

RESEARCH ARTICLE

The Relationship Between Knowledge and Education Levels of Pregnant Women and the Regularity of Antenatal Care Visits at Tigapanah Community Health Center in 2024

Alfri Yoganta Sembiring¹, Maestro Simanjuntak², Juli Jamnasi³

¹. Medical Education Study Program,
Faculty of Medicine, Methodist
University of Indonesia

². Department of Public Health Sciences,
Faculty of Medicine, Methodist
University of Indonesia

³. Department of Radiology, Faculty
of Medicine, Methodist Indonesia
University

Correspondence:
fkmethodist@yahoo.co.id

ABSTRACT

Background: Maternal and prenatal mortality remain serious health issues, primarily due to behaviors and a lack of understanding regarding healthcare, particularly Antenatal Care (ANC). The irregularity in prenatal check-ups is influenced by factors such as the educational level and knowledge of pregnant women.

Objective: To analyze the relationship between knowledge and educational level of pregnant women with the regularity of prenatal check-ups at Tigapanah Health Center.

Methods: This study employed a quantitative approach with a cross-sectional design. The sample consisted of 77 pregnant women selected through purposive sampling. Data were collected using a validated and reliable questionnaire, and analyzed using the Chi-Square statistical test.

Results: The results from a total of 77 samples indicate a significant relationship between knowledge and the regularity of prenatal check-ups ($p = 0.002$). The educational level also showed a significant relationship with the regularity of prenatal check-ups ($p = 0.001$).

Conclusion: There is a significant relationship between knowledge and educational level with the regularity of prenatal check-ups.

Keywords: Knowledge, Educational Level, Pregnant Women, Regularity of Prenatal Check-Ups, ANC

INTRODUCTION

Current maternal and prenatal deaths are still influenced by behavior and a lack of knowledge about healthcare, particularly antenatal care (ANC).

ANC care is a preventive measure undertaken to support the health of pregnant

women and their newborns. A contributing factor is the lack of knowledge about ANC care for pregnant women.

According to a 2022 World Health Organization (WHO) report, 810 women continue to lose their lives daily due to complications in pregnancy and childbirth,

most of which are treatable or preventable. The global maternal mortality rate (MMR) is 289,000, while in Southeast Asia, only 16,000 cases occur. In an effort to reduce maternal mortality worldwide by 2025, the SDGs call for 90% of pregnant women to receive at least eight ANC visits. 359 maternal deaths are reported for every 100,000 live births in Indonesia. With 239 maternal deaths for every 100,000 live births, North Sumatra Province is one of the provinces with the highest maternal mortality rate. According to the 2022 Indonesian Health Profile data, heart disease (232 cases), bleeding (741 cases), hypertension during pregnancy (801 cases), and other causes (1,504 cases) are the leading causes of maternal death.⁴

Pregnant or prenatal care patients should receive health care at least six times a year, including two ultrasound examinations performed by a doctor. Pregnant women undergo health checks at least once in the first trimester (0-12 weeks), twice in the second trimester (>12 weeks-24 weeks), and three times

in the third trimester (>24 weeks until delivery). They also have at least two doctor visits during the first trimester, at the first visit, and at the fifth visit in the third trimester. It is recommended that pregnant women and their fetuses be protected by standard service times, which include early pregnancy diagnosis, prevention, and treatment.⁵

Pregnant women tend to be unmotivated to schedule regular and timely prenatal check-ups for various reasons. Maternal health visits are generally correlated with social development, geography, education, and poverty. Pregnant

women from low-income families with no formal education often find it difficult to access health services due to ignorance and financial constraints.⁶

Pregnancy-related health services provided by experts to pregnant women according to established guidelines for prenatal care are known as antenatal care. Early prevention of pregnancy risk factors is known as ANC. The WHO claims that ANC can reduce maternal and fetal mortality by identifying high-risk pregnancies and deliveries early.⁷

ANC is a type of preventive health care that involves regular health checks and education for pregnant women to ensure the best health outcomes for both mother and baby. The WHO recommends a minimum of eight ANC visits for every pregnant woman to reduce the risk of maternal and infant mortality. This care includes monitoring the progress of the pregnancy, ensuring the health of the mother and baby, early detection of pregnancy-related complications, and preparation for childbirth.⁵

In addition, ANC seeks to maintain and improve the health of mothers and their babies, minimize potential trauma during labor, prepare women for childbirth so they can have a safe delivery, reduce maternal mortality and pain, and prepare families and mothers to accept their children so they grow and develop normally. It also prepares mothers to navigate the postpartum period properly and to exclusively breastfeed their children.⁹

RESEARCH MATERIALS AND METHODS

This research is an observational analytical study using a cross-sectional method. Knowledge and education level are the independent variables, and regularity of prenatal checkups is the dependent variable. The target population for this study was 95 pregnant women in their third trimester who visited the Tigapanah Community Health Center for prenatal checkups. The sample consisted of all subjects.

The sample size was determined using the Slovin formula, which was derived from the 95-person sample population. Using the formula, a sample size of 77 was obtained. The sampling method used in this study was a non-probability sampling method. The instrument used for data collection was a 12-question questionnaire. The 77 samples were processed using the data management application program SPSS (Statistical Product and Service Solution), which was analyzed using univariate and bivariate analysis.

RESEARCH RESULT.

Table 4.1 Distribution of frequency of regularity of pregnancy check-ups

Keteraturan Pemeriksaan Kehamilan	Frekuensi	Presentase(%)
Teratur	52	67.5
Tidak Teratur	25	32.5
Total	77	100

Table 4.1 illustrates the frequency and percentage distribution of respondents based on the regularity of their pregnancy checkups. Of the 77 respondents, the majority, 52 (67.5%), underwent regular pregnancy checkups. Conversely, 25

respondents (32.5%) did not undergo regular checkups.

Table 4.2 Frequency distribution of knowledge levels

Tingkat Pengetahuan Ibu	Frekuensi	Presentase(%)
Baik	47	61.0
Kurang Baik	30	39.0
Total	77	100

Table 4.2 shows that of the 77 respondents, the majority, 47 (61.0%), had a good level of knowledge. The remaining 30 (39.0%) had a poor level of knowledge.

Table 4.3 Frequency distribution of education level

Tingkat Pendidikan	Frekuensi	Presentase(%)
Pendidikan Rendah (SD-SMP)	21	27.3
Pendidikan Tinggi (SMA-Sarjana)	56	72.7
Total	77	100

Table 4.3 shows the frequency and percentage distribution of respondents by education level. Of the 77 respondents, the majority had a low level of education (elementary school to junior high school), namely 21 (27.3%). Fifty-six (72.7%) had a higher education (high school to bachelor's degree).

Table 4.4 Relationship between knowledge and regularity of pregnancy checkups at Tigapanah Community Health Center

2 sided Pengetahuan	Pemeriksaan Kehamilan		Sig-
	Teratur	Tidak Teratur	
Baik	38	9	0,002
Kurang Baik	14	16	
Total	52	25	

Based on the Chi-Square test, the p-value was 0.002 ($p < 0.05$), indicating a statistically significant relationship between maternal knowledge and the regularity of prenatal checkups. In other words, mothers with good knowledge tend to be more regular in their prenatal checkups than those with poor knowledge.

Table 4.5 Relationship between education level and regularity of prenatal checkups

Pendidikan	Pemeriksaan Kehamilan		Sig-2 sided
	Teratur	Tidak Teratur	
Rendah(SD-SMP)	8	13	0,001
Tinggi (SMA-Sarjana)	44	12	
Total	52	25	

Based on the Chi-Square Test, statistical analysis shows a significance value (Sig-2 Sided) of 0.001. Since this value is less than 0.05, it can be concluded that there is a statistically significant relationship between maternal education level and the regularity of prenatal check-ups. Mothers with higher education levels tend to be more regular in undergoing prenatal check-ups than mothers with lower education. These results indicate that maternal education plays an important

role in awareness and compliance with routine prenatal check-ups.

DISCUSSION

The definition, purpose, benefits, implementation schedule, and consequences or impacts of not visiting frequently are all included in pregnant women's understanding of ANC. This study examined the correlation between the frequency of Antenatal Care (ANC) visits and the level of knowledge among pregnant women. The analysis findings showed a strong positive relationship between the frequency of ANC visits and the level of knowledge regarding ANC.

One factor influencing pregnant women's willingness to take a pregnancy test is their educational level. Education is described as a teaching activity involving the exchange of knowledge with the goal of maximizing each student's potential. Highly educated individuals respond more logically than individuals with lower or moderate levels of education. Furthermore, a person's higher level of education is associated with their understanding of pregnancy and health.

Pregnant women with higher levels of education will find it easier to learn about the risks and consequences of pregnancy than those with lower levels of education, who will find it more difficult. It is recommended that more educated pregnant women think more about their pregnancies and attend health clinics for regular checkups.

CONCLUSION

1. The frequency distribution of respondents involved in this study tended to have higher levels of education, with a predominance of high school graduates.
2. There was a significant relationship between knowledge and regular prenatal checkups, with a p-value of $0.002 < 0.05$.
3. There was a significant relationship between education level and regular prenatal checkups, with a p-value of $0.001 < 0.05$.

SUGGESTION

1. For future researchers, it is hoped that this research can be developed through multivariate analysis.
2. For educational institutions, it is hoped that they will seek information on other factors influencing the regularity of prenatal checkups besides knowledge and education.
3. For the community, it is hoped that they will participate more in outreach activities related to factors influencing the regularity of prenatal checkups.

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