



# Coping strategies for menopausal problems among working and non-working middle aged women in rural area of Northern Karnataka

Deepa Kannur\* and Dr. Sunanda Itagi\*\*

\*Department of Human Development and Family Studies, College of Community Science, UAS, Dharwad, Karnataka India.

\*\*Professor, Department of Human Development and Family Studies, College of Community Science, UAS, Dharwad, Karnataka India.

## Abstract

To assess the menopausal problems and to know the coping strategies for menopausal problems among working and non-working rural women in Northern Karnataka. The cross-sectional study was conducted in two districts among 240 middle aged women in the age range of 40-55 years of age. Menopause Rating Scale for assessment of menopausal problems and pre-structured questionnaire to know the coping strategies for menopausal problems were used to elicit the information. The analysis were done through t-test and F-test were used identify the comparison between working and non-working women regarding problems and Pearson correlation tests were used to know the relationship between the problems and demographic factors. The results revealed that 43-47% of working women experienced severe and 40-50% of non-working women reported mild menopausal symptoms such as somatic, psychological and urogenital symptoms. There was a significant difference and association was observed between working and non-working women in menopausal symptoms. The mean value of menopausal symptoms of working women ( $24.14 \pm 7.94$ ) higher than ( $17.40 \pm 6.18$ ) non-working women. Majority (55-97 %) of the women didn't follow coping strategies to reduce menopausal problems and very less coping strategies were noted for urogenital problems. Only few women followed coping mechanisms because they accepted menopause as natural phenomenon and may be not having proper knowledge about coping methods. Some of them expressed that their problems emerged and it is a natural phenomena, so accepted as it is and not consulted doctors even in severe condition. The study concluded there is need of education regarding self coping and well-being techniques for menopausal women.

**Key words:** Menopause, symptoms, coping strategies.

## Introduction

Menopause is the permanent cessation of menstruation resulting from reduced ovarian hormone secretion that occurs either naturally or is induced by surgery, chemotherapy, or radiation. Natural menopause can be recognized after 12 months of amenorrhea that is not associated with a pathologic cause. Surgical menopause is the cessation of menses resulting from surgical removal of the uterus, leaving one or both ovaries or the removal of both ovaries. Surgical menopause carries a number of side effects such as loss of bone density, low libido, vaginal dryness and infertility. The ovaries and adrenal glands produce progesterone and estrogen, the female sex hormones. When both ovaries are removed, the adrenal glands can't produce enough hormones to maintain balance. Hormonal imbalance can increase risk of developing a variety of conditions including heart disease and osteoporosis. Hence the study was undertaken with following objectives,

- To assess the menopausal problems.
- To know the coping strategies for menopausal problems.

## Methods

### Population and sample

- The population of the study comprised of two districts *i.e.* Dharwad and Bagalkote both rural areas. To know the prevalence of menopause middle aged women were selected by random method.
- The in-depth interview was conducted to elicit the information regarding problems and coping strategies.

### Research Design

- The differential design was used with the aim to compare problems, coping strategies, stress and sexual distress of working and non-working women with hysterectomy.
- Correlation design was used to know the inter-relationship between problems, coping strategies, stress and sexual distress.
- The tools for the study were the self-structured questionnaire to elicit the information regarding was used to collect personal information like name of the family members with their age, relationship with respondents and coping strategies to overcome the menopausal problems. It has 13 problems each problem the way of coping method such as self-coping, medical and alternative coping method.

- 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).

➤ To assess Socio Economic Status (SES) of the family assessed by using SES scale used developed by Aggrawal *et al.*, 2005. The scale consists of 22 statements which assess education, occupation, monthly per capital 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.

### Statistical analysis

➤ The analysis were done through t-test and F-test to identify the comparison between working and non-working women regarding problems and Pearson correlation tests were used to know the relationship between the problems and coping strategies.

### Results and discussion

**Table 2: Demographic characteristics of menopausal women**

**N=240**

Characteristics		Variables	Dharwad	Bagalkote
			Rural (n=120)	Rural (n=120)
Age (years)		35-39	20 (16.67)	23 (19.17)
		40 – 45	31 (25.83)	36 (30.00)
		46 – 50	38 (31.67)	32 (26.67)
		51 – 55	31 (25.83)	29 (24.16)
Occupation	Non- working	Housewife	60 (50.00)	60 (50.00)
	Working	Farm laborers	31 (25.83)	36 (30.00)
		Self employed	11 (10.00)	10 (8.33)
		Daily wagers	18 (15.00)	14 (11.67)
Education		High school	10 (8.33)	15 (12.50)
		Primary	45 (37.50)	35 (29.17)
		Illiterate	65 (54.17)	70 (58.33)
Caste		Upper caste	35 (29.17)	17 (14.17)
		OBC	47 (39.17)	53 (44.17)
		Dalits	25 (20.83)	31 (25.83)
		Tribals	13 (10.83)	19 (15.83)
No of children		1 – 2	19 (15.83)	13 (10.83)
		3 – 4	61 (50.83)	87 (72.50)

	5 – 6	40 (33.33)	20 (16.67)
<b>SES of the family</b>	Upper High	0 (0.00)	0 (0.00)
	High	9 (7.50)	11 (9.17)
	Upper Middle	32 (26.67)	26 (21.67)
	Lower Middle	51 (42.50)	48 (40.00)
	Poor	28 (23.33)	35 (29.17)
	Very poor	0 (0.00)	0 (0.00)

**Figures in the parenthesis indicates percentage**

The socio-demographic characteristics of the sample are presented in the Table 2. It is apparent from the table that the age ranged between 35 to 55 years. Majority (26-34 %) of the women aged between 46-50 years while 24-32 per cent of them were aged between 51-55 years followed by 40-45 years (23-30 %) and 35-39 years (11-19 %). Half of the respondents (50.00 %) were homemakers while 10-30 per cent were involved in farm activities and 11-22 per cent of them worked as daily wagers and 8-16 per cent of the women were self employment.

More than half (54-58 %) of the rural women were illiterate while 37-40 per cent of the rural women completed primary school and 8-15 per cent had not attended school. Whereas among urban area, 40-56 per cent were completed primary school and 15-16 per cent of them had high school and 26-44 per cent of them had not attended school. With respect to caste, 39-55 per cent of the women from Dharwad district belonged to Other Backward Class (OBC) followed by 25-29 per cent upper caste. Whereas in Bagalkote district, majority (44-49 %) of the women belonged to Other Backward Class (OBC) followed by 23-25 per cent who were dalits.

On an average 50-70 per cent of a rural women had 3-4 children in their family, in contrast 28-38 per cent of them had 1-2 children, 39-50 per cent of them had 3-4 children in their family but 16-33 per cent of the respondents had 5-6 children in their family both in urban and rural area. Socio-Economic Status (SES) of the family assessed by Aggarwal tool according to score obtained showed that, majority (35-43 %) of the respondents belonged to lower middle SES status followed by upper middle class (20-32 %) and 15-29 per cent of them were in poor. The study was conducted by Batool *et al.* (2017) the respondents were aged between 40-55 years and 53 per cent of the rural women were illiterate. Another study conducted by Goktas *et al.*, 2015 majority (43.30 %) were aged between 40-45 years, 39 per cent were illiterate and 52 per cent were working and 43 per cent were non-working menopausal women.



Table 2a: Menopausal problems among working and non-working women

N=240

Sl No	Menopausal problems (*Multiple responses)	Rural	
		Working (n=120)	Non-working (n=120)
<b>I</b>	<b>Somatic</b>		
1	Hot flushes, sweating	42 (35.00)	57 (47.50)
2	Heart discomfort (unusual awareness of heart beat, heart skipping, heart racing, tightness)	12 (10.00)	5 (4.16)
3	Sleep problems (difficulty in falling asleep, difficulty in sleeping through, waking up early)	60 (50.00)	69 (57.50)
4	Joint and muscular discomfort (pain in the joints, rheumatoid complaints)	82 (68.33)	75 (62.50)
<b>II</b>	<b>Psychological</b>		
5	Irritability (feeling nervous, inner tension, feeling aggressive)	69 (57.50)	63 (52.50)
6	Depressive mood (feeling down, sad, mood swings)	66 (55.00)	47 (39.17)
7	Anxiety (inner restless, feeling panicky)	43 (35.83)	35 (29.17)
8	Physical and mental exhaustion (general decrease in performance and concentration, forgetfulness)	73 (60.83)	59 (49.17)
<b>III</b>	<b>Urogenital</b>		
9	Bladder problems (difficulty in urinating, increased need to urinate, bladder incontinence)	7 (5.83)	10 (8.33)
10	Dryness of vagina (sensation of dryness or burning in the vagina)	7 (5.83)	8 (6.67)
11	Sexual problems (change in sexual desire, in sexual activity and satisfaction)	5 (4.17)	6 (5.00)

Figures in the parenthesis indicates percentage

The response related to know the menopausal problems among working and non-working women in both rural area are presented in Table 2a. Among somatic, major problem of muscular discomfort was observed in 59-68 per cent of the working and non-working women. Besides 50-59 per cent of the women reported sleeping problems and 35-49 per cent of them reported hot flushes and sweating and only 4-11 per cent of the women had heart discomfort such as heart beat, tightness etc. Majority (55-60 %) of the rural working women expressed psychological problems such as irritability, depressive mood and physical and mental exhaustion but 35 per cent of them experienced anxiety also nearly half of the non-working rural women suffered from irritability while 29-39 per cent of them experienced anxiety and depression. Among menopausal problems only 4-15 per cent of the working and non-working women experienced urogenital problems. The bladder and sexual problems experienced among non-working women. Similar results were observed the study conducted by Shrestha and Pandey (2017) the commonest menopausal symptoms were mood swings, irritability (80.00 % and 68.00 %) respectively followed by vasomotor

symptoms like hot flushes (42.00 %) and night sweats (24.00 %). Another study conducted by Agaba *et al.*, 2018 reported that most prevalent menopausal problems were hot flushes (67.20 %), joint and muscle discomfort (66.20 %), physical and mental exhaustion (65.30 %) and anxiety (56.40 %). The study conducted by Salik and Kamal (2015) reported that 56-60 per cent of the both working and non-working women had somatic problems and 40 per cent of working urban women had psychological problems as against 15 per cent of non-working women in Panjab state

**Table 2b: Distribution of working and nonworking women by menopausal problems**

**N = 240**

Area	Occupation	Problems	Category			$\chi^2$	r- value
			Mild	Moderate	Severe		
Rural	Non-working (n=120)	Somatic	25 (20.83)	61 (50.83)	34 (28.33)	38.12**	0.53**
		Psychological	50 (41.67)	48 (40.00)	22 (18.33)		
		Urogenital	73 (60.83)	32 (26.67)	15 (12.50)		
	Working (n=120)	Somatic	26(21.667)	57 (47.50)	37 (30.83)		
		Psychological	31 (25.83)	48 (40.00)	41 (34.17)		
		Urogenital	61 (50.83)	36 (30.00)	23 (19.17)		

Figures in the parenthesis indicates percentage \*\*Significant at 0.01 level

Distributions of working and non-working women by menopausal problems are presented in the Table 2b. Among non-working rural women half (50.00 %) of the respondents were had moderate level of somatic problems followed by severe (28.33 %) and mild (20.33 %) level of somatic problems. Whereas among psychological problems, 41.67 per cent of them had mild level of problems while 58.33 per cent were had moderate and above moderate level of problems. Surprisingly 60 per cent of them had mild urogenital problems. Among working rural women, majority (47.50 %) of the women had moderate level of problems while 30.33 per cent severe and 21.67 per cent had mild level of somatic problems. In psychological problems, 40 per cent had moderate level of problems followed by severe (34.17 %) and mild level of problems (25.83 %). Half (50.83 %) of them experienced mild level of urogenital problems. Similar trend was observed in urban non- working women. There was significant association observed between occupational status and menopausal problems. Similarly there was significant relationship with occupation and menopausal problems of both working and non-working women.

**Table 2c: Comparison of category wise menopausal problems among non-working and working women**

**N = 240**

Area	Occupation	Problems	Mean±SD	F- value	C.D. ±S.E.m
Rural	Non-working (n=120)	Somatic	8.47±1.75	12.57*	1.081±0.352
		Psychological	6.40± 1.98		
		Urogenital	3.77±1.99		
	Working (n=120)	Somatic	12.36± 1.44	11.38*	1.079±0.348
		Psychological	7.48±1.12		
		Urogenital	3.68± 1.05		

		Psychological	7.36±2.01		
		Urogenital	3.08±2.34		

\*significant at 0.05 level

The difference between menopausal problems among working and non-working women in rural area are presented in Table 2c. In rural area, the mean score of somatic problems were higher than psychological and urogenital problems ( $8.47 \pm 1.75 > 6.40 \pm 1.98 > 3.77 \pm 1.99$ ). The F-value (12.57) was found to be significant, means non-working women experienced more of somatic problems followed by psychological and urogenital problems.

**Table 2d: Comparison of non-working and working women by menopausal problems**

N = 240

Area	Occupation	Mean±SD	t-value
Rural	Non-working (n=120)	21.31±5.14	3.93*
	Working (n=120)	26.47±4.06	

\*significant at 0.05 level

\*\*significant at 0.01 level

The comparison between working and non-working women in menopausal problems are reported in Table 2d. In rural area, the working women suffered more from menopausal problems than non-working women. The mean score of working women was higher than non-working women ( $26.47 \pm 4.06 > 21.31 \pm 5.14$ ).

**Table 2e: Association of personal factors with menopausal problems in rural women**

N=240

Personal factors	Category	Menopausal problems				X <sup>2</sup>	r-value
		Mild	Moderate	Severe	Total		
<b>Working (n=120)</b>							
Age at menopause (Years)	36-40	6 (20.68)	10 (34.49)	13 (44.83)	29 (100)	12.43*	-0.24*
	41-45	9 (23.68)	15 (39.47)	14 (36.85)	38 (100)		
	46-50	15 (45.46)	12 (36.36)	6 (18.18)	33 (100)		
	51 – 55	14 (70.00)	8 (30.00)	-	20(100)		
Education	Illiterate	2 (8.70)	13 (56.52)	8 (34.78)	23 (100)	1.79 <sup>NS</sup>	0.01 <sup>NS</sup>
	Primary	20 (39.22)	19 (37.25)	12 (23.53)	51 (100)		
	High school	17 (36.96)	21 (45.65)	8 (17.39)	46 (100)		
Parity	1-2	6 (24.00)	10 (40.00)	8 (32.00)	25 (100)	2.01 <sup>NS</sup>	0.06 <sup>NS</sup>
	3-4	16 (28.57)	24 (42.85)	16 (28.57)	56 (100)		
	5-6	13 (33.33)	16 (41.03)	10 (25.64)	39 (100)		
BMI	Ideal body weight	18 (46.15)	12 (30.77)	9 (23.08)	39 (100)	11.62*	0.31*
	Overweight	15 (26.32)	22 (38.60)	20 (35.08)	57(100)		
	Obese	5 (20.83)	9 (37.50)	10 (41.67)	24(100)		
<b>Non-working (n=120)</b>							
	36-40	6 (24.00)	11 (44.00)	8 (32.00)	25(100)		

<b>Age at menopause (Years)</b>	41-45	15 (32.61)	10 (21.74)	21 (45.65)	46(100)	12.68*	-0.40*
	46-50	11 (34.38)	13 (40.63)	8 (25.00)	32(100)		
	51 – 55	10 (58.82)	5 (29.41)	2 (11.77)	17(100)		
<b>Education</b>	Illiterate	16 (28.57)	26 (46.43)	14 (25.00)	56(100)	9.17*	-0.20*
	Primary	12 (27.27)	20 (45.46)	12 (27.27)	44(100)		
	High school	11 (55.00)	6 (30.00)	3 (15.00)	20(100)		
<b>Parity</b>	1-2	7 (25.00)	11 (39.29)	10 (35.71)	28 (100)	1.04 <sup>NS</sup>	0.10 <sup>NS</sup>
	3-4	18 (29.52)	26 (42.62)	17 (27.86)	61 (100)		
	5-6	12 (38.71)	11 (35.48)	8 (25.81)	31 (100)		
<b>BMI</b>	Ideal body weight	13 (50.00)	8 (30.77)	5 (19.23)	26(100)	11.43*	-0.36*
	Overweight	9 (17.31)	26 (50.00)	17 (32.69)	52(100)		
	Obese	11 (26.19)	15 (35.71)	16 (38.10)	42(100)		

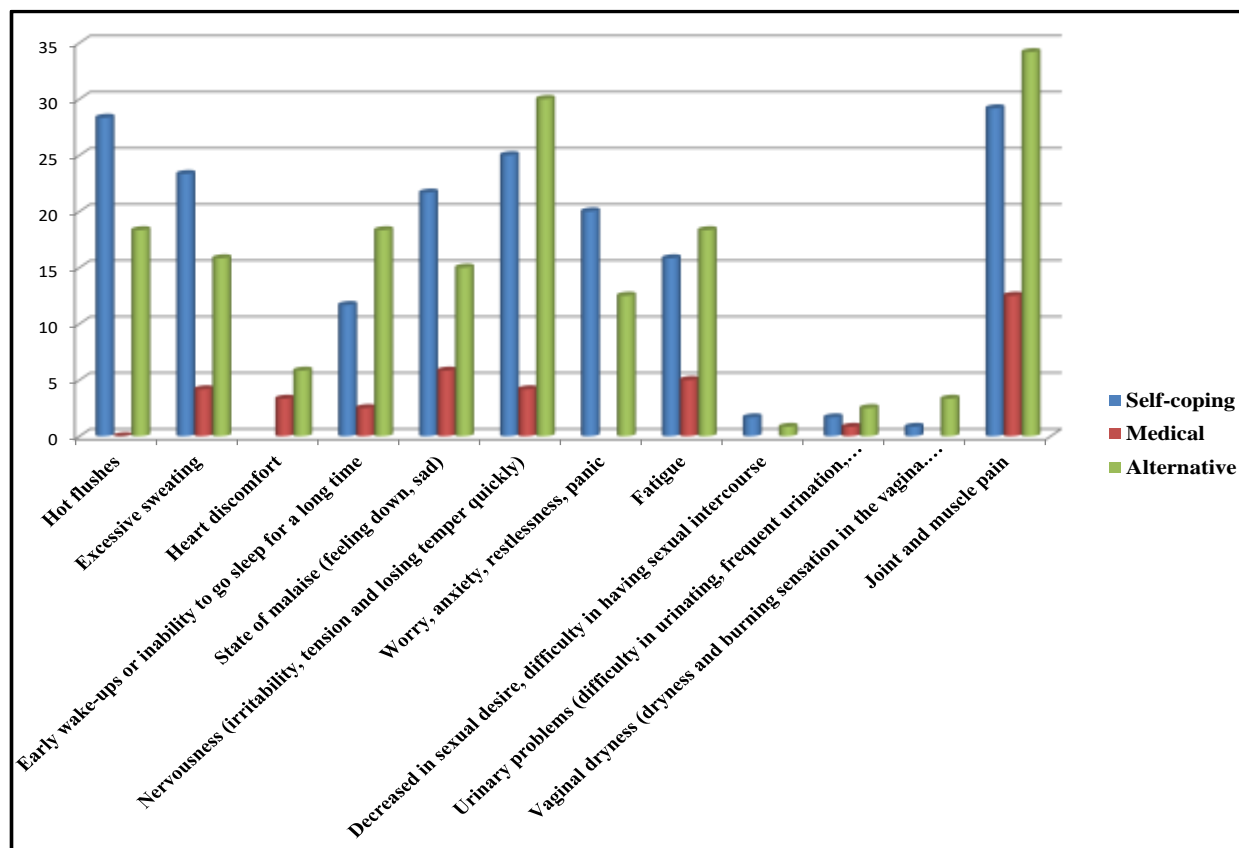
Figures in the parenthesis indicates percentage \*significant at 0.05 level

<sup>NS</sup>-Non-significant

The relationship between menopausal problems and personal factors among rural women are indicated in Table 2e. Majority (44.83 %) of working women reported had severe problems in the age group of 36-40 years as against none of the women had severe problems were in 51-55 years and 30-39 per cent reported moderate level of menopausal problems. Similar trend was observed among non-working rural women with age factor. There was negative significant relationship and positive association between age at menopause and menopausal problems. Majority (37-56 %) of the women reported moderate level of problems were had education from illiterate to high school education to level while 15 to 28 per cent reported severe menopausal problems and 55 per cent of the women with high school education experienced mild menopausal symptoms. There was no significant relationship and association between education and menopausal problems.

It was noted that 39-42 per cent of the women experienced moderate level of menopausal problems whose parity varied from 1-6. Similar trend was found among non-working women. However there was no significant association and relationship between parity and menopausal problems. Women with ideal body weight (46-50 %) experienced mild form of menopausal problems .Whereas obese women (32-41 %) experienced severe problems. Hence there was significant relationship and association between body mass index and menopausal problems. The findings also revealed that body mass index was negatively related and positively associated with menopausal problems. The results are in line with a study conducted by Duffy *et al* in 2012 who noted that more than 60 per cent of the women managed menopausal symptoms using social support by talking to friends and family. Avoidance or alleviating options were common. Herbal remedies were more commonly used than prescription drugs. Many women had sought information about symptoms from their general practitioner or practice nurse.



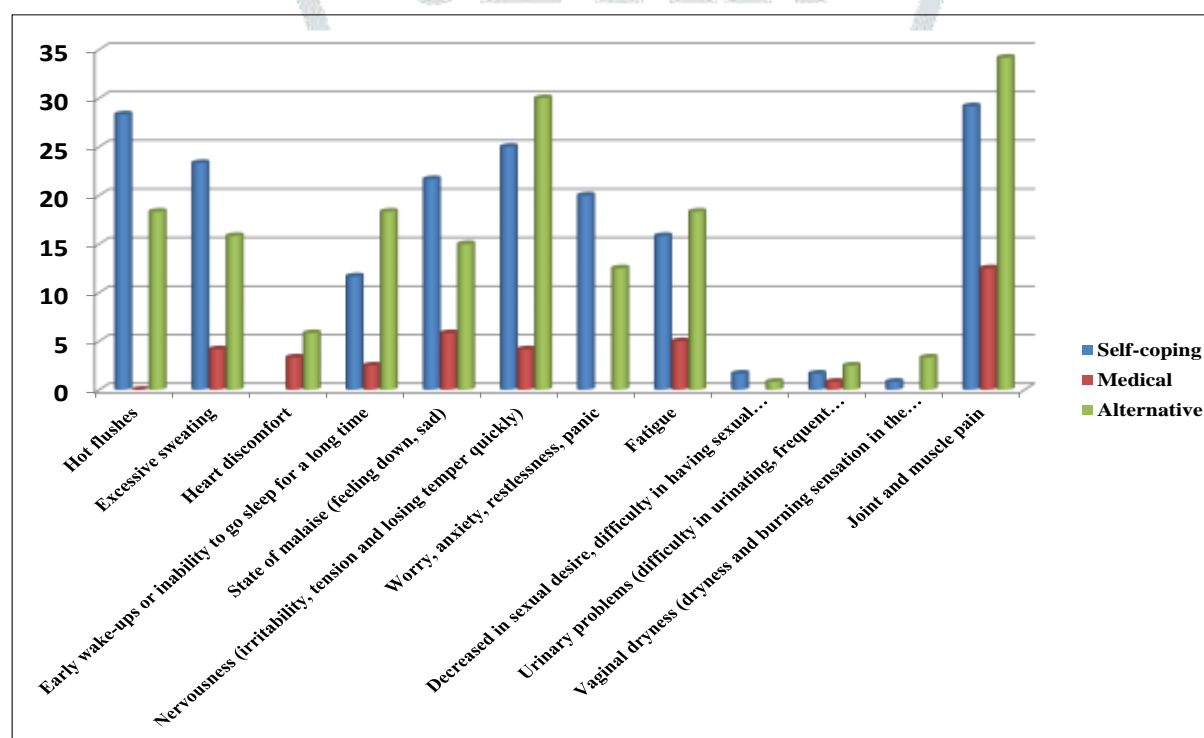


**Fig 1: Coping strategies among rural working women**

Percentage distribution of rural working women by coping strategies is represented in Fig 1. Majority (55.00 %) of the respondents ignored hot flushes while self-coping (17.50 %), alternative (14.17 %) and only 3.33 per cent taken medical treatment. Regarding excessive sweating 58.33 per cent not follow coping strategies followed by self-coping (24.17 %), alternative coping (16.67 %) and medical coping (2.50 %). Majority (93.33 %) of respondents did not follow any coping strategies to reducing heart discomfort followed by 5.83 per cent who followed alternative strategies and only 3.33 per cent taken medical treatment. With regard to insomnia, 66.67 per cent of the women did not follow coping method followed by 19.17 per cent who followed medical and 13.33 per cent followed self-caring strategy. Large amount (58.33 %) of the respondents didn't followed coping method to reduce state of malaise followed by 31.67 per cent, 12.50 per cent and 2.50 per cent of them followed self-coping, alternative method and medical treatment respectively. With regard to nervousness, half (51.67 %) of the women didn't followed coping strategy while 28.33 per cent alternative, 19.17 per cent self-coping and only 3.33 per cent medical strategies. Majority (67.50 %) of the women didn't follow coping method to reduce worry, anxiety, restlessness, panic followed by self-coping (22.50 %), alternative (9.17 %) and only one of the respondent followed medical coping strategies.

With respect to fatigue, majority (65.00 %) of the women didn't follow coping strategy while 31.67 per cent followed self-coping, 15.83 per cent alternative coping and only 1.67 per cent were taken medical treatment. With regard to overcome decreased in sexual desire, difficulty in having sexual intercourse, 97.50 per cent did not follow

any coping strategy followed by 3.33 per cent alternative and only 0.83 per cent self-coping. Majority (95.83 %) of the women didn't followed any coping strategy followed by alternative (4.17 %), medical (2.50 %) and self-coping (0.83 %). With regard to reducing vaginal dryness, 94.17 per cent didn't follow any treatment followed by alternative (4.17 %), self-coping (1.67 %) and medical (0.83 %). With respect to joint and muscle pain, 35.83 per cent didn't followed coping strategy followed by 33.33 per cent, 30 per cent and 8.33 per cent followed alternative, self-coping and medical coping strategy. Another study conducted by Ozpinar and Cevik (2016) indicated that alternative methods used by women suffering from menopausal problems such as herbal tea for sweating (35.00 %), nervousness (44.00 %), eating almonds, walnuts, apricots and raisins for physical and mental fatigue (53.00 %). The findings are in line with the study conducted by Potdar and Shinde (2014) there was a strong significant association between the psychological problems and coping strategies. Score of both psychological problems and coping strategies were observed to be lying between 21-60 per cent. It showed that the postmenopausal women's were had mild to moderate psychological problems and they were using coping strategies often



**Fig 2: Coping strategies among rural non-working women**

Percentage distribution of rural non-working women by strategies are presented in Fig 2. With respect to self-coping strategy, majority (29.17 %) of women followed to reduce joint and muscle pain followed by hot flushes (28.33 %), excessive sweating (23.33 %), nervousness (25.00 %), excessive sweating (23.33 %), state of malaise (21.67 %), worry, anxiety (20.00 %), fatigue (15.83 %), early wake-ups or inability to go sleep for a long time (11.67 %) and very few *i.e.* 1.67 per cent and 0.83 per cent of them for reducing decreased in sexual distress as well as urinary problems and vaginal dryness respectively.

With respect to medical coping strategy, 12.50 per cent of women followed to reduce joint and muscle pain while 5.14 per cent to reduce state of malaise followed by fatigue (5.00 %), excessive sweating as well as nervousness (4.17 %), heart discomfort (3.33 %), hot flushes as well as early wake-ups or inability to go sleep for a long time (2.50 %) and urinary problems (0.83 %). With regard to alternative strategy, large number (34.00 %) of the women followed this to reduce joint and muscle pain followed by nervousness (30.00 %), fatigue, hot flushes as well as early wake-up (18.33 %), excessive sweating (15.83 %), state of malaise (15.00 %), heart discomfort (5.83 %), vaginal dryness (3.33 %), urinary problems (2.50 %) and only 0.83 per cent to reduce decreased in sexual desire. Majority (97 to 95 %) of the respondents didn't followed coping strategy to reduce sexual desire, urinary problems, heart discomfort and vaginal dryness. Large amount (65-69 %) of the women didn't followed coping method to reduce early wake-ups, worry, anxiety, restlessness and fatigue. Majority (45-55 %) of the respondents didn't follow coping method for reducing hot flushes, state of malaise and nervousness. To reduce joint and muscle pain 38.33 per cent didn't follow coping method and 30 per cent to reduce sweating.

**Conclusion:** Working women experiencing more menopausal problems and very less respondents followed coping methods to reduce the menopausal problems so concluded there is need of education regarding self coping and well-being techniques for menopausal women

## References

- Agaba, D., Karar, P., Ray, S. and Ganguly, N., 2018, Menopausal symptoms and its correlates of women with hysterectomy. *Current Ger. and Geriatrics Res.*, 8 (9): 1-7.
- Aggarwal, B., Bhasin, S. K., Sharma, A. K., Chhabra, P., Aggarwal, K. and Rajoura, O. P., 2005, A new instrument for measuring socio-economic status of a family: Preliminary study. *Ind. J. Comm. Med.*, 34 (4): 111-114.
- Batool, S., Kausar, R., Naqvi, G., Javed, G. and Tufail, H., 2017, Menopausal attitude and symptoms in peri and post-menopausal working women, *Pakistan. J. Psy. Res.*, 32 (1): 55-75.
- Duffy, L. K., Iversen, P. C. and Hannaford., 2012, The impact and management of symptoms experienced at midlife: A community-based study of women in northeast Scotland. *Int. J. Obstetrics and Gynaecology*, 5 (11): 141-153.
- Goktas, S. A., Gun, S., Yildiz, T., Sakar, N. M. and Caglayan, S., 2015, The effect of total hysterectomy on sexual function and depression. *Pak. J. Med. Sci.*, 31 (3): 700-705.
- Ozpinar, S. and Cevik, K., 2016, Women's menopause-related complaints and coping strategies: Manisa sample. *Int. J. Nursing*, 3 (2): 69-78.
- Potdar, N. and Shinde, M., 2014, Psychological problems and coping strategies adopted by post menopausal women. *Int. J. Sci. and Res.*, 3 (2): 293-300.

Salik, R. and Kamal, A., 2015, Variations in menopausal symptoms as a function of education, employment status and income. *J. Soc. Sci.*, 9 (2): 110-116.

Shrestha, N. S. and Pandey, A., 2017, A study of menopausal symptoms and its impact on lives of Nepalese perimenopausal and postmenopausal women. *J. Kathmandu Med. College*, 6 (19): 4-9.

