

Community-Based Integrative Model for Perimenopausal Health Education and Screening in Aisiyiah Women

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ABSTRACT

Perimenopause is a transitional phase toward menopause characterized by hormonal changes, physical and psychological complaints, and an increased risk of cardiometabolic disorders in women aged 40–55 years; however, it still receives limited attention in health education and screening programs. This community service activity aimed to implement a community-based integrative model for perimenopausal health education and screening among Aisiyiah women using a participatory preventive approach. The Community-Based Participatory Approach (CBPA) was applied to 52 perimenopausal women who were members and sympathizers of Aisiyiah in the city of Bandar Lampung through interactive education sessions, basic health screening, and individual counseling. The results showed that the most common complaints were easy fatigue (75.0%), sleep disturbances (65.4%), and hot flushes (51.9%), along with a high prevalence of cardiometabolic risk factors, particularly prehypertension (65.4%), overweight and obesity (61.5%), and borderline-to-high cholesterol levels (57.7%). This aisiyiah-based community integrative model proved effective as a promotive and preventive strategy for increasing awareness and early detection of health risks among perimenopausal women.

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INTRODUCTION

Perimenopause is a biological transitional phase preceding menopause, characterized by fluctuations in estrogen levels that affect the physical, psychological, and social health of women aged 40–55 years. This phase often lasts for several years, with varying degrees of symptoms, and tends to be more complex than the postmenopausal phase. However, it still receives relatively limited attention in health services (Santoro et al., 2021).

Globally, approximately 60–80% of perimenopausal women experience vasomotor symptoms such as hot flushes and night sweats, while 30–40% report psychological disturbances, including anxiety and mood swings (Davis et al., 2015). Longitudinal studies indicate that perimenopause represents the period with the highest risk of mood disorders across the menopausal transition (Avis et al., 2018). In developing countries, limited access to health education and screening has resulted in many women failing to recognize perimenopause as a health condition requiring appropriate attention (WHO, 2017).

In Indonesia, perimenopause has become an increasingly relevant public health issue due to rising female life expectancy and the large proportion of women aged 40 years and older who are vulnerable to perimenopausal symptoms (BPS, 2023; Ministry of Health of the Republic of Indonesia, 2022). Several national studies report that Indonesian women commonly experience sleep disturbances, fatigue, joint pain, menstrual irregularities, and emotional changes, yet many do not seek routine health examinations because these symptoms are often perceived as a normal part of aging (Sari et al., 2019). In Lampung Province, more than 22% of women are aged 40–59 years, and their quality of life is significantly influenced by social factors and anxiety levels. This underscores the importance of adopting a biopsychosocial approach in addressing perimenopausal health issues (BPS Lampung, 2023; Suciawati, 2023; Sari & Oktaviani, 2021).

In the climacterium phase, women often experience complaints even though estrogen levels are still relatively high, especially vasomotor disorders such as hot flushes and night sweats, with varying degrees of severity (Maria & Sari, 2024). This condition is aggravated by the low practice of early screening of women's health in perimenopausal age, both related to blood pressure, metabolic status, and psychological health, even though this phase is closely related to an increased risk of non-communicable diseases such as hypertension, diabetes mellitus, osteoporosis, and cardiovascular disorders (NAMS, 2022).

In the socio-cultural context, religious-based women's organizations such as Aisyiyah have a strategic role as agents of women's health promotion and empowerment due to their social closeness and wide community reach. However, community service models that integrate perimenopause education, early health screening, and Aisyiyah's community-based participatory approach are still limited. Therefore, this community service activity aims to implement and evaluate an integrative model of Aisyiyah community-based perimenopausal health education and screening with a participatory preventive approach.

METHOD

This community service activity employed a community-based participatory preventive approach through the development of an Integrative Model for Perimenopausal Health Education and Screening. The model integrates health education, early health screening, and community-based mentoring by Aisyiyah systematically and sustainably.

The approach used was the Community-Based Participatory Approach (CBPA), in which the target group, Aisyiyah women of perimenopausal age, was actively involved in all stages of the activity, from problem identification to follow-up of screening results.

The activity was conducted at Aisyiyah Bustanul Athfal 4 Kaliawi Kindergarten, Central Tanjung Karang District, Bandar Lampung City, involving 52 perimenopausal women who were members and sympathizers of Aisyiyah in the surrounding community. The strategy adopted was preventive, applicative, and participatory, implemented through the following stages:

Stage 1. Preparation and Coordination

Coordination was carried out with the kindergarten head and local Aisyiyah administrators, including initial data collection of 52 perimenopausal women and preparation of educational materials and health screening instruments.

Output: Readiness of the location, participants, and technical implementation.

Stage 2. Perimenopause Education

Interactive education sessions lasting approximately 30–40 minutes were provided to 52 participants, covering perimenopause, common complaints, and the importance of health screening, followed by experience-based discussions.

Output: Increased knowledge and awareness among participants.

Stage 3. Health Screening

Health screening included blood pressure measurement, body mass index (BMI) assessment, and screening for minor physical and psychological complaints related to perimenopause.

Output: Early health data and identification of health risks among perimenopausal women.

Stage 4. Brief Counseling

Individual screening results were communicated to participants, accompanied by healthy lifestyle counseling and follow-up recommendations or referrals when necessary.

Output: Participants' understanding of their health status and appropriate follow-up actions.



FIGURE 1. PKM Activities

The data analysis method in this community service activity was conducted using descriptive statistical analysis, which involved presenting data in the form of frequency and percentage distributions to describe participants' characteristics and the results of health screenings.

The instruments used in this activity included basic health screening tools (blood pressure measurement, body mass index assessment, and related health parameters) as well as structured questionnaires to identify health complaints and risk factors among women of perimenopausal age.

RESULTS

The community service activity was carried out at Aisyiyah Bustanul Athfal 4 Kaliawi Kindergarten, Tanjung Karang, with the involvement of 52 women of perimenopausal age. The implementation of the activity was carried out according to the planned stages, starting from a brief education about perimenopause, followed by health screening, and ending with individual counseling.

Participants showed high enthusiasm during the educational session, which was characterized by active participation in discussions as well as openness in conveying health complaints experienced. After education, all participants followed the perimenopausal health screening process in an orderly and cooperative manner.

TABLE 1. Characteristics of Participants Based on Menopausal Status

Characteristics	Premenopause (n=30)	Menopause (n=22)	Total (n=52)
Age (years)			
40–44	12 (40,0%)	0 (0%)	12 (23,1%)
45–49	13 (43,3%)	4 (18,2%)	17 (32,7%)
50–55	5 (16,7%)	18 (81,8%)	23 (44,2%)
Menstrual Status			
Still organized	9 (30,0%)	0 (0%)	9 (17,3%)
Irregular	21 (70,0%)	0 (0%)	21 (40,4%)
No menstruation ≥ 12 months	0 (0%)	22 (100%)	22 (42,3%)
Dominant complaints			
Sleep disorders	18 (60,0%)	16 (72,7%)	34 (65,4%)
Tired easily	21 (70,0%)	18 (81,8%)	39 (75,0%)
Hot flushes	12 (40,0%)	15 (68,2%)	27 (51,9%)
Mild psychological complaints	15 (50,0%)	14 (63,6%)	29 (55,8%)

The characteristics of the participants based on menopausal status are presented in Table 1. Some participants were in the premenopausal phase, as many as 30 people (57.7%), and menopause, as many as 22 people (42.3%). The age distribution of participants ranged from 40 to 55 years old. Menstrual status showed that 21 participants (40.4%) had irregular menstrual cycles, while 22 participants (42.3%) had not had a period for ≥ 12 months. Reported complaints include sleep disturbances, fatigue, hot flushes, and mild psychological complaints in proportion, as shown in the table.

TABLE 2. Participant's Basic Health Examination Results

Inspection Parameters	Quantity (n)	Percentage (%)
Blood Pressure		
Normal (<120/80 mmHg)	18	34,6
Prehypertension (120–139/80–89 mmHg)	21	40,4
Hypertension (\geq 140/90 mmHg)	13	25,0
Body Mass Index (BMI)		
Normal (18.5–24.9 kg/m ²)	20	38,5
Overweight (25.0–29.9 kg/m ²)	19	36,5
Obesity (\geq 30 kg/m ²)	13	25,0
Blood Glucose During		
Normal (<140 mg/dL)	31	59,6
Pre-diabetes (140–199 mg/dL)	15	28,8
Diabetes (\geq 200 mg/dL)	6	11,6
Gout		
Normal (\leq 6 mg/dL)	29	55,8
High (>6 mg/dL)	23	44,2
Total Cholesterol		
Normal (<200 mg/dL)	22	42,3
Borderline (200–239 mg/dL)	18	34,6
High (\geq 240 mg/dL)	12	23,1

Overall, the results of the basic health screening provide an initial overview of the physical health condition of female participants of perimenopausal age who participated in this community service activity.

The implementation of basic health checks in community service activities is considered effective as an effort to detect early risk factors for degenerative diseases in women of perimenopausal age. All participants followed a series of examinations enthusiastically and cooperatively.

This activity was successful:

- Identify metabolic risk factors that some participants were previously unaware of.
- Increase participants' awareness of the importance of routine health check-ups.

DISCUSSION

This community service activity shows that the application of an integrative model of community-based education–screening–counseling is able to facilitate the early identification of women's health problems of perimenopausal age and encourage active involvement of participants. The high participation during the activity confirms that the issue of perimenopause is a relevant health need and has not been fully accommodated in routine health services at the community level.

The characteristics of complaints found in the premenopausal and menopausal groups are in line with the findings of previous studies that mention that the reproductive transition phase is characterized by hormonal fluctuations that affect the physical and psychological aspects of women (Santoro et al.,

2015; Davis et al., 2021). The findings confirm that although some women still experience menstruation, the complaints that arise point to the need for health attention from the premenopausal phase, not just after menopause.

The mild psychological complaints found in both groups reinforce the evidence that perimenopause is a prone phase to mental health disorders. Neuroendocrine changes influenced by decreased ovarian function, combined with psychosocial factors and environmental stresses, contribute to increased anxiety and emotional changes in transition-age women (Greendale et al., 2019; Monteleone et al., 2018; Wang et al., 2025). These findings are in line with the research of Irma Fitria et al. (2023), which emphasizes the importance of a comprehensive approach in maintaining the quality of life of menopausal women.

The results of baseline health screening showed a variation in cardiometabolic risk factors in participants, which supports previous findings that the perimenopausal phase is associated with changes in blood pressure, body composition, and lipid profile due to decreased estrogen (El Khoudary et al., 2020; North American Menopause Society, 2023). This condition confirms the importance of health screening from the perimenopausal phase as part of the non-communicable disease prevention strategy.

The novelty of this activity lies in the integration of health education, early screening, and personal counseling in a series of Aisiyiah community-based interventions with a participatory approach. This model focuses not only on improving knowledge, but also on early detection and contextual follow-up according to the needs of women in the community. This approach strengthens the role of women's organizations as strategic partners in the promotion and prevention of women's health. Just like the Posyandu Elderly, which functions as a strategic social structure in health promotion, the Aisiyiah organization has a similar potential as the basis for women's health interventions of perimenopausal age (Dewi et al., tahun).

In terms of practical and policy implications, this model has the potential to be replicated as part of promotive-preventive programs at the community level, especially through community and religious organizations. The integration of perimenopausal screening into routine community activities can support the strengthening of primary health services and contribute to efforts to prevent chronic diseases in older women.

CONCLUSION AND RECOMMENDATION

Conclusion

The Community-Based Integrative Model for Perimenopausal Health Education and Screening among Aisiyiah women has been shown to effectively improve participants' understanding and awareness of their health conditions. The findings indicate that most perimenopausal women experienced typical symptoms and exhibited cardiometabolic risk factors, including prehypertension, overweight and obesity, as well as borderline to high cholesterol levels. The integration of health education, early health screening, and individualized counseling within a single program enabled early detection of health problems and supported more targeted promotive and preventive efforts at the community level.

Recommendations

- Community service activities should be implemented continuously and periodically to monitor changes in the health status of women of perimenopausal age.
- Follow-up programs focusing on healthy lifestyle education, stress management, and appropriate physical activity for perimenopausal women should be developed.
- Cross-sectoral collaboration with local healthcare facilities is recommended to support referral systems and the monitoring of participants with identified risk factors.
- This community-based integrative model can be replicated and expanded to other Aisyiyah communities to extend the benefits of perimenopausal health education and early detection to a wider population.

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