

A Study to Assess the Impact of Physical Activity on Menopausal Symptoms among Women in a Selected Area, Coimbatore

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Abstract:

This quantitative research study investigates the prevalence and characteristics of yoga practice among women experiencing menopause in select areas of Coimbatore district, Tamil Nadu. The study aims to assess the level of yoga practice within this demographic and identify potential associations between yoga practice scores and selected demographic variables. Given the increasing life expectancy of women globally and the significant physiological changes associated with menopause, understanding the role of holistic practices like yoga in promoting well-being is crucial. This study employs a structured survey instrument administered to a sample of menopausal women to collect quantitative data. The findings of this study will contribute to the existing body of knowledge on women's health and inform potential interventions involving yoga to mitigate the challenges associated with menopause.

KEYWORDS: Menopause , Menopausal symptoms and Physical activity

Introduction

Menopause, a natural and irreversible part of aging in women, marks the end of menstruation and reproductive capability. This transition occurs gradually over several years due to a decline in ovarian hormone production. While a normal part of aging, some women experience disruptive symptoms during this transitional period that impact their daily lives and overall well-being. This study aimed to identify prevalent menopausal symptoms, assess the physical activity levels of menopausal women, and investigate the relationship between the two. A quantitative, non-experimental correlational study design was employed. The study population consisted of 50 women aged 41-55 who had reached menopause. Data was collected through interviews using a modified standardized International Physical Activity Questionnaire to measure physical activity and a self-structured questionnaire to assess menopausal symptoms. The results indicated that 38% of the participants experienced mild menopausal symptoms, 38% experienced moderate symptoms, and 24% experienced severe symptoms. Further analysis revealed the following symptom severity distribution across different activity levels: heavy workers (59.09% mild, 31.81% moderate, 9.09% severe), moderate workers (27.77% mild, 55.55% moderate, 16.66% severe), and sedentary workers (10% mild, 20% moderate,

70% severe). A Chi-square test was conducted to determine the relationship between physical activity and menopausal symptoms. The calculated Chi-square value of 20.49 exceeded the table value of 9.49 at a significance level of 0.05. This indicates a statistically significant relationship, suggesting that regular physical activity is associated with reduced severity of menopausal symptoms.

From daughter to partner, childbearer to matriarch, a woman's life is a tapestry woven with diverse roles and experiences, each adding unique value. The physiological milestones of puberty, menstruation, lactation, and menopause are often viewed not as limitations, but as transformative periods of growth and power. Menopause, in particular, marks a significant transition – the cessation of fertility and, for many, the dawn of newfound freedom and self-discovery. While each woman's experience of menopause is deeply personal, unlocking the potential for joy and liberation requires navigating the physical and emotional challenges that accompany this natural process.

The need to understand and address these challenges is underscored by the significant impact they can have on a woman's quality of life. Menopause, typically occurring between the ages of 45 and 55, is characterized by a decline in ovarian hormone production, leading to both physiological and psychological changes. Physiological symptoms can include hot flashes, joint pain, night sweats, palpitations, weight gain, and hair loss. Psychologically, women may experience anxiety, mood swings, irritability, difficulty concentrating, and forgetfulness.

Research increasingly points to the positive influence of physical activity in mitigating these menopausal symptoms and enhancing overall well-being. For instance, a study by Steriani Elavsky (2009) explored the long-term effects of physical activity on menopause-related quality of life, highlighting the mediating role of physical self-worth and positive affect. The randomized controlled trial demonstrated that physical activity can indeed provide lasting benefits for women during the menopausal transition, partly through the promotion of positive psychological outcomes.

Similarly, Skrzypulec et al (2010) found a correlation between physical activity and reduced climacteric symptoms in a study of healthy women aged 45-55. The researchers concluded that encouraging regular physical activity is crucial for improving health and alleviating the discomfort associated with menopause. Adriana Coutinho de et al (2011) further emphasized the beneficial impact of habitual physical activity, specifically moderate intensity exercise for at least 60 minutes per day, on climacteric symptoms, menopause symptoms, and various aspects of health-related quality of life, particularly habitual symptoms, and psychological aspects. These studies collectively suggest that physical activity plays a crucial role in empowering women to navigate menopause with

greater ease and enhanced well-being

A study was conducted by Ana C.G Canario et al (2012) to assess the impact of physical activity on menopausal symptoms in middle aged women. The objective of the study was to evaluate the influence of physical activity on climacteric symptoms among middle aged women in Brazil. Population - based sample of women aged 40-65 years were recruited from Natal, Brazil. Climacteric symptoms were assessed using the menopause rating scale and the Blatt- Kupperman menopausal index. The level of physical activity was assessed via the International Physical Activity Questionnaire. They concluded that physical activity improved climacteric symptoms among middle - aged women in Brazil..

This study aimed to investigate the relationship between physical activity and menopausal symptoms in women aged 41-55. The specific objectives were: (1) to identify the range of menopausal symptoms experienced by women in the study population; (2) to assess the types of physical activity performed by these women; and (3) to determine if a correlation exists between their physical activity levels and the severity of their menopausal symptoms. A quantitative, non-experimental correlational design was employed to achieve these objectives. The study was conducted in Avarampalayam, Coimbatore. Physical activity served as the independent variable, while menopausal symptoms were the dependent variable. The target population consisted of women aged 41-55 residing in Avarampalayam, Coimbatore, who had already experienced menopause.

A convenience sampling technique was used to recruit a sample of 50 women from this population. Inclusion criteria required participants to be menopausal women aged 41-55, present during the data collection period, and willing to provide informed consent. Exclusion criteria excluded women with pre-existing chronic illnesses. Data was collected using an interview method with two primary instruments: a modified version of the International Physical Activity Questionnaire (IPAQ) and a self-structured questionnaire designed to assess menopausal symptoms.

The research tool comprised three sections:

Part A: Collected demographic data from the participants.

Part B: The modified IPAQ contained 10 statements relating to physical activity. The modification involved simplifying the scoring pattern by selecting one criterion from each of the three original IPAQ scoring categories. Participants were then classified based on their reported activity levels as:

Sedentary workers: <2.30 hours/day of physical activity

Moderate workers: 2.30 - 7.30 hours/day of physical activity

Heavy workers: >7.30 hours/day of physical activity

Part C: The self-structured questionnaire consisted of 20 statements designed to assess the presence and severity of menopausal symptoms. Responses were scored as follows:

No symptoms: 0

Mild symptoms: 1

Moderate symptoms: 2

Severe symptoms: 3

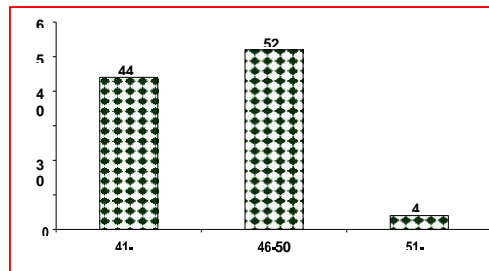


Figure 1- Distribution of Age at MenopauseDistribution of Educational Status

The data reveals that 46% of the selected women were illiterate, 40% women had primary level education, 12% had secondary level education and 2% had higher secondary education.

Distribution of Occupation

The data reveals that 24% of the selected samples were housewives and 76% were working women.

Assessment of Physical activity

The data reveals that 20% of the selected women were sedentary workers, 36% were moderate workers and 44% were engaged in heavy works.

Assessment of Menopausal symptoms

The data reveals that 38% of selected samples have mild menopausal symptoms, 38% have moderate menopausal symptoms and 24% have severe menopausal symptoms.

Among the heavy workers 59.09% have mild symptoms, 31.81% have moderate symptoms and 9.09% have severe symptoms. Among the moderate workers 27.77% have mild symptoms, 55.55% have moderate symptoms and 16.66% have severe symptoms. Among sedentary workers 10% have mild symptoms, 20% have moderate symptoms and 70% have severe symptoms.

Relationship between physical activity and menopausal symptoms

χ^2 test was used to assess the relationship between physical activity and menopausal symptoms. The calculated χ^2 value

20.49 is greater than the table value, 9.49 at 0.05 level of significance. Thus the hypothesis, "there is a significant relation between physical activity and menopausal symptoms" is accepted. The result

proves that women doing regular physical activity have less severity of menopausal symptoms.

Table 1- Assessment of Menopausal Symptoms

Nature of Work	Mild symptoms		Moderate symptoms		Severe symptoms		Total
	No. of Participants	%	No. of Participants	%	No. of Participants	%	
	Heavy worker	13	59.09	7	31.8	2	
Moderate worker	5	27.77	10	55.5	3	16.66	18
Sedentary worker	1	10	2	20	7	70	10

Table 2 Association between Physical Activity And Menopausal Symptoms

Physical activity	No. of Participants	χ^2 value
Heavy worker	22	20.49
Moderate worker	18	
Sedentary worker	10	

CONCLUSION:

This study investigated the relationship between physical activity and the severity of menopausal symptoms in women. The findings indicate a negative correlation: women who engaged in strenuous physical activity reported experiencing less severe menopausal symptoms. Therefore, physical activity appears to have a significant impact on reducing the severity of these symptom.

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