

Prevalence of Perimenopausal Depression among Women of Kummayak Rural Municipality, Panchthar: A Cross-Sectional Descriptive Study

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ABSTRACT

Introduction: Perimenopause, which means "around menopause" is the period of time when our body naturally transitions to menopause, signalling the end of reproductive years. It results from the loss of follicular activity. Perimenopausal depression is a unique subtype of depression, with characteristic causes and symptoms that are distinct from other depression. This study aimed to find out the prevalence of perimenopausal depression in women in Kummayak Rural Municipality, Panchthar, Nepal.

Methods: A descriptive cross-sectional study was carried out in Kummayak Rural Municipality, Panchthar after the ethical approval from the Institutional Review Committee. Convenient sampling was used from which 302 women of age group 40-55 years were selected. A structured questionnaire (Meno-D tools) and interview technique were used for data collection. Collected data were entered, analyzed, and interpreted using SPSS version 20.

Results: We found out that the prevalence of perimenopausal depression was 42.1%, which was mostly concentrated among the age group of 40-45 years (45%).

Conclusions: Almost half of the women in the perimenopausal period suffered from depression. Perimenopause is a vulnerable time for women. Therefore, it is important to pay close attention to the signs and symptoms of depression in order to thrive a more productive life.

Keywords: *Perimenopausal depression; Prevalence; Women.*

INTRODUCTION

For women, the perimenopausal era begins with a series of physical and mental health changes that last for 5-6 years before menopause reached, starting from the mid-to-late 40s.^{1,2} Depression is the major cause of disease-related disability and the most prominent psychiatric disorder in women, especially in perimenopause. Because of ovarian follicular functions, reproductive hormone fluctuates during perimenopause linking to depressive symptoms.³ Perimenopausal depression symptoms differ from other usual depression, resulting

in lower quality of life, social support, and adjustment as well as more impairment.^{4,5}

By 2030, it is anticipated that there will be 1200 million women over the age of 50 in the world, resulting in menopausal health and related issues to be a key responsibility of any nation, as the population of menopausal women grows.⁶ However, very little is known about perimenopausal symptoms with limited studies and data in Nepal.^{6,7} The objective of the study was to find out the prevalence of perimenopausal depression in women of the age group 40-55 years.

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METHODS

A descriptive cross-sectional study was conducted among 302 women of age group 40-55 years of Kummayak Rural Municipality, Panchthar after the ethical clearance approval from IRC Nobel college (Ref. IRC342/2021). Data were collected from January 2021 to February 2021. Written consent was taken from respondents before their participation. Women of age group 40-55 years were included in the study. Women who had a major mental disorder, major medical illness, and women with disability (dumb and deaf) were excluded.

Sample size was calculated using the formula:

$$\begin{aligned} \text{Sample size (n)} &= z^2 pq/d^2 \\ &= (1.96)^2 0.25 * 0.75 / (0.05)^2 \\ &= 288 \end{aligned}$$

Where,

Prevalence (p) = (25%) 0.25 (Prevalence from a study conducted in China⁸)

$$q = 1-p = 1-0.25 = 0.75$$

Confidence Interval (CI) = 95%, Z = 1.96

Margin of error (d) = 5% = 0.05

Therefore, the sample size calculated was 288. Taking a non-response rate of 5%, the total sample size was 302. Data was collected through convenient sampling.

A semi-structured tool was used for the collection of data which consisted of socio-demographic questions and Meno-D questionnaires which is the standard tool for measuring perimenopausal depression. It consists of 12 components and each component scores 0-4. The questionnaire was translated into the Nepali language.

Meno D scale:

Energy, paranoia, irritability, self-esteem, isolation, anxiety, somatic symptoms, sleep, weight, sexual interest, memory, and concentration were among the twelve symptom areas investigated.

On a scale of 0 to 4, each of the 12 symptoms was graded. The overall score might be anywhere between 0 to 48. The Meno-D questionnaire was created to be used as a self-reporting tool or as a questionnaire provided by a professional during a woman's assessment.¹

As the maximum score that a variable possessed was 4 for 12 variables, the total score assessing peri-menopausal depression by Meno-D was 48. As such the median value was 24. So, the respondents scoring more than 24 were termed as depressed and less as non-depressed in our study.

For reliability, data was pretested on 10% of the sample size which was the representative study population

other than the sample. Another additional editing to the questionnaire was done according to the comments and responses from the pre-test. A face-to-face interview technique was used for data collection.

The collected data was entered and analysed in SPSS version 20. Descriptive analysis was done and presented using frequency and percentage.

RESULTS

Out of 302 respondents, the prevalence of perimenopausal depression was found to be 42.1%, mostly among the age group of 40-45 years (44%). The perimenopausal depression was calculated using the Meno-D scale which contained 12 variables with each variable scoring 0-4. Then, it was calculated through the mean score. The mean score was 24 where 127 respondents scored above 24 i.e. 42.1% and 175 respondents scored less than 24 i.e. 57.9%.

Table 1. Prevalence of depression (n=302)

Prevalence of Depression	n(%)
Depressed	127(42.1)
Non-depressed	175(57.9)
Age Group (in years)	
40-45	133(44.0)
45-50	83(27.5)
50-55	86(28.5)

Table 2 shows the respondent's socio-demographic characteristics. Among the total participants, half of the respondents belonged to Janajati (51%) and nuclear families (50.3%), with monthly income ranging from NPR. 500 to 5,000 (64.6%).

Almost all of the respondents (92%) were married and their primary occupation was Agriculture (48.7%). The majority of them were literate (27.5%), embracing Hinduism (71.5%) as their main religion.

Table 2. Socio-demographic characteristics (n=302)

Socio-demographic characteristics	n(%)
Ethnicity	
Dalit	32(10.6)
Janajati	154(51.0)
Brahmins and Chhetri	116(38.4)
Religion	
Hinduism	216(71.5)
Buddhism	11(3.6)
Kirat	68(22.5)
Christian	7(2.3)

Socio-demographic characteristics	n(%)
Marital Status	
Married	278(92.1)
Unmarried and separated	8(2.6)
Widowed	16(5.3)
Types of Family	
Nuclear	152(50.3)
Joint	150(49.7)
Education	
Illiterate	74(24.5)
Literate (Read and Write Only)	83(27.5)
Primary Education	48(15.9)
Secondary Education	78(25.8)
Higher Secondary, Graduates, or More	19(6.3)
Occupation	
Agriculture	147(48.7)
Business	52(17.2)
Government Job	8(2.6)
Private Job	11(3.6)
Daily wages	10(3.3)
Homemaker	74(24.5)
Monthly Income (NPR)	
Less than 5000	195(64.6)
5000-10000	61(20.2)
10000-15000	13(4.3)
15000-20000	18(6.0)
More than 20000	15(5.0)

Table 3 represents the respondents' health-related characteristics, which include health behaviours and lifestyles, health issues, depressive history, and biological components (mensuration) contributing to the risk for depression during menopause. Only 55.3% of respondents stated that they were physically active in their everyday lives, despite the fact that half of the respondents had health problems, with the highest percentage of chronic conditions (92%). More than one-third (35.4%) of respondents indulged in unhealthy behaviours like alcoholism and smoking (11.3%). Similarly, a very small percentage of responders had a personal (2.6%) or family history of depression (5.6%). Furthermore, nearly three-quarters of respondents (67.9%) were menstruating women on a regular basis (76.6%).

Table 3. Health-related factors (n=302)

Health behaviours	n(%)
Alcoholism	
Yes	107(35.4)
No	195 (64.6)
Smoking	
Yes	34(11.3)
No	268(88.7)
Involvements in Physical activities	
Little active	135(44.7)
Active	167(55.3)
Health Problems	
Yes	137(45.4)
No	165(54.6)
If yes (n= 137)*	
Chronic Disease	126(92.0)
Acute disease	46(34.0)
History of depression in respondents	
Yes	8(2.6)
No	294(97.4)
History of Depression in family members	
Yes	17(5.6)
No	285(94.4)
Menopause	
Yes	97(32.1)
No	205(67.9)
If Yes Duration of menopause (n=97)	
1 Year	18(18.5)
More than 1 year	79(81.5)
If No, Regularity (n=205)	
Regular	157(76.6)
Irregular	48(23.4)
If No, Duration of irregularities (n=48)	
Less than 1 year	37(77.1)
More than 1 Year	11(22.9)

*multiple response

The quality of one's social environment during menopause, like at other periods in life, can influence the likelihood of depression and depressive symptoms.⁹ Here, in our study, stressful life events were found to be 8.9% with very low social securities (89.4%). In their daily lives, more than half of the respondents were socially inactive or only occasionally engaged in social activities (54.6%). The majority of them received strong support from family members (92.7%), resulting in less stressful life events in families (8.9 %).

Table 4. Social relationships (n=302)

Social relationships	n(%)
Stressful life events in families (last one year)	
Yes	27(8.9)
No	275(91.1)
Support from the family members	
Yes	280(92.7)
No	22(7.3)
Financial Support from family members	
Yes	261(86.4)
No	41(13.6)
Social securities of the respondents	
Yes	32(10.6)
No	270(89.4)
Involvements in social activities	
Sometimes	165(54.6)
Active in most activity	137(45.4)

DISCUSSION

We found out the prevalence of perimenopausal depression in 42.1% of participants, mostly among married women (92.1%) of the age group of 40-45 years (44%) which is quite similar to the study conducted among women of age group 40 to 54 years in Rupandehi district, Nepal where prevalence was found to be 56.6% mostly among married(92.5%) of age group 40-44 years.¹⁰

Similarly, a cross-sectional study of 41 to 60-year-old women in Dhaka city found a high prevalence of major depression accounting for 34.2% perimenopausal depression, which is slightly less than the findings reported by our study.¹¹

Furthermore, a meta-analysis on the prevalence of depression in perimenopausal and postmenopausal women in India found a 42.47% pooled prevalence of depression in perimenopausal and postmenopausal women, which is identical to our findings. This resemblance might have resulted due to cultural similarities between Nepal and India.¹² However, studies conducted in India and Shanghai showed a variance in the prevalence of perimenopausal depression from the present study making up total depression rates of 31% and 25.9%, respectively.^{2,8} The contradiction might be due to differences in the sample size of the present and referred studies.

CONCLUSIONS

Perimenopause is a vulnerable time for women. Our findings revealed a high prevalence of depression

going through the menopause transition. Therefore, it is important to pay close attention to the signs and symptoms of depression in order to thrive in a more productive life.

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CONFLICT OF INTEREST

None

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