



Improving the Quality of Life During Perimenopause Through Knowledge-Based Education



^{CA}Levi Tina Sari¹, Maria Ulfa¹, Handayani¹, Ika Agustina¹, Maratus Sholichah Fitriah Hajar Kusnianto¹, Ita Noviasari¹, Laily Prima Monica¹, Wahyu Wibisono¹, Joel Rey Ugsang Acob²

¹STIKes Patria Husada Blitar, Indonesia

²Visayas State University, Philippines

^{CA}Corresponding Author

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Abstract

Perimenopause is a natural process in a woman's life that occurs between the ages of 45 and 55 years. In the context of perimenopause, the quality of life of perimenopausal women is greatly influenced by their ability to understand and manage the biological changes that occur. Knowledge-based education has emerged as a strategic approach to improving the quality of life of perimenopausal women. The stages of implementing community service were the preparation stage, implementation stage and evaluation stage. The community service was done in collaboration between STIKes Patria Husada Blitar Indonesia dan Visayas State University Philippines as the implementation of MOU between schools and the application of the three pillars of higher education in Indonesia. There were 30 participants who entered perimenopause. The data analysis used paired sample t-test. The paired sample t-test showed a p-value of $0.000 < \alpha 0.05$, indicated a difference before and after the educational intervention. The correlation value between the variables was 0.991, indicated a strong and positive correlation of the community service participants demonstrated a better understanding of general perimenopause knowledge, symptoms and impacts, treatment and prevention, and perimenopause quality of life. This increase in knowledge showed that education had an important role in helping women understand the physiological conditions they experienced. Education gives them the ability to take more adaptive and healthy actions, thus having a positive impact on their physical and psychological well-being.

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✉Correspondence Address:

STIKes Patria Husada Blitar – East Java, Indonesia

Email: tinasari.levi@gmail.com

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INTRODUCTION

Perimenopause is a natural process in a woman's life that occurs between the ages of 45 and 55 years ([Davis et al., 2023](#)). During perimenopause, menstrual cycle disorders occur which cause symptoms and complaints accompanied by physical and psychological changes ([Du, 2023](#)). The symptoms that arise are a decrease in ovarian function followed by hormonal deficiency, especially estrogen, resulting in various symptoms and signs before, during and during menopause ([Camon et al., 2025](#)). World Health Organization data the number of menopausal women in Asia will increase from 107 million to 373 million ([Mawardani et al., 2025](#)). The Indonesian Ministry of Health estimates that Indonesia's population will reach 262.6 million by 2022, with approximately 30.3 million women experiencing menopause, with an average age of 49. The number of women entering perimenopause between 45 and 50 in 2025 is 9,794,500 ([Badan Pusat Statistik, 2025](#)). Some women entering perimenopause experience fluctuations in estrogen and progesterone hormones, leading to symptoms such as hot flashes, sleep disturbances, even insomnia, mood swings, and metabolic changes that can increase the risk of osteoporosis and cardiovascular disease. These symptoms are known as perimenopausal syndrome ([Cutts & Fennessy, 2025](#); [Lin et al., 2025](#)). Almost all women in the world experience pre-menopause syndrome, from several existing studies it is stated that pre-menopause syndrome is experienced by around 70-80% of women in Europe, 60% of women in America, 57% of women in Malaysia, 18% of women in China and 10% of women in Japan ([Siburian & Carolin, 2023](#)). In Indonesia itself, several surveys have been conducted and the results show that around 70% of premenopausal women experience perimenopausal syndrome complaints which, if not handled properly, can significantly reduce women's quality of life ([Chen et al., 2023](#); [Saipullah et al., 2024](#)).

The context of perimenopause, the quality of life of perimenopausal women is greatly influenced by their ability to understand and manage the biological changes that occur ([Liu et al., 2025](#)). Research shows that women with a good level of knowledge about perimenopause tend to have better psychological adaptation, lower stress levels, and are better able to implement coping strategies for the

symptoms that arise ([Bhatta & Khatry, 2022](#)). However, in many developing countries including Indonesia, awareness and knowledge about perimenopause is still low ([Suprianto & Maria, 2022](#)). This is because some women view the symptoms that appear as something that must be accepted naturally, and without appropriate treatment efforts ([Wegrzynowicz et al., 2025](#)). The lack of scientific information, social stigma towards the aging process, and the lack of health services that focus on the health of women entering perimenopause cause many women to experience physical and emotional disorders that are not optimally handled ([Wood et al., 2025](#)). This condition is exacerbated by the low level of health education among women entering perimenopause and limited access to evidence-based information about perimenopause and its management ([Yuan & Ren, 2025](#)).

Knowledge-based education has emerged as a strategic approach to improving the quality of life of perimenopausal women ([Mcfeeters et al., 2024](#)). Through systematic educational interventions, women are expected to be able to recognize perimenopausal symptoms, understand the mechanisms of their occurrence, and implement appropriate prevention and treatment strategies, such as lifestyle modifications, stress management, and medical consultations when necessary. This community service partner is located in Jatinom Village, Kanogoro District, Blitar Regency, which is located on the border between villages and cities, so that the community has diverse socio-economic characteristics and levels of access to health information. This condition reflects the unique lifestyle transition between traditional and modern society which can influence the level of knowledge, attitudes and behavior of women in facing the perimenopause period. Therefore, the implementation of knowledge-based education in Jatinom Village is expected to provide a comprehensive picture of the effectiveness of educational interventions in improving the quality of life of perimenopausal women in semi-urban areas.

Based on this description, efforts to improve the quality of life of perimenopausal women through knowledge-based education in handling perimenopausal syndrome are important and relevant to carry out. This approach is expected to be a preventive and promotive intervention in the field of women's health, as well as contribute to

improving the welfare of women during the transition to menopause.

METHOD

Community service activities were carried out in Jatinom Village, Kanigoro District, Blitar Regency. This activity was held on October 30, 2025. The number of participants was 30 perimenopausal women. The community service was done in collaboration between STIKes Patria Husada Blitar dan Visayas State University Philippines as the implementation of MOU between schools and the application of the three pillars of higher education in Indonesia. The stages of community service implementation are as follows: (1) Preparation Stage, this stage aims to ensure that all activities run according to plan and according to the needs of the target community. Details of the activities are as follows: Coordinating between the community service team from STIKes Patria Husada Blitar, the Faculty of Nursing, Visayas State University, Philippines, and coordination with the head of Jatinom village as the target village for community service; Conducting a needs assessment on women aged 40–55 years in Jatinom Village to identify the level of knowledge, perceptions, and complaints related to perimenopause syndrome; Developing an initial questionnaire and conducting brief interviews with target respondents; Develop pre-test and post-test instruments to assess knowledge improvement; (2) Implementation Stage, this stage is the implementation of knowledge-based educational activities directly to the target community. At this stage, the service team from the Midwifery Education Study Program has

collaborated with the Faculty of Nursing from Visayas State University Philippines. Details of the activities are as follows: providing knowledge-based education to target women during perimenopause, namely general knowledge about perimenopause, symptoms and health impacts during perimenopause, treatment and prevention resource persons from the service team of the Midwifery Education Study Program of Patria Husada Health College, Blitar and Lecturers from the Faculty of Nursing, Visayas State University, Philippines provided additional material regarding community practices in the Philippines in efforts to prevent and handle perimenopause; (3) In the evaluation phase, community service participants were given a questionnaire about their knowledge of improving perimenopausal quality of life. This questionnaire was administered before and after the education session. Analysis to assess whether there was an increase in knowledge about perimenopausal quality of life before and after education using Shapiro Wilk to determine whether the data was normally distributed. If the data was normally distributed, the paired sample t-test was used. If the data was not normally distributed, the Spearman rank test was used.

RESULTS

The implementation of community service activities in Jatinom Village, Kanigoro District, Blitar Regency, was carried out to address problems in Jatinom Village, namely health to improve the quality of life of perimenopause.

Table 1. Frequency Distribution of perimenopause in Jatinom Village, Kanogoro District, Blitar Regency

Characteristic	Frequency	Percent (%)
Education		
• Junior High school	11	36,6
• Senior High School	19	63,4
Occupation		
• Teacher	2	6,6
• Trader	8	26,6
• Farmer	2	6,6
• Enterprenur	3	15
Marriage status		
• Married	22	73,3
• Widow	8	26,6
Information Exposure		
• Yes	19	63,4
• No	11	36,6
Information Media		

• Health Workers	7	36,8
• Social Media	12	63,2
Knowledge Before Intervention		
• Good	0	0
• Fair	3	15
• Less	27	85
Knowledge After Intervention		
• Good	26	86,7
• Fair	4	13,3
• Less	0	

Source: Primary Data

The data shows that 63.4% of the community service participants were high school graduates, 26.6% were traders, and 6.6% were teachers and farmers. 73.3% were married, and 26.6% were widows. 63.4% had been exposed to information about perimenopausal health, with 36.8% of the information obtained from health workers and

63.2% from social media. Participants' knowledge before the education was 85% in the poor category and 15% in the adequate category. After the education, participants' knowledge increased to 86.7% in the good category and 13.3% in the adequate category.

Table 2. Results of the Shapiro-Wilk Test and Paired Sample T-Test

	Shapiro-Wilk Test		Mean	N	Paired sample t-test	
	df	Sig			Correlation	Sig (2-tailed)
Pre test	29	0,771	54,62	30	0,991	0,000
Post test			67,69			

Source: Primary Data

The normality test using Shapiro-Wilk shows that the Sig value is $0.343 > \alpha 0.05$, meaning the data is normally distributed. Then the data was tested using a paired sample t-test, which showed a p-value of $0.000 < \alpha 0.05$, indicating a difference before and after the educational intervention. The correlation value between the variables showed 0.991, indicating a strong and positive correlation. There was a mean increase between before and after treatment of 13.07 points.

DISCUSSION

Community service activities carried out in Jatinom Village, Kanigoro District, Blitar Regency, carried out interventions in the form of knowledge-based education about improving the quality of life of perimenopause. The results of the evaluation showed that the knowledge category before carrying out the intervention was in the insufficient category at 85% and sufficient at 15%, this was due to a lack of access to accurate information. This limitation could occur due to the lack of formal education about perimenopause, both from health workers and from educational institutions or official media. From the results of the characteristic data, it was proven

that out of 30 participants, only 19 were exposed to information about perimenopause health and 63.2% of the information sources were obtained from social media. Health information via social media because it is considered easy to access and relevant ([Madani et al., 2025](#)). However, social media has two sides, a positive side that can increase early awareness about perimenopause and provide a space for sharing experiences between women ([Harper et al., 2022](#)). Furthermore, the downside of obtaining health-related information from social media is that some content is unverified or based on personal opinions, not based on medical evidence. This can lead to misunderstandings ([Lende et al., 2025](#)).

The limited information available to women often leads to a poor understanding of physical and psychological symptoms such as hot flashes and insomnia, which are most often associated with perimenopause and menopause, but can also be caused by other health conditions ([Zhou et al., 2021](#)). Proper diagnosis and treatment requires better access to information and consultation with relevant health care providers such as nurses or midwives ([Thavabalan et al., 2025](#)).

After the knowledge-based educational intervention was carried out, the level of respondents' knowledge increased to the good category by 86.7% and the sufficient category by 13.3% and showed a difference in knowledge before and after the intervention, with a mean increase of 13.07. Community service participants demonstrated a better understanding of general knowledge of perimenopause, symptoms and impacts, treatment and prevention, and quality of life in perimenopause. This increase in knowledge shows that education has an important role in helping women understand the physiological conditions they are experiencing ([Tran et al., 2021](#)). Education gives them the ability to take more adaptive and healthy actions, thus having a positive impact on their physical and psychological well-being ([Gebretatayos et al., 2020](#)). The knowledge-based education applied in this intervention emphasizes active, interactive, and participant-centered learning processes. This method has been shown to improve women's knowledge, self-management skills, and overall quality of life throughout the life stages ([Munn et al., 2022](#)). The delivery method used allows participants to discuss, ask questions, and reflect on their personal experiences during perimenopause ([Tariq et al., 2023](#)). Active and participant-centered learning, especially for perimenopause, has been proven to be more effective than one-way counseling because it encourages active participation and internalization of information ([Rotem et al., 2005](#)).

The following documentation is evidence that the participants actively asked questions to the resource person who came from Visayas State University, Philippines.



Picture 1. Participants actively ask questions to the resource person

Community service activities in Jatinom Village, togetherness between resource persons and participants acts as a catalyst to increase the

effectiveness of educational interventions ([Cowell et al., 2024](#)). Participatory activities such as open discussions, sharing personal experiences that enable the creation of a strong climate of trust ([Taylor-swanson et al., 2024](#)). As a result, participants more easily received information about perimenopause objectively and were able to change their behavior to be more adaptive to the changes they experienced ([Fallahipour et al., 2022](#)).

The following documentation is a collaboration between speakers from STIKes Patria Husada Blitar Indonesia and Visayas State University Philippines.



Picture 2. Togetherness between resource persons and participants

CONCLUSION

Providing knowledge-based education about improving the quality of life during perimenopause has been proven to be effective in increasing participants' level of knowledge. Before the intervention, most participants were in the poor knowledge category (85%), whereas after the intervention, the percentage of participants with good knowledge increased to 86.7%. These results show a significant difference between the level of knowledge before and after the intervention, so it can be concluded that knowledge-based education plays an important role in increasing participants' knowledge regarding perimenopause.

SUGGESTION

The knowledge-based education applied in this intervention emphasizes an active, interactive, and participant-centered learning process. This approach also builds togetherness between participants and speakers, which fosters a sense of mutual trust. This sense of trust encourages participants to be more open in sharing experiences and discussions, making the information exchange process more effective and ultimately increasing participants' knowledge about the quality of life during perimenopause. The results of this study can

integrate knowledge-based education materials in health services for women aged 40–55 years and conduct early screening of perimenopausal symptoms to prevent symptoms from becoming more severe.

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CONFLICTS OF INTEREST

The authors stated that there was no conflict of interest in this activity. The entire process of devotion to publication was carried out by the authors with the cooperation agreement of the partner, namely Jatinom Village, Kanigoro District, Blitar Regency.

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