

A Study to Assess the Prevalence of Menopausal Symptoms Among the Menopausal Women in Selected Rural Community.

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Abstract—Background of the Study: Menopause is a natural biological process characterized by the permanent cessation of menstruation resulting from the decline in ovarian function. Although it is a normal physiological event, many women experience vasomotor, physical, psychological, and urogenital symptoms that adversely affect their quality of life. The burden of these symptoms is often greater among rural women because of limited awareness, inadequate access to healthcare services, and poor health-seeking behavior. Therefore, assessing the prevalence of menopausal symptoms is essential for planning appropriate healthcare interventions.

Aim of the Study: The present study was conducted to assess the prevalence of menopausal symptoms among menopausal women in a selected rural community of Bihar and to determine the association between menopausal symptoms and selected sociodemographic and clinical variables.

Methodology: A quantitative research approach with a descriptive research design was adopted for the study. The study was conducted in a selected rural community of Rohtas district, Bihar. Thirty menopausal women aged 45–55 years who had attained natural menopause and fulfilled the inclusion criteria were selected by randomized sampling technique. Data were collected using a structured questionnaire consisting of two sections: Section A included sociodemographic and clinical variables, while Section B consisted of a structured menopausal symptom assessment questionnaire. The reliability of the tool was established by the test-retest method ($r = 0.85$). The collected data were analyzed using descriptive statistics (frequency, percentage, mean, and standard deviation) and

inferential statistics (Chi-square test) to determine the association between menopausal symptoms and selected variables.

Results: The findings of the study revealed that menopausal symptoms were highly prevalent among the participants. Headache (77%), fatigue (77%), mood swings (73%), backache (67%), muscle pain (63%), anxiety (63%), excessive sweating (63%), night sweats (60%), and weight gain (60%) were among the most commonly reported symptoms. Significant associations were observed between menopausal symptoms and selected sociodemographic and clinical variables, including monthly income, family type, years since menopause, history of hysterectomy, irregular menstruation before menopause, religion, and number of living children ($p < 0.05$).

Conclusion: The study concluded that menopausal symptoms are highly prevalent among women residing in rural communities and are significantly associated with several sociodemographic and clinical factors. The findings emphasize the need for community-based health education, early screening, counseling, and appropriate nursing interventions to improve awareness, promote timely healthcare-seeking behavior, and enhance the quality of life of menopausal women in rural areas.

Index Terms—Menopause, menopausal symptoms, prevalence, menopausal women, rural community, Bihar, quality of life.

I. INTRODUCTION

Menopause is a natural biological process that marks the permanent cessation of menstruation due to the

loss of ovarian follicular activity. It usually occurs between 45 and 55 years of age and signifies the end of a woman's reproductive period. Although physiological, menopause is often accompanied by several distressing symptoms¹. The decline in estrogen levels during menopause results in various vasomotor, physical, psychological, and urogenital symptoms. Common complaints include hot flashes, night sweats, fatigue, joint pain, sleep disturbances, anxiety, mood swings, and vaginal dryness. The severity and frequency of these symptoms vary among women depending on individual and environmental factors.² With increasing life expectancy, women now spend nearly one-third of their lives in the postmenopausal period. According to the World Health Organization, menopausal symptoms can significantly affect women's physical health, emotional well-being, social relationships, and overall quality of life, highlighting the need for greater attention to menopausal health.³ Women living in rural communities often experience greater challenges during menopause because of limited healthcare facilities, low literacy levels, poor awareness, cultural beliefs, and inadequate health-seeking behavior. Many consider menopausal symptoms to be a normal part of ageing and therefore do not seek appropriate medical advice or treatment.⁴ Several studies conducted in India have reported a high prevalence of menopausal symptoms among rural women, with musculoskeletal pain, fatigue, vasomotor symptoms, and psychological disturbances being the most frequently reported. These findings emphasize the importance of early identification, health education, counseling, and community-based interventions for menopausal women.⁵ Considering the increasing number of postmenopausal women and the limited evidence available from rural communities in Bihar, the present study was undertaken to assess the prevalence of menopausal symptoms among menopausal women in a selected rural community and to determine their association with selected sociodemographic and clinical variables.⁶

II. NEED OF THE STUDY

Menopause is a natural physiological transition in a woman's life; however, it is frequently associated with a wide range of physical, psychological, vasomotor, and urogenital symptoms that can adversely affect

health and quality of life. With increasing life expectancy, women spend nearly one-third of their lives in the postmenopausal period. Despite this, menopausal health continues to receive limited attention, particularly in rural communities where awareness, access to healthcare services, and health-seeking behavior remain inadequate.⁷

Evidence from previous studies demonstrates that menopausal symptoms are highly prevalent among women across different populations. Gaikwad and Gupta (2020) reported that 97.68% of middle-aged women experienced menopausal symptoms, with physical symptoms (96.76%) being the most common, followed by psychosocial (87.50%), vasomotor (68%), and sexual symptoms (51.85%). Similarly, Roshini et al. (2025) found that 96.6% of rural women experienced at least one menopausal symptom, with joint and muscular discomfort affecting 92.8% of participants and poor quality of life reported by 69.3% of women⁸. Several Indian studies have consistently shown that musculoskeletal and psychological symptoms are among the most common complaints during menopause. Akhtar and Gupta (2024) reported joint and muscle pain (89.0%), fatigue (87.4%), and sleep disturbances (82.5%) as the predominant symptoms among rural women. Likewise, Mediboina and Pratyush (2024) identified joint and muscle pain (82%), sleep problems (64%), and anxiety (57%) as the most frequently reported symptoms, while Patil and Deshmukh (2019) observed that 77.77% of women experienced joint and muscular discomfort, with symptoms increasing as women progressed from premenopause to postmenopause⁹. Research has also highlighted the significant impact of menopausal symptoms on women's quality of life. Deb et al. (2024) found that sweating (98%), anxiety and nervousness (98%), and lack of energy (89.25%) were highly prevalent and significantly affected quality of life. Sharad and Devi (2022) similarly reported that menopausal symptoms had a significant influence on quality of life and were associated with demographic characteristics. These findings indicate that menopausal health extends beyond physical symptoms and affects emotional, psychological, and social well-being.¹⁰

Title Of Study: A study to assess the prevalence of menopausal symptoms among the menopausal Women in selected rural community.

Objectives

1. To assess the prevalence of menopausal symptoms among the menopausal Women in selected rural community.
2. To associate of menopausal symptoms among the menopausal Women with their sociodemographic and clinical variables.

Hypothesis

RH₁: There will be a significant association of menopausal symptoms among the menopausal Women with their sociodemographic and clinical variables.

III. METHODOLOGY

Research Approach: A quantitative research approach was adopted to assess the prevalence of menopausal symptoms among menopausal women in a selected rural community.

Research Design: A descriptive research design was used for the study.

Research Setting: The study was conducted in a selected rural community of Rohtas District, Bihar.

Population

- Target Population: All menopausal women.
- Accessible Population: Menopausal women residing in the selected rural community.

Sample: The study included 30 menopausal women who fulfilled the inclusion criteria.

Sampling Technique: A randomized sampling technique was used to select the study participants.

Sampling Criteria

Inclusion Criteria

- Women aged 45–55 years.
- Women who had attained natural menopause.
- Women residing in the selected rural community.
- Women willing to participate in the study.

Exclusion Criteria

- Women with surgical menopause.
- Women with severe chronic illness.
- Women unavailable during the data collection period.

Research Variables

- Research Variable: Menopausal women.
- Dependent Variable: Prevalence of menopausal symptoms.
- Sociodemographic and Clinical Variables: Age, education, occupation, monthly income, type of family, religion, years since menopause, number of living children, history of hysterectomy, history of irregular menstruation before menopause, and duration of first menopausal symptoms.
- Extraneous Variables: Chronic illness, BMI, lifestyle factors, hormone replacement therapy, and psychosocial stress.

Description of the Tool

The self-structured questionnaire consisted of two sections:

- Section A: Sociodemographic and clinical variables.
- Section B: Assessment of menopausal symptoms, including vasomotor, physical, psychological, urogenital, musculoskeletal, cardiovascular, and metabolic symptoms.

Validity and Reliability

- Validity: Established by a panel of experts comprising the research guide, nursing experts, statistician, and language expert.
- Reliability: Determined using the test-retest method. The reliability coefficient was $r = 0.85$, indicating good reliability.

Pilot Study: A pilot study was conducted among 3 menopausal women in Akhorhigola Village, Rohtas, Bihar, to assess the feasibility and practicability of the study. Pilot participants were excluded from the main study.

IV. DATA COLLECTION PROCEDURE

Data were collected from 15th February to 20th February 2026 in a selected rural community of Rohtas, Bihar. After obtaining ethical permission and written informed consent, eligible menopausal women were selected through randomized sampling. Data were collected using a structured questionnaire while ensuring participants' privacy, confidentiality, and voluntary participation throughout the study.

V. PLAN FOR DATA ANALYSIS

The collected data were checked for completeness, accuracy, and consistency before analysis. The data were coded, tabulated, and entered into Statistical Package for the Social Sciences (SPSS) version 27 for statistical analysis. Descriptive and inferential statistics were used according to the objectives of the study. Descriptive statistics, including frequency, percentage, mean, and standard deviation, were used to summarize the sociodemographic and clinical characteristics of the participants and to assess the prevalence of menopausal symptoms. The prevalence of individual menopausal symptoms was presented using tables and graphical representations. Inferential statistics were applied to determine the association between menopausal symptoms and selected sociodemographic and clinical variables. The Chi-square (χ^2) test was used to identify statistically significant associations. A p-value of less than 0.05 was considered statistically significant. The analyzed data were interpreted according to the study objectives and presented in the form of tables, charts, and graphs for easy understanding.

VI. DATA ANALYSIS

The data obtained from 30 menopausal women were analyzed using SPSS version 27. Descriptive statistics revealed the frequency and percentage distribution of the participants according to their sociodemographic and clinical characteristics. The prevalence of menopausal symptoms was calculated using frequencies, percentages, means, and standard deviations. The findings showed that physical, vasomotor, psychological, and urogenital symptoms were common among the participants, with headache, fatigue, mood swings, backache, and excessive sweating being the most frequently reported symptoms. Inferential statistics using the Chi-square (χ^2) test were applied to determine the association between menopausal symptoms and selected sociodemographic and clinical variables. Significant associations were identified between selected variables and specific menopausal symptoms at $p < 0.05$. The findings were presented systematically through tables, figures, and graphs, enabling clear interpretation and facilitating comparison with previous research studies.

V. RESULT

Section I: Sociodemographic and Clinical Characteristics

The findings revealed that the majority of the participants (37%) were less than 45 years of age, 23% had a professional or honors degree, and 33% were professionals. Nearly half (50%) belonged to nuclear families, 90% were Hindus, and 47% had attained menopause 1–5 years previously. Most women (60%) had 1–2 living children, 80% had no history of hysterectomy, and 63% reported irregular menstruation before menopause.

Table 4.1: Sociodemographic and Clinical Variables distribution among menopausal women.

Sociodemographic and Clinical Variables	Frequency (n)	Percent age (%)
Age		
Less than 45	11	37%
45 to 49 Years	10	33%
50 to 55 Years	6	20%
More than 55	3	10%
Education		
Professional and Honors Degree	7	23%
Graduate and Post Graduate	6	20%
Intermediated and Post High School Diploma	4	13%
Highschool Certificate	3	10%
Middle School Certificate	4	13%
Primary School Certificate	4	13%
Illiterate	2	7%
Occupation		
Professionals	10	33%
Technicians and associate professionals	2	7%
Skilled workers and shop and market sales workers	3	10%
Skilled agricultural and fishery workers	1	3%
Craft and related trade workers	1	3%
Plant and machine operators and assemblers	1	3%
Elementary occupation	3	10%
unemployed	9	30%
Monthly Income		
₹51,646 and above	3	10%
₹25,811-51,645	4	13%
₹19,351-25,809	2	7%
₹12,890-19,350	1	3%
₹7725-12,889	4	13%
₹2586-7724	5	17%
≤₹2585	11	37%
Types of family		
Nuclear	15	50%

Joint	13	43%
Extended	2	7%
Religion		
Hindu	27	90%
Muslim	3	10%
Years since menopause		
Less than 1 year	11	37%
1 – 5 years	14	47%
More than 5 years	5	17%
Number of living children		
None	6	20%
1–2	18	60%
3–4	5	17%
More than 4	1	3%
History of hysterectomy		
Yes	6	20%
No	24	80%
Irregular Menstrual before Menopause		
Yes	19	63%
No	11	37%
Occurrence of 1st Menopausal Symptoms		
at 1 month	11	37%
at 3 months	11	37%
6 months	7	23%
after 1 year	1	3%

Section II: Prevalence of Menopausal Symptoms

The study found that menopausal symptoms were highly prevalent among the participants. The most commonly reported symptoms were headache (77%) and fatigue (77%), followed by mood swings (73%), backache (67%), excessive sweating (63%), muscle pain (63%), anxiety (63%), night sweats (60%), and weight gain (60%). Other symptoms included memory problems (57%), hot flushes (53%), joint pain (53%), sleep disturbance (53%), insomnia (50%), poor concentration (50%), pain during sexual intercourse (47%), vaginal dryness (43%), high blood pressure (43%), osteoporosis (37%), chest pain or heart disease (30%), and recurrent urinary tract infection (27%). Statistical analysis showed that headache ($p=0.003$), fatigue ($p=0.003$), and mood swings ($p=0.01$) were significantly more prevalent among the study participants.

Section III: Association of Menopausal Symptoms with Sociodemographic and Clinical Variables

The study identified significant associations between menopausal symptoms and selected sociodemographic and clinical variables. Occupation was significantly associated with diagnosed osteoporosis ($p=0.041$), monthly income with

backache ($p=0.045$), family type with irritability ($p=0.038$), and religion with joint pain, history of bone fracture, and weight gain ($p<0.05$). Years since menopause showed significant associations with memory problems and high blood pressure. History of hysterectomy demonstrated significant associations with hot flushes, poor concentration, memory problems, heart disease, stroke, recurrent urinary tract infection, and pain during sexual intercourse. Irregular menstruation before menopause was significantly associated with night sweats, sleep disturbance, insomnia, irritability, anxiety, high blood pressure, and recurrent urinary tract infection. The occurrence of first menopausal symptoms was significantly associated with vaginal dryness ($p<0.05$). These findings indicate that menopausal symptoms are significantly influenced by various sociodemographic and clinical characteristics.

VI. SUMMARY OF DATA ANALYSIS

The data analysis revealed that the majority of menopausal women were less than 45 years of age, belonged to nuclear families, had attained menopause within 1–5 years, and had no history of hysterectomy. Headache, fatigue, mood swings, backache, excessive sweating, muscle pain, anxiety, night sweats, and weight gain were the most prevalent menopausal symptoms. Statistical analysis demonstrated significant associations between menopausal symptoms and selected sociodemographic and clinical variables, including occupation, monthly income, family type, religion, years since menopause, number of living children, history of hysterectomy, irregular menstruation before menopause, and occurrence of first menopausal symptoms. Overall, the findings indicate that menopausal symptoms are highly prevalent among women in the selected rural community and are significantly influenced by various sociodemographic and clinical factors.

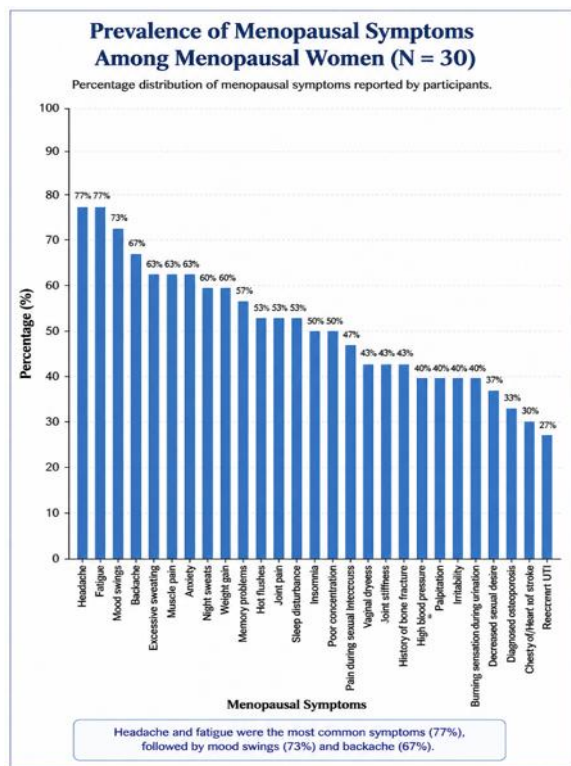


Fig4.1 Prevalence of Menopausal Symptoms among Menopausal Women (N=30)

VII. DISCUSSION

The findings of the present study revealed that menopausal symptoms are highly prevalent among women residing in the selected rural community of Bihar. The majority of participants had attained menopause within the previous 1–5 years and experienced a wide range of physical, psychological, vasomotor, and urogenital symptoms, with headache, fatigue, mood swings, backache, excessive sweating, muscle pain, anxiety, and night sweats being the most common. These findings are consistent with previous studies by Gaikwad and Gupta (2020), Roshini et al. (2025), Akhtar and Gupta (2024), and Deb et al. (2024), which also reported a high prevalence of menopausal symptoms and their adverse impact on women's quality of life. Furthermore, the present study identified significant associations between menopausal symptoms and selected sociodemographic and clinical variables, including occupation, monthly income, family type, religion, years since menopause, number of living children, history of hysterectomy, irregular menstruation before menopause, and occurrence of first menopausal

symptoms. These findings indicate that menopausal health is influenced by multiple demographic and clinical factors, emphasizing the need for early identification, health education, regular screening, counseling, and comprehensive nursing interventions to improve the quality of life of menopausal women in rural communities.

VIII. CONCLUSION

The present study concluded that menopausal symptoms are highly prevalent among menopausal women residing in the selected rural community. Physical symptoms such as headache, fatigue, backache, and muscle pain, along with psychological and vasomotor symptoms including mood swings, anxiety, excessive sweating, and night sweats, were commonly experienced. Significant associations were found between menopausal symptoms and selected sociodemographic and clinical variables, indicating that these factors influence the occurrence and severity of symptoms. The study highlights the need for increased awareness, early identification, regular screening, health education, counseling, and community-based nursing interventions to promote appropriate healthcare-seeking behavior and improve the quality of life of menopausal women in rural communities. The findings provide valuable evidence for planning nursing services and future research in menopausal health.

IX. NURSING IMPLICATION

1. Nursing Practice

Community health nurses should identify menopausal women at risk of severe menopausal symptoms through regular screening and assessment. Nurses should provide health education regarding menopausal changes, symptom management, healthy lifestyle practices, balanced nutrition, regular exercise, stress management, and adequate sleep. Counseling services should be provided to reduce anxiety, improve coping strategies, and encourage positive attitudes toward menopause. Nurses should encourage women to seek timely medical consultation for severe menopausal symptoms and associated health problems. Individualized nursing care should be planned based on the physical, psychological, and social needs of menopausal women.

2. Nursing Education

Menopausal health should be emphasized in undergraduate and postgraduate nursing curricula.

Nursing students should receive adequate knowledge regarding assessment, management, and counseling of menopausal women.

Continuing Nursing Education (CNE), workshops, seminars, and awareness programmes should be organized to update nurses on evidence-based menopausal care.

Educational materials such as pamphlets, booklets, posters, and audiovisual aids should be developed to improve awareness among women and healthcare professionals.

3. Nursing Administration

Nurse administrators should organize community-based screening and health education programmes for menopausal women.

Policies should be developed to strengthen menopausal health services at primary healthcare centers.

Adequate resources, educational materials, and trained nursing personnel should be made available for effective menopausal care.

Collaboration with government and non-government organizations should be encouraged to improve awareness and healthcare utilization among rural women.

4. Nursing Research

Similar studies should be conducted with larger sample sizes in different geographical settings to improve the generalizability of findings.

Experimental studies can be undertaken to evaluate the effectiveness of educational and non-pharmacological interventions for managing menopausal symptoms.

Comparative studies between rural and urban women can be conducted to identify differences in symptom prevalence and health-seeking behavior.

Further research should explore the long-term impact of menopausal symptoms on quality of life and evaluate strategies to improve healthcare utilization among menopausal women.

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