



A Descriptive Study to Assess the Unhealthy Lifestyle among Perimenopausal Women in a Selected Medical College Hospital, Mangaluru

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Abstract

Introduction The perimenopausal phase, also known as the menopausal transition, marks a crucial period in a woman's life, characterized by hormonal fluctuations and physiological changes. During this transitory period, lifestyle factors are critical in influencing health outcomes. Lifestyle Appraisal focuses on identifying the lifestyle factors and habits that may affect a woman's health throughout the perimenopausal period.

Methods and Materials The objective of the study was to identify perimenopausal women with unhealthy lifestyle practices using a lifestyle appraisal questionnaire. The study used descriptive design to determine the unhealthy lifestyle among perimenopausal women in the age group of 45 to 55 years. A complete enumerative sampling was used to select the 148 participants who fulfilled the inclusion criteria. Every participant completed the self-reported lifestyle assessment questionnaire (LAQ), except for the questions where the researcher measured blood pressure, height, and weight (body mass index [BMI]) with standard protocol.

Results Unhealthy lifestyle habits persist in women. The average lifestyle appraisal score was 19.17 ± 6.88 , ranging from 8 to 35. The higher the score, the unhealthy their lifestyle. The tool's highest possible score is 73. The majority of the subjects did not engage in regular exercise (43.9%), recreational activities (62.8%), or relaxation exercises (81.1%). A substantial number (54.1%) of women had encountered one to two stressful events in the last 6 months, with friends and family occasionally available for support (64.7%). None of them received love and affection every day, but rather on an occasional basis (69.6%). Most (81.1%) reported consuming meals with fruits and vegetables only two to three times a week, while fatty foods or sweets were ingested daily (60.1%). Furthermore, most (45.3%) participants were classified as overweight, with a BMI falling between 23 and 24.9.

Conclusion Simple screening methods can be used to evaluate health and lay the groundwork for understanding a person's lifestyle, which helps preserve and encourage a healthy way of life.

Keywords

- unhealthy lifestyles
- lifestyle appraisal
- lifestyle practice
- perimenopausal women
- menopausal transition

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Introduction

Changes in a woman's health and hormone levels during the perimenopausal phase indicate a substantial change in her life.¹ A 2012 World Health Organization (WHO) poll projects that by 2030, there will be 1.2 billion perimenopausal women worldwide, with roughly 76% of them residing in developing nations.² Perimenopausal working women experience symptoms related to menopause, which impair their ability to do their jobs. Studies show that a significant portion of women experience vasomotor issues, difficulty sleeping, psychological issues, and problems with urination when going through menopause. They may find it somewhat challenging to handle their work responsibilities due to these symptoms.³ Health problems are more likely to affect postmenopausal women with lower incomes and educational attainment.⁴

Women going through menopause frequently see changes in their physical, mental, and cardiometabolic health, which can have a detrimental effect on their quality of life.⁵ Changes in the composition of the body and risks associated with cardiometabolism have been noted in women going through perimenopause.⁶ Research indicates that perimenopausal women often gain weight and develop obesity, which increases their body mass index (BMI).⁷ Perimenopausal overweight women are more likely to get hyperglycemia.⁸ The greatest blood pressure, cholesterol, and triglyceride levels were recorded during late perimenopause or early postmenopause.⁹ During perimenopause, the risk of cardiovascular disease rises significantly,¹⁰ and breast cancer risk varies by several factors.¹¹ Women are four times more likely than men to develop osteoporosis, leading to weakened bones and fractures.¹²

Adopting a healthy lifestyle lowers the risk of cardiovascular disease and offers other related benefits.¹³ According to studies, physical exercise has a significant role in controlling the risk of postmenopausal breast cancer, with leisure-time physical activity showing a negative correlation with the disease's risk.¹⁴ Furthermore, middle-aged women who regularly exercise, especially by walking 6,000 steps or more a day, are linked to a decreased risk of diabetes and cardiovascular disease, independent of menopausal status.¹⁴ Stress is a common element of the human experience. But increased stress raises the intensity and frequency of a number of cardiovascular risk factors.¹⁵ Women going through menopause may get anxious because of their decreased ability to reproduce.¹⁶ Lack of sleep increases heart disease risk, and menopause often brings insomnia, worsening quality of life.^{17,18} Perimenopausal women who drink coffee and use alcohol, smoke, or consume tobacco face higher health risks, including breast cancer.^{19,20} Fatigue is a major health issue for perimenopausal women, affecting their quality of life and well-being.^{21,22}

Dietary intake of fruits and vegetables plays a crucial role in influencing health risks during perimenopause. Low-fat diets are good for perimenopausal body composition.²³ Research indicates that higher consumption of total fruits and vegetables is associated with a reduced risk of metabolic

syndrome,²⁴ osteoporosis,²⁵ and breast cancer.²⁶ Excess consumption of sugar as well as fatty foods is associated with diabetes, hypertension, heart disease, and other chronic diseases.²⁷ Increased fat intake and high-fat diets were associated with increased body weight, BMI, and the risk of overweight and obesity.²⁸

Numerous comorbidities, such as cardiovascular risk factors including diabetes, hypertension, and dyslipidemia, are common in perimenopausal women.²⁹ A woman's health can be greatly impacted by a family history of diabetes, high blood pressure, and heart disease, which increases her chance of getting these problems during perimenopause.³⁰ Family history puts perimenopausal women at increased risk.³¹ Age is a significant risk factor that is linked to cardiometabolic parameters.⁷ This highlights how important it is for her to assess her health.

Women's health at this stage depends greatly on their understanding of menopause and health-promoting practices. Women do not regularly include health-promoting activities in their daily routines.³² Modifications in lifestyle during the perimenopausal years may have a significant role in influencing long-term health outcomes for women. A woman's midlife perimenopause is a good time to talk about health screening. Perimenopausal women should assess their risk factors to quickly implement a lifestyle, to modify or reverse these negative effects. Using a simple screening questionnaire, the current study aims to determine the lifestyle practices and habits of perimenopausal women.

Methods and Materials

The objective of the study was to identify the perimenopausal women with unhealthy lifestyle. A total of 148 perimenopausal women who met the selection criteria were chosen from 300 women who were in the 45 to 55 age range, could read and write in Kannada or English, and the rest were excluded as they were menopausal and had suffered from comorbid conditions such as heart disease, cancer, or arthritis as the investigator planned for lifestyle intervention in the follow-up study. The list of women who are nonhealth professionals was obtained from the HR department of a private medical college hospital. The study employed a descriptive design and a complete enumerative sampling technique.

The Institutional Ethics Committee granted ethical permission (YEC1/2020/037). With the use of an informed consent form and a participant information sheet, the investigator introduced oneself and determined the subject's willingness to participate. They were given full autonomy to take part in the research. Every participant completed the self-reported lifestyle assessment questionnaire (LAQ), except the questions where the researcher took measurements of blood pressure, height, and weight (BMI) with standard protocol.

Data Collection Tool

A modified lifestyle appraisal questionnaire (LAQ)³³ was used to collect the information on their lifestyle and scored

for level of risk. For most items, risks range from 0 (little or no risk) to 4 (high risk), while some are dichotomous. It is scored by adding up the level of risk. The total possible score on is 73. Higher scores are assumed to be associated with higher risks of disease and lower quality of life. The tool is valid and reliable, with $r = 0.83$. Permission for the use of the tool was obtained from the authors.

Two parts make up the original LAQ. Only the first section which discusses lifestyle choices, habits, and risk factors is used here. The second section is about cognitive assessment of stress. A few changes were made to the BMI category (which now complies with WHO and Asian norms); the option has a current history of heart disease and is replaced with dyslipidemia as this was an exclusion criterion.

Every participant completed the self-reported LAQ by choosing the appropriate options among the alternatives given, except the questions where the researcher took measurements of blood pressure, height, and weight (BMI) with standard protocol. The participants filled out the printed form at their workplace; it took about 20 minutes to fill out the form.

Results

The majority of the respondents (85.8%) are between the ages of 45 and 49 years. The remaining subjects are between the ages of 50 and 55 years; 85.1% of the subjects completed their primary education, which was the highest percentage, followed by higher primary education (12.8%) and PUC (2%). All of the subjects were nonhealth professional personnel who worked as female nursing orderlies or housekeepers in the facility. They were all from low-income families, making less than Rs. 20,000 a year.

With a range of 8 to 35, the mean lifestyle appraisal score was 19.17 ± 6.88 . The unhealthy their lifestyle, the higher the score. The maximum score as per the tool is 73.

A significant proportion (91.9%) of the participants consumed tea or coffee at a rate of less than three cups per day. Notably, a considerable percentage of women (31.8%) reported having a good night's sleep approximately once a week. The majority of the subjects did not engage in regular exercise (43.9%), recreational activities (62.8%), or relaxation exercises (81.1%). A substantial number (54.1%) of women had encountered one to two stressful events in the last 6 months, with friends and family occasionally available for support (64.7%). None of them received love and affection every day, but rather on an occasional basis (69.6%).

Less than half of the participants did not use any medications for sleep or anxiety (34.5%). About half (45.9%) of them experienced fatigue daily. The majority (81.1%) reported consuming meals with fruits and vegetables only two to three times a week, while fatty foods or sweets were ingested once a day (60.1%). Notably, none of the participants smoked or consumed alcohol. A small fraction had a family history of high blood pressure and diabetes mellitus (DM) (3.4 and 4.1%). A small number of women experienced hypertension (4.1%), DM (6.1%), dyslipidemia (2%), and hypertension combined with DM (2%). Perimenopausal women

frequently have many comorbidities, including diabetes, hypertension, and dyslipidemia.⁷

Some women exhibited systolic blood pressure levels between 120 and 129 or 130 and 139 (8.1 and 8.8%), and the diastolic blood pressure remained within the normal range in the majority (95.9%). Furthermore, most (45.3%) participants were classified as overweight, with a BMI falling between 23 and 24.9 (► **Table 1**).

There was an association between age and education with lifestyle appraisal scores of perimenopausal women ($p = 0.001$ and $p < 0.0001$). Test statistics used were Mann-Whitney's *U*-test and Kruskal-Wallis' *z*-test, respectively (► **Table 2**).

Discussion

Despite decades of efforts to raise public health awareness, many women still exhibit high rates of modifiable risk factors. The risks such as unhealthy dietary choices, sedentary lifestyles, and physical inactivity persist in the vast majority of women,³⁴ which is evident in the present study.

According to the questionnaire, the greatest lifestyle appraisal score was just 35 out of a possible 73, and the mean score was 19.17 ± 6.88 . The higher the score, the unhealthier the lifestyle. The questionnaire does not specify a threshold score; instead, each risk factor can be considered independently to create a customized threat.

None of the women consumed cigarettes or tobacco; they had past and present smoking and consumed alcohol. The present study is consistent with a comprehensive research survey conducted by Mishra et al, in India, which revealed that women were extremely unlikely to smoke, use tobacco products, or drink alcohol.³⁵ More than half of the women in this study reported having trouble sleeping, and the results are consistent with another study that found climacteric women's sleep is readily disrupted.³⁶ According to a study, there was a substantial 1.50-fold increase in the prevalence of poor sleep quality when women entered the perimenopause from the premenopause.³⁷ In the present study, the majority of the subjects did not engage in regular exercise, recreational activities, or relaxation exercises. A study revealed that physical activity decreased over time in perimenopausal women.³⁸ A substantial body of evidence indicates that an insufficient percentage of adults meet the international recommendations for maintaining a healthy and active lifestyle,³⁹ which is more evident with advancing age, particularly among women.⁴⁰ An active lifestyle established during this life stage is a predictor of later-life active aging.⁴¹

About half of them experienced fatigue daily. Perimenopausal women frequently complain of being tired, with studies highlighting its impact on their quality of life and overall well-being.^{21,22} The majority reported consuming meals with fruits and vegetables only two to three times a week, while fatty foods or sweets were ingested once a day. The study in Indonesia examined the dietary pattern of consuming fatty food, processed food, and snacks, which was associated with obesity parameters such as BMI and waist circumference in healthy women.⁴²

Table 1 Distribution of lifestyle practice of perimenopausal women based on an LAQ ($N = 148$)

Items of LAQ	Responses	<i>n</i> (%)
Drink tea or coffee	No/up to 3 cups/day	136 (91.9)
	4–8 cups	12 (8.1)
Has good night sleep	Most night	62 (41.9)
	About every second night	32 (21.6)
	About once a week	47 (31.8)
	Rarely	7 (4.7)
Does exercise or go for a walk	3 or more times a week	56 (37.8)
	About once a week	27 (18.2)
	Not at all	65 (43.9)
Participates in an activity or recreation (gardening, reading, watching TV)	Once a week	55 (37.2)
	Not at all	93 (62.8)
Does relaxation exercise	At least once a week	28 (18.9)
	Not at all	120 (81.1)
Suffers from physical symptoms—fatigue	Not at all	7 (4.7)
	A few times a year	15 (10.1)
	Once or twice a month	20 (13.5)
	Once or twice a week	38 (25.7)
	Every day	68 (45.9)
Eat meals with vegetables, fruits, and lean meat	At least once day	28 (18.9)
	2–3 times a week	120 (81.1)
Eats fatty or sweet foods	Once or twice a week	59 (39.9)
	About once a day	89 (60.1)
Suffers from diabetes	Yes	9 (6.1)
High BP	Yes	6 (4.1)
Both	Yes	3 (2)
Dyslipidemia	Yes	3 (2)
No comorbidities	–	127 (85.8)
Has close friends and family to help with a problem	Always available	1 (0.7)
	Often available	66 (44.6)
	Sometimes available	81 (64.7)
Gives and receives affection	Occasionally each day	103 (69.6)
	Once/twice a week	45 (30.4)
Experienced major stressful events in the last 6 mo	None	2 (1.4)
	1–2	80 (54.1)
	3–6	66 (44.6)
Has a family history of heart disease	Yes	2 (1.4)
High blood pressure	Yes	5 (3.4)
BP	Yes	6 (4.1)
Both BP and DM	Yes	3 (2)
	No	132 (89.1)
Do you take any drugs for anxiety, sleep, or painkillers	No	51 (34.5)
	Only once or twice a year	62 (41.9)
	Once or twice a month	35 (23.6)
Smokes/takes alcohol	No	148 (100)
Systolic blood pressure (mm Hg)	<120	116 (78.4)

Table 1 (Continued)

Items of LAQ	Responses	n (%)
	120–129	12 (8.1)
	130–139	13 (8.8)
	140–149	5 (3.4)
	150–159	1 (0.7)
	160+	1 (0.7)
Diastolic blood pressure (mm Hg)	<80	142 (95.9)
	80–85	1 (0.7)
	90–95	5 (3.4)
BMI	<18.5	19 (12.8)
	18.5–22.9	31 (20.9)
	23–24.9	67 (45.3)
	25–29.9	29 (19.6)
	>30	2 (1.4)

Abbreviations: BMI, body mass index; LAQ, lifestyle appraisal questionnaire.

Note: The responses with cell value zero are not mentioned.

Table 2 Association of lifestyle practice with demographic variables (N =148)

Demographic variables	Category	n	Test statistics	p-Value
Age	45–49 y	126	776.5	0.001 ^a
	50–55 y	22		
Education	Primary	126	21.102	<0.0001 ^a
	High school	19		
	PUC	3		

^ap <0.05 is significant.

The present study showed that a considerable percentage of women reported having stress, and nonreceipt of love and affection. A study reported that perimenopausal women experienced the highest level of stress and were more severely bothered by feelings of depression and anxiety.⁴³ A small fraction had a family history of high blood pressure, dyslipidemia, and DM. Results of a cross-sectional study conducted by Jabbar et al, among 1,000 people visiting hospitals showed 44.8% had a family history of DM and 49.1% had hypertension.⁴⁴ According to Troia et al, perimenopausal women were commonly affected by diabetes, hypertension, and dyslipidemia, all of which were present in some of the women in the current study.²⁹

Only a few women had systolic blood pressure levels between 120 and 129 or 130 and 139 (8.1%, 8.8%), with the normal diastolic blood pressure in the majority (95.9%). A study by Tasić et al reported that before reaching menopause at the age of 45 to 55 years, women have slightly lower blood pressure levels and also a lower chance to develop hypertension.⁴⁵ Most of the participants were overweight, which is one of the predictors of coronary artery disease. With a steady increase in the number of overweight and obese people, there is a growing public health concern about

body size and lifestyle diseases, as reported by Sand et al and Manoharan et al.^{46,47} A comprehensive review conducted by Verma et al highlighted the several factors linked to obesity during the perimenopausal transition.⁴⁸

All the women belonged to low income family. Age and education were related to perimenopausal women's lifestyle assessment ratings. According to Akinyemiju et al, the risk of health problems is increased for perimenopausal women with low incomes and educational levels.⁴ In a study, it was reported that women with low socioeconomic status had faced with several barriers to adopting a healthy lifestyle.⁴⁹

This study utilized a straightforward self-reported questionnaire to evaluate healthy lifestyle practices. The availability of such a simple questionnaire can motivate women to identify and engage in healthier behaviors. It is recommended that women personally assess their health, although nurses and primary care providers can also use this screening tool to evaluate women's health. Additionally, there is literature on the use of more comprehensive LAQs.⁵⁰ The significance of this study lies in its use of a practical and easy-to-use screening tool to assess women's lifestyles. By making health assessment more accessible, the study encourages proactive health management and promotes the adoption of healthier

behaviors among women. The findings underscore the potential of simple questionnaires in facilitating health awareness and intervention, which is crucial for improving overall women's health outcomes in perimenopausal women.

Conclusion

Despite health promotion initiatives targeted at altering these lifestyle characteristics, women still report lower rates of physical activity, intake of fruits and vegetables, and higher BMIs than are advised for optimal health. The study seemed important to identify the health risk and emphasizes encouraging healthy behaviors for lowering modifiable risk factors before they worsen into major cardiovascular problems, which is made possible in the follow-up research by the investigator.

Note

The authors assure that the manuscript has not been submitted to any other journal for publication. The Institutional Ethics Committee has approved this project (Protocol No.: YEC1/2020/037).

Conflict of Interest

None declared.

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