

Stress and Coping among Perimenopausal Women

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ABSTRACT

Introductions: Perimenopause is a transitional stage to menopause. Women may experience greater severity of perimenopausal symptoms associated with an increased level of stress. Experience of perimenopausal symptoms will have a direct effect on how women cope with stress.

Aim: To identify stress and coping among perimenopausal women.

Methods: A cross-sectional analytical study was carried out at gynecological and female OPD of Patan Hospital, Lalitpur among 379 perimenopausal women by purposive sampling. Participants were interviewed using Modified Perceived Stress Scale to measure subjective stress perceptions and Modified Brief COPE Inventory to measure specific coping behavior. Data were analyzed using Statistical Package for Social Sciences version 16. Frequency, mean, standard deviation, and chi-square were calculated for stress and coping. Spearman's correlation coefficient was used to examine the relationship between stress and coping.

Results: More than half 207 (54.62%) of the perimenopausal women experienced low, 134 (35.35%) experienced moderate, and only 38 (10.03%) experienced high stress level. Among them 334 (88.13%) used problem-focused, 324 (85.49%) used emotion-focused, and 310 (81.80%) used dysfunctional coping in high level. There were significantly weak negative correlation

of stress with problem-focused ($r = -.132$, $p = .010$) and emotion-focused ($r = -.248$, $p = 0.00$) coping.

Conclusion: More than half of the perimenopausal women experienced low stress. The mostly used coping method was problem-focused coping. Women going through perimenopause should be offered education and support for all aspects of this. Stress reduction interventional programs should be designed at community levels.

Keywords: coping, perimenopausal women, stress.

INTRODUCTION

Perimenopause is a transitional stage which starts before menopause and ends one year after the final menstrual period (FMP).^[1] Perimenopausal period can range from 4 to 8 years.^[2] It is characterized by psychological and behavioural changes.^[1] Around 45-85% of women in the world experience symptoms associated with menopausal transition that include vasomotor symptoms, vaginal dryness, dyspareunia, urinary frequency, urgency, and a number of other symptoms.^[3] Besides physical symptoms, the menopausal transition is a critical phase for psychological disorders such as stress.^[4] It is estimated that around 80 to 85% of women in the world experienced stress during their menopausal transition.^[1] Study conducted among Jordanian women aged 40-55 years (N=193) shows that over 62%

of participants reported severe stress level.^[5] Stress during the menopausal transition may lead to increased psychological distress, depression, and anxiety.^[6] Globally, women are two to five times more likely to develop the major depressive disorder during perimenopause.^[7] Due to ineffective coping strategies, women experience higher severity of psychological distress during this time.^[6]

A study done among 60 menopausal women in India, which depicts that 16.7% had moderate and 83.3% had high level of stress. Among them, 81.7% moderate and 18.3% had good level of coping abilities.^[8] Women's coping skills play a significant role in the effective management of stress. If they adopt effective coping styles timely during their menopausal transition, it may ultimately lead to better psychological health. There are great numbers of studies that have been concentrating in menopausal women on menopausal symptoms but there is a need to do further research in coping with the stress to establish coping styles during their menopausal transition. Thus, the researcher is interested on conducting study in stress and coping among perimenopausal women.

METHODS

A cross-sectional analytical study was conducted among perimenopausal women from April 2020 to May 2021 in Patan Hospital Lalitpur, Nepal. The study population consisted of 379 perimenopausal women within the age group of 40-54 years attending gynecological outpatient department and the female outpatient department of Patan Hospital. Non-probability purposive sampling technique was used to select the sample. Structured interview schedule in Nepali version was used to collect the data. The inclusion criteria was women who were willing to participate in the study. While exclusion criteria were women who had a hysterectomy operation and who had known mental illness and were on psychiatric medication.

Before collecting data objectives of the study were clearly explained to the participants. Verbal and written consent were taken and confidentiality of participants were maintained.

The instruments used in this study are composed of four parts: Part I: Questions related to socio-demographic variables. Part II: Questions related to perimenopausal symptoms experienced by women. This part consisted of nine dichotomous (Yes or No) type questions. Part III: Modified Perceived Stress Scale (PSS) questionnaire consisted of 10 items rated on 5-point Likert scale (0=never, 1=almost never, 2=sometimes, 3=fairly often, and 4=very often).^[9] All score was added up for each item to get a total score. Individual scores on the PSS ranged from 0 to 40 with higher scores indicating higher perceived stress. Part IV: Modified Carver's Brief COPE Inventory consisted of 12 subscales (active coping, instrumental support, planning, acceptance, emotional-social support, positive reframing, religion, behavioral disengagement, denial, self-distraction, substance use, and venting) with 26 items (two items for every dimension) that measured specific coping behavior of the perimenopausal women and remaining two subscales humor and self-blame were excluded from the tool because of not relevant in the study.^[10] If the score that was below the average indicated low use of coping and the score equal to and / or above the average indicated high use of coping.^[10]

Statistical Methods

The data was edited, coded, categorized and then entered into the SPSS version 16. Frequency distribution and percentage were used to present Socio-demographic variables and level of stress. Frequency distribution, percentage, mean, and standard deviation were used to represent the methods of coping. For the chi-square test stress score were divided into two level of stress such as if the score was less than 14 labeled as low stress and if the score was equal to or more than 14 labeled as

moderate to high stress to find out the association of stress with selected demographic variables such as age, marital status, educational status, employment

status, and perimenopausal symptoms. The Spearman correlation coefficient was used to find out the relationship between stress and coping.

RESULTS

Table 1. Demographic Characteristics of Perimenopausal Women

		N=379
Variables	Frequency (n)	Percent (%)
Age (in years)		
40-47	279	73.61
48-54	100	26.39
Mean age ± SD 44.96 ± 3.726		
Marital Status		
Married	358	94.46
Widow	17	4.49
Unmarried	3	0.79
Divorced	1	0.26
Educational Status		
No education	195	51.45
Primary education (grade 1 to 8)	72	19.00
Secondary education (grade 9 to 12)	43	11.35
University Level (bachelor degree and above)	69	18.20
Employment Status		
Homemaker	255	67.28
Employed	119	31.40
Retired	5	1.32

There were 379 respondents. The mean age was 44.96 years, 358 (94.46%) were married, 195 (51.45%) were not educated, 255 (67.28%) were engaged as homemakers, (Table 1).

Table 2. Experience of Perimenopausal Symptoms of Perimenopausal Women

Symptoms	N=379	
	Yes n (%)	No n (%)
Hot flushes	201 (53.03)	178 (46.97)
Difficulty in sleeping	197 (51.98)	182 (48.02)
Feeling tired	286 (75.46)	93 (24.54)
Irritability	216 (56.99)	163 (43.01)
Anxiety	213 (56.20)	166 (43.80)
Burning vagina	105 (27.70)	274 (72.30)
Decrease in work performance	296 (78.10)	83 (21.90)
Decrease in concentration	272 (71.77)	107 (28.23)
Symptoms Troubling or Bothersome	245 (64.64)	134 (35.36)

Perimenopausal women experienced decreased in work performance 296 (78.10%), feeling tiredness 286 (75.46%), decrease in concentration 272 (71.77%), and burning vagina 105 (27.70%), (Table 2).

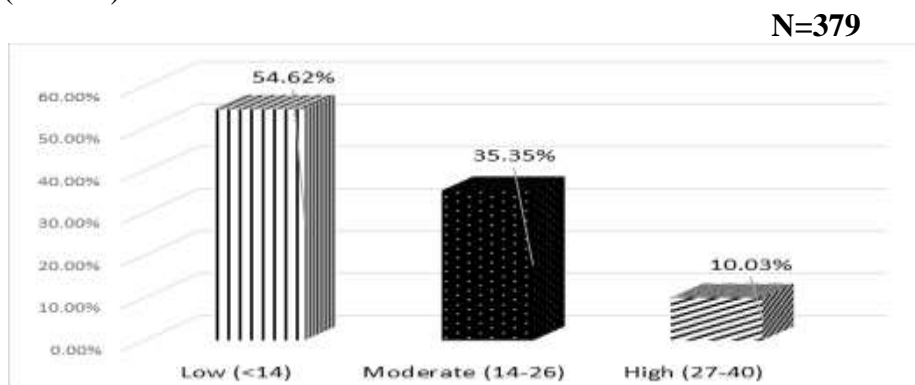


Figure 1. Stress Level among Perimenopausal Women

Low level of stress experienced by 207 (54.62%), moderate level of stress experienced by 134 (35.35%), and high level of stress experienced by 38 (10.03%) of the perimenopausal women, (Figure 1).

Table 3. Coping Methods used by Perimenopausal Women

N=379		
Coping Method	n (%)	Mean±SD
Problem focused		
High users	334 (88.13)	1.88±.324
Low users	45 (11.87)	
Emotion focused		
High users	324 (85.49)	1.85±.353
Low users	55 (14.51)	
Dysfunctional coping		
High users	310 (81.80)	1.82±.386
Low users	69 (18.20)	

Note: Problem focused; Low users: <6, High users: ≥6, Emotion focused; Low users: <8, High users: ≥8, Dysfunctional; Low users: <10, High users: ≥10

To combat the stress, a high level of perimenopausal women used problem-focused coping 334 (88.13%), 324 (85.49%) emotion-focused coping, and 310 (81.80%) dysfunctional coping, (Table 3).

Table 4. Association between Selected Demographic Variables and Stress among Perimenopausal Women

Variables	Stress		Chi-square (χ ²)	p-value
	Low (<14) n (%)	Moderate-High (14-40) n (%)		
Age				
40-47 years	157 (56.28)	122 (43.72)	1.168	.280
48-54 years	50 (50.00)	50 (50.00)		
Marital Status				
Married	191 (53.35)	167 (46.65)	4.174	.041*
Single	16 (76.20)	5 (23.80)		
Educational Status				
Illiterate	86 (44.10)	109 (55.90)		
Literate	121 (65.76)	63 (34.24)	17.916	.000*
Employment Status				
Employed	77 (64.70)	42 (35.30)	7.123	.008*
Self-employed	130 (50.00)	130 (50.00)		

Note: *Chi square test: Significant (P<0.05 at 95% confidence level).

There was a significant association of stress with respect to marital status, educational status, and employment status p-value (.041, .00, and .008) respectively, (Table 4)

Table 5. Association between Experience of Perimenopausal Symptoms and Stress among Perimenopausal Women

Variables	Stress		Chi-square (χ ²)	p-value
	Low (<14) n (%)	Moderate-High (14-40) n (%)		
Experience of Symptoms				
Hot flushes				
Yes	76 (37.81)	125 (62.19)	48.769	.000*
No	131 (73.60)	47 (26.40)		
Difficulty in sleeping				
Yes	71 (36.04)	126 (63.96)	57.116	.000*
No	136 (74.73)	46 (25.27)		
Feeling tired				
Yes	127 (33.51)	159 (60.59)	49.035	.000*
No	80 (86.02)	13 (13.98)		
Irritability				
Yes	73 (33.80)	143 (66.20)	87.840	.000*
No	134 (82.20)	29 (17.80)		

Table 5 To Be Continued...				
Anxiety				
Yes	134 (48.90)	140 (51.10)	81.210	.000*
No	73 (69.52)	32 (30.48)		
Burning vagina				
Yes	33 (31.43)	72 (68.57)	31.508	.000*
No	174 (63.50)	100 (36.50)		
Decrease in work performance				
Yes	138 (46.62)	158 (53.38)	34.862	.000*
No	69 (83.13)	14 (16.87)		
Decrease in concentration				
Yes	116 (42.65)	156 (57.35)	55.695	.000*
No	91 (85.05)	16 (14.95)		
Symptoms Troubling or Bothersome				
Yes	79 (32.25)	166 (67.75)	1.399	.000*
No	128 (95.52)	6 (4.48)		

Note: *Chi square test: Significant ($P < 0.05$ at 95% confidence level).

Perimenopausal symptoms were significantly associated with stress with p-value .000, (Table 5).

Table 6. Correlation between Stress and Coping among Perimenopausal Women

Spearman Correlation Coefficient				
N=379				
	Stress	Problem focused Coping	Dysfunctional coping	Emotion focused coping
Stress	1			
Problem-focused Coping	-.132*	1		
Dysfunctional coping	-.033	.117*	1	
Emotion-focused coping	-.248**	.760**	.063	1

Note: ** Correlation is significant at the 0.01 level (2-tailed).

Spearman rank correlation revealed that relationship of dysfunctional coping with stress ($r = -.033$), while problem-focused coping ($r = -.132$) and emotion-focused coping ($r = -.248$) were significantly weakly negatively correlated with stress, (Table 6).

DISCUSSION

Stress among Perimenopausal Women

In this research it was found that all of the perimenopausal women experienced some form of stress in their perimenopausal period. Among them more than half 207 (54.62%) of the perimenopausal women experienced a low level of stress, more than one third 134 (35.35%) of the perimenopausal women experienced moderate level of stress, and only 38 (10.03%) of the perimenopausal women experienced a high level of stress during their perimenopausal period. The findings of this study are consistent with the findings of the study conducted among 3044 women aged 42-52 years in the United States concluded that the majority of the women (97.17%) perceived stress during transitioning through menopause.^[11]

Likewise, current findings are supported by another study conducted in Iran among 300 women aged 45-60 years which showed that 79.20% of women had perceived lower levels of stress, and the remaining 20.80% of women had perceived higher levels of stress.^[12] Likewise, current findings are in line with the findings of another study done among 300 Iranian women aged 45-60 years unveiled that 63.66% of the menopausal women had experienced some form of stress in their midlife. Among them, 31.33% had experienced an average form of stress and 32.33% had experienced a severe form of stress.^[13]

The findings of the current study are contradictory with the finding of a study done among 193 Jordanian women aged 40-55 years which revealed that over 62% of the women experienced severe stress levels during their middle life.^[5] The variation in the results may be related to the difference in study samples as a researcher was included Premenopausal, Perimenopausal, and Postmenopausal women in the study. Similarly, another research done in India in 2015 reported that most of the menopausal

women (83.3%) had experienced high level of stress, while only 16.7% of menopausal women had experienced moderate level of stress.^[8] The variation in the results may be related to difference in study samples where researcher was included the women who had attained menopause and within 4 years of menopause as a study sample.

Coping Methods used by Perimenopausal Women

The current study shows that majority of the perimenopausal women used problem-focused coping in high level 334 (88.13%) followed by 324 (85.49%) used emotion-focused coping and 310 (81.80%) used dysfunctional coping at a high level. This result is consistent with the study done in China among 201 perimenopausal women unveiled that women used problem-focused coping more frequently (mean = 2.10, S.D=2.70).^[14] This study finding is inconsistent with a study done in Poland among 305 perimenopausal women which revealed that problem-focused coping with stress was chosen by 23.61% of women, while 17.70% employed an emotion-focused coping.^[15] The inconsistent result may be related to the differences in the measurement of coping strategies.

Similarly, This study finding is inconsistent with the study findings conducted in India among 100 women which revealed that most of the women used emotion-focused coping (Acceptance: 4.5238±0.43980, Use of emotional support: 2.5238±0.23522, Positive reframing 2.0952±0.16768, Religion 2.0952±0.15283, Humor 1.9048±0.09524) than problem-focused coping (active coping 2.0952±0.16768, Use of instrumental support 1.9048±0.09524, Planning 1.9524±0.10859) strategies to overcome menopause-related stress.^[16] The inconsistent results may be due to differences in study setting as it was conducted among rural women in Gujarat, India. Adaptation of problem-focused coping during the perimenopausal period is important for the long run as it helps to

engage in altering the environment rather than maintaining emotional distancing.

Association between Stress and Socio-demographic Variables

The current study shows that there was a significant association of stress with respect to marital status, educational status, and employment status at a 95% confidence level with p-value .041, .00, and .008 respectively. Whereas, there was no significant association of stress with the age of the women with a p-value >0.05. These study findings are consistent with the finding of the study among 3044 women aged 42-52 years in the US. The study revealed that women without a high school diploma were significantly more likely to report high perceived stress than women with a high school diploma, college, or another advanced degree (all p < 0.0001).^[11]

Similarly, the current findings are supported by the study findings in India among 100 women aged 40-59 years revealed that there was no significant association between the age and psychological problems.^[17] The current findings are inconsistent with the same study done in India which revealed that there was no significant association between marital status, education, and occupation with psychological problems with p-value >0.05.^[17] The inconsistent results may be related to the differences in the measurement tool of stress.

Similarly, another study done in India among 60 menopausal women supported the current research finding. The study showed that there was no association of stress with the age of women.^[8] There was no association between marital status, educational status, and occupational status with stress was found in the same study.^[8]

Association between Stress and Perimenopausal Symptoms

The current study shows that perimenopausal symptoms were significantly associated with stress with p value 0.00 at 95% confidence level. The

findings are consistent with the findings of the study done in Portugal among 992 women aged 42-60 years which revealed that women with experience of hot flushes had significantly higher levels of stress.^[18] Similarly, Study findings of Pakistan among 150 women aged 40-60 years showed that fatigue was significantly positively associated with stress among perimenopausal women.^[4] Likewise, study findings of India among 75 (postmenopausal and perimenopausal women with symptoms and without symptoms-25 in each group) women showed that there was a significant difference in stress level among three groups with anxiety, vasomotor symptoms, memory disturbances, and sleep disturbances with p-value < 0.001 for all symptoms.^[19] The current study findings are inconsistent with the study findings among 1350 women aged 14-95 years in Germany, showed that there were no significant interaction effects observed between stress and hot flushes among perimenopausal women.^[20] This variation in findings might be due to differences in socio-cultural background.

Relationship between Stress and Coping among Perimenopausal Women

The current study shows that there was a relationship of dysfunctional coping ($r = -.03$) with stress while problem-focused coping ($r = -.132$) and emotion-focused coping ($r = -.248$) were weakly significantly negatively correlated with stress with p-value 0.01 and 0.00 respectively, meaning that higher the use of problem-focused coping and emotion-focused coping lower the stress. The current findings are supported by a study done among 102 Canadian middle-aged women unveiled that vigorous physical activity and moderate physical activity were negatively correlated with the perceived levels of stress with r value $-.18$ and $-.21$ respectively.^[21] Similarly, another interventional study (stress management program) was conducted among 61 Greek peri and

postmenopausal women (31 interventional and 30 control groups) concluded that the intervention group had significantly lower scores after the intervention, reflecting significant improvement in their symptoms, whereas no significant changes were detected in the control group.^[22] Likewise, a study conducted among 300 perimenopausal women in India showed that Psychosocial problems were negatively correlating with coping strategies (-0.45), indicating that Psychosocial problems are increasing coping strategies will be decreased.^[23] Another Comparative Interventional study conducted in India among 60 symptomatic perimenopausal women showed that both yoga and aerobic exercise played a significant role to reduce stress levels among them.^[24]

CONCLUSION

More than half of the perimenopausal women experienced low level of stress. Problem-focused coping were more frequently used coping method than emotion-focused and dysfunctional coping. There was significant association of stress with respect to marital status, educational status, and occupational status and perimenopausal symptoms. There were statistical weak negative relation of stress with problem-focused coping and emotion-focused coping.

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