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The Implementation of Antenatal Classes: A Scoping Review

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ABSTRACT

Background: Antenatal classes serve as a learning platform for pregnant women regarding pregnancy and childbirth preparation. This literature review aims to map the literature and evidence-based practices related to antenatal class implementation.

Purpose: This scoping review aims to assess the implementation of Antenatal Classes.

Methods: This study adopts a literature review design. Initial searches for journal articles were conducted on the PubMed, ScienceDirect, and Google Scholar databases from 2019 to 2024. The study identified 78 articles, of which only six journal articles met the inclusion criteria. Literature review procedures: collecting library data, reading, and note-taking, as well as critically assessing research materials.

Results: According to the literature review, the implementation of antenatal classes yields numerous benefits, reducing stress and anxiety symptoms for both pregnant women and their partners in facing pregnancy and childbirth. Providing comprehensive and continuous material can enhance pregnant women's knowledge, attitudes, and behavior changes in preventing complications.

Conclusion: Antenatal classes benefit mothers in preparing for a healthy pregnancy, childbirth, breastfeeding, transitioning into motherhood, and enabling early detection. Support from husbands and families to attend antenatal classes can boost the mother's confidence. A research gap identified for future studies is the variation in facilitators (healthcare professionals) of antenatal classes between developed and developing countries. Interprofessional Collaboration (IPC) is implemented in developed countries by involving specialized doctors, midwives, and nutritionists as facilitators in antenatal class implementation.

Keywords: Antenatal classes; methods; benefits; spousal; family support

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BACKGROUND

The Maternal Mortality Rate (MMR) is one of the health development indicators in the National Medium-Term Development Plan (RPJMN) 2020-2024, which states that the general condition and health issues of mothers and children in Indonesia include an MMR of 305 per 100,000 live births, still below the RPJMN target of 183 per 100,000 live births in 2024. The causes of MMR are attributed to hypertensive disorders during pregnancy (31.9%), obstetric hemorrhage (26.9%), non-obstetric complications (18.5%), other pregnancy complications (11.80%), pregnancy-related infections (4.20%), abortion (5%), and other {Bibliography} causes (1.7%). Adequate and quality healthcare coverage can prevent maternal deaths (Fulpagare, Saraswat, Dinachandra, Surani, Parhi, Bhattacharjee, Somya, Purty, Mohapatra, Kejrewal, Agrawal, Bhatia, Ruikar, Gope, Murira, De Wagt, et al., 2019).

Considering the high MMR, early detection efforts are needed during the preconception period until the postpartum period, in line with Minister of Health Regulation No. 21 of 2021 concerning healthcare services before pregnancy, during pregnancy, childbirth, postpartum, contraception, and sexual health. Antenatal Classes (KIH) have been implemented in all provinces in Indonesia. All pregnant women have not fully felt the utilization of KIH due to a gap between the number of Community Health Centers (Puskesmas) and the participation of pregnant women in KIH. Research conducted by Dewi (2020) indicates that the utilization of Antenatal Classes in Kendal Regency, Central Java Province, is only 25%. The National Health Indicator Survey (Sirkesnas) supported that data, which shows that the majority of mothers (81.8%) in Indonesia do not participate in government-implemented KIH programs (Handayani, 2015).

Antenatal classes have significant benefits in reducing anxiety and stress during pregnancy (Kassa et al., 2021). However, the quality of implemented KIH remains low, with gaps in coverage between the number of Puskesmas implementing KIH, the number of participants, and attendance rates during KIH sessions (Morhason-Bello et al., 2009). This study aims to map literature and evidence-based practices related to antenatal class implementation.

OBJECTIVE

The purpose of this scoping review is to assess the implementation of Antenatal classes, method of antenatal class, benefits of antenatal classes, and support from husband and family.



METHODS

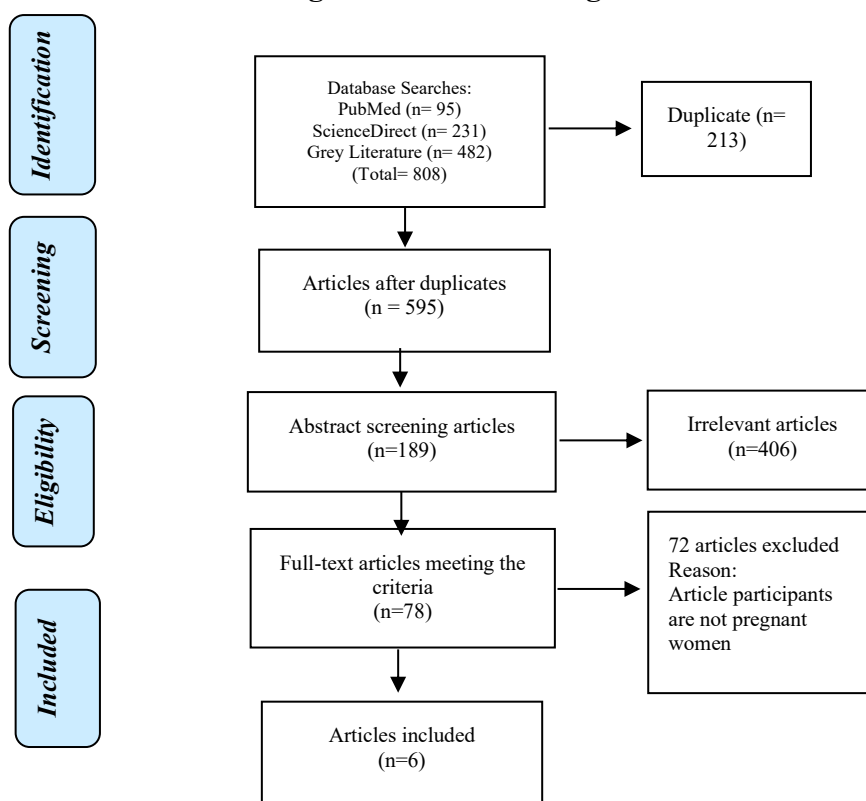
This research used a scoping review for mapping literature and evidence-based practices related to antenatal class implementation. This study implements the scoping review method, which is related to a process of identifying an integration of knowledge that follows a systematic approach to map the evidence of a topic and identify concepts, theories, sources, and primary discrepancies in knowledge. The steps of conducting the scoping review refer to (1) Identify scoping review questions, (2) Identifying relevant articles, (3) Article selection, and (4) Data charting.

Step 1: Identify scoping review questions. In this is Population, Exposure, Outcomes (PEO), to help find articles, inclusion criteria, and exclusions, and identify articles.

Step 2: Identifying Articles Inclusion and Exclusion Criteria. Identifies the inclusion criteria is published since 2019-2024, research articles of quantitative, Randomized Controlled Trial (RCT), mixed methods, systematic review, article using Indonesian and English. The criteria of exclusion is article that are not published in scientific journal, review, opinion article, book, skripsi, paper, thesis, dissertation. Initial searches for journal articles were conducted on the PubMed, ScienceDirect, and Google Scholar databases.

Step 3: Article Selection. Article section where the process is explained by PRISMA Flowchart.

Fig.1 Prisma Flow Diagram



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Step 4: Data Charting

The combination of data from articles was done by applying data charting adopted from the Joanna Briggs Institute, which includes data on the article's author, title, year, country, data collection methods, and research findings.

No	Title/Autor	Country	Aim	Study Design	Result
1	Metode Pembelajaran Kelas Ibu Hamil Terhadap Pengetahuan dan Sikap Ibu tentang Perawatan Kehamilan, Persalinan dan Nifas (The Learning Methods of Antenatal Classes on Mothers' Knowledge and Attitudes Regarding Pregnancy Care, Childbirth, and Postpartum Care) (Fitriani & Dewita, 2021)	Indonesia	To investigate the influence of multimedia learning methods in antenatal classes on mothers' knowledge and attitudes regarding pregnancy care, childbirth, and postpartum care.	Quasi-experimental, pre-test, and post-test with two group.	The results indicate that the mother's knowledge and attitude improved after being provided with multimedia-based learning in antenatal classes.
2	Pengaruh Edukasi Kelas Ibu Hamil Terhadap Kemampuan Dalam Deteksi Dini Komplikasi Kehamilan (The Influence of Antenatal Class Education on the Ability to Early Detect Pregnancy Complications) (Andi Syntha Ida, 2021)	Indonesia	To determine the effect of education in antenatal classes on the ability of early detection in pregnancy complications.	Cross-sectional	This study found that pregnant women's knowledge increased after attending antenatal classes.

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No	Title/Autor	Country	Aim	Study Design	Result
3	Study of childbirth education classes and evaluation of their effectiveness (Ricchi et al., 2020)	Italy	To evaluate the effectiveness of Childbirth Classes by analyzing the incidence of Cesarean sections, epidural analgesia, labor behavior, and childbirth in women attending the course compared to those who did not participate.	Cross-sectional	The research results revealed an improvement in the knowledge and abilities of mothers in facing pregnancy and childbirth
4	The Effect of Structured Antenatal Education on Childbirth Self-Efficacy (AlSomali et al., 2023)	Saudi Arabia	This study aims to determine the effect of antenatal education programs on maternal self-efficacy in primiparous pregnant women and to investigate the relationship between maternal self-efficacy and their sociodemographic characteristics.	Randomized controlled trial design (pre-test/post-test)	Findings from antenatal education programs can serve as a crucial tool, providing access to high-quality information and skills during the antenatal period and significantly enhancing maternal self-efficacy. It can invest resources in empowering and equipping pregnant women in ways that can increase their positive perceptions and increase their

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No	Title/Autor	Country	Aim	Study Design	Result
					confidence regarding childbirth.
5	The Influence of Pregnancy Classes on The Use of Maternal Health Services in Indonesia (Azhar et al., 2020)	Indonesia	To understand the impact of prenatal classes on maternal healthcare service utilization and newborn care, known to enhance pregnancy and childbirth outcomes.	Cross-Sectional	The research indicates that 29% of mothers utilize adequate antenatal services. Mothers who complete participation in prenatal class programs have a 2.2 times higher likelihood of receiving sufficient antenatal care [OR = 2.19; 95% CI: 1.62 to 2.97; P <0.001]. Those who complete participation in classes have a 2.7 times higher likelihood of using skilled birth attendants for delivery.
6	Effectiveness Of Pregnancy Class Implementation On Increasing Knowledge Of Delivery Preparation (Atalia Pili Mangngi et al., 2025)	Indonesia	To provide a systematic review of factors influencing the utilization of prenatal services (medical care and prenatal classes)	Quantitative research type True Experimental	The results of the study prove that the Mother's Class is effective in increasing knowledge in preparation for childbirth, showing that the majority of respondents answered that it was effective, as

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No	Title/Autor	Country	Aim	Study Design	Result
					many as 15 people (100%).

RESULTS

Following the screening of 808 articles, 6 articles were identified as meeting the inclusion criteria. Of these, 3 articles employed a cross-sectional design, 1 article utilised a quasi-experimental, 1 article was conducted as a randomised controlled trial (RCT), and 1 article adopted a mixed-methods design. The studies originated from Indonesia, Italy, and Saudi Arabia. In this mapping step, the author categorizes the implementation of classes provided in the research sample into several groups, namely:

Tabel 2.3 Data Mapping

Themes	Sub-Themes	Article
Purpose of Antenatal Classes	-	1, 3, 4, and 5
Method of Antenatal Classes	-	1, 3, 4, and 5
Benefits of Antenatal Classes	1. Increase in Knowledge	1, 2, 3, 5, and 6
	2. Early Detection	2, 3, and 5
Support from Husband and Family	-	1, 5, and 6

DISCUSSION

Based on the six included articles, there are four synthesized themes: the purpose of antenatal classes, method of antenatal class, benefits of antenatal classes, and support from husband and family.

Purpose of Antenatal Classes

The purpose of antenatal classes is to help reassure pregnant women that pregnancy and childbirth are natural processes and can reduce fear during childbirth (Azhar et al., 2020; Redshaw & Henderson, 2013). They aimed at increasing pregnant women's awareness of infectious diseases. According to Azhar et al. (2020), antenatal classes are believed to reduce stress and anxiety symptoms in both pregnant women and their partners during pregnancy and childbirth. Another study has found that antenatal class aims to reduce high maternal mortality rates.

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Implementing childbirth preparation classes positively influences maternal self-efficacy and improves several pregnancy outcomes. Integrating such programs into routine antenatal care can enhance maternal confidence and promote safer, more positive birth experiences (Sotome et al., 2021). The antenatal class program also aims to introduce delivery rooms to expectant mothers. It enhances maternal self-efficacy, encouraging mothers to freely ask questions or communicate with midwives and other healthcare providers without hesitation (Indrayani & Riviana, 2024b). Antenatal care (ANC) is vital for the early detection and management of pregnancy-related complications, thereby reducing preventable maternal and neonatal morbidity and mortality. Nevertheless, inadequate awareness among pregnant women regarding the significance of routine ANC visits often impedes timely identification of potential risk factors, which may compromise maternal and fetal health outcomes (Azhar et al., 2020; Muhwava, Murphy, Zarowsky, & Naomi Levitt, 2020).

Method of Antenatal Classes

Several learning methods were provided by healthcare professionals or midwives (AlSomali et al., 2023). The methods provided include conventional methods and multimedia learning methods. Face-to-face methods and lectures are believed to be easier to implement, but according to the study, they are less effective in the understanding received by pregnant women (Indrayani & Riviana, 2024a; Ricchi et al., 2020). Literature studies mention that providing antenatal class materials comprehensively and continuously is expected to improve pregnant women's knowledge, attitudes, and behaviors. Mass media communication utilization, such as television, radio, and newspapers, is a way to socialize the antenatal class program (Azhar et al., 2020).

According to Andersen's Behavioural Model of Health Service Use (1974), the utilisation of health services is determined by three main categories of factors. The predisposing characteristics comprise sex, age, marital status, educational attainment, occupation, ethnicity, and health beliefs. The enabling characteristics include family resources (such as income, knowledge, and health insurance) and community resources (including the availability of health facilities and personnel, waiting time for services, and accessibility). The need characteristics encompass both an individual's perceived health status and clinically evaluated health conditions (Redshaw & Henderson, 2013). According to a study conducted by (Boerleider et al., 2023), maternal perceptions and knowledge, accessibility of health services, and exposure to information media significantly influence antenatal care (ANC) attendance among pregnant women, whereas health workers' perceptions and spousal support show no correlation. Furthermore, maternal behaviour, beliefs, and actions are also associated with adherence to ANC visit recommendations.



Benefits of Antenatal Classes

1. Increase in Knowledge

The antenatal class implementation is believed to have many benefits for pregnant women (Fulpagare, Saraswat, Dinachandra, Surani, Parhi, Bhattacharjee, Somya, Purty, Mohapatra, Kejrewal, Agrawal, Bhatia, Ruikar, Gope, Murira, Wagt, et al., 2019) . They receive and understand crucial information from midwives and other healthcare professionals, such as regularly attending antenatal care (ANC) check-ups (A6). Antenatal classes serve as a platform for pregnant women to mindset exchange and share experiences about maternal and child health comprehensively and systematically in a scheduled manner (Andi Syintha Ida, 2021). The study by Ricchi et al. (2020) states that through antenatal classes, mothers can prepare themselves for maintaining a healthy pregnancy and preparing for childbirth, breastfeeding, and becoming a mother.

The results of (Govoni et al., 2019), show that there is a significant effect of providing education to pregnant women on their knowledge and attitudes, with a calculated t-value of 5.351 on knowledge and a calculated t-value of 6.000 on attitudes. Effect of providing education to pregnant women through an antenatal class on their knowledge and attitudes. The implication of this research is that it is important to conduct scheduled classes for pregnant women to increase the knowledge of pregnant women. The value of attending antenatal classes is emphasized. The increase in knowledge in study of (Putri et al., 2025), proves the success of the implementation of the mother class for respondents which will later be useful for maternal health during pregnancy until childbirth. where in the process of implementing the mother class there are teaching and learning activities from a cognitive perspective, through sequential information transformation in the respondents.

2. *Early Detection*

The high rate of complications, both in pregnancy and childbirth, remains a challenge. The antenatal class implementation is believed to provide a platform to prevent mothers at risk as early as possible. Finally, conducting antenatal classes can reduce the rate of cesarean sections. Andi Syintha Ida (2021) recommended care and supervision regularly for pregnant women through ANC services (A5). ANC involves monitoring and supporting health during pregnancy. The more information obtained, the more knowledge pregnant women gain, especially regarding early detection of complications. A crucial factor in preventing complications is how capable mothers are in early detection, as the earlier it is detected, the more accurate and faster the response can be.

An individual's perception of the seriousness of a disease, including the risks and challenges associated with it, is referred to as perceived severity. In the absence

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of efforts to prevent non-compliance with antenatal care (ANC) visits, pregnant women's perceptions of the severity of potential complications and their consequences may influence their adherence to ANC schedules as recommended by healthcare providers. Conversely, when the perceived severity of non-compliance is high, women are more likely to adopt positive health-seeking behaviours (Kassa et al., 2021).

Support from Husband and Family

Mother's active participation in attending antenatal class programs requires support from various parties, including husbands and family members (Boerleider et al., 2013). Support from close individuals is deemed crucial for mothers. It is consistent with another study indicating that the understanding of husbands and family members about antenatal class programs can provide new insights, enabling them to be responsive in decision-making and ensuring healthy pregnancy care, thus positively impacting the mother's psychology and acceptance of her pregnancy. The husband's support is believed to increase mothers' confidence in participating in antenatal class programs.

This finding is consistent with a study by (Muhwava, Murphy, Zarowsky, & Levitt, 2020), which reported that family support for pregnant women in attending antenatal care (ANC) visits was categorised as good. Family support was identified as an external motivational factor that encourages women to attend routine pregnancy check-ups. The role of the family exerts a greater influence compared to individuals outside the household, as family members generally possess a deeper understanding of the pregnant woman due to prolonged interaction within the family environment. This enables family members to provide mutual support and motivation, particularly in encouraging adherence to antenatal care (ANC) visits. This finding is consistent with a study by (Sotome et al., 2021), which demonstrated that spousal or family support is significantly associated with adherence to antenatal care (ANC) visits. Higher levels of family support were found to encourage more frequent ANC attendance among pregnant women. Conversely, limited external motivation or inadequate support from husbands or family members tends to result in irregular or infrequent ANC visits (Sotome et al., 2021).

CONCLUSION

The benefits of antenatal classes can increase mothers' knowledge to prepare for a healthy pregnancy, childbirth preparation, breastfeeding, and preparation for motherhood, as well as the ability to detect early signs. The husband's and family's support to attend antenatal classes can increase mothers' confidence. The research gap identified as a reference for future research is the difference between the providers of antenatal class materials (healthcare professionals) in classes conducted in developed countries and in

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developing countries. In developing countries, antenatal classes are facilitated only by healthcare professionals (midwives), while in developed countries, the implementation of Interprofessional Collaboration (IPC) includes specialist doctors, midwives, and nutritionists as facilitators in antenatal class implementation.

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