

## The Association Between Perimenopausal Women's Knowledge and Educational Attainment and Their Readiness for Menopause

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### Abstract:

Women go through a phase called menopause, during which their menstrual periods stop during the climacteric era. Around age 45, ovarian function starts to deteriorate, which lowers the production of the hormone estrogen. Given that many women experience anxiety or fear during this time, they must know about menopause. This study's goal is to ascertain how perimenopausal women relate their degree of education and knowledge to their preparedness for menopause. This study uses a cross-sectional research design and is quantitatively analytical. Six hundred forty-one perimenopausal women made up the study population. Purposive sampling was used, and there were 89 participants in the sample. Research Results: Based on the results of the knowledge analysis, 48 respondents (53.9%) had good knowledge, 30 respondents (33.7%) had sufficient knowledge, and 11 respondents (12.4%) had insufficient knowledge. The analysis results of respondent readiness were in the category of ready-to-face menopause, with 67 respondents (75.3%) and 22 respondents (22.7%) not ready to face menopause. The chi-square non-parametric analysis test shows that the significance value obtained is 0.000. It can be concluded that there is a relationship between knowledge and readiness to face menopause in perimenopausal. There is a relationship between education level and readiness to face menopause in perimenopausal women with a value of  $p = 0.000$ .

### Article info:

Submitted:  
28-02-2025  
Revised:  
13-06-2025  
Accepted:  
16-06-2025

### Keywords:

educational attainment; knowledge; menopause

DOI: <https://doi.org/10.53713/htechj.v3i3.354>

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## INTRODUCTION

Menopause marks a pivotal biological transition in a woman's life, characterized by the permanent cessation of ovarian function and the consequent decline in estrogen and progesterone production (Bagga et al., 2024). Clinically defined as the absence of menstruation for 12 consecutive months without pathological causes, this phase signifies the end of reproductive capacity (Gatenby & Simpson, 2023). While biologically inevitable, menopause is often accompanied by a complex interplay of physiological, psychological, and sociocultural dynamics. Understanding this transition is critical, as it represents not merely an endpoint of fertility but a profound shift in a woman's health and identity (Vegni & Borghi, 2025).

For many perimenopausal women, the journey toward menopause is fraught with uncertainty, anxiety, and fear (DeStephano et al., 2022). These emotional responses are frequently exacerbated by misconceptions, societal stigmas, and inaccurate information (Shams et al., 2025). Symptoms such as hot flashes, mood swings, sleep disturbances, and metabolic changes can further complicate this phase, impacting quality of life. Without adequate knowledge, women may struggle to distinguish regular physiological changes from pathological conditions, delaying or preventing

access to timely interventions. Addressing these concerns requires proactive education to empower women to confidently navigate this transition (Barber & Charles, 2023).

Cultural narratives often frame menopause as an inevitable decline tied to aging, perpetuating negative stereotypes and discouraging open dialogue (Laker & Rowson, 2024). Such perceptions not only marginalize women's experiences but also obscure the medical and psychosocial dimensions of menopause (Opayemi, 2025). This framing can lead to feelings of isolation or inadequacy, as women may internalize societal messages that devalue their post-reproductive roles. Challenging these misconceptions through evidence-based education is essential to reframe menopause as a natural, manageable life stage rather than a crisis (Beck et al., 2023).

Comprehensive menopause education must encompass biological underpinnings, potential symptoms, and modifiable factors influencing its onset. For instance, lifestyle choices such as smoking, nutrition, and stress levels can accelerate or delay menopause, while genetic predispositions also play a role (Jesús & Manuel, 2024). Equipping women with this knowledge enables informed decision-making about preventive healthcare, symptom management, and long-term wellness strategies. Furthermore, understanding the variability of menopausal experiences fosters realistic expectations and reduces unnecessary alarm (Hickey et al., 2024).

Educational attainment significantly influences women's access to and comprehension of menopause-related information (Munn et al., 2022). Higher literacy levels correlate with greater health-seeking behaviors, including engagement with healthcare providers and utilization of reliable resources (Uchibori et al., 2023). Conversely, women with limited education may rely on anecdotal advice or misinformation, increasing vulnerability to misinformation and suboptimal care. Bridging this gap requires tailored educational initiatives that address diverse literacy levels and cultural contexts, ensuring equitable access to critical knowledge (Mansour et al., 2024).

The role of social support systems, particularly partners and families, cannot be overstated (Cowell et al., 2024; Kurniawan et al., 2023). A shared understanding of menopause fosters empathy, reduces relational strain, and encourages collaborative coping strategies. Partners comprehending this phase's physiological and emotional challenges are better positioned to provide practical and emotional support (Hayfield et al., 2024). Community-based programs and workplace policies that accommodate menopausal needs further underscore the importance of collective awareness in promoting holistic well-being (Kyomuhendo, 2024).

This study examines the association between perimenopausal women's knowledge about menopause, their educational attainment, and their psychological readiness to embrace this transition. The research aims to inform targeted interventions that enhance preparedness, reduce distress, and improve health outcomes by analyzing how these factors intersect. Ultimately, fostering menopause literacy across individual, interpersonal, and societal levels is vital to transforming this life stage into an empowering, rather than feared, experience (Nieroda et al., 2024).

## METHOD

This study employed a cross-sectional analytical survey design to investigate the relationship between knowledge, educational attainment, and preparedness for menopause among perimenopausal women. Data collection commenced in April 2024 and targeted 641 perimenopausal women residing in Sukorejo Village, Ngasem District, Kediri Regency, East Java, Indonesia. A purposive sampling technique was utilized to select 89 participants who met the inclusion criteria, ensuring relevance and specificity in addressing the research objectives. The cross-sectional approach allowed for the simultaneous assessment of the three key variables—knowledge about

menopause, educational level, and psychological readiness for menopause—providing a comprehensive snapshot of their interconnections within the study population.

The primary research instrument was a structured questionnaire incorporating a Likert scale to measure participants' knowledge, educational background, and preparedness for menopause. The knowledge domain assessed understanding of menopausal symptoms, biological changes, and management strategies, while educational attainment was categorized based on formal schooling completed. Preparedness was evaluated through statements reflecting emotional readiness, coping strategies, and willingness to seek healthcare support. Data were analyzed using univariate analysis to describe demographic and variable characteristics, followed by bivariate analysis with the chi-square test to determine significant associations between knowledge, education, and preparedness. This statistical approach ensured robust evaluation of relationships while accounting for potential confounding factors.

Ethical clearance for the study was granted by the Research Ethics Committee of the Bhakti Wiyata Kediri Health Sciences Institute's Faculty of Health (No. 09/FKES/TK/II/2024), ensuring adherence to ethical standards in human research. Informed consent was obtained from all participants, emphasizing confidentiality, voluntary participation, and the right to withdraw. The findings of this study aim to inform targeted educational interventions and healthcare policies tailored to improve menopause-related literacy and psychological readiness among perimenopausal women, particularly in rural communities with limited access to health resources. By highlighting the role of education in shaping preparedness, the study contributes to broader efforts to destigmatize menopause and promote proactive health management for women during this transitional phase.

## RESULT

### Univariate Analysis

Table 1. Knowledge, Education Level, and Readiness Frequency Distribution of Perimenopausal Women in Desa Sukorejo Kecamatan Ngasem Kabupaten Kediri Tahun 2024

Characteristics	Frequency	Percentage
Knowledge		
Good	48	53.9
Enough	30	33.7
Less	11	12.4
Education Level		
Higher Education	24	27.0
Basic Education	65	73.0
Readiness		
Ready	67	75.3
Not Ready	22	24.7
Total	89	100

According to the above data, of the 89 respondents, 48 (53.9%) had strong knowledge, 65 (73%) had only completed elementary school, and 67 (75.3%) were prepared for menopause.

## Bivariate Analysis

Table 2. The Relationship Between Knowledge and Readiness to Face Menopause among Perimenopausal Women

Knowledge	Readiness						p-value
	Ready		Not Ready		Frequency		
	f	%	f	%	f	%	
Good	44	49.4	4	4.5	48	53.9	0.000
Enough	15	16.9	15	16.8	30	33.7	
Less	8	8.9	3	3.4	11	12.4	
Total	67	75.3	22	24.7	89	100	

As can be seen from the above table, 44 respondents (49.4%) of the 48 respondents with good knowledge were ready for menopause, whereas four respondents (4.5%) were not.

Table 3. The Relationship Between Education Level and Readiness to Face Menopause among Perimenopausal Women

Education Level	Readiness						p-value
	Ready		Not Ready		Frequency		
	f	%	f	%	f	%	
Higher Education	24	27	0	0	24	27	0.000
Basic Education	43	48,3	22	24,8	65	73	
Total	67	75.3	22	24.7	89	100	

Forty-two respondents (24.8%) were not prepared to face menopause, whereas 43 respondents (48.3%) who were prepared to face menopause were among the 65 respondents with an elementary education level, according to Table 3.

## DISCUSSION

The chi-square statistical test yielded a p-value of 0.000 for the knowledge variable. This demonstrates that perimenopausal women's knowledge and preparedness for menopause are related. According to the study's findings, which are consistent with earlier studies, a woman should be well-informed before going through menopause in order to prepare for the changes that come with the transition and to know how to deal with them. In this instance, the outcome indicator—readiness to face menopause—is tightly tied to knowledge of menopause. One of the things that can help someone get past a transition and either help or hinder the process of reaching a healthy transition is knowledge (Refaei et al., 2022).

Understanding someone going through a transitional phase—in this example, menopause—can assist the person in assuming a new role to prevent issues during the process. The woman herself has the power to decide whether or not she is prepared for menopause to arrive. Women must be knowledgeable to adequately prepare for and adjust to the changes that will come with menopause (Aljumah et al., 2023).

The chi-square statistical test yielded a p-value of 0.000 for the variable level of education. This demonstrates that among perimenopausal women, there is a correlation between educational attainment and preparedness for menopause. Those who are well-prepared and knowledgeable have a high level of education (Sunny & Raman, 2024).

The study's findings revealed that the majority of participants only completed high school, which had an impact on their level of knowledge. An educated person will be able to react logically. A relatively high level of schooling was also discovered to impact their understanding in this

investigation. Someone with more education will react logically to future information (Tariq et al., 2023).

Women with higher levels of education adjust to menopausal conditions more quickly, which supports this viewpoint. This condition is because highly educated women think more logically and are more receptive to information, which broadens their knowledge and insight and results in a more optimistic approach to problems. Greater education will make it easier for women to take in, process, and use knowledge daily. In addition to improving moms' readiness to deal with menopause, increased information about the topic will assist women in better comprehending and preparing for this time (Harper et al., 2022).

## CONCLUSION

It may be inferred from the respondents' study findings that 44 (49.4%) are prepared to face menopause, while 48 have good knowledge. Of the respondents prepared to face menopause, only 43 (48.3%) have a basic education. Perimenopausal women's awareness and preparedness for menopause are related. Perimenopausal women showed a correlation between their degree of education and their preparedness for menopause. There will likely be additional research recommendations that look more closely at other aspects that affect menopausal preparedness.

## ACKNOWLEDGEMENT

Institut Ilmu Kesehatan Bhakti Wiyata Kediri is to be thanked for their assistance to the researchers and all of the friends and students who participated in this study, but whom the researcher cannot name individually.

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