

Original Article**Pregnant women's knowledge of pregnancy emergency signs and compliance with antenatal care examinations****Kristina Andaria^{1,2}, Rifzul Maulina³**¹Coordinator Midwifery at Sinombayuga Community Health Center, Indonesia²Undergraduate Midwifery Program, Institute of Technology, Sains, and Health of RS Dr. Soepraoen, Indonesia³Department of Midwifery, Institute of Technology, Sains, and Health of RS Dr. Soepraoen, Indonesia**Abstract:**

Emergencies in pregnancy need to be detected early to identify pregnant women who may experience complications in their pregnancy, so that treatment can be done immediately. Knowledge of pregnant women about emergency signs of pregnancy can affect the attitudes and behavior of pregnant women about their pregnancy care. The purpose of the study was to determine the relationship between knowledge of pregnant women's knowledge about emergency signs of pregnancy and compliance in antenatal care examinations. In this study using a correlational design with a cross-sectional approach. With a sample of 30 respondents, with an accidental sampling technique. Data was collected by filling out a closed questionnaire, the results of the questionnaire were tabulated, and data analysis was carried out. The results of the Chi-Square test of the relationship between knowledge of pregnant women about emergency signs of pregnancy and compliance with antenatal care examinations obtained a p-value = 0.002, and p-value is less than 0.05 or 0.002 < 0.05, it is concluded that there is a relationship between knowledge of pregnant women about signs of pregnancy with antenatal care examination compliance. Thus, pregnant women who obediently perform antenatal care have good knowledge about emergency signs of pregnancy.

Keywords:

antenatal care, compliance, knowledge

Article Info:

Submitted:

02-03-2026

Revised:

23-05-2026

Accepted:

23-05-2026

Published:

27-05-2026

Corresponding Author:

Rifzul Maulina

rifzulmaulina@itsk-soepraoen.ac.id

DOI: <https://doi.org/10.53713/jfn.vxix.xxx>

This work is licensed under CC BY-SA License.

**INTRODUCTION**

The Maternal Mortality Rate (MMR) is one of the most important indicators used to measure the success of maternal health development in a country. Maternal mortality refers to the death of a woman during pregnancy, childbirth, or within the postpartum period due to complications related to or aggravated by pregnancy and its management, excluding accidental or incidental causes. Maternal deaths may occur directly because of obstetric complications or indirectly due to pre-existing health conditions that worsen during pregnancy. According to the Indonesian Demographic and Health Survey (SDKI), Indonesia's maternal mortality rate was recorded at 305 deaths per 100,000 live births, with approximately 14,623 maternal death cases reported nationwide. This figure

remains relatively high compared to the Sustainable Development Goals (SDGs) target, which aims to reduce global maternal mortality to less than 70 per 100,000 live births by 2030. In Indonesia, the National Medium-Term Development Plan (RPJMN) 2020–2024 specifically targets a reduction in the maternal mortality rate to 183 per 100,000 live births (Budijanto, 2020).

The major direct causes of maternal mortality in Indonesia include hemorrhage and hypertensive disorders during pregnancy, particularly preeclampsia and eclampsia. Data from the Ministry of Health of the Republic of Indonesia (2019) showed that hemorrhage accounted for 30.13% of maternal deaths, hypertension during pregnancy or preeclampsia contributed 27.1%, and infection contributed 7.3%. In addition, maternal conditions such as anemia and Chronic Energy Deficiency (CED) are considered significant contributing factors because they increase the risk of bleeding and infection during pregnancy and childbirth. These complications may become life-threatening if they are not recognized and treated promptly. Therefore, maternal mortality is not only an indicator of maternal health status but also reflects the quality of healthcare services, accessibility of health facilities, and effectiveness of public health programs.

Pregnancy emergencies require immediate attention because delays in identifying and treating complications can lead to severe maternal and fetal outcomes, including death. Early detection of pregnancy emergencies is essential to identify pregnant women who may be at risk of complications so that timely interventions can be provided (Shields et al., 2024). One of the most effective strategies for early detection is routine antenatal care (ANC) examinations conducted by healthcare professionals. Antenatal care plays a crucial role in monitoring the health condition of both the mother and fetus throughout pregnancy. ANC services aim to maintain maternal and fetal well-being, detect pregnancy complications early, provide appropriate treatment, address maternal complaints, prepare mothers for childbirth, and promote healthy lifestyles during pregnancy.

According to Hijazi et al. (2018), regular antenatal care visits are highly important for detecting and preventing adverse events during pregnancy. In Indonesia, the updated ANC service standards recommend that pregnant women undergo at least 6 antenatal visits, including at least 2 examinations by a physician during the first and third trimesters. Specifically, ANC visits are recommended twice during the first trimester, once during the second trimester, and three times during the third trimester (Abdo et al., 2023). These services should follow the “10T” standard for maternal healthcare, as outlined in the revised Maternal and Child Health (MCH) Handbook of 2020. Compliance with ANC visits enables healthcare providers to identify high-risk pregnancies and manage complications before they become severe.

However, despite the high national coverage of antenatal care services, not all pregnant women attend ANC examinations regularly or according to the recommended schedule. Data from the Ministry of Health of the Republic of Indonesia (2019) reported that the national coverage for the first ANC visit (K1) reached 95.71%, while coverage for the fourth ANC visit (K4) was 86.77%. Although these figures indicate relatively high utilization of maternal healthcare services, some pregnant women still do not complete the recommended ANC visits. Irregular antenatal care attendance can result in undetected pregnancy complications, delayed treatment, and an increased risk of maternal and neonatal morbidity and mortality.

One factor that may contribute to noncompliance with antenatal care examinations is inadequate maternal knowledge of pregnancy and its complications (Tanberika et al., 2024).

Knowledge is an important determinant of health behavior because it influences attitudes, decision-making, and health practices. Pregnant women with good knowledge of pregnancy, childbirth, postpartum care, and emergency warning signs are more likely to seek timely healthcare services and comply with ANC schedules (Berrigan et al., 2023). Conversely, limited knowledge may cause pregnant women to underestimate the importance of routine checkups or fail to recognize danger signs requiring immediate medical attention.

Pregnancy emergencies can occur at any stage of pregnancy and may threaten the lives of both the mother and fetus if not managed properly. Common danger signs during pregnancy include vaginal bleeding, premature rupture of membranes (PROM), severe nausea and vomiting or hyperemesis gravidarum, signs and symptoms of preeclampsia such as severe headache and swelling, eclampsia, severe abdominal pain, decreased fetal movement, and fetal growth restriction (Romano et al., 2025). Knowledge regarding these warning signs is essential not only for pregnant women but also for families and communities because early recognition allows immediate referral and appropriate treatment. Napitupulu et al. (2018) emphasized that early identification of pregnancy emergencies can improve maternal outcomes by enabling faster, more effective interventions.

Pregnant women can obtain information regarding pregnancy and maternal health from various sources, including healthcare workers, educational programs, mass media, social media, and family members. Nevertheless, antenatal care visits remain one of the most reliable opportunities for healthcare providers to educate pregnant women about pregnancy danger signs and the importance of routine checkups. During ANC visits, healthcare professionals can provide counseling, health education, nutritional guidance, and psychological support, thereby improving maternal awareness and preparedness for potential complications (Alehegn, 2021).

A good level of maternal knowledge regarding emergency signs during pregnancy can encourage pregnant women to think critically, act appropriately, and seek medical assistance immediately when complications occur. This knowledge may also increase compliance with antenatal care examinations because mothers become more aware of the benefits of routine monitoring during pregnancy (Tanberika et al., 2024). Therefore, understanding the relationship between maternal knowledge and ANC compliance is important for developing strategies to improve maternal health outcomes and reduce maternal mortality.

The aim of this study was to determine the relationship between pregnant women's knowledge regarding the signs of pregnancy emergencies and their compliance with Antenatal Care (ANC) examinations in the working area of the Sinombayuga Community Health Center. This study is expected to provide valuable insights into the role of maternal knowledge in improving ANC compliance and to contribute to efforts to reduce maternal mortality and improve maternal healthcare services.

METHOD

This study employed a correlational research design using a cross-sectional approach to identify the relationship between pregnant women's knowledge of pregnancy emergency signs and their compliance with Antenatal Care (ANC) examinations. A correlational design was selected

because the study aimed to examine the association between two variables without providing any intervention or treatment. Meanwhile, the cross-sectional approach allowed the researcher to collect data from respondents at a single point in time, making it suitable for assessing the current level of maternal knowledge and ANC compliance simultaneously.

The study was conducted in the working area of the Sinombayuga Community Health Center. The target population consisted of all pregnant women residing within the health center's service area. From this population, the study sample included pregnant women who attended counseling activities in the Pregnant Women's Class conducted on October 18, 2025. A total of 30 pregnant women participated in this study and met the researcher's inclusion criteria. The respondents were selected using an accidental sampling technique. This sampling method involves selecting participants who are conveniently available at the time of data collection and are willing to participate in the study. The use of accidental sampling was considered appropriate due to the accessibility of respondents during the counseling session and the limited time available for data collection.

In this study, the independent variable was pregnant women's knowledge regarding the signs of pregnancy emergencies. Maternal knowledge refers to the respondents' understanding of danger signs and complications that may occur during pregnancy, such as vaginal bleeding, severe abdominal pain, swelling, severe headaches, decreased fetal movement, premature rupture of membranes, and other emergency conditions requiring immediate medical attention. Adequate knowledge regarding pregnancy emergencies is essential because it can influence maternal awareness, decision-making, and healthcare-seeking behavior during pregnancy.

The dependent variable in this study was pregnant women's compliance with Antenatal Care (ANC) examinations. ANC compliance refers to the extent to which pregnant women follow the recommended schedule of prenatal visits as outlined by maternal healthcare standards. Compliance with ANC visits is important for monitoring maternal and fetal health, detecting complications early, and ensuring timely medical intervention when necessary. Pregnant women who attend regular ANC examinations are more likely to experience healthier pregnancies and better maternal outcomes.

The research instrument used to measure maternal knowledge regarding signs of pregnancy emergencies was a structured questionnaire developed based on relevant literature and maternal health guidelines. The questionnaire included several questions about recognizing pregnancy danger signs and emergency symptoms. Respondents were asked to answer the questions according to their understanding and knowledge. The questionnaire was distributed directly to participants during the counseling session, and respondents completed it independently under the researcher's supervision.

Meanwhile, data on compliance with ANC examinations were obtained from secondary sources, specifically the Maternal and Child Health (KIA) handbook owned by each pregnant woman. The KIA handbook contains records of antenatal visits conducted during pregnancy, allowing the researcher to verify the frequency and completeness of ANC examinations attended by respondents. Using secondary data from the KIA handbook improved the accuracy and reliability of information on ANC compliance.

After all data were collected, the researcher conducted data processing and analysis using the Statistical Package for the Social Sciences (SPSS) program. The statistical analysis used in this study was the chi-square test. The chi-square test was chosen because it is appropriate for analyzing

the relationship between categorical variables, namely, maternal knowledge level and ANC compliance status. The level of significance used in this study was $\alpha < 0.05$. This means that if the p-value obtained from the statistical test was less than 0.05, there would be a statistically significant relationship between pregnant women’s knowledge of pregnancy emergency signs and their compliance with ANC examinations. Through this analysis, the researcher aimed to determine whether maternal knowledge plays an important role in influencing adherence to recommended antenatal care visits.

RESULT

Table 1. Distribution of Respondent Characteristics

| Variable | Category | Frequency | Percentage |
|---|--------------------|-----------|------------|
| Age (years) | <20 | 5 | 16.7 |
| | 20–35 | 21 | 70.0 |
| | >35 | 4 | 13.3 |
| Education | Elementary School | 3 | 10.0 |
| | Junior High School | 7 | 23.3 |
| | Senior High School | 14 | 46.7 |
| | Bachelor’s degree | 6 | 20.0 |
| Knowledge of Pregnancy Emergency Signs | Good | 14 | 46.7 |
| | Sufficient | 10 | 33.3 |
| | Poor | 6 | 20.0 |
| Compliance with Antenatal Care Examinations | Compliant | 20 | 66.7 |
| | Non-compliant | 10 | 33.3 |

Based on Table 1, most pregnant women respondents were aged 20–35 years, accounting for 21 respondents (70.0%), while the fewest respondents were aged >35 years, accounting for 4 respondents (13.3%). These findings indicate that most respondents were within the productive reproductive age group. Age influences an individual’s ability to absorb information and develop appropriate thinking patterns. Increasing age is generally associated with greater maturity in mental and cognitive processes, which may improve pregnant women’s ability to understand information about pregnancy emergencies and the importance of antenatal care examinations.

Regarding educational background, most respondents had completed senior high school education, accounting for 14 respondents (46.7%), while the smallest proportion had elementary school education, accounting for 3 respondents (10.0%). Educational level plays an important role in shaping an individual’s ability to receive, understand, and process health-related information. Higher educational attainment may improve maternal awareness regarding the importance of antenatal care visits and increase compliance with recommended pregnancy examinations.

The findings also showed that most respondents had good knowledge of pregnancy emergency signs, with 14 respondents (46.7%) having good knowledge, whereas 6 respondents (20.0%) had poor knowledge. Knowledge refers to information acquired through education, experience, media exposure, and social interaction. According to Istiari (2012), knowledge can influence attitudes, beliefs, and behaviors. Pregnant women with good knowledge of pregnancy

emergency signs are more likely to demonstrate positive attitudes toward pregnancy care and to recognize the importance of regular antenatal examinations as a preventive measure to detect and manage pregnancy complications early (Retnaningtyas et al., 2022).

Regarding compliance with antenatal care examinations, 20 respondents (66.7%) were categorized as compliant, while 10 (33.3%) were categorized as non-compliant. Compliance refers to an individual’s adherence to established rules, procedures, and healthcare recommendations (Pakpahan et al., 2021). Compliance with antenatal care examinations is influenced by predisposing factors such as knowledge, attitudes, education, and beliefs; enabling factors such as healthcare facilities and accessibility; and reinforcing factors such as health policies and recommendations. Antenatal care services are essential for monitoring maternal and fetal well-being, providing health education, detecting pregnancy complications early, and preparing mothers for safe delivery (Ekasari, 2019; Directorate of Family Health, 2020). Failure to attend regular ANC examinations may result in delayed identification and management of pregnancy complications.

Table 2. Distribution of Respondents Based on Knowledge of Pregnancy Emergency Signs and Compliance with Antenatal Care Examinations

| Knowledge Level | Compliant f (%) | Non-compliant f (%) | Total f (%) |
|-----------------|--------------------|------------------------|----------------|
| Good | 11 (36.7%) | 3 (10.0%) | 14 (46.7%) |
| Sufficient | 7 (23.3%) | 3 (10.0%) | 10 (33.3%) |
| Poor | 2 (6.7%) | 4 (13.3%) | 6 (20.0%) |
| Total | 20 (66.7%) | 10 (33.3%) | 30 (100%) |

Table 2 shows the distribution of pregnant women’s knowledge regarding pregnancy emergency signs and their compliance with antenatal care examinations. Among respondents with good knowledge, 11 respondents (36.7%) complied with ANC examinations, while 3 respondents (10.0%) were non-compliant. Among respondents with sufficient knowledge, 7 (23.3%) were compliant, and 3 (10.0%) were non-compliant. Meanwhile, among respondents with poor knowledge, only 2 (6.7%) complied with ANC examinations, whereas 4 (13.3%) did not.

These findings indicate that pregnant women with better knowledge regarding pregnancy emergency signs tended to demonstrate higher compliance with antenatal care examinations. Good maternal knowledge may increase awareness regarding the importance of routine pregnancy checkups, early detection of complications, and timely healthcare-seeking behavior during pregnancy.

DISCUSSION

The results of this study indicate that the level of knowledge pregnant women have about the signs of pregnancy emergencies is associated with their compliance with attending antenatal care (ANC) examinations. The findings demonstrate that pregnant women with greater knowledge of pregnancy emergency signs tend to be more compliant with ANC visits than those with limited

knowledge. This relationship can be observed from the cross-tabulation results between maternal knowledge and ANC compliance in the Sinombayuga Community Health Center working area.

Based on the study findings, among the 20 respondents who were compliant with antenatal care examinations, 11 (36.7%) had good knowledge of pregnancy emergency signs, 7 (23.3%) had sufficient knowledge, and only 2 (6.7%) had poor knowledge. Meanwhile, among the 10 respondents who were non-compliant with antenatal care examinations, only 3 respondents (10%) had good knowledge, 3 respondents (23.3%) had sufficient knowledge, and 4 respondents (13.3%) had poor knowledge. These findings suggest that pregnant women with higher levels of knowledge about pregnancy emergencies are more likely to comply with recommended antenatal care visits. Conversely, respondents with inadequate knowledge were more likely to neglect or delay routine ANC examinations.

The Chi-square test further confirmed a significant relationship between pregnant women's knowledge of pregnancy emergency signs and compliance with antenatal care examinations. The analysis produced a p-value of 0.002, which is smaller than the significance level of 0.05 ($0.002 < 0.05$). Therefore, the null hypothesis was rejected, and it can be concluded that there is a statistically significant relationship between pregnant women's knowledge of pregnancy emergency signs and their compliance with antenatal care examinations among second- and third-trimester pregnant women with gestational ages ranging from 14 to 40 weeks in the Sinombayuga Community Health Center working area.

The cross-tabulation results indicate a clear tendency: pregnant women who comply with ANC examinations generally have good knowledge of danger signs during pregnancy. Most respondents who routinely attended antenatal care visits had an adequate understanding of emergency conditions that may occur during pregnancy, such as vaginal bleeding, severe abdominal pain, swelling, severe headache, decreased fetal movement, premature rupture of membranes, and signs of preeclampsia or eclampsia. This finding supports the assumption that maternal knowledge is an important factor influencing healthcare-seeking behavior during pregnancy.

Good knowledge regarding pregnancy emergencies provides pregnant women with a better understanding of the importance of monitoring pregnancy conditions through regular ANC examinations. Knowledge increases maternal awareness of the risks and complications that may threaten the lives of both mother and fetus. Pregnant women who understand the signs of pregnancy emergencies are more likely to realize the importance of seeking healthcare services regularly to ensure that any complications can be identified and treated promptly. Knowledge also motivates pregnant women to maintain their health and follow healthcare professionals' recommendations.

Antenatal care examinations play a critical role in maternal healthcare because they serve as a means of early detection and prevention of pregnancy-related complications. During ANC visits, healthcare workers conduct screening and monitoring procedures to identify risk factors that may lead to emergencies during pregnancy, childbirth, or the postpartum period. Early detection enables healthcare providers to provide immediate interventions, treatment, and referrals when necessary. Regular antenatal care visits also allow pregnant women to receive counseling, health education, nutritional guidance, and emotional support throughout pregnancy.

According to Elfiyunai et al. (2020), regular antenatal care examinations supervised by healthcare professionals such as midwives or doctors can help identify complications and

emergencies during pregnancy at an early stage. These complications may include medical disorders, obstetric complications, and surgical conditions that could endanger maternal and fetal health. By attending routine ANC visits, pregnant women can receive continuous supervision and monitoring, thereby reducing the risk of severe complications and maternal mortality.

Knowledge itself is obtained through sensory processes and human perception, which result in information being stored in memory, processed, and interpreted for future use. Good knowledge fosters positive attitudes and behaviors. In the context of maternal health, pregnant women with better knowledge of danger signs during pregnancy are more likely to develop positive attitudes toward healthcare services and to demonstrate greater compliance with ANC examinations. This finding is consistent with health behavior theories, which hold that knowledge is a key predisposing factor influencing individual behavior.

Antenatal care is intended to maintain and improve the health of pregnant women so they can experience pregnancy, childbirth, and the postpartum period safely without complications. ANC also aims to ensure fetal growth and well-being throughout pregnancy, so that babies are born healthy and safely. In addition to monitoring maternal and fetal conditions, antenatal care provides opportunities for early screening and detection of pregnancy emergencies that may threaten the lives of mothers and babies. ANC visits also help prepare mothers physically and psychologically for childbirth while providing health education regarding self-care practices during pregnancy.

Pregnant women who do not comply with routine antenatal care examinations may experience various negative consequences. According to the Ministry of Health of the Republic of Indonesia (2019), noncompliance with ANC visits can lead to a lack of information on pregnancy health, pregnancy care, nutritional needs, management of discomfort during pregnancy, preparation for childbirth, and recognition of danger signs or emergency conditions. In addition, the absence of regular ANC examinations may cause complications such as pelvic abnormalities, hypertension, anemia, infections, or other comorbidities to remain undetected until they become severe and life-threatening.

Every pregnancy carries the potential risk of complications and emergencies that may endanger the lives of both mother and fetus. Therefore, all pregnant women are strongly encouraged to attend at least six antenatal care visits during pregnancy, as recommended in the revised 2020 Maternal and Child Health (KIA) Handbook. Compliance with ANC visits enables healthcare providers to continuously monitor maternal and fetal health conditions and provide timely interventions whenever complications arise.

The findings of this study are also supported by Mamuroh et al. (2020), who stated that antenatal care compliance is essential for providing information on maternal health and fetal development, and for identifying diseases, risks, and pregnancy complications early. The study emphasized that pregnant women's understanding and awareness regarding the importance of ANC strongly influence their attitudes and compliance with routine prenatal visits. Therefore, improving maternal knowledge through education and counseling programs is necessary to increase ANC compliance and ultimately reduce maternal and neonatal morbidity and mortality.

Overall, the findings of this study demonstrate that maternal knowledge of pregnancy emergency signs is significantly associated with compliance with antenatal care examinations. Pregnant women who possess good knowledge are more likely to comply with ANC schedules,

allowing for early detection and prevention of pregnancy complications. Consequently, efforts to improve maternal education and awareness regarding pregnancy danger signs should be strengthened through healthcare services, counseling programs, and community-based health education activities to improve maternal health outcomes and reduce maternal mortality.

CONCLUSION

Pregnant women's knowledge of pregnancy emergencies is crucial. Knowing the signs of pregnancy emergencies can change their behavior, encouraging them to comply with antenatal care checkups for early detection, prevention, and prompt treatment if emergencies arise. The study found that pregnant women's knowledge at the Glagah Community Health Center (Puskesmas) was generally good. Most pregnant women were compliant with antenatal care checkups. There was a relationship between pregnant women's knowledge of pregnancy emergencies and their compliance with antenatal care checkups.

REFERENCES

- Abdo, R., Demelash, M., Seid, A. M., & Mussema, A. (2023). First trimester antenatal care contact in Africa: A systematic review and meta-analysis of prevalence and contributing factors. *BMC Pregnancy and Childbirth*, 23(1), 742.
- Alehegn, M. A., Fanta, T. K., & Ayalew, A. F. (2021). Exploring maternal nutrition counseling provided by health professionals during antenatal care follow-up: A qualitative study in Addis Ababa, Ethiopia-2019. *BMC Nutrition*, 7(1), 20.
- Berrigan, D., Dean Jr, D., Senft Everson, N., D'Angelo, H., Boyd, P., Klein, W. M., & Han, P. K. (2023). Uncertainty: A neglected determinant of health behavior? *Frontiers in Psychology*, 14, 1145879.
- Budijanto, D. (2020). *Profil kesehatan Indonesia tahun 2019*. Kementerian Kesehatan Republik Indonesia.
- Ekasari, T., & Natalia, M. S. (2019). *Deteksi dini preeklamsi dengan antenatal care*. Yayasan Ahmar Cendekia Indonesia.
- Elfiyunai, N. N., Tahir, M. M., & Farlina, F. (2020). Factors associated with the occurrence of anemia in pregnant women at the Anutapura Hospital in Palu. *JNKI (Jurnal Ners dan Kebidanan Indonesia) (Indonesian Journal of Nursing and Midwifery)*, 7(3), 146–152.
- Hijazi, H. H., Alyahya, M. S., Sindiani, A. M., Saqan, R. S., & Okour, A. M. (2018). Determinants of antenatal care attendance among women residing in highly disadvantaged communities in northern Jordan: A cross-sectional study. *Reproductive Health*, 15(1), 1–18.
- Kementerian Kesehatan RI. (2019). *Profil kesehatan Indonesia tahun 2019*. Depkes RI.
- Mamuroh, L., Sukmawati, S., & Nurhakim, F. (2020). The relationship between knowledge, attitude, and prenatal visits in pregnant women. *Journal of Maternity Care and Reproductive Health*, 3(2).
- Napitupulu, T. F., Rahmiati, L., Handayani, D. S., Setiawati, E. P., & Susanti, A. I. (2018). Gambaran pemanfaatan buku KIA dan pengetahuan ibu hamil mengenai tanda bahaya kehamilan. *Jurnal Kesehatan Vokasional*, 3(1), 17–22.

- Pakpahan, M., Siregar, D., Susilawaty, A., Tasnim, T., Ramdany, R., Manurung, E. I., & Maisyarah, M. (2021). *Promosi kesehatan dan perilaku kesehatan*. Yayasan Kita Menulis.
- Retnaningtyas, E., Siwi, R. P. Y., Wulandari, A., Qoriah, H., Rizka, D., Qori, R., ... & Malo, S. (2022). Upaya peningkatan pengetahuan ibu hamil melalui edukasi mengenai tanda bahaya kehamilan lanjut di Posyandu Sampar. *ADI Pengabdian Kepada Masyarakat*, 2(2), 25–30.
- Romano, L., Capussela, T., Fulciniti, S., Muto, F., & Nicotra, S. (2025). Emergencies in pregnancy. In *CT of non-traumatic body emergencies* (pp. 371–383). Springer Nature Switzerland.
- Shields, A., Vidosh, J., Kavanagh, L., Nielsen, P., & Thomson, B. (2024). *Obstetric life support manual: Etiology, prevention, and treatment of maternal medical emergencies and cardiopulmonary arrest in pregnant and postpartum patients*.
- Tanberika, F. S., Sansuwito, T. B., & Hassan, H. C. (2024). Knowledge in enhancing antenatal care compliance and improving maternal and neonatal health outcomes. *Journal of Angiotherapy*, 8(12), 1–7.