

# Improving the Knowledge and Attitudes of Premenopausal Women in Facing Physical Changes during Menopause through Audiovisual Media Health Education

**Nanik Susanti<sup>1\*</sup>, Ulfa Nur Hidayati<sup>2</sup>, Lilik Winarsih<sup>3</sup>, Arti Wardani<sup>4</sup>**

<sup>1,2,3,4</sup>*Sekolah Tinggi Ilmu Kesehatan Kendedes Malang*

*Correspondent email: naniksusanti583@gmail.com*

## ABSTRACT

Lack of understanding about premenopause can affect women's attitude and readiness to face it. Education through audiovisual media increases knowledge and forms positive attitudes more effectively. This study assessed the effect of audiovisual education on the knowledge and attitudes of premenopausal women in dealing with physical changes during menopause. The research design used was pre-experimental with a one-group pretest-posttest design. The research was conducted at Kauman Husada Clinic in Malang. The research was conducted in November - December 2024. The study population was all premenopausal women aged 40-50, with 50 people obtained by a total sampling technique. The dependent variables of this study are knowledge and attitude. The independent variable is health education with audiovisual media. This study's intervention was providing health education through audiovisual media. Data was collected directly by giving knowledge and attitude questionnaires before and after the intervention. The stages of data analysis began with calculating the frequency distribution of knowledge and attitudes before and after the intervention, using the t-Wilcoxon test. The results showed differences in respondents' knowledge before and after audiovisual media education ( $p = <0.001$ ). There is a difference in the attitude of respondents before and after being given audiovisual media education ( $p = <0.001$ ). The conclusion is that providing education using audiovisual media significantly affects the increase in knowledge and attitudes of respondents.

**Keywords:** knowledge, attitude, menopause, audiovisual

## INTRODUCTION

Perimenopause, including the premenopausal phase, is a period of hormonal transition before menstruation stops completely. During this phase, oestrogen and progesterone levels begin to decline, triggering premenopausal syndromes such as menstrual irregularities, hot flashes, mood changes, fatigue, and psychosocial stress (Setiawan et al., 2020), (Anggraini & Dewi, 2023). The number of postmenopausal women worldwide is showing an upward trend. By 2021, about 26% of the global population of women and girls will be aged 50 and above, up from 22% a decade earlier (United Nations, 2021). In addition, women's life expectancy continues to increase. Globally, women who turn 60 in 2019 are expected to have an average life expectancy of 21 years (United Nations, 2019). The prevalence of women in the

premenopausal age is relatively high in Indonesia, reaching around 7.4% of the population in 2020, and is predicted to increase to 11.5% (Setiawan et al., 2020). Impacts include stress, decreased self-efficacy, and quality of life. Standard solutions include structured health education through modules, lectures, booklets, group discussions, and educational videos, which have been shown to improve knowledge and attitudes towards menopausal transition (Koyuncu et al., 2018).

Physical changes during the perimenopausal phase, such as menstrual fluctuations, decreased oestrogen, weight gain, insomnia, and a history of heart disease or osteoporosis, can trigger anxiety and low mental readiness (Koyuncu et al., 2018), (Gebretatyos et al., 2020). Audiovisual media offer the advantage of visualisation through animation, graphics, and illustrations of body changes, thus increasing understanding and positive attitudes. A quasi-experimental study showed that the use of audiovisual media, including educational videos, significantly increased knowledge and self-efficacy and decreased stress levels of premenopausal women (Putri et al., 2024), (Setiawan et al., 2020).

Previous studies have reported that video education increases family knowledge of premenopausal women from an average of 51.9 to 79.3. There is an effect of video-based health education about menopause on family knowledge of premenopausal mothers ( $p < 0.05$ ) (Sitanggang et al., 2023). Another study also indicated that structured education (lecture, discussion, booklet) was successful in increasing knowledge from pre-intervention to follow-up 3 months later ( $p < 0.0001$ ) and improving positive menopausal attitudes (Gebretatyos et al., 2020).

While the effectiveness of audiovisual media in improving health knowledge has been widely researched, few studies have specifically targeted premenopausal women. Most studies focus on the menopausal or postmenopausal phase, whereas the premenopausal phase

is a strategic time for preventive interventions. In addition, there is limited evidence on the role of audiovisual media in shaping knowledge and attitudes, as well as mental readiness to face physical changes. Based on this phenomenon, it is essential to conduct this study to determine the effect of audiovisual media health education on increasing the knowledge and attitudes of premenopausal women facing physical changes during menopause at Kauman Husada Clinic, Malang.

## **METHODS**

This study used a pre-experiment design with one group, a pretest-posttest design (Trisnadewi et al., 2021). This research was conducted at Kauman Husada Clinic in Malang. The research was conducted in November - December 2024. The study population was all premenopausal women aged 40-50, with 50 people obtained by a total sampling technique. The inclusion criteria are (1) the subject is a woman aged 40-50 years, and (2) the subject is willing to be a research subject during the study. Exclusion criteria are (1) women aged 40-50 years who cannot be used as research subjects because they are sick or not willing to become research respondents, (2) the age of the subject is above 50 years, and they are not willing to become a research respondent.

The dependent variables of this study were knowledge and attitude. The independent variable is health education with audiovisual media. The intervention in this study is providing health education through audiovisual media. Pretest and posttest measures the level of knowledge and attitude, conducted before and after the intervention, namely, education through audiovisual media. Data was collected directly by giving a knowledge and attitude questionnaire before and after the intervention. The data analysis begins with calculating the frequency distribution of knowledge and attitudes before and after the intervention. Data

analysis using the t-Wilcoxon test (V. T. Hulu & Sinaga, 2019), (V. Hulu & Kurniawan, 2021).

## RESULTS

Table 1 shows that the majority of women are aged 40-45, as much as 58%. The majority of respondents' occupations are housewives, as much as 36%, and the majority of respondents' education is in the D-III / S1 category, as much as 44%.

**Table 1. Characteristics of Respondents (n= 50)**

Variable	n	%
Age		
40-45 years old	29	58.0
46-50 years old	21	42.0
Job type		
Civil servant	5	10.0
Employee	5	10.0
Self-employed	13	26.0
Farmaer	9	18.0
Housewife	18	36.0
Educarion		
Junior high school	6	12.0
Senior high school	19	38.0
D-III/S-1	22	44.0
Not in school	3	6.0

Table 2 shows that 20% of respondents had poor knowledge before the intervention, but after the intervention, the respondents' knowledge was 0%. Meanwhile, based on attitude, the attitude of respondents before the intervention was mostly negative, as much as 78%, and after the intervention was mostly positive, as much as 93%.

**Table 2 Frequency Distribution of Knowledge and Attitude (n= 50)**

Variable	n	%
Knowledge before intervention		
Good	25	50.0
Fair	15	30.0
Poor	10	20.0

Variable	n	%
Knowledge after intervention		
Good	32	64.0
Fair	18	36.0
Poor	0	0.0
Attitude before intervention		
Positive	11	22.0
Negative	39	78.0
Attitude before intervention		
Positive	46	92.0
Negative	4	8.0

Table 3 shows differences in respondents' knowledge before and after being given audiovisual media education ( $p = <0.001$ ). There are differences in respondents' attitudes before and after audiovisual media education ( $p = <0.001$ ).

**Table 3. Wilcoxon test**

	Total	P value
Knowledge before and after intervention	50	<0.001
Attitude before and after intervention	50	<0.001

## DISCUSSION

The results showed that most women were aged 40-45 years, as much as 58%. This finding is consistent with the early phase of menopausal transition in this age range as described by WHO and global literature (average menopause at age 51 years, transition begins in late 40 years) (WHO, 2024). Regarding occupation, the majority of respondents worked as housewives, 36%. This occupational group generally has limited access to health services and education about the menopausal transition phase (Converso et al., 2019). Research from the Health and Employment After Fifty (HEAF) study revealed that menopausal symptoms such as hot flushes, sleep disturbances, psychological complaints, and joint pain have a high prevalence, at 91.7% for vasomotor symptoms, 68.2% for insomnia, and 63.6% for psychological disorders. Although no significant differences were found by type of employment, women who were in a state of job insecurity or facing economic

pressure tended to experience greater physical and psychological difficulty in dealing with these symptoms while undergoing work activities (D'Angelo et al., 2023). Based on education, most respondents were in the D-III / S1 category, as much as 44%. The results of a previous study indicated that there was a statistically significant correlation between education level and menopausal symptom management efforts ( $p = 0.008$ ), where women with higher education levels had a greater tendency to take active steps, such as consulting medical personnel or participating in therapeutic interventions, in dealing with their symptoms (Mawardani et al., 2025).

This study's results also indicated differences in respondents' knowledge before and after being given audiovisual media education ( $p = <0.001$ ). These results confirm that audiovisual media is effective as an educational tool to deepen understanding of premenopause. Understanding this transitional phase is crucial as it marks the end of the reproductive period and affects women's physical and psychological health. Audiovisual media consistently improved knowledge outcomes in the context of public health education (Yuliasih et al., 2025). According to the Cognitive Theory of Multimedia Learning, audiovisuals enable the integration of visual and auditory channels, strengthening comprehension, retention, and attitude change. Video-based learning significantly improves knowledge acquisition compared to traditional methods (Morgado et al., 2024). Through menopause education programmes, women's knowledge, attitudes, and well-being during the transition to menopause can be improved (McFeeters et al., 2024). Menopause education plays a role in increasing understanding and self-efficacy, which in turn encourages the use of effective self-management strategies to reduce menopausal symptoms and improve quality of life (Marco et al., 2025).

Knowledge, attitudes, and actions are significantly related to physical and psychological readiness for menopause (Zega et al., 2025). Based on this study also indicated that there were differences in respondents' attitudes about premenopause before and after being given audiovisual media education ( $p = <0.001$ ). The previous study showed that at each stage of the measurement time, the mean scores of respondents' attitudes were recorded at  $14.8 \pm 2.7$ ;  $39.4 \pm 1.01$ ; and  $43.3 \pm 1.2$ . This difference in scores indicates that the educational intervention successfully influenced attitudes about menopause ( $p = 0.0001$ ) (Dharmarajlu, 2024).

## CONCLUSION

This study proves that providing education using audiovisual media significantly improves respondents' knowledge and attitudes. There was a significant difference between the values before and after the educational intervention regarding knowledge and attitude, with a significance level of  $p < 0.001$ . It is hoped that the results of this study can serve as a basis for health workers, especially midwives and health educators, to further optimise audiovisual media in public health promotion and education activities.

## LIMITATION

This study applied a quasi-experimental design without a control group, so the potential influence of external variables, such as access to information from other media, respondents' subjective experiences, or communication between participants, cannot be eliminated. This may affect the internal validity of the findings.

## REFERENCES

Anggraini, N., & Dewi, B. P. (2023). Efektivitas Media Edukasi Audio Visual Dan Booklet Terhadap Pengetahuan Premenopause, Efikasi Diri Dan Stress Pada Wanita

Premenopause. *Jurnal Kesehatan Dan Pembangunan*, 13(25), 95–107.

Converso, D., Viotti, S., Sottimano, I., Loera, B., Molinengo, G., & Guidetti, G. (2019). The relationship between menopausal symptoms and burnout. A cross-sectional study among nurses. *BMC Women's Health*, 19(1), 148.

D'Angelo, S., Bevilacqua, G., Hammond, J., Zaballa, E., Dennison, E. M., & Walker-Bone, K. (2023). O-35 Impact of menopausal symptoms on work: findings from women in the health and employment after fifty (HEAF) study. *Occupational and Environmental Medicine*, 80(Suppl 1), A34–A34.

Dharmarajlu, S. M. (2024). Effect of lifestyle modification education on knowledge, attitude, and quality of life on menopause among middle-aged teachers. *African Journal of Reproductive Health*, 28(11), 170–180.

Gebretayos, H., Ghirmai, L., Amanuel, S., Gebreyohannes, G., Tsighe, Z., & Tesfamariam, E. H. (2020). Effect of health education on knowledge and attitude of menopause among middle-age teachers. *BMC Women's Health*, 20(1), 232.

Hulu, V., & Kurniawan, R. (2021). *Memahami Dengan Mudah Statistik Nonparametrik Bidang Kesehatan Penerapan Software SPSS dan STATCAL*. Kencana.

Hulu, V. T., & Sinaga, T. R. (2019). *Analisis Data Statistik Parametrik Aplikasi SPSS dan STATCAL: Sebuah Pengantar Untuk Kesehatan* (1st ed.). Yayasan Kita Menulis.

Koyuncu, T., Unsal, A., & Arslantas, D. (2018). Evaluation of the effectiveness of health education on menopause symptoms and knowledge and attitude in terms of menopause. *Journal of Epidemiology and Global Health*, 8(1), 8–12.

Marco, A., Lorenzo, E., DeBerg, J., & Cortes, Y. I. (2025). Impact of menopause education interventions on knowledge, symptoms and quality of life: protocol for a systematic review. *BMJ Open*, 15(6), e096235.

Mawardani, S., Sariyati, S., & Wijayanti, I. (2025). The relationship between education level, occupation, income and parity with efforts to manage symptoms in menopausal women in Banguntapan Urban Village Yogyakarta. *JNKI (Jurnal Ners Dan Kebidanan Indonesia)/Indonesian Journal of Nursing and Midwifery*, 13(1), 1–14.

McFeeeters, C., Pedlow, K., McGinn, D., & McConnell, K. (2024). A rapid review of menopausal education programmes. *Archives of Women's Mental Health*.  
[https://link.springer.com/article/10.1007/s00737-024-01476-8?utm\\_source=chatgpt.com](https://link.springer.com/article/10.1007/s00737-024-01476-8?utm_source=chatgpt.com)

Morgado, M., Botelho, J., Machado, V., Mendes, J. J., Adesope, O., & Proen  a, L. (2024). Video-based approaches in health education: a systematic review and meta-analysis. *Scientific Reports*, 14(1), 23651.

Putri, suci zulyani, Kasiati, K., Rijanto, R., & Susilaningrum, S. (2024). The Effect Of Audio-Visual Education On Menopause Syndrome In Premenopausal Women. *Journal Midwifwry*.

Setiawan, R., Iryanti, I., & Muryati, M. (2020). Efektivitas Media Edukasi Audio-visual dan Booklet terhadap Pengetahuan Premenopause, Efikasi Diri dan Stres pada Wanita Premenopause di Kota Bandung. *Perilaku Dan Promosi Kesehatan: Indonesian Journal of Health Promotion and Behavior*, 2(1), 1.

Sitanggang, T. W., Lestari, R. A., & Tirtawati, G. A. (2023). Pengaruh Pendidikan Kesehatan Berbasis Video Tentang Menopause Terhadap Pengetahuan Keluarga Ibu Premenopause. *JIDAN (Jurnal Ilmiah Bidan)*, 10(2), 61–67.

Trisnadewi, I. M. S. A. W., Ni Putu Wiwik Oktaviani, Seri Asnawati Munthe, Victor Trismanjaya Hulu, Indah Budiastutik, A. F., Radeny Ramdany, R. J. F., Tania, P. O. A., & Baiq Fitria Rahmiati, Sanya Anda Lusiana, Baiq Fitria Rahmiati, Sanya Anda Lusiana, S. S. (2021). *Metodologi Penelitian Kesehatan*.

United Nations. (2019). *Department of Economic and Social Affairs, Population Division (2019). World Population Ageing 2019: Highlights (ST/ESA/SER.A/430)*. <https://www.un.org/en/development/desa/population/publications/pdf/ageing/WorldPopulationAgeing2019-Highlights.pdf>

United Nations. (2021). *Department of Economic and Social Affairs. (2021). World Prospects 2021*.

WHO. (2024). *Menopause*. [https://www.who.int/news-room/fact-sheets/detail/menopause/?utm\\_source=chatgpt.com](https://www.who.int/news-room/fact-sheets/detail/menopause/?utm_source=chatgpt.com)

Yuliasih, N. D., Sari, P., Bestari, A. D., Martini, N., & Sujatmiko, B. (2025). Does Health Education Through Videos and E-Leaflet Have a Good Influence on Improving Students' Reproductive Health Knowledge, Attitudes, and Practices? an Intervention Study in Jatinangor, Indonesia. *Advances in Medical Education and Practice*, 29–39.

Zega, D. F., Barus, L. B., Singarimbun, N. B., & Saragih, E. (2025). Eksplorasi pengetahuan, sikap, tindakan ibu terhadap kesiapan fisik dan psikis dalam menghadapi menopause: studi cross-sectional. *Haga Journal of Public Health (HJPH)*, 2(2), 47–53.