Literature Review: Factors Related to Menopause

Miftahul Jannah[1], Risti Marliani[2], Siti Umi Nur Almi Sarina[3], Siti Zulaiha[4], Titin Indriany[5], Luvi Dian Afriyani[6]

[1]Bachelor of Midwifery Program, Universitas Ngudi Waluyo, miftahuljannahgrogot@gmail.com
[2]Bachelor of Midwifery Program, Universitas Ngudi Waluyo, ristimarliani@gmail.com
[3]Bachelor of Midwifery Program, Universitas Ngudi Waluyo, almi.sarina96@gmail.com
[4]Bachelor of Midwifery Program, Universitas Ngudi Waluyo, sitizulaiha805@gmail.com
[5]Bachelor of Midwifery Program, Universitas Ngudi Waluyo, titinpasirbal@gmail.com
[6]Bachelor of Midwifery Program, Universitas Ngudi Waluyo, luviqanaiz@gmail.com
Email Correspondence: ristimarliani@gmail.com

Article Info

Article History
Submitted, 2026-04-12
Accepted, 2026-05-19
Published, 2026-06-30

Keywords: Menopause, women, menarche age, parity, lifestyle

Abstract

Menopause is a natural phase in a woman's life characterized by the permanent cessation of menstruation due to a decline in estrogen hormone levels. biological factors (age at menarche, parity, hormonal contraception), social factors (work, education), and lifestyle factors (physical activity and diet). Although it is a natural process that inevitably occurs, the age of menopause onset and the intensity of symptoms that accompany it show very significant variation between individuals. This study aims to identify, analyze, and construct various multidimensional factors that trigger the acceleration of the age of menopause onset and affect the severity of symptoms experienced by women during the transition period. This study used a literature review method by searching for articles through the Google Scholar and PubMed databases from 2018 to 2025. The articles included were full-text articles with quantitative and qualitative research designs using the PICO (Population, Intervention, Comparison, Outcome) approach. Of the twenty articles identified, ten met the inclusion criteria. The results show that factors influencing menopause include biological factors (age at menarche, parity, hormonal contraception), social factors (occupation, education), and lifestyle factors (physical activity and diet). Six journals discuss the age of first menstruation, four journals discuss parity, three journals discuss hormonal birth control, one journal discusses education, lifestyle. Factors that can influence the incidence of menopause for women in Indonesia are characteristic factors consisting of biological factors (age at menarche, parity, hormonal contraception), social factors (work, education), and lifestyle factors (physical activity and diet.

Introduction

Menopause is a physiological condition experienced by every woman as part of the aging process which is characterized by the cessation of menstruation for 12 consecutive months. Menopause occurs due to decreased ovarian function which causes a decrease in the production of the hormones estrogen and progesterone. The age of menopause varies between individuals, generally occurring at the age of 45–55 years, but it can occur sooner or later depending on various factors that affect it. Various studies show that menopause is not only influenced by biological factors, but also by lifestyle factors and social factors. Biological factors such as menarche age and parity are known to play a role in determining the length of a woman's reproductive life. Lifestyle such as physical activity, and diet also contribute to the timing of menopause. Women who do moderate physical activity tend to experience menopause more slowly than those who do light physical activity.

On the other hand, social factors such as education and employment play a role in women's readiness to face menopause. Therefore, it is important to understand the various factors that affect menopause in order to improve the quality of life of women during this period. Research by Winarni et al (2020) shows that there is a relationship between the age of menarche and the age of menopause. The correlation test showed a correlation value of -0.580 with a p value of < 0.001 which proved that there was a real link between the relationship between menarche

Corresponding author:
Risti Marliani
ristimarliani@gmail.com

age and menopausal age. This shows that entering the menopausal period is reviewed from the age of menarche and the number of children. Furthermore, Research by (Bennovry et al., 2023) There is a significant relationship between the relationship between the number of parity and menopause with a value of p = 0.002. Women with a larger number of children tend to experience menopause more slowly. This is because during pregnancy and breastfeeding, the ovaries "rest" from the ovulation process, so that the egg reserve is better maintained (not depleted quickly).

Research by Aswita et al (2024) shows a significant relationship between menarche and menopause with a value of p = 0.03, there is a relationship between parity and a value of p= 0.011, there is a relationship with education with a value of p= 0.045, there is a relationship with work with a value of p = 0.003 and there is also a relationship with the use of hormonal birth control with a value of p = 0.015. In addition, research from (Suazini, E.R. 2018) the factors of contraceptive use have been proven to affect the age of menopause. With a value of p=0.044. The use of non-hormonal contraceptives or not using birth control at all actually slowed down the age of menopause by 0.02%.

The literature review with this title was taken on the grounds that menopause is experienced by every woman of different ages, menopause can also cause various health impacts, there is still limited public knowledge about menopausal factors, as a basis for promotive and preventive measures, there is still a high number of elderly women in Indonesia and as an additional scientific reference in the field of reproductive health.

Methods

This literature study uses the Systematic Literature Review (SLR) method, which is a literature study that is compiled systematically and clearly by collecting, identifying, and evaluating existing research data. The purpose of writing this literature is to find out the factors related to menopause. Systematic searches were conducted through a computer search using the Google Scholar database. Article searches are limited to publications published in 2018 to 2025. The keywords used in the search were "menopause", "menopausal factor", "women". The inclusion criteria set in this literature review are: 1) Articles that focus on factors related to, 2) Articles are available in full text form with the year of publication 2018–2025, 3) Articles in Indonesian or English, 4) Articles are research articles (research articles) published in scientific journals. Meanwhile, the exclusion criteria in this study are: 1) Articles in the form of thesis, thesis, or dissertation, 2) Articles that cannot be freely accessed (restricted access), 3) Articles that are not relevant to variable factors related to menopause. Of the 20 articles that were obtained and then selected, they finally got 10 articles that were systematically analyzed.

Results and Discussion

A literature review was conducted on 10 selected articles. The publications ranged from 2020 to 2026. The results of the journal analysis are presented in Table 1 as follows:

Table 1. Results of Journal Analysis

No	Research	Method	Results
1.	Entering menopause is reviewed from the age of menarche and the number of children (Winarni et al., 2020)	This type of research is survey analytics with a retrospective approach. The sample of this study was 82 menopausal mothers in Karangjati village, Wonosegoro, Boyolali who were selected using a simple random sampling technique by using an observation sheet filled out through a direct interview process. This study uses the Pearson correlation test.	There is a relationship between the age of menarche and the age of menopause. The correlation test showed a correlation value of -0.580 with a p value of < 0.001 which proved that there was a real relationship between the relationship between menarche age and menopausal age.
2.	Factors Affecting the Age of Menopause in Padang City in 2023 (Bennovry et al., 2023)	This type of research is survey analytics with a cross-sectional approach. The sample of this study was 124 middle-aged women using a simple random sampling technique. This study uses univariate and bivariate analysis using the Chi Square test.	There was a significant relationship between the relationship of total parity with menopause with a value of p = 0.002. Women with a larger number of children tend to experience menopause more slowly. This is because during pregnancy and breastfeeding, the ovaries "rest" from the ovulation process, so that the egg reserve is better maintained (not depleted quickly).
3.	Factors Related to Menopausal	This study uses quantitative research with a cross-sectional approach method. Sample All	There was a significant relationship between menarche and menopause with a value of p = 0.03, there was a

	Incidence (Aswita et al., 2024)	mothers aged 40-65 years in Lambangi Village with a total of 64 respondents using the total sampling technique. The analysis data uses the chi Square test.	relationship between parity and a value of p= 0.011, there was a relationship with education with a value of p= 0.045, there was a relationship with work with a value of p = 0.003 and there was also a relationship with the use of hormonal birth control with a value of p=0.015
4.	Direct Factors that Affect Menopausal Age (Suazini, E.R. 2018)	This type of research is analytical with a cross-sectional approach. A sample of 95 respondents of menopausal age in Garut using purposive sampling techniques. The analysis of this study uses univariate, bivariate and multivariate analysis.	Contraceptive use factors have been shown to affect the age of menopause. With a value of p=0.044. The use of non-hormonal contraceptives or not using birth control at all actually slowed down the age of menopause by 0.02%.
5.	Determinants of Menopausal Incidence (Dahniar et al., 2024)	This study uses Quantitative research with the Observational Analytical method using the Retrospective Cohort approach. With a sample of 47 elderly women using a total sampling technique. Data analysis with univariate, bivariate and multivariate analysis.	There are three main factors that have a significant effect on the incidence of menopause (p< value 0.05), parity p = 0.002, menarche p = 0.000, and diet p = o,oo3.
6.	Dominant Factors Affecting Menopausal Age for Women in Ateuk Jawo Village, Baiturrahman District, Banda Aceh City (Meutia et al., 2024)	Analytical research with a cross-sectional approach. With a sample of 76 respondents of menopausal mothers in Ateuk Jawo Village, Purposive sampling technique. Data analysis using univariate and bivariate using chi square test	The results showed that there was an influence of menarche age (p value = 0.009), last childbirth age (p value = 0.029), parity (p value = 0.022) and family planning history (p value = 0.019) on menopausal age in women in Ateuk Jawo Village, Baiturrahman District, Banda Aceh City.
7.	Factors Affecting the Incidence of Early Menopause in Kalirejo Village, Kalipare District, Malang Regency (Astikasari & Tuszahroh, 2019)	This study uses observational analytics with a cross-sectional approach. By using the chi square test	There was an association between menopause (p< value 0.05) and menarche age p = 0.002, maternal parity p = 0.043 and contraceptive factor p = 0.021.
8.	Analysis of Factors Related to Menopausal Age (Kartini, 2020)	Analytical research with a cross-sectional approach. With a sample of 73 menopausal women using purposive sampling techniques. Data analysis using univariate and bivariate using chi square test	There was a relationship between parity with menopausal age ($\chi2$=12.19; p=0.002); There was a relationship between menarche age and menopausal age ($\chi2$=13.86; p=0.001); there was a relationship between the age of first childbirth and the age of menopause ($\chi2$=6.24; p=0.012); there was a relationship between the history of oral contraceptive use and the age of menopause ($\chi2$=7.456; p=0.024); There is a relationship between physical activity and menopausal age ($\chi2$=10.77; p=0.005).
9	Factors Related to Menopause in Mothers at Dalu-Dalu Health Center, Tambusai Riau District (Ginting & Brahmana, 2019)	The research was analytical with a cross-sectional approach. Using 38 people with a total sampling technique. Data analysis using chi square test	There was a relationship between menarche and menopause with a value of p = 0.028 (α = 0.05), parity with menopause p = 0.034 (α = 0.05), the relationship between marital status and menopause obtained a value of p = 0.016 (α = 0.05), the relationship between the age of childbirth and menopause obtained a value of p = 0.030 (α = 0.05)

10	Reproductive Factors and Menopause (Morooka et al., 2024)	Population-based cohort studies	longitudinal	Menarche age and reproductive history are related to menopausal age

Based on the results of the analysis of the 10 journals reviewed, biological factors can be known, but also by lifestyle, health, socioeconomic, and psychological factors. Biological factors such as menarche age and parity are known to play a role in determining the length of a woman's reproductive life. Lifestyle such as physical activity, and diet also contribute to the timing of menopause. In addition, health conditions such as chronic diseases and nutritional status also affect ovarian function. On the other hand, social and psychological factors such as education, knowledge, and family support play a role in women's readiness to face menopause. Therefore, it is important to understand the various factors that affect menopause in order to improve the quality of life of women during this period.

Biological Factors

Menarche Age

Menarche Age is one of the factors related to Menopause. There is a relationship between the age of menarche and the age of menopause. The correlation test showed a correlation value of -0.580 with a p value of < 0.001 which proved that there was a real link between the relationship between menarche age and menopausal age. The earlier a woman experiences her menstrual period, the longer it will take for the woman to experience menopause. Conversely, the longer their menstruation, the faster they experience menopause, because women who menstruate at an early age have higher levels of anti-Mullerian hormone (AMH) than women who menstruate at an advanced age. Recent studies show a relationship between the age of menarche and menopause (Winarni & Dyaswati R., 2020).

Total Parity

There was a significant relationship between the relationship of total parity with menopause with a value of p = 0.002. Women with a larger number of children tend to experience menopause more slowly. This is because during pregnancy and breastfeeding, the ovaries "rest" from the ovulation process, so that the egg reserve is better maintained (not depleted quickly) (Bennovry, et al., 2023).

Hormonal Contraception

Contraceptive use factors have been shown to affect the age of menopause. With a value of p=0.044. The use of non-hormonal contraceptives or not using birth control at all actually slowed down the age of menopause by 0.02%, The use of hormonal contraception is associated with menopause because hormonal contraceptives contain the hormones estrogen and progesterone, which can affect ovarian function and the female reproductive hormonal system. Hormonal contraception works by suppressing the ovulation process, thereby reducing ovarian activity. Long-term use of hormones can affect the balance of reproductive hormones and is associated with the age at which menopause occurs. In addition, hormones from contraceptives can cause irregular menstrual cycles, so the signs of menopause may appear later or vary among women (Suazini, E.R. 2018).

Social Factors

Education and Employment

There is a significant relationship with education with a value of p = 0.045, there is a relationship with work with a value of p = 0.003. So women who have higher education and work have a relationship with menopause, Education and occupation are associated with menopause because these two factors influence knowledge, psychological conditions, lifestyle, and women's reproductive health. The study found a significant relationship between education and occupation and the occurrence of menopause (Aswita et al., 2024).

Lifestyle

Phusical Aktivity

There was a relationship between physical activity and menopausal age with a value of ($\chi 2$=10.77; p=0.005. Menopause age in the normal category was the most in women who did moderate physical activity as many as 24 people (32.9%), while the menopausal age in the slow category was the most in women who did light physical activity as many as 15 people (20.5%) (Kartini, 2020). Physical activity can affect menopause because exercise and exercise are directly related to hormones, metabolism, and body functions that also change when menopause occurs.

Diet

This study shows that from the results of data analysis, the ρ-value value on the diet variable is 0.030 < α 0.05 so that it can be concluded that there is an influence of diet on the incidence of menopause (Dahniar et al., 2024).

Conclusion

Based on the results of the literature review, it can be concluded that menopause is influenced by various factors including biological factors, social factors and lifestyle. The most dominant factors are menarche age, parity, lifestyle, and hormonal contraception. Therefore, education and health promotion efforts are needed to increase women's readiness to face menopause.

Acknowledgments

Thank you to all Ngudi Waluyo University Lecturers and classmates who have helped in the preparation of this literature review

References

Aswita, A., Askrening, A., Kartini, K., Halijah, H., & Azlimin, A. (2024). Factors Associated with Menopause Events in Lambangi Kolono Timur Village, South Konawe Regency. Health Information: Journal of Research, 16(3), 381–391. https://doi.org/10.36990/hijp.v16i3.1530

Winarni, & Dyaswati, R. (2020). Entering the menopausal period is reviewed from the age of menarche and the number of children. Indonesian Journal of Midwifery, 11(2), 82–92. https://doi.org/10.36419/jkebin.v11i2.376

Dahniar, D., & Rosidi, I. Y. D. (2024). Determinants of the incidence of menopause. Journal of Health News, 17(1), 123–130. https://doi.org/10.58294/jbk.v17i1.164

Bennovry, R. R., S.A., S., & Utama, B. I. (2024). Factors Affecting the Age of Menopause in Padang City in 2023. Andalas Obstetrics And Gynecology Journal, 8(1), 525–537. https://doi.org/10.25077/aoj.8.1.525-537.2024

Suazini, E. R. (2018). Direct factors that affect the age of menopause. Journal of BIMTAS: Journal of Midwifery 2 (1), 49-56. https://journal.umtas.ac.id/bimtas/article/download/344/216

Meutia, C., Martina, & Novita, N. H. (2024). The dominant factor that affects menopausal age for women in Ateuk Jawo Village, Baiturrahman District, Banda Aceh City. Journal of Modern Technology and Science, 1(4), 134–141. https://doi.org/10.69930/jtsm.v1i4.215

Astikasari, N. D., & Tuszahroh, N. (2019). Factors Affecting the Incidence of Early Menopause in Kalirejo Village, Kalipare District, Malang Regency. Journal for Quality in Women's Health, 2(1), 50–56. https://doi.org/10.30994/jqwh.v2i1.28

Morooka, H., Haug, E. B., Malmo, V., Loennechen, J., et al. (2024). Association of age at menarche, reproductive lifespan and age at menopause with the risk of atrial fibrillation: The HUNT study. Maturity, 185, 107979. https://doi.org/10.1016/j.maturitas.2024.107979

Kartini. (2020). Analysis of factors related to menopausal age at the Mekar Health Center, Kendari City. Health Information: Journal of Research, 12(1), 86–98. https://doi.org/10.36990/hijp.vi.192

Ginting, D., & Etalia br Brahmana, N. (2019). Factors related to menopause in mothers at the Dalu-Dalu Health Center, Tambusai Riau District. Excellent Midwifery Journal, 2(1). https://jurnal.mitrahusada.ac.id/emj/article/download/77/45