00)	1(50.00)	-		
		College	2	2(100)	-	-		
	Urban (n=40)	Illiterate	8	1(12.50)	2(25.00)	5(62.50)	13.972*	-0.383*
		Primary	5	2(40.00)	1(20.00)	2(40.00)		
		High school	3	-	2(66.67)	1(33.33)		
		College	8	2(25.00)	4(50.00)	2(25.00)		
	>Degree/ PG	16	6(37.56)	9(56.23)	1(6.25)			
Bagalkote (n=40)	Rural (n=40)	Illiterate	31	2(6.45)	20(64.57)	9(29.03)	17.227*	-0.20*
		Primary	8	4(50.00)	1(12.50)	3(37.50)		
		High school	1	1(100)	-	-		
	Urban (n=40)	Illiterate	10	-	6(60.00)	4(40.00)	13.562*	-0.482*
		Primary	12	2(16.67)	8(66.66)	1(8.33)		
		High school	6	3(50.0)	3(50.00)	-		
		College	3	2(66.67)	1(33.33)	-		
		>Degree/ PG	9	4(44.44)	5(55.56)	-		

Figures in the parenthesis indicates percentage

*significant at 0.05 level

Table 5: Correlation coefficient between menopausal symptoms and education among rural and urban women of Dharwad and Bagalkote.

N=160

Area	Locality	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)		
Bagalkote (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 parenthesis indicates percentage

*significant at 0.05 level

Table 6: Correlation coefficient between menopausal symptoms and occupation among rural and urban women of Dharwad and Bagalkote.

N=160

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

Figures in the parenthesis indicates percentage

*significant at 0.05 level ** significant at 0.01 level^{NS} non-significant

Table 7: Inter correlation between components.

expressed moderate and mild menopausal symptoms respectively. Whereas among urban women, 43.75% of them reported mild as well as moderate menopausal symptoms and 12.50% of them expressed severe menopausal symptoms who involved in professional activities. Among non-working women, 54.16% of them had moderate and 29.16% and 16.66% of them reported severe menopausal symptoms. There was negatively significant relationship was reported between occupation and menopausal symptoms among rural and urban women of Dharwad and Bagalkote. There was significant association observed between occupation and menopausal symptoms among rural and urban women of Dharwad and Bagalkote districts. A study supported by Bouzari et al. [6] revealed that age, household income and education were associated with all menopausal symptoms. Education level and occupation of women was appropriate predictor of menopausal symptoms. The study conducted by Remona and Anila [7] 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. Fabio [8] reported that education and occupation are associated and negatively related with climacteric symptoms. Severe and moderate hot flushes were lower in more educated women as well as women who are working.

Inter correlation between components presented in Table 7. Menopausal symptoms negatively highly 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 reduction of menopausal symptoms. Concluded that there is need of education and empowering of women to overcome menopausal problems [9].

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