

MIDWIFERY CARE FOR FAMILY PLANNING IN MRS. “F,” A DEPO MEDROXYPROGESTERONE ACETATE (DMPA) ACCEPTOR WITH HYPERTENSION AS A SIDE EFFECT

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A B S T R A C T

Background: Family Planning (FP) is a reproductive health service that assists women in planning pregnancies, particularly in determining the number and spacing of births. Depo Medroxyprogesterone Acetate (DMPA) is a type of injectable contraceptive administered at three-month intervals. The use of this contraceptive method requires attention to the user's health condition, including changes in blood pressure. **Objective:** This study aimed to provide midwifery services within the family planning program to Mrs. “F”, a DMPA user experiencing elevated blood pressure at Mawasangka Tengah Public Health Center. **Method:** This study employed a qualitative approach with a case study design. The care was provided based on the seven-step Varney midwifery management approach and documented using the SOAP format. Data were obtained through interviews, physical examinations, blood pressure measurements, health education, and documentation. **Management:** The care included blood pressure monitoring, healthy lifestyle education, recommendations to reduce salt intake and maintain adequate rest, and complementary therapy using watermelon juice twice daily for four days. **Results:** Mrs. “F”'s blood pressure decreased from 140/83 mmHg at the initial examination to 121/80 mmHg at the end of the monitoring period. **Conclusion:** Continuous midwifery care accompanied by blood pressure monitoring, health education, and watermelon juice administration was followed by a reduction in Mrs. “F”'s blood pressure measurements. Nevertheless, the change cannot be confirmed to have resulted solely from watermelon juice because several interventions were provided simultaneously.

INTRODUCTION

Family Planning (FP) is part of reproductive health services that plays an important role in helping couples regulate the number and spacing of births. In addition to supporting pregnancy planning, the Family Planning program also aims to promote maternal and family welfare through reproductive planning carried out consciously and responsibly (Suprpto et al., 2025). In its implementation, the selection of a contraceptive method needs to be adjusted to the health condition, needs, and reproductive goals of each acceptor. The variety of available contraceptive methods provides women with the opportunity to choose the method that best suits their condition and reproductive needs (Afifah Nurullah, 2021).

One of the hormonal contraceptive options is *Depo Medroxyprogesterone Acetate* (DMPA), commonly known as the three-month injectable contraceptive. Although it is effective for family planning, its selection and use should take into account the acceptor's health condition, including regular blood pressure monitoring. This is important because previous research has indicated an association between contraceptive use and changes in blood pressure among women of reproductive age (Rosyid, 2023). Therefore, regular blood pressure examinations are an important part of providing care to hormonal contraceptive acceptors so that changes in their health condition can be identified and appropriately managed.

Depo Medroxyprogesterone Acetate (DMPA) is one of the injectable contraceptive methods administered regularly every three months and is classified as a progestin-only contraceptive. When providing hormonal contraception, the acceptor's health condition needs to be considered through

regular assessment and monitoring. Blood pressure measurement is an important component of health assessment before and during the use of hormonal contraception, allowing changes in blood pressure to be identified at an early stage and considered in determining subsequent care (World Health Organization, 2018)..

High blood pressure, or hypertension, is a health condition that requires appropriate attention and management because uncontrolled blood pressure may increase the risk of various complications. Its management can involve a combination of pharmacological interventions and non-pharmacological approaches according to individual needs as part of efforts to maintain blood pressure within a controlled range (Mills et al., 2020). In the context of midwifery services, contraceptive acceptors experiencing elevated blood pressure require regular monitoring accompanied by information regarding the implementation of a healthy lifestyle. Continuous care enables the acceptor's health condition to be evaluated regularly, thereby supporting optimal blood pressure control and minimizing the risk of complications associated with uncontrolled blood pressure.

According to data from the *World Health Organization* (WHO) in 2023, hypertension remains a major health problem with a high prevalence among the adult population in various countries. Globally, more than 30% of adults are estimated to have hypertension, and this proportion was projected to continue increasing through 2025. Based on reports from 2022, approximately 1.28 billion adults were estimated to have hypertension, while cardiovascular complications associated with the condition, including heart disease and stroke, contributed to approximately 10.2 million deaths. Of the total number of people affected, approximately 619 million were living in developing countries, including Indonesia, while another 345 million were living in developed countries. In Indonesia, the 2018 Riskesdas results reported a hypertension prevalence of 34.1%, while data from 2023 recorded a prevalence of 30.8%, with an estimated 63,309,620 cases and 427,218 deaths (RINI, 2026). The high prevalence highlights the need for greater attention to factors that may influence blood pressure, one of which is the use of hormonal contraception among women of reproductive age (WRA), which has been associated with an increased risk of hypertension in several studies (Kulsumatuti & Kamal, 2025).

One non-pharmacological approach that can be used as a complementary therapy to support blood pressure control is the consumption of watermelon juice. Watermelon contains various nutrients, including potassium and the compound *citrulline*, which may contribute to blood pressure regulation. Previous research has indicated that consuming watermelon juice may help reduce blood pressure in individuals with hypertension (Nababan & Waruwu, 2025). Another study examining the administration of red watermelon juice also reported changes in blood pressure among respondents with elevated blood pressure (Sains et al., 2024).

The administration of watermelon juice as a complementary therapy for blood pressure control is supported by several previous studies. Research findings indicate that watermelon juice consumption may contribute to changes in blood pressure among individuals with hypertension. Regular consumption of watermelon juice has also been reported to help lower blood pressure when administered according to the dosage and duration used in the respective studies. These findings suggest that watermelon has the potential to serve as a non-pharmacological approach to support blood pressure control (Fary, Petricka, & Kusmintarti., 2022).

Regular blood pressure monitoring in DMPA acceptors is an important part of contraceptive services because blood pressure may change during the use of hormonal contraception. Periodic monitoring enables healthcare providers to identify changes in the acceptor's condition and provide appropriate education and follow-up based on the examination results. For acceptors experiencing elevated blood pressure, care can be directed toward controlling modifiable factors, such as dietary patterns, physical activity, adequate rest, and stress management. This approach can be combined with complementary therapy as a supportive measure, while continuing to evaluate changes in blood pressure throughout the provision of care.

Nevertheless, the application of watermelon juice as a complementary therapy for DMPA acceptors experiencing elevated blood pressure in the context of midwifery care still needs to be described through a case study. Therefore, this case study was conducted on Mrs. “F” by providing blood pressure monitoring, healthy lifestyle education, and complementary therapy in the form of watermelon juice, with the care process documented using the seven-step Varney management approach and SOAP documentation. The purpose of this case study was to provide family planning midwifery care to Mrs. “F” as a DMPA acceptor experiencing elevated blood pressure at Mawasangka Health Center.

METHODOLOGY

This study used a qualitative approach with a case study design focusing on the provision of family planning midwifery care to Mrs. “F,” a *Depo Medroxyprogesterone Acetate (DMPA)* acceptor with hypertension at Mawasangka Tengah Public Health Center. The care was implemented based on the seven-step Varney midwifery management approach, which consists of collecting subjective and objective data, determining the diagnosis and problems, identifying potential diagnoses or problems, determining the need for immediate action, developing a care plan, implementing the planned interventions, and conducting an evaluation. The results of the care were subsequently documented using the SOAP format. The study was conducted at Mawasangka Tengah Public Health Center from December 2025 to January 2026, with Mrs. “F,” a three-month injectable contraceptive user, serving as the study subject.

The research data were obtained from both primary and secondary sources. Primary data were collected directly from Mrs. “F” through interviews, physical examinations, observation, and documentation, while secondary data were obtained from the patient’s medical records at Mawasangka Tengah Public Health Center. The interview was conducted to obtain information regarding the patient’s biodata, chief complaint, health history, marital history, menstrual history, contraceptive history, and daily lifestyle patterns. The information collected was complemented by a systematic physical examination according to the needs of the midwifery care provided. All data obtained were subsequently analyzed and presented based on the stages of the seven-step Varney midwifery care management approach, while the patient’s progress and the results of the care were documented using the SOAP format.

RESULTS & DISCUSSION

Subjective Data

Mrs. “F” was a 25-year-old woman, Muslim, with a high school education, and worked as a housewife. She lived in Lakorua Village and was an acceptor of the three-month injectable contraceptive *Depo Medroxyprogesterone Acetate (DMPA)*. Mrs. “F” received a DMPA injection on December 26, 2025, with a blood pressure measurement of 140/83 mmHg. Based on the anamnesis, Mrs. “F” was a family planning acceptor who visited the health center to receive contraceptive services and monitoring related to DMPA use. This condition became the basis for providing family planning midwifery care, focusing on blood pressure monitoring and continuous care.

Objective Data

The examination of Mrs. “F” revealed findings that served as the basis for providing family planning midwifery care. Her blood pressure measured 140/83 mmHg at the time she received the DMPA injection on December 26, 2025. Subsequent blood pressure monitoring was conducted throughout the provision of care, with a blood pressure reading of 139 mmHg on December 27, 2025, followed by a decrease to 121/80 mmHg on December 31, 2025. These examination and monitoring results served as the basis for determining the appropriate midwifery care for Mrs. “F” as a DMPA acceptor experiencing elevated blood pressure.

Analysis

Mrs. “F” was a three-month injectable family planning acceptor using *Depo Medroxyprogesterone Acetate (DMPA)* who experienced elevated blood pressure, requiring continuous blood pressure monitoring and midwifery care.

Management

Midwifery care for Mrs. “F” was provided through blood pressure monitoring, health education regarding her health condition, recommendations to adopt a healthy lifestyle, reduce the consumption of foods high in salt, and obtain adequate rest. As a complementary therapy, Mrs. “F” was given watermelon juice, accompanied by regular blood pressure monitoring throughout the provision of care. The monitoring results showed a blood pressure reading of 139 mmHg on December 27, 2025, which decreased to 121/80 mmHg on December 31, 2025. The care provided was subsequently documented using the SOAP format to monitor Mrs. “F”’s condition and progress.

DISCUSSION

Subjective Data

Based on the assessment findings, Mrs. “F” was a three-month injectable family planning acceptor using *Depo Medroxyprogesterone Acetate (DMPA)* who experienced elevated blood pressure. This condition required attention in the provision of midwifery care because the use of hormonal contraception needs to be adjusted according to the acceptor’s health condition. According to the theory, the use of hormonal contraception may be associated with changes in blood pressure; therefore, regular monitoring of the acceptor’s health condition is necessary. This served as the basis for providing appropriate care to Mrs. “F” as a DMPA acceptor experiencing elevated blood pressure.

According to (Rosyid, 2023), the use of hormonal contraception is associated with changes in blood pressure among women of reproductive age. This condition indicates that blood pressure monitoring is important for hormonal contraceptive acceptors as an effort to detect changes in blood pressure at an early stage. Based on the assessment of Mrs. “F”, her blood pressure was recorded at 140/83 mmHg when she received the DMPA injection, indicating the need for continuous monitoring and midwifery care.

The assessment findings served as the basis for determining the care needs of Mrs. “F”. Assessing the history of contraceptive use and the acceptor’s health condition is necessary to identify the problems being experienced and determine appropriate interventions. In this case, elevated blood pressure became the focus of monitoring throughout the provision of care because the condition was identified when Mrs. “F” received the DMPA injection.

Blood pressure monitoring is also an important component in assessing the safety of contraceptive use among women with elevated blood pressure. The World Health Organization’s *Medical Eligibility Criteria for Contraceptive Use* considers hypertension as one of the factors that should be taken into account when selecting a contraceptive method. The eligibility of DMPA use depends on the degree of blood pressure elevation and the presence of other cardiovascular conditions (World Health Organization, 2025).

Objective Data

During the examination of Mrs. “F”, her initial blood pressure was recorded at 140/83 mmHg when she received the DMPA injection on December 26, 2025. Subsequent blood pressure monitoring was conducted throughout the provision of care, with a reading of 139/84 mmHg on December 27, 2025, followed by a decrease to 121/80 mmHg on December 31, 2025. These findings indicate a change in Mrs. “F”’s blood pressure during the course of care.

According to (Mills et al., 2020), hypertension is a condition that requires blood pressure control to prevent complications. Regular blood pressure monitoring is an important component in assessing the patient’s condition and its progression. Based on the monitoring results of Mrs. “F”, her blood pressure decreased from 140/83 mmHg to 121/80 mmHg after receiving care in the form of monitoring, healthy lifestyle education, and complementary therapy using watermelon juice. These findings indicate that the case of Mrs. “F” is consistent with the importance of monitoring and controlling blood pressure in hypertension.

The examination results served as the basis for determining the subsequent care for Mrs. “F”. Regular monitoring was conducted to assess changes in blood pressure throughout the care period. The measurement results showed a decrease in blood pressure from the initial examination to the final monitoring. In the context of midwifery care, objective examination findings are considered together with subjective data to identify problems and evaluate the patient’s response to the care provided.

Blood pressure monitoring is an important component of contraceptive services because blood pressure status needs to be considered when selecting and using hormonal contraceptive methods. The WHO *Medical Eligibility Criteria for Contraceptive Use* considers health conditions, including hypertension and cardiovascular risk factors, when determining the safety of contraceptive methods.

The guideline emphasizes that contraceptive eligibility should be assessed based on each woman's individual health condition.

Therefore, the blood pressure measurements of Mrs. "F" served not only as baseline data but also as parameters for evaluating changes in her condition throughout the provision of care. The decrease in blood pressure from 140/83 mmHg to 121/80 mmHg indicates a change in the measurements during the care period. However, this change should be interpreted as a finding from a single case study and cannot be used to conclude that watermelon juice alone was responsible for the reduction in blood pressure.

Analysis

Mrs. "F" was a three-month injectable family planning acceptor using *Depo Medroxyprogesterone Acetate (DMPA)* who experienced elevated blood pressure, requiring continuous monitoring and midwifery care.

Based on the analysis of the subjective and objective data, Mrs. "F" was a three-month injectable DMPA acceptor experiencing elevated blood pressure. This condition was consistent with the focus of the care provided, which involved monitoring blood pressure and providing the necessary management throughout the midwifery care process. The use of hormonal contraception requires monitoring of the acceptor's health condition, particularly blood pressure, so that changes in her condition can be identified and appropriately managed. In the case of Mrs. "F", monitoring showed a decrease in blood pressure during the provision of care; therefore, no discrepancy was identified between the assessment findings and the care provided.

The analysis results indicate that the care provided was adjusted to Mrs. "F"'s condition as a DMPA acceptor experiencing elevated blood pressure. Blood pressure monitoring was conducted to assess changes in her condition throughout the care period and served as a basis for evaluating her response to the interventions provided. In contraceptive services, the acceptor's health condition should be considered when determining the safety and continuation of a contraceptive method. The World Health Organization, through the *Medical Eligibility Criteria for Contraceptive Use*, considers hypertension as one of the medical conditions that should be taken into account when selecting a contraceptive method. The eligibility of progestin contraceptives, including DMPA, is determined based on the degree of blood pressure elevation and other underlying health conditions (World Health Organization, 2025).

The midwifery care approach for three-month injectable contraceptive acceptors should be adjusted according to the condition and problems identified in each acceptor. This is consistent with (Jirana & Dahlan, 2025), who applied the seven-step Varney midwifery care management approach and SOAP documentation to a three-month injectable contraceptive acceptor. The care provided included an assessment of the acceptor's condition and the provision of information regarding the benefits and possible side effects of DMPA use. In the case of Mrs. "F", the midwifery management approach was also implemented by adapting the care to her elevated blood pressure and conducting continuous monitoring.

In the case of Mrs. "F", the monitoring results showed changes in blood pressure during the provision of care. The decrease in blood pressure from the initial examination to the final monitoring was an important component in evaluating the patient's progress. However, because this case involved only one subject and the care provided included several interventions, namely blood pressure monitoring, healthy lifestyle education, recommendations to reduce the consumption of foods high in salt, adequate rest, and watermelon juice administration, the change in blood pressure cannot be attributed to a single intervention alone. Therefore, the findings of this case are more appropriately interpreted as describing the progress of Mrs. "F"'s condition while receiving continuous midwifery care.

Management

The evaluation of the care provided showed that Mrs. "F" understood and followed the recommendations given throughout the care process. During the monitoring period, no further complaints were reported by Mrs. "F". This condition was considered as part of the care evaluation in addition to changes in her blood pressure measurements. Therefore, the care provided was evaluated not only based on changes in blood pressure but also on the client's ability to understand and follow the recommendations provided during the monitoring process.

The results of the care provided to Mrs. "F" showed a decrease in blood pressure following blood pressure monitoring, healthy lifestyle education, and the administration of watermelon juice. These findings served as a basis for evaluating the care provided. The management was also adjusted to Mrs.

“F”’s condition as a DMPA acceptor experiencing elevated blood pressure; therefore, regular blood pressure monitoring was an important component of the midwifery care.

The administration of watermelon juice in the case of Mrs. “F” was one form of complementary therapy used to support efforts to control blood pressure. The potassium and *L-citrulline* content of watermelon may support physiological mechanisms related to blood pressure regulation. *L-citrulline* can act as a precursor for the formation of *nitric oxide*, which is associated with vasodilation, while potassium plays a role in fluid and electrolyte balance and helps maintain cardiovascular function. Therefore, in this case, watermelon juice was used as a supportive approach and not as a substitute for medical therapy.

The changes in Mrs. “F”’s blood pressure during the care period indicated a positive development in her condition. Her blood pressure, initially recorded at 140/83 mmHg during the assessment, decreased to 139 mmHg on December 27, 2025, and further decreased to 121/80 mmHg on December 31, 2025. This decrease occurred alongside several forms of care, including blood pressure monitoring, healthy lifestyle education, reduced consumption of foods high in salt, recommendations for adequate rest, and the administration of watermelon juice. Therefore, these findings cannot be interpreted as indicating that watermelon juice was the sole factor responsible for the decrease in blood pressure, but rather demonstrate a change in Mrs. “F”’s condition during the period of continuous midwifery care.

These findings are supported by previous studies demonstrating the potential of watermelon consumption in supporting blood pressure control. A meta-analysis of six clinical trials showed that watermelon supplementation was associated with reductions in systolic blood pressure by 10.55 mmHg and diastolic blood pressure by 5.22 mmHg compared with the control group (Alshahrani et al., 2023). A systematic review and meta-analysis of nine randomized clinical trials also reported that watermelon consumption significantly reduced systolic blood pressure, although no significant change was observed in diastolic blood pressure (Karimi et al., 2023). These findings support the potential use of watermelon as a complementary nutritional approach to assist in blood pressure control, although studies involving larger samples and longer monitoring periods are still needed.

The findings in Mrs. “F”’s case are also consistent with the results of a study by (Luo et al., 2025), which conducted a systematic review and meta-analysis of 15 randomized controlled trials. The study showed that watermelon consumption and *L-citrulline* supplementation were associated with reductions in blood pressure among the study participants. These findings provide further support for the use of watermelon as a complementary approach to help control blood pressure. However, the findings of that study cannot be directly equated with the case of Mrs. “F” because of differences in participant characteristics, intervention forms, and clinical conditions studied.

CONCLUSION

Family planning midwifery care for Mrs. “F,” a *Depo Medroxyprogesterone Acetate (DMPA)* acceptor experiencing elevated blood pressure at Mawasangka Tengah Public Health Center, was provided comprehensively and systematically using the seven-step Varney management approach, which included data collection, data interpretation, identification of potential diagnoses and problems, identification of the need for immediate action, planning, implementation, and evaluation, with the entire process documented using the SOAP format. During the provision of care, blood pressure monitoring, healthy lifestyle education, recommendations to reduce the consumption of foods high in salt, and complementary therapy using watermelon juice were provided. The evaluation results showed a decrease in Mrs. “F”’s blood pressure from 140/83 mmHg to 121/80 mmHg during the care period. These findings indicate a change in blood pressure during the continuous monitoring and provision of care. However, the decrease in blood pressure in this case cannot be attributed solely to the administration of watermelon juice because several interventions were provided simultaneously. The limitation of this case study is that it involved only one subject and had a limited observation period; therefore, the findings cannot yet be generalized to all DMPA acceptors experiencing elevated blood pressure.

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