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Factors Related to the First Antenatal Care Visit (KI MURNI) at the Akle Regional Community Health Center

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Abstract
Introduction: *The maternal mortality rate (MMR) in Indonesia declined to 189 per 100,000 live births in 2020. However, this figure remains significantly above the Sustainable Development Goals (SDG) target of 70 per 100,000 live births by 2030. One essential strategy to reduce MMR is to increase the coverage of antenatal care (ANC), particularly the initial visit (first ANC), which should occur before 12 weeks of gestation to facilitate early detection of pregnancy risks and prevent complications.* ***Objective:*** *This study aimed to analyze the factors associated with first ANC visits at Puskesmas Akle.* ***Methods:*** *This was an observational analytic study employing a cross-sectional design. The population included 138 pregnant women, with a sample of 50 participants selected through simple random sampling. Data were collected from medical records and analyzed using the chi-square test.* ***Results and Discussion:*** *The findings revealed that only 42% of respondents attended first ANC visits before 12 weeks of gestation. Significant associations were found between maternal age (p = 0.041) and parity (p = 0.014) and compliance with first ANC visits. However, no significant association was identified between maternal employment status (p = 0.976) and early ANC attendance.* ***Conclusion:*** *Compliance with early ANC visits remains low and is influenced by maternal age, parity, and accessibility to health facilities. Targeted health education and strengthened ANC services are essential to improving access for pregnant women, particularly those in underserved or hard-to-reach areas.*

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Introduction

The Maternal Mortality Rate (MMR) is still the main indicator of the success of maternal health programs in Indonesia. Despite the decline in AKI nationally, this achievement has not met the Sustainable Development Goals (SDGs) target for 2030, so efforts are needed to accelerate it, especially through improving the quality and coverage of antenatal care (ANC) services (Ministry of Health of the Republic of Indonesia, 2023)**.** One of the important components of ANC is the first visit (KI) performed in the first trimester of pregnancy (≤12 weeks), as recommended by the World Health Organization (WHO), as it plays an important role in the early detection of pregnancy risks and safe delivery planning.

The coverage of IP visits in Indonesia in 2023 was recorded at 85.6%, but it still shows a large gap between regions. East Nusa Tenggara Province is one of the areas with low achievement, which is only 57.3%. This condition is also reflected in Kupang Regency, where pure IP coverage in 2023 only reached 61.9% and decreased in 2024 to 55.2%, far below the target of a minimum service standard of 95% (*Infokesga and PWS Bumil Sikda*, n.d.).

In the work area of Akle Health Center, the low coverage of KI visits is purely influenced by various factors, including the practice of traditional marriage culture without legal registration which causes pregnant women to be reluctant to access health services, time constraints due to work as seaweed farmers, geographical and transportation barriers, and limited number of midwives, especially in remote areas. In fact, ANC visits in the first trimester are very important to detect risks such as preeclampsia, anemia, diabetes mellitus, and infectious diseases, as well as to provide pregnancy health education from an early age. Moller et al., (2017); Ginting et al., (2024).

The low coverage of pure KI in the work area of the Akle Health Center shows that there are still problems in the use of maternal health services, especially in the early phase of pregnancy. Therefore, this study aims to analyze factors related to purely KI visits of pregnant women in the work area of Akle Health Center, Kupang Regency. The results of the study are expected to be the basis for the formulation of more targeted intervention strategies in improving ANC coverage, especially the first visit of pregnancy.

Method

This study is an observational analytical (cross sectional) study. The study aims to analyze the relationship between maternal factors and the first antenatal care (ANC) visit or pure KI. The study population was all pregnant women who conducted ANC in the working area of the Akle Health Center, Kupang Regency, in the January–December 2024 period (N = 138). The sample amounted to 50 pregnant women who were selected using simple random sampling. The dependent variable was a pure KI visit, which was the first ANC visit at ≤12 weeks of gestation. Independent variables included maternal age, parity, and occupation. The data were analyzed univariate and bivariate using the Chi-Square test with a significance level of $p < 0.05$**.**

Result and Discussion

1. Result

Distribution of the characteristics of respondents who visited the Akle Health Center in January-December 2024

Table 1
Distribution of the characteristics of respondents who visited the Akle Health Center in January-December 2024

	Categories	Frequency	Present (%)
Age	At risk <20 or > 35 years	12	24%
	No risk 20-35 years	38	76%
	Total	**50**	**100%**
	Categories	**Frequency**	**Present (%)**
Parity	Primipara	9	18%
	Multipara	28	56%
	Grandemulti	13	26%
	Total	**50**	**100%**
	Categories	**Frequency**	**Present (%)**
Jobs	Work	38	76%
	Not working	12	24%
	Total	**50**	**100%**

Based on the table above, it can be interpreted that out of a total of 50 respondents at the Akle Health Center, almost all respondents were obtained, namely 38 people (76 years old). 20-35) who are not at risk, most of the respondents were 28 people (56%) with multipara and almost all respondents, namely 38 people (76%) as workers.

Factors related to KI antenatal care visits at the Akle Health Center in 2024

Table 2
Factors related to KI antenatal care visits at the Akle Health Center in 2024

Age	**ANC KI Visit**						
	KI MURNI		**Access IP**		**Total**		***p-value***
	N	**%**	**N**	**%**	**N**	**%**	
At risk <20 or >35	2	16.7	10	83.3	12	24	
No Risk	19	50	19	50	38	76	0.041
Total	**21**	**42**	**29**	**58**	**50**	**100**	
Parity	**ANC KI Visit**						
	KI MURNI		**Access IP**		**Total**		***p-value***
	N	%	N	%	N	%	
Primipara	5	55.6	4	44.4	9	18	
Multipara	15	53.6	13	46.4	28	56	0.014
Grandemulti	1	7.7	12	92.3	13	26	
Total	**21**	**42**	**29**	**58**	**50**	**100**	
Jobs	**ANC KI Visit**						
	KI MURNI		**Access IP**		**Total**		***p-value***
	N	%	N	%	N	%	
Work	16	42.1	22	57.9	38	76	
Not working	5	41.7	7	58.3	12	24	0.976
Total	**21**	**42**	**29**	**58**	**50**	**100**	

The table above shows that there is a relationship between the mother's age and the type of antenatal care visit at the Akle Health Center, with a p-value = 0.041. And there is also a relationship between parity and the type of antenatal care visit with p-value = 0.014. On the other hand, in this study, it was found that there was no relationship between work and the type of *antenatal care* visit with *a p-value* = 0.979 or P > 0.05.

2. Discussion

The relationship between the mother's age and the visit of ANC KI MURNI

Hail this study shows that there is a relationship between the mother's age and the type of antenatal care visit. Mothers with at-risk ages (<20 or >35 years) are more likely not to have Pure KI ANC than mothers in the age range of 20-35 years. This is in line with research conducted by Sari et al., (2023) regarding the relationship between age and compliance with ANC visits, the results found that there was a significant relationship between the age of pregnant women and compliance with antenatal care visits at the Muara Pinang Health Center, Empat Lawang Regency in 2023. Similar research that also supports the results of this research is a study conducted by Fatkhiyah et al., (2020) which also states that mothers who are too young or too old tend to have lower knowledge and understanding of the importance of regular pregnancy check-ups

Theoretically, the age of 20–35 years is considered the optimal reproductive age, where women generally have better physical, emotional, and mental readiness to face pregnancy. At this age, the level of awareness and curiosity about pregnancy health tends to be higher, thus encouraging mothers to have regular antenatal checkups. In contrast, pregnant women who are <20 years old are often psychologically immature and lack information about the importance of ANC, while mothers aged >35 years may face health barriers or energy limitations in accessing health services.

According to Wulandari, (2022) Increasing age also increases maturity in thinking, which ultimately contributes to the awareness to carry out routine pregnancy checkups. Therefore, the results of this study confirm the importance of reproductive health education, especially for at-risk age groups, so that they have sufficient knowledge and motivation to make pure ANC KI visits from an early age.

The relationship between maternal parity and pure ANC KI visits

The results of this study show that there is a relationship between maternal parity and the type of ANC KI visit. Mothers with primipara and multipara status have a higher proportion of pure ANC KI visits than grandmother mothers. This is in line with research conducted by Hastutik et al., (2023) which states that parity affects the mother's compliance in conducting ANC visits. One of the factors underlying this condition is the mother's level of confidence and experience of previous pregnancies.

Primitive mothers generally show higher levels of anxiety because they are experiencing their first pregnancy, so they are more motivated to seek information and follow regular checkups to health facilities. Meanwhile, multiparaparade mothers, despite having previous experience, still show concern for the latest pregnancy, both to monitor the health of the fetus and to ensure the condition of their bodies during pregnancy. On the other hand, mothers with high parity (grandemultipara) often consider themselves to be experienced, thus lowering their perception of pregnancy risk. This can cause them to tend to ignore the importance of regular antenatal checkups, especially if there are no complications during pregnancy. Grandemultipara mothers feel more confident and consider pregnancy check-ups no longer necessary intensively. (Sari Priyanti, 2020)

Therefore, maternal parity significantly affects the type and frequency of ANC-KI visits. Mothers with low parity (primipara and multipara) were more active in ANC visits than grandemultipara mothers. This is influenced by psychological factors (anxiety and confidence levels), previous experiences, and perceptions of pregnancy risk, so a more intensive approach to mothers with high parity is needed because every pregnancy has risks.

The relationship between the mother's work and the visit of the ANC KI MURNI

The results of the study showed that there was no relationship between the mother's employment status and ANC KI visits. These findings are in line with research conducted by (Risma, Winda and Saufa, 2025) which states that the employment status of pregnant women does not affect the frequency of ANC visits in the work area of the West Simeulue Health Center . This indicates that work is not the main factor that hinders pregnant women's access to ANC services.

However, in the local context of the Akle Health Center area, the majority of pregnant women who work are seaweed farmers. This work is physical and requires direct presence at the work site from the morning, which coincides with the operational hours of the health center. However, not all working mothers experience barriers in accessing ANC services, indicating that other factors play a role, such as family support, proximity to living facilities, and individual awareness.

According to Ginting et al., (2024) Working mothers with dense activities tend to prioritize work activities over personal health schedules, in contrast to housewives who have more flexible time. Although the results of this study showed no statistically significant relationship, it was practically seen that mothers who were not working had a higher proportion of Pure KI ANC visits.

Thus, the mother's employment status cannot be used as the sole predictor of ANC visitation compliance. Other factors such as time management, personal motivation, service accessibility, and social support also influence the mother's decision to visit a health facility. Therefore, health promotion and education interventions must be provided equally to all pregnant women, both working and not, taking into account the characteristics of their respective jobs and socioeconomic conditions.

Conclusion

Based on the results of research in the work area of the Akle Health Center, it is known that the coverage of the first antenatal care visit (KI MURNI) in pregnant women is still low. Of the 50 respondents, only 42% of pregnant women made ANC visits at ≤12 weeks of pregnancy, while the other 58% made their first visit at >12 weeks gestational age (access KI). This condition shows that the use of ANC services since the first trimester has not been optimal. The results showed that maternal age and parity were related to pure ANC KI visits. Pregnant women aged 20–35 years and mothers with low parity (primipara and multipara) had more ANC visits since the first trimester than mothers of risk age and grandemultipara. This suggests that age at a healthy reproductive range and fewer pregnancy experiences encourage mothers to have an early pregnancy check-up.

In contrast, the mother's employment status did not show a relationship with the visit of the ANC KI MURNIly These findings suggest that the timeliness of the first ANC visit is more influenced by age and previous pregnancy experience than employment status. Therefore, it is necessary to increase education and more targeted assistance to pregnant women of at-risk age and mothers with high parity so that ANC visits can be carried out from the first trimester according to the recommendations of maternal health services.

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