

Increase Menopause Symptoms of Women with Hormonal Contraceptive in Surakarta

Tatik Trisnowati *, Rahayu Setyaningsih

Politechnic Insan Husada Surakarta Jawa Tengah Indonesia..

*correspondence: tatiktris@polinsada.ac.id

Abstract: During menopause, a woman will experience physical and psychological changes which often cause various complaints. There are several factors that are thought to be the cause of these complaints, such as education, use of hormonal contraceptives, and psycholog. The purpose of this study was to determine the severity of menopausal symptoms in terms of history of contraceptive use. This type of research is descriptive quantitative with cross sectional data collection using the Menopause Rating Scale questionnaire, with sampling techniques using non probability consecutive sampling techniques. inclusion criteria women aged 45 - 59 years and have stopped menstruating, have a history of using hormonal contraceptives, willing to be a respondent conducted in March 2024 until the number of respondents was obtained 30 people. Univariate analysis test with frequency distribution. The results showed that the severity of menopausal symptoms in women using contraceptives was none 3%, mild 33%, moderate 37%, and severe 27%. Conclusion of this study is the severity of menopausal symptoms in women who use hormonal contraceptives on average have moderate severity. The severity of menopausal symptoms is not only influenced by contraceptive use, but there are other factors such as education and psychological conditions.

Keywords: Severity, Menopause, Hormonal Contraceptive

Submitted: 25 March 2024, revised: 10 June 2024, accepted: 12 June 2024, published: 30 July 2024

INTRODUCTION

Menopause is the natural end of a woman's menstrual cycle, occurring between the ages of 45-55. Other meanings menopause when women no longer has menstruation for 12 months ([Meilan & Huda, 2022](#)). Menopause is a physiologic process of a woman grows older. As women age, their ovaries produce fewer hormones. As a result, the ovaries stop releasing eggs and menstruation stops. A woman experiences menopausal symptoms starting during perimenopause, which is several months or years before menstruation stops. The duration and severity of symptoms can different for each woman. Symptoms or signs of menopause can include changes in the menstrual cycle, changes in physical, psychological, and sexual appearance, causes the mestrual cycle to stop. Women in the perimenopausal period will begin to experience changes in the menstrual cycle, such as: irregular menstruation cycle, late or earlier than usual (*oligomenorrhea*), discharge during menstruation can be less or more ([Romadhona, 2022](#)).

According to WHO in Asian countries in 2025 it is estimated that the number of menopausal women will increase from 107 million to 373 million, statistical calculations are estimated that in 2020 the population of Indonesia is estimated to reach 262.6 million with the number of menopausal women around 30.3 million. Based on data from the Central Statistics Agency (BPS) in Indonesia in 2021 there were 32.4 million menopausal women, which has increased every year. In 2020 in Indonesia, the total female population aged 45-74 is 34.710.640 people ([BPS Pusat, 2020](#)). Based on data from the Central

Java Provincial Statistics Agency, the total female population aged 45-74 years in Central Java in 2021 reached 5.512.177 people ([BPS Central Java Province, 2021](#)). In Surakarta the women age of 45 - 59 years old in 2022 is 59.271 people ([Dinkes Kota Surakarta, 2022](#))

During menopause, a woman will experience physical and psychological changes which often cause various problems of complaints. There are possible factors that cause complaints during menopause such as education, use of hormonal contraceptives, and psychological. Menopause is a natural cycle of a woman's life when a woman becomes elderly. As increase age, ovaries will decrease producing hormones. As a result, the ovaries no longer release ovum and menstruation will stop. Menopausal symptoms begin to be felt by women when the perimenopause period, which is several months or years before menstruation stops. The duration and severity of sign and symptoms that arise can vary from every woman.

The cause of menopause is low estrogen levels, while the levels of hypophysical hormones that stimulate the ovaries (especially FSH) are high. Women who experience menopause have symptoms such as insomnia, feeling hot, reduced memory, sweating a lot. Hormonal contraceptive methods include one of the most effective reversible contraceptive methods used to prevent pregnancy. So it becomes the main choice of women of fertile age (WUS) to prevent pregnancy. In women who use hormonal contraceptives, it will be longer or older to enter menopause ([Romadhona, 2022](#)).

Perimenopausal women may also experience sexual changes, such as vaginal dryness, decreased libido (sexual desire). In addition to these changes, other symptoms that can be found in perimenopausal women are feeling hot or sultry, so they sweat easily (hot flashes), night sweats, migraines, headaches, joint pain, and palpitations ([Romadhona, 2022](#)). Hormonal contraception is a method of preventing pregnancy that uses the hormone progesterin or a combination of estrogen and progesterin. Hormonal contraception is one of the most effective reversible contraceptive methods used to prevent pregnancy. The main mechanism of combined contraception by affecting the hypothalamic pituitary pathway, which inhibits ovulation by interfering with pululation from the hypothalamus and the LH surge ([Vannuccini, S et al., 2022](#)). Long-term use of hormonal contraceptives can cause changes in serum lipids, bone density, vaginal dryness, decreased libido, emotional disturbances, headaches and acne ([Romadhona, 2022](#)).

Menopause causes a variety of symptoms that can cause discomfort, and can even cause significant obstacles to personal, social, and daily activities. Hormonal contraceptives used by women during fertile age have an influence on the description of symptom complaints during menopause. Based on the description above, the authors are interested in conducting research with the title of the severity of menopausal symptoms in terms of hormonal contraceptive use.

METHODS

Type of research this research design is descriptive research with a cross sectional approach that aims to describe the results of the severity of menopausal symptoms with a history of contraceptive use. The population in the study were subjects who met predetermined criteria. The population in this study varies according to the specific objectives of the study. The population in this study were women aged 45-59 years 414 people. The sampling technique used is non probability consecutive sampling. Consecutive sampling is the selection of samples by determining subjects who meet the inclusion criteria and are included in the study until a certain period of time. The inclusion criteria is women aged 45 - 59 years and have stopped menstruating, have a history of using hormonal contraceptives, are willing to be respondents conducted in March 2024 to get the number of respondents 30 people.

The instrument used in this study was the Menopause Rating Scale (MRS) questionnaire developed by The Berlin Center For Epidemiology and Health Research so that the questions were content validated. Operational definition of the study 1) The menopausal woman referred to in this study is a woman aged 45 - 59 years who is categorized as menopausal in Surakarta 2) Menopause referred to here is the cessation of menstruation or the last menstrual period in a woman's life. 3) Hormonal contraception is a method of contraception that women to regulate of fertility 4) Complaints of menopausal women are various conditions or symptoms experienced by menopausal women which

include complaints somato vegetative, psychological and urogenital complaints, which were measured using the MRS questionnaire consisting of 11 questions. For questions 1,2,3,11 are questions on somato vegetative complaints, and for questions 4,5,6,7 are questions on psychological complaints, and for questions 8,9,10 are questions on urogenital complaints. Each question will be scored as follows the categories used are no / few complaints (total score 0-4), mild complaints (total score 5-8), moderate complaints (total score 9-16) and severe complaints with total score ≥ 17 (Zulfi, Dwiningsih, & Krisnana, 2021).

This study has passed the ethical feasibility test with number 1736/UKH.I.02/EC/2024) from the Health Research Ethics Committee of Kusuma Husada University Surakarta on January 16, 2024. In carrying out the research, the researcher has obtained approval from the parties involved which emphasizes ethical issues including informed consent. Data analysis with univariate analysis using frequency distribution.

RESULTS

In this study, univariate data analysis was carried out. The characteristics data of respondents:

Table 1. Characteristics of respondents (n=30)

Characteristics	Frequency (f)	Percentage (%)
Age		
45-50	6	20
51-59	24	80
Education		
Elementary	8	27
Intermediate	4	13
Higher	18	60
Contraception		
Injectable	15	50
IUD	11	37
Implant	4	13

Based on the results of the study, table 1. shows that respondents have an age of 45-50 years as many as 6 respondents (20%) and an age of 51-59 years as many as 24 respondents (80%). Respondents have primary education as many as 8 respondents (27%), secondary education as many as 4 respondents (13%) and higher education as many as 18 respondents (60%). Contraceptive of respondents used the injectable method of contraception as many as 15 respondents (50%), the IUD method 11 respondents (37%) and users of the implant method as many as 4 respondents (13%)

Table 2. Frequency Distribution of Severity of Menopausal Symptoms

Severity	Frequency	Percentage (%)
None	1	3
Mild	10	33
Moderate	11	37
Severe	8	27
Total	30	100

Based on [table 2](#). shows the results that the respondents' level of severity of menopausal symptoms None as many as 1 respondent (3%), Mild 10 respondents (33%), moderate as many as 11 respondents (37%) and severe as many as 8 respondents (27%).

DISCUSSION

Based on the results of the study, it shows that the respondents had an age of 45-50 years as many as 6 respondents (20%) and an age of 51-59 years as many as 24 respondents (80%). Age 51-59 is the phase where menstruation no longer occurs at all 12 consecutive months. Usually occurs at the age of 49 - 55 years or menopause occurs mostly at the age of > 50 years.. Based on the results of research by [Hussain et.al.\(2018\)](#), it was found that there was a relationship between the history of hormonal contraceptive use and the age of menopause. the relationship between the use of hormonal contraceptives and the age of menopause. Contraception, especially hormonal contraception, plays a role in suppressing ovarian function to ovulate so that it can slow down menopause ([Ismail, Kadir, & Amalia, 2023](#)). The longer it takes to enter menopause, the longer the complaints experienced due to contraceptive use will be ([Maita, Nurlisis, & Pitriani, 2013](#)). The age of menopause affects a woman's readiness to deal with the changes that occur during menopause. Women with normal menopausal age are certainly more mature in their thinking and more prepared to menopause phase

Based on the results of the study, it shows that respondents have basic education as many as 8 respondents (27%), secondary education as many as 4 respondents (13%) and higher education as many as 18 respondents (60%). Women with a high level of formal education tend to have good knowledge and are more able and easy to understand the changes that occur in their body and understand the importance of health ([Asifah & Daryanti, 2021](#)). The higher a person's level of education, the easier it is to receive information so that the more knowledge they have. Conversely, lack of education will hinder a person's development of newly introduced values, so that respondents do not know more information, especially about menopause ([Ismail et al., 2023](#)). In this study, 60% of respondents had higher education. This affects the mindset and ultimately determines the mother's attitude to be positive in going through her life cycle. The results of research by Juliana, et al, 2021, state that there is a significant relationship between the level of knowledge and complaints during menopause, lack of knowledge has a 4.575 times greater risk of experiencing severe complaints during menopause compared to respondents who have good knowledge ([Juliana, A, & Amalia, 2021](#)).

The results showed that respondents used the injectable method of contraception as many as 15 respondents (50%), the IUD method 11 respondents (37%) and users of the implant method as many as 4 respondents (13%). Contraception is an effort to prevent pregnancy temporarily or permanently, divided into two, namely hormonal and non-hormonal ([Sagita & Rudini, 2022](#)). Hormonal contraception has 4 categories, namely pills, injections, implants and hormonal IUDs. Hormonal contraceptives are contraceptives intended to prevent pregnancy, where the raw materials contain estrogen and progesterone. Of the four categories of injectable methods most in demand by WUS, the results showed that 50% chose the injectable method to prevent pregnancy. This is supported by the results of research that the majority of contraceptive method use in various regions in Indonesia is injectable hormonal contraception ([Rotinsulu, Wagey, & Tendean, 2021](#)). Injectable contraceptives are birth control drugs that are injected once a month (combination) or once every 3 months (progestin). Side effects arising from the use of injectable contraceptives are amenorrhea (no menstruation), nausea, vomiting, dizziness/headache, weight change, and breast tenderness ([Rumende, Goenawi, & Lolo, 2015](#)).

The results showed that the respondents' level of severity of menopausal symptoms was none as many as 1 respondent (3%), mild 10 respondents (33%), moderate as many as 11 respondents (37%) and heavy as many as 8 respondents (27%). The menstrual cycle is controlled by two hormones produced by the anterior pituitary gland (FSH and LH) and two hormones produced by the ovaries (estrogen and progesterone). As we approach menopause FSH and LH will continue to be produced by the pituitary gland normally. However, as a person gets older the ovaries cannot respond to FSH

and LH as they should, causing estrogen and progesterone to be produced less and less. Menopause phase when both ovaries cannot produce enough estrogen and progesterone hormones to maintain the menstrual cycle, cause stopped the menstrual cycle ([Astikasari, Tuszahroh, 2019](#)). Some somatic signs and symptoms during perimenopause include headaches, dizziness, palpitations and enlarged and painful breasts. There are many complaints of menopause, it must be assured that these symptoms are still common categories and are physiological in nature ([Zolekhah & Sholihah, 2018](#)).

The results of this study found that 37% of respondents' complaints during menopause experienced moderate complaints. During menopause, women experience a decrease in estrogen levels due to the absence of the folliculogenesis process. This decrease in estrogen levels can cause various complaints, both psychological (depression, irritability, anxiety, fatigue), physical complaints or somatic complaints (hot flushes, heart complaints, sleep disturbances, joint and muscle complaints) and complaints related to urogenital (sexual problems, vaginal dryness and urinary complaints) ([Widjayanti, 2021](#)). The use of one-month and three-month injectable contraceptive methods can affect the weight of acceptors. The longer the use of injectable contraceptives, the higher the increase in acceptor weight. Research results of [O'Leary et.al, \(2024\)](#) that hormonal contraceptive use also had effects on the bone and calcium metabolic response to military training ([O'Leary, Izard, Tang, Fraser, & Greeves, 2024](#)).

The results of [Juliana's research \(2021\)](#) say that there is a significant relationship between the history of hormonal contraceptive use and complaints at menopause, with the results of OR = 7.730, which means that respondents who do not use hormonal contraception have a 7.730 times greater risk of experiencing severe complaints at menopause compared to respondents who use hormonal contraception ([Juliana et al., 2021](#)).

Women with menopausal complaints experience a lower quality of life compared to women who do not have menopausal complaints ([Whiteley, Dibonaventura, Wagner, Alvir, & Shah, 2013](#)). Menopause is a life cycle of a woman that cannot be prevented and treated, but care can be taken to reduce the symptoms felt, so the importance of identifying the severity of menopausal symptoms since this can determine appropriate interventions in women with menopausal complaints.

Hormonal contraceptives can be used as HRT (Hormone Replacement Therapy) because they contain the hormone components estrogen and progesterone which can be used as replacement hormones when women experience decreased hormone levels during menopause. But long-term use of hormonal contraceptives will result in the onset of climacteric symptoms. The hormones contained in contraceptive methods have a negative effect on women's sexual life in the long run ([Sari, Sawitri, & Putri, 2021](#)).

CONCLUSION

Conclusion of this study is the severity of menopausal symptoms in women who use hormonal contraceptives on average have moderate severity. The severity of menopausal symptoms is not only influenced by contraceptive use, but there are other factors such as education and psychological conditions. It is expected that women conduct self-intervention according to the severity of menopausal symptoms. The results of this study are expected to can be an input for every health worker in improving knowledge and understanding about complaints experienced by women during menopause.

REFERENCES

- Asifah, M., & Daryanti, M. S. (2021). Knowledge of Women in Facing Menopause in Pedukuhan Gowok, Sleman Regency. *JKM (Journal of Public Health) Cendekia Utama*, 8 (2), 180. <https://www.jurnal.stikescendekiautamakudus.ac.id/index.php/J%20KM/article/view/682>. <https://doi.org/10.31596/jkm.v8i2.682>
- Astikasari, N. D., Tuszahroh, N., Surya, S., Husada, M.,. (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://jqwh.org/index.php/JQWH/article/view/28>.
<https://doi.org/10.30994/jqwh.v2i1.28>
- Hussain, S. M., Cicuttini, F. M., Alyousef, B., & Wang, Y. (2018). Female hormonal factors and osteoarthritis of the knee, hip and hand: a narrative review. *Climacteric : the journal of the International Menopause Society*, 21(2), 132–139. <https://doi.org/10.1080/13697137.2017.1421926>
- Ismail, P., Kadir, L., & Amalia, L. (2023). Analysis of the Relationship Between Hormonal Contraceptive Use and Menopausal Age at Kabila Health Centre. *Journal Health & Science: Gorontalo Journal Health and Science Community*, 7(1), 70-77. Retrieved from <https://ejurnal.ung.ac.id/index.php/gojhes/index>. <https://doi.org/10.35971/gojhes.v7i1.16081>
- Juliana, D., Anggraini, D., & Amalia, N. (2021). The Relationship Between Women's Characteristics and Complaints During Menopause in the Upk Work Area of Puskesmas Perumnas Ii Pontianak. *Borneo Nursing Journal*, 3(1), 33-38. Retrieved from <https://akperyarsismd.e-journal.id/BNJ/article/view/32>. <https://doi.org/10.61878/bnj.v6i1>
- Maita, L., Nurlisis, N., & Pitriani, R. (2013). Characteristics of Women with Menopausal Complaints in the Rejosari Health Centre Working Area. *Journal of Community Health*, 2(3), 128-131. <https://jurnal.htp.ac.id/index.php/keskom/article/view/59>.
<https://doi.org/10.25311/keskom.vol2.iss3.59>
- Meilan, N., & Huda, N. (2022). Factors Affecting Women's Readiness in Facing Menopause. *Indonesian Journal of Physiotherapy and Health*, 2(1), 78-82. <https://ifi-bekasi.e-journal.id/jfki/article/view/76>.
<https://doi.org/10.59946/jfki.2022.76>
- O'Leary, T. J., Izard, R. M., Tang, J. C. Y., Fraser, W. D., & Greeves, J. P. (2024). Hormonal contraceptive use is associated with altered bone structural and metabolic responses to military training in women: An observational cohort study. *Bone*, 181(December 2023), 117012. <https://pubmed.ncbi.nlm.nih.gov/38216077/>. <https://doi.org/10.1016/j.bone.2024.117012>
- Romadhona, N., Rahim, A. F., Nuriya, I., & Khairunnisa. ., & Khairunnisa. (2023). Exercise Therapy in Menopausal Women at Haji Surabaya Hospital: Exercise Therapy in Menopausal Women at Haji Hospital Surabaya. *Scientific Journal of Nursing*, 9(1), 77-81. <https://journal.stikespemkabjombang.ac.id/index.php/jikep/article/view/1398>.
<https://doi.org/10.33023/jikep.v9i1.1398>
- Rotinsulu, F. G. F., Wagey, F. W., & Tendean, H. M. M. (2021). Overview of Contraceptive Use among Women in Indonesia. *E-Clinic*, 9(1), 243-249. <https://ejournal.unsrat.ac.id/index.php/eclinic/article/view/32478>.
<https://doi.org/10.35790/ecl.v9i1.32478>
- Rumende, I. T., Goenawi, L. R., & Lolo, A. (2015). Evaluation of Injectable Contraceptive Use in Couples of Fertile Age (Pus) in Walian I Tomohon Village. *Pharmacon*, 4(1), 45-51. <https://ejournal.unsrat.ac.id/index.php/pharmacon/article/view/6484>.
<https://doi.org/10.35799/pha.4.2015.6484>
- Surakarta City Health Office. (2022). *Surakarta Health Profile Year 2022*. Surakarta. <https://dinkes.surakarta.go.id/profil-kesehatan/>
- Sagita, L., Rudini, D. (2022). Overview of Side Effects of Using Hormonal Contraceptives in Hormonal Contraceptive Acceptors in Jambi City Contraception, 1. <https://online-journal.unja.ac.id/jpima/article/view/21906>.
- Sari, D. P., Sawitri, E., & Putri, Z. E. (2021). The Relationship between Length of Use of Hormonal Contraceptives and Climacteric Symptoms in Menopausal Age Women in Gumul Village. *Journal of Holistic Nursing Science*, 8(1), 39-45.
- Whiteley, J., Dibonaventura, M. D., Wagner, J. S., Alvir, J., & Shah, S. (2013). The impact of Menopausal Symptoms On Quality Of Life, Productivity, And Economic Outcomes. *Journal of Women's Health*, 22(11), 983-990. <https://pubmed.ncbi.nlm.nih.gov/24083674/>. <https://doi.org/10.1089/jwh.2012.3719>
- Widjayanti, Y. (2021). Nutritional Status, Physical Activity, and Menopausal Complaints. *Muhammadiyah Nursing Journal*, 6(1). <https://doi.org/10.30651/jkm.v6i1.7711>

- Zolekhah, D., & Sholihah, N. R. (2018). Level of Complaints Based on the Menopause Rating Scale in Menopausal Mothers. *OKSITOSIN: Scientific Journal of Midwifery*, 5(1), 7-16. <https://journal.ibrahimy.ac.id/index.php/oksitosin/article/view/355>.
<https://doi.org/10.35316/oksitosin.v5i1.355>
- Zulfi, O. E., Dwiningsih, S. R., & Krisnana, I. (2021). the Body Mass Index (Bmi) Related To Menopause Symptoms. *Indonesian Midwifery and Health Sciences Journal*, 5(1), 73-87. <https://e-journal.unair.ac.id/IMHSJ/article/view/28887>. <https://doi.org/10.20473/imhsj.v5i1.2021.73-87>
- Vannuccini, S., Clemenza, S., Rossi, M., & Petraglia, F. (2022). Hormonal treatments for endometriosis: The endocrine background. *Reviews in endocrine & metabolic disorders*, 23(3), 333–355. <https://doi.org/10.1007/s11154-021-09666-w>