



Improving the Quality of Life in Perimenopause Through Education on the Use and Processing of Cincau Leaves in Jatinom Village, Blitar Regency



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Abstract

Women entering the perimenopause phase experience fluctuations in the hormone's estrogen and progesterone, which can trigger various physical and psychological symptoms, such as hot flashes, sleep disorders, joint pain, mood swings, and even mild depression. Therefore, promotive and preventive efforts are needed to help perimenopausal women maintain their health and well-being. The partners of this community service are the Jatinom village community in Blitar Regency who have entered perimenopause aged 45-55 years, totaling 40 people. The stages of implementing community service are socialization and recruitment, health education as a promotive and preventive measure, processing cincau leaves. The results The number of respondents with good knowledge increased to 29 (72.5%), while those with sufficient knowledge decreased to 7 (28%), and those with poor knowledge decreased to 4 (16%), indicated that education about perimenopausal health and the use of grass jelly leaves had a positive impact on increasing participants' knowledge. The community, especially women experiencing perimenopause, is encouraged to actively participate in educational activities related to healthy lifestyles and the utilization of local medicinal plants such as cincau leaves. Continuous application of the knowledge gained is expected to help improve physical and psychological well-being during the perimenopausal period.

INTRODUCTION

Perimenopause is a transition phase towards menopause which generally occurs in women aged 40–55 years ([Fruitasari, 2024](#)). The World Health Organization estimates that by 2030, there will be 1.2 billion women entering perimenopause worldwide and in Indonesia it will reach 301 million in 2035 and from this projection around 16.5% or 49.6 million will be perimenopausal ([S. E. Putri et al., 2024](#)). The number of female in Indonesian residents aged 45–54 years is 18,619.8 people ([Badan Pusat Statistik, 2025](#)). The burden of perimenopausal health problems is projected to increase as the global population ages ([Liu et al., 2025](#)).

Women entering the perimenopause phase experience fluctuations in the hormones estrogen and progesterone, which can trigger various physical and psychological symptoms, such as hot flashes, sleep disorders, joint pain, mood swings, and even mild depression ([Davis et al., 2023](#)). This condition can affect the quality of life of women, both physically, mentally and socially ([Hooper et al., 2023](#)). This is also supported by several studies which state that 75% of women who experience perimenopausal symptoms feel it is a problem or disturbance such as experiencing physical or psychological disorders ([Asbar & Mawarपुरy, 2018](#)). This condition often has an impact on the declining quality of life of middle-aged women ([Wegrzynowicz et al., 2025](#)). Therefore, promotive and preventive efforts are needed to help perimenopausal women maintain their health and well-being.

One of the local potentials that can be utilized to support the health of perimenopausal women is cincau leaves (*Cyclea barbata* L. Miers) ([Febrianto et al., 2022](#)). This plant is known to contain bioactive compounds such as chlorophyll, flavonoids, and antioxidants which play a role in reducing oxidative stress, maintaining hormonal balance, and increasing the body's immune system ([Adiyaksa et al., 2020](#); [Noviyanti et al., 2020](#)). Apart from being beneficial for health, cincau leaves are easy to grow in various areas at low to medium altitudes, especially in Southeast Asia and East Asia, with characteristics of loose, moist, shady soil and a pH of 5.5–6.5 ([Sofyan et al., 2022](#)). Then, cincau leaves can be processed into healthy products such as jelly or cincau ice drinks, and have economic value from processing into various food products ([Akmalia et al., 2025](#)).

The partner in this community service activity is Jatinom Village, Blitar Regency. Geographically, Jatinom Village is located between the city and rural boundaries, and is often referred to as a transitional or semi-urban area. This area still boasts abundant rice paddies with agricultural potential, but it is also experiencing changes in lifestyle due to the influence of modernization. One impact is seen in the "empty nest" phenomenon, where many elderly people live alone because their children work in the city.

The livelihoods of Jatinom Village residents are quite diverse, including farmers, traders, private employees, and civil servants. Public services in this village are quite active, as evidenced by the well-functioning Cross-Program Interventions and the habit of residents regularly checking their health conditions. Seeing this potential and conditions, through educational activities on the use and processing of grass jelly leaves, it is hoped that the community, especially perimenopausal women, can increase their knowledge, skills, and awareness of the importance of a healthy lifestyle based on local potential. This program not only aims to improve the quality of life for perimenopausal women but also encourages household economic development through innovative processed grass jelly products.

METHOD

The partners of this community service are the Jatinom village community in Blitar Regency who have entered perimenopause aged 45–55 years, totaling 40 people. This activity was carried out on July 29, 2025. The stages of implementing community service are as follows:

Stage 1 (Socialization and recruitment)

The first stage began with recruiting students participating in the community service program and conducting outreach regarding the program. The community service team then conducted a Focus Group Discussion (FGD) with partners, including the Head of Jatinom Village, Kanigoro District, Blitar Regency, and the Village Midwife. The FGD aimed to promote the community service program and to deliberate on the time and location for the community service program.

Stage 2 (Health Education as a Promotive and Preventive Measure)

This stage provides health education about perimenopause and the use of grass jelly leaves as an alternative to boost immunity during perimenopause. The program is divided into three

sessions: the first session is an introduction, with questionnaires distributed to assess knowledge about perimenopause health and grass jelly leaves. The second session provides education about perimenopause health and the use of grass jelly leaves. The third session is an evaluation session, with questionnaires distributed as a post-evaluation. Stage 3 (Processing Cincau Leaves)

This stage the community service team makes processed products made from grass jelly leaves (*Cyclea barbata* L. Miers). which begins with the preparation of ingredients including: approximately 100 fresh grass jelly leaves, 1.5 liters of boiled water, agar-agar. Optional ingredients include: brown sugar, ice cubes and liquid milk. The equipment used includes: a large basin, a blender, a fine sieve, a container to hold the squeezed results, and a serving glass. then the processing process includes: washing the grass jelly leaves, squeezing the grass jelly leaves, filtering, sedimentation and gel formation which is left for $\pm$ 3–5 hours at room temperature, this process occurs naturally without additional ingredients, because the natural polysaccharide content in the grass jelly leaves functions as a thickener. then cutting and the grass jelly that has become gel can be made into grass jelly ice that can be marketed.

RESULTS

The implementation of community service activities in Jatinom Village, Blitar Regency was carried out to solve existing problems in Jatinom Village, namely improving the quality of menopausal health by utilizing and processing cincau leaves.

This activity has 3 stages, including:

Stage 1 (Socialization and recruitment)

The community service team conducted a

focus group discussion (FGD) with the Head of Jatinom Village, Wates District, Blitar Regency, and the midwife from Tulungrejo Village. The FGD aimed to promote the community service program and discuss legal matters, including obtaining permits for the activities, and planning and scheduling the time and location for the community service.



Picture 1. Socialization with the Village Head and Midwife of Jatinom

Stage 2 (Health Education as a Promotive and Preventive Measure)

This community service activity was conducted for approximately 60 minutes using an interactive discussion method supported by PowerPoint presentations, leaflets, and educational videos. Before and after the educational activity, respondents were given pre-test and post-test questionnaires to assess their level of knowledge regarding health during perimenopause and the use of grass jelly leaves as an alternative to improve quality of life. The purpose of administering these questionnaires was to assess the effectiveness of the educational activity, particularly in increasing public understanding of the benefits of antioxidants contained in grass jelly leaves in maintaining women's health during perimenopause.

Table 1. Frequency Distribution of Perimenopause Knowledge Before and After Education

Knowledge Category	Before intervention		After intervention	
	Σ	%	Σ	%
Good	5	12,5	29	72,5
Enough	5	12,5	7	17,5
Less	30	75%	4	10
Total	40	100	40	100

The table above shows an increase in respondents' knowledge regarding perimenopausal health and the benefits of grass jelly leaves after the education. Prior to the education, the majority of

respondents (30 respondents) were in the poor knowledge category, while only 5 (12.5%) were in the adequate and good knowledge categories. After receiving education, there was a significant change

in the distribution of respondents' knowledge levels. The number of respondents with good knowledge increased to 29 (72.5%), while those with sufficient knowledge decreased to 7 (28%), and those with poor knowledge decreased to 4 (16%). These results indicate that education about perimenopausal health and the use of grass jelly leaves has a positive impact on increasing participants' knowledge. Educational activities using interactive discussions, PowerPoint presentations, leaflets, and videos have proven effective in increasing public understanding of the importance of maintaining health and utilizing local resources such as grass jelly leaves, which contain antioxidants, as an alternative to improving the quality of life for perimenopausal women.

Stage 3 (Processing Cincau Leaves)

The grass jelly processing process takes approximately 1.5 hours. This activity is used by perimenopausal women to practice making grass jelly.



Picture 2. Basic ingredients for making Cincau Jelly

DISCUSSION

The study results showed a significant increase in respondents' knowledge regarding perimenopausal health and the benefits of grass jelly leaves after the education. Prior to the education, the majority of respondents (30 respondents) had poor knowledge, with 75% reporting a lower level of knowledge. This indicates that the community's initial knowledge about this topic is still low, which is caused by a lack of access to relevant health information, low interest in seeking information, or the absence of previous outreach activities related to perimenopause and the use of herbal plants such as cincau leaves ([Barber & Charles, 2023](#)). Factors that cause low levels of knowledge include limited valid information and a lack of family support, which can hinder the process of optimally receiving and understanding health information ([Gibson et al., 2022](#)). In addition, low knowledge of perimenopause is caused by education level, socio-

economic status and cultural background ([Emma, 2024](#)).

After receiving education, there was a significant change in the distribution of respondents' knowledge levels. The number of respondents with good knowledge increased significantly to 29 (72.5%), while the number with sufficient knowledge increased to 7 (17.5%), and the number with poor knowledge decreased drastically to only 4 (10%). Treatment by providing education and direct practice shows that the health education provided is effective in increasing respondents' knowledge. The success of this education can also be linked to the interactive delivery method and the use of educational media such as leaflets and videos that are appropriate to the characteristics of the respondents ([Sutiawati et al., 2024](#)). These educational media play an important role in helping perimenopausal women understand information visually and verbally, so that the information reception process becomes more optimal ([Barbosa & Amorim, 2025](#)). The use of varied and easy-to-understand media can increase the appeal of the message and strengthen the understanding and retention of information by perimenopausal women ([S. Z. Putri et al., 2024](#)).

The community service activities, in addition to providing education, also included training in grass jelly leaf processing. The grass jelly processing conducted in this study lasted approximately 1.5 hours. This activity aims to train participants, especially women in perimenopause, to have the skills to process grass jelly leaves into a useful product, namely grass jelly. This training not only focuses on the practical aspects of processing, but also includes providing knowledge about the health benefits of grass jelly leaves, especially in supporting women's health during the transition to menopause.



Picture 3. Cincau Leaf Utilization and Processing Activities

Activities that directly involve community members, particularly perimenopausal women in

practical activities such as training in processing natural ingredients in the form of grass jelly leaves can increase self-confidence, independence, and the ability to make decisions related to health (Kafaci-Atrian et al., 2022). Training in processing grass jelly leaves adapted to perimenopause needs also functions as an active learning medium, where participants not only receive information passively, but are also directly involved in the learning process through practical experience (Thavabalan et al., 2025).

Grass jelly processing also has relevance to improving the welfare and quality of life of perimenopausal women (Bălan et al., 2020). Cincau leaves (*Cyclea barbata* Miers) contain various bioactive compounds such as chlorophyll, polyphenols, and flavonoids which have antioxidant effects and help maintain hormonal balance for women entering perimenopause (Santi et al., 2017). This content has the potential to help reduce perimenopausal symptoms such as hot flashes, sleep disturbances, and oxidative stress which are often experienced during this phase. (Ko & Kim, 2020). Thus, this training is not only beneficial in terms of skills, but also has a positive impact on the physical and psychological health of participants.

CONCLUSION

Perimenopausal health education and the use of grass jelly leaves, using interactive discussions, leaflets, and videos, have proven effective in increasing public knowledge, particularly regarding efforts to maintain reproductive health during perimenopause. Furthermore, grass jelly processing training for perimenopausal women has proven to be not only a means of increasing knowledge and skills but also a potential natural-based health promotion effort to support women's well-being during the hormonal transition.

SUGGESTION

The community, especially women experiencing perimenopause, is encouraged to actively participate in educational activities related to healthy lifestyles and the utilization of local medicinal plants such as cincau leaves. Continuous application of the knowledge gained is expected to help improve physical and psychological well-being during the perimenopausal period.

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CONFLICTS OF INTEREST

The volunteers declare that there is no conflict of interest in this activity. The entire service process, from service to publication, was carried out by the volunteers and their partners, namely Jatinom Village, Kanigoro District, Blitar Regency.

REFERENCE

- Adiyaksa, I. K., Zuhud, E. A. M., & Siswoyo. (2020). Conservation strategy of Cuing (*Cyclea barbata* Miers) in Mount Ciremai National Park as forest functional food based on bioecology and utilization rate. *IOP Conference Series: Earth and Environmental Science*, 528(1). <https://doi.org/10.1088/1755-1315/528/1/012011>
- Akmalia, I. D., Prayogo, M. S., & Wulandari, S. (2025). Praktikum Pemanfaatan dan Pengolahan Daun Cincau Hijau (*Cyclea Barbata*) Mata Pelajaran IPAS Kelas V di Mi Jami'yatul Mu'tadi'in. *Jurnal Cakrawala Pendidikan Dan Biologi*, 2(2), 9–19. <https://doi.org/10.61132/jucapenbi.v2i2.259>
- Asbar, A., & Mawarpury, M. (2018). HIDUP BERKUALITAS: (Studi Kasus Pada Perempuan Menopause). *Marwah: Jurnal Perempuan, Agama Dan Jender*, 17(1), 96. <https://doi.org/10.24014/marwah.v17i1.4516>
- Badan Pusat Statistik. (2025). *Jumlah Penduduk Menurut Kelompok Umur dan Jenis Kelamin*, 2025. Badan Pusat Statistik. <https://www.bps.go.id/id/statistics-table/3/WVc0>

- [MGEyMXBkVFUxY25KcE9HdDZkbTQzWkVkb1p6MDkjMw==/jumlah-penduduk-menurut-kelompok-umur-dan-jenis-kelamin-2023.html](https://doi.org/10.3390/molecules25143291)
- Bălan, A., Moga, M. A., Dima, L., Toma, S., Neculau, A. E., & Anastasiu, C. V. (2020). Royal Jelly—A Traditional and Natural Remedy for Postmenopausal Symptoms and Aging-Related Pathologies. *Molecules*, 25(14). <https://doi.org/10.3390/molecules25143291>
- Barber, K., & Charles, A. (2023). Barriers to Accessing Effective Treatment and Support for Menopausal Symptoms: A Qualitative Study Capturing the Behaviours, Beliefs and Experiences of Key Stakeholders. *Patient Preference and Adherence*, 17(October), 2971–2980. <https://doi.org/10.2147/PPA.S430203>
- Barbosa, B., & Amorim, A. S. (2025). Women's views on empowerment in menopause-related femvertising on social media. *International Review on Public and Nonprofit Marketing*, 0123456789, 1–32. <https://doi.org/10.1007/s12208-025-00445-w>
- Davis, S. R., Pinkerton, J. A., Santoro, N., & Simoncini, T. (2023). Menopause—Biology, consequences, supportive care, and therapeutic options. *Cell*, 186(19), 4038–4058. <https://doi.org/10.1016/j.cell.2023.08.016>
- Emma, L. (2024). The Influence of Cultural Factors on Learning Styles. *Journal of Education, Humanities, and Social Research*, 1(1), 1–9. <https://doi.org/10.70088/ra42wn16>
- Febrianto, S., Praharsini, F. V., Annas, Z. F., & Hanifa, N. I. (2022). Cyclea barbata L. Miers.: Penggunaan tradisional, fitokimia, dan aktivitas farmakologi. *Sasambo Journal of Pharmacy*, 3(2), 69–82. <https://doi.org/10.29303/sjp.v3i2.178>
- Fruitasari, F. M. K. (2024). Gejala Menopause Pada Wanita Premenopause. *Journal of Nursing Invention*, 5(1), 14–23. <https://doi.org/10.33859/jni.v5i1>
- Gibson, C., Smith, D., & Morrison, A. K. (2022). Improving Health Literacy Knowledge, Behaviors, and Confidence with Interactive Training. *Health Literacy Research and Practice*, 6(2), e113–e120. <https://doi.org/10.3928/24748307-20220420-01>
- Hooper, S. C., Marshall, V. B., Becker, C. B., Lacroix, Z., Keel, P. K., & Kilpela, L. S. (2023). Function of Retrospective Menopause Symptom Severity. *Menopause*, 29(6), 707–713. <https://doi.org/10.1097/GME.0000000000001961.Mental>
- Kafaei-Atrian, M., Sadat, Z., Nasiri, S., & Izadi-Avanji, F. S. (2022). The Effect of Self-care Education Based on Self-efficacy Theory, Individual Empowerment Model, and Their Integration on Quality of Life among Menopausal Women. *International Journal of Community Based Nursing and Midwifery*, 10(1), 54–63. <https://doi.org/10.30476/IJCBNM.2021.86814.1370>
- Ko, S. H., & Kim, H. S. (2020). Menopause-associated lipid metabolic disorders and foods beneficial for postmenopausal women. *Nutrients*, 12(1). <https://doi.org/10.3390/nu12010202>
- Liu, X., Zhang, X., Wang, D., Zhou, J., & Li, Y. (2025). Investigation of the quality of life and influencing factors among perimenopausal women. *Archives of Gynecology and Obstetrics*, 312(4), 1253–1265. <https://doi.org/10.1007/s00404-025-08116-1>
- Noviyanti, N., Yueniwati, Y., Ali, M., Rahardjo, B., & Permatasari, G. W. (2020). Cyclea barbata miers ethanol extract and coclaurine induce estrogen receptor α in the development of follicle pre-ovulation. *Open Access Macedonian Journal of Medical Sciences*, 8(A), 434–440. <https://doi.org/10.3889/oamjms.2020.4418>
- Putri, S. E., SUSilawati, & Latifah, N. S. (2024). HUBUNGAN PENGETAHUAN DAN SIKAP DALAM MENGHADAPI GEJALA MENOPAUSE PADA WANITA PERIMENOPAUSE DI KLINIK WEDE AR RACHMAN. *Malahayati Nursing Journal*, 6(7), 2788–2801. <https://doi.org/10.33024/mnj.v6i7.11920>
- Putri, S. Z., Kasiati, K., Rijanto, R., & Susilaningrum, S. (2024). the Effect of Audio-Visual Education on Menopause Syndrome in Premenopausal Women. *Journal Midwifery*, 10(2), 181. <https://doi.org/10.52365/jm.v10i2.1081>

- Santi, I., Putra, B., & Wahyuni, S. (2017). UJI EFEK EKSTRAK ETANOL DAUN CINCAU HIJAU (*Cyclea barbata* Miers) SEBAGAI ANTIINFLAMASI PADA TIKUS PUTIH YANG DIINDUKSI KARAGEN. *Jurnal Ilmiah As-Syifaa*, 9(1), 58–66. <https://doi.org/10.33096/ja.v9i1.256>
- Sofyan, A., Murdianti, & Mulyawan, R. (2022). Pengaruh Perendaman PGPR terhadap Pertumbuhan Stek Batang Cincau Hijau (*Premna serratifolia* L.) (The Effect of PGPR Soaking on the Growth of Green Grass Jelly (*Premna serratifolia* L.) Stem Cuttings). *Agricultural Journal*, 5(2), 256–262. <https://doi.org/10.37637/ab.v5i2.83>
- Sutiawati, D. N., Suitini, T., Fauziah, M., Purwati, N. H., & Nuraidah, N. (2024). Effectiveness of Video and Leaflet Educational Media in Increasing Adolescent Mental Health Literacy. *Jurnal Keperawatan*, 9(1), 93–108. <https://doi.org/10.32668/jkep.v9i1.1477>
- Thavabalan, K., Ovenell, A., Pierce, P., Sutaria, A., Parkhouse, A., Baydemir, N., & Lally, T. (2025). Barriers to the safe discussion of the experience and management of menopausal symptoms: A systematic literature review. *Maturitas*, 201(April), 108683. <https://doi.org/10.1016/j.maturitas.2025.108683>
- Wegrzynowicz, A. K., Walls, A. C., Godfrey, M., & Beckley, A. (2025). Insights into Perimenopause: A Survey of Perceptions, Opinions on Treatment, and Potential Approaches. *Women*, 5(1), 4. <https://doi.org/10.3390/women5010004>