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The Relationship between Age, Education, Occupation, and Parity with the First Antenatal Care Visit (Pure K1) Among Pregnant Women in 2025

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ABSTRACT

The first antenatal care visit (K1) is an essential component of maternal health services aimed at early detection of pregnancy risks and timely intervention, ideally before 12 weeks of gestation. However, many pregnant women still attend their first visit late, increasing risks for both the mother and the fetus. K1 coverage at UPTD Puskesmas Klungkung II decreased to 58.18% in 2024. This study aimed to analyze the relationship between maternal age, education, occupation, and parity with the timeliness of K1 visits. A quantitative cross-sectional study was conducted from April to May 2025, involving 82 first-trimester pregnant women selected via total sampling. Data were analyzed using the Chi-Square test. The results showed that 82.9% of respondents made timely K1 visits. However, there was no significant relationship between age, education, occupation, or parity and the timeliness of K1 ($p > 0.05$). Although higher proportions of timely K1 visits were found among women aged 20–35 years (87.8%), those with secondary education (73.2%), unemployed women (72%), and parity ≤3 (80.5%), these differences were not statistically significant. Demographic factors were not the primary determinants of K1 attendance. Efforts should focus on health education, service accessibility, and family support to improve timely antenatal care utilization.

INTRODUCTION

Antenatal Care (ANC) is a pregnancy examination that aims to optimally improve the physical and mental health of pregnant women, enabling them to face labor, the postpartum period, preparation for exclusive breastfeeding, and the natural recovery of reproductive health[(3)]. The first visit for pregnant women in the first trimester is conducted by a doctor or other healthcare providers to perform screening, ensuring the detection of potential pregnancy risk factors or comorbidities, including ultrasonography (USG) examinations[(4)].

Based on the 2023 Indonesia Health Profile, antenatal care services in Indonesia have undergone a standard transformation from K4 to K6, with the first visit (K1) coverage reaching 98.1% and the sixth visit (K6) coverage reaching 83.9% nationally[(3)]. This figure represents a significant increase compared to the 2018 Riskesdas results, which recorded K1 at 96.1% and K4 at 74.1%, and it exceeds the 2020 achievement of 88.03%. Despite the upward national trend, Indonesia's position remains under global monitoring by the WHO, which notes high coverage in other Southeast Asian countries such as the Maldives and Sri Lanka[(15)]. However, real challenges persist at the local level,

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such as the sharp decline in K1 coverage at the Klungkung II Public Health Center to 58.18% in 2024, indicating a gap between national targets and regional implementation.

Based on the 2024 Bali Provincial Health Profile updates, the K1 coverage in Bali has shown a concerning trend, with the 2023 figure of 70.8% remaining a critical benchmark for suboptimal standardized services for pregnant women[5]. This downward trend persists into 2024 at the local level, where Health Profile data for Klungkung Regency identifies a significant decline in several facilities; most notably, UPTD Puskesmas Klungkung II recorded the lowest pure K1 coverage at 58.18%, followed by UPTD Puskesmas Dawan I and UPTD Puskesmas Nusa Penida I, which continue to struggle to meet the provincial targets[1]. These figures underscore a widening gap in early antenatal care access, indicating that despite national improvements, localized implementation in Bali's health centers requires urgent intervention to reverse the declining participation of pregnant women in their first trimester[1].

Various factors can influence delays in the first visit of pregnant women, including age, education, occupation, and parity. The age factor is closely related to emotional maturity, health understanding, and readiness for pregnancy. Pregnant women under 20 or over 35 years old tend to have higher pregnancy risks but often lack adequate readiness and knowledge regarding the importance of pure K1. Conversely, women of healthy reproductive age (20–35 years) generally possess better physical and psychological readiness to utilize ANC services [6].

Education level also plays a vital role in determining the health behavior of pregnant women. Mothers with higher education tend to have better access to information, the ability to understand health messages, and higher awareness of the importance of early pregnancy check-ups. Mothers with low education are at higher risk of not performing timely ANC visits due to limitations in understanding the benefits of pure K1 [7].

Employment status can be a barrier or a supporting factor for ANC visits. Working mothers, especially those with long working hours or inflexible conditions, often face difficulties accessing health services, including pure K1. On the other hand, housewives who do not work outside the home have a higher likelihood of accessing health services. However, this is also heavily influenced by the level of family support and information received [6].

Furthermore, parity, or the number of children a mother has, can influence the decision to make a K1 visit. Mothers who already have more than one child often feel experienced enough in dealing with pregnancy, thus tending to delay examinations. Conversely, primigravida mothers (first-time pregnancy) are usually more vigilant and quicker to make ANC visits due to their lack of experience [8].

Previous research indicates that variables such as age, education, occupation, and parity significantly influence Antenatal Care (ANC) utilization. For instance, a study conducted at Tamalanrea Public Health Center found that pregnant women within the mature age range (20–35 years) were more likely to complete timely K1 visits compared to those in other age groups [8]. Furthermore, Susetyo demonstrated that higher education levels are positively correlated with the increased utilization of ANC services[9]. In terms of employment, research by Marwiyah indicated that mothers with steady jobs experienced more frequent delays in their first visit compared to unemployed mothers[6].

Based on a preliminary study conducted at the UPTD Puskesmas Klungkung II from November to December 2024, it was found that out of 78 pregnant women, only 45 made their first antenatal visit before 12 weeks of gestation. Within this group, 23 women were at a high-risk age, 12 had high-risk parity, and 10 were unemployed. Despite various studies on this topic, research specifically analyzing the relationship between age, education, occupation, and parity with timely K1 visits in the Klungkung II Public Health Center area remains limited. Therefore, it is crucial to conduct this study to determine the extent to which these factors contribute to the coverage of timely K1 visits.

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METHOD

This analytical quantitative study with a cross-sectional design aims to analyze the relationship between age, education, occupation, and parity and the coverage of first antenatal care visits (Pure K1) among pregnant women at UPTD Puskesmas Klungkung II. Using a total sampling technique with 82 respondents, this study was conducted from April to May 2025 processed secondary data through univariate and bivariate analysis while consistently upholding the principles of research ethics.

RESULT AND DISCUSSION

This study is an analytical quantitative research that examines the relationship between Age, Education, Occupation, and Parity with the First Antenatal Care Visit (Pure K1) among Pregnant Women in 2025. The sample for this study consists of all pregnant women visiting the working area of UPTD Puskesmas Klungkung II from January to April 2025, with a total population of 82 individuals. The characteristics of the research subjects, including age, education, occupation, parity, and the first visit, are presented in the following table.

Table 1. Frequency distribution of respondent characteristics

Characteristics	Frequency (f)	Percentage (%)
Age		
High Risk (< 20 or > 35 years old)	10	12.2
Low Risk (20-35 years old)	72	87.8
Total	**82**	**100**
Education		
Basic (SD-SMP)	13	15.9
Secondary (SMA)	60	73.2
Higher (Diploma/Sarjana)	9	11
Total	**82**	**100**
Employment Status / Occupation		
Unemployed / Housewife	59	72
Employed / Working	23	28
Total	**82**	**100**
Parity		
Risky (> 3)	16	19.5
Non-risky (≤ 3)	66	80.5
Total	**82**	**100**
Antenatal Care Visit		
Did not visit	14	17.1
Visited	68	82.9
Total	**82**	**100**

The characteristics of the pregnant women responding at UPTD Puskesmas Klungkung II indicate that the majority were at a non-risky age (20–35 years), accounting for 72 individuals (87.8%), while the remaining 10 (12.2%) were at a risky age (<20 and >35 years). Based on education level, the majority of respondents had a secondary education (high school) with 60 individuals (73.2%), followed by 13 (15.9%) with basic education (elementary to junior high school) and 9 (11%) with higher education (Diploma/Bachelor's degree). Regarding employment status, most respondents were

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unemployed (housewives), totaling 59 individuals (72%), while the remaining 23 (28%) were employed. In terms of parity, the majority had ≤3 children (non-risky parity), consisting of 66 individuals (80.5%), while 16 (19.5%) had a parity of >3 (risky). Regarding the first visit (pure K1), 68 individuals (82.9%) made a timely visit (before 12 weeks of gestation), while the remaining 14 (17.1%) had not yet made the K1 visit according to the recommended timeframe. These characteristics suggest that most pregnant women fall into the safe category regarding age and parity, have a secondary education, and exhibit relatively good healthcare-seeking behavior for antenatal visits

Table 2. Analysis of factors associated with pure K1 visits

Characteristics	First Antenatal Care Visit				Total		*P-Value*
	Did not visit		Visited				
	f	%	f	%	f	%	
Age							
High Risk (< 20 or > 35 years old)	1	1.2	9	11	10	12.2	0.526
Low Risk (20-35 years old)	13	15.9	59	72	72	87.8	
Education							
Basic (SD-SMP)	4	4.9	9	11	13	15.9	
Secondary (SMA)	8	9.8	52	63,4	60	73.2	0.289
Higher (Diploma/Sarjana)	2	2.4	7	8,5	9	11	
Employment Status / Occupation							
Unemployed / Housewife	10	12.2	49	59,8	59	72	0.962
Employed / Working	4	4.9	19	23,2	23	28	
Parity							
Risky (> 3)	3	3.7	13	15,9	16	19.5	0.843
Non-risky (≤ 3)	11	13.4	55	67,1	66	80.5	

Relationship between Age and First Antenatal Visit The results of the analysis regarding the relationship between age and the first visit show that there is no significant relationship between the age of pregnant women and the first visit (pure K1), as indicated by a p-value = 0.526 (> 0.05). Out of 10 mothers at a risky age, 9 (11%) performed a pure K1 visit and only 1 (1.2%) had not. Meanwhile, out of 72 mothers at a non-risky age, 59 (72%) made a timely visit and 13 (15.9%) did not. The age of 20–35 years is considered the ideal age for women to become pregnant because it carries a lower risk of complications; women at this age are physically and mentally more prepared for pregnancy, making them more compliant in utilizing healthcare services, including ANC visits [9]. However, these results do not align with the study by Mangosa et al. [10], which found a significant relationship between age and ANC visit compliance at the Rijali Health Center. Conversely, this result is consistent with research by Murni and Nurjanah [11] at the Cigombong Health Center, which found that age was not significantly related to first-trimester visit behavior. Based on the statistical analysis, the research hypothesis stating a relationship between age and the first visit is not proven. This indicates that age is not the sole determinant of visit behavior, as mothers at a risky age still performed timely visits.

Relationship between Education and First Antenatal Visit The results of the analysis on the relationship between education and the first visit show no significant relationship between the education level of pregnant women and the first visit (pure K1), with a p-value = 0.289 (> 0.05). Most mothers with secondary education (High School) made timely visits (52 people or 63.4%), while in the basic education group, only 9 (11%) made timely visits and 4 (4.9%) did not. Out of 9 highly educated

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mothers, 7 (8.5%) performed a pure K1 visit. Education is a predisposing factor that influences the formation of health behavior; higher education makes it easier for individuals to receive information and understand the importance of early pregnancy check-ups [12]. However, in this study, differences in education levels did not show a significant difference in K1 visit behavior. This result is inconsistent with Nurfitriyani and Puspitasari [13] at the Blooto Health Center, which found that mothers with low education were more likely to delay their first visit. Based on statistical tests, the hypothesis stating a relationship between education and the first visit is not proven. This may be due to other factors such as the role of healthcare workers, family support, and equal access to information in the study area.

The statistical analysis reveals that maternal occupation is not a definitive predictor of the timeliness of the first antenatal care (K1) visit at UPTD Puskesmas Klungkung II ($p = 0.962$). Although theoretical frameworks often suggest that unemployed mothers possess greater temporal flexibility, this study demonstrates nearly identical compliance rates 83% for unemployed mothers and 82.6% for employed mothers [14]. This lack of a significant relationship contrasts with the findings of Nurfitriyani and Puspitasari, who argued that housewives are more compliant due to a lack of external work burdens [13]. However, these results support Mangosa research, which asserts that occupation has no significant impact on K1 if health facilities are easily accessible [10].

This finding suggests that occupational barriers in the Klungkung II area may have been mitigated by high service accessibility, thereby minimizing the opportunity cost for working mothers to access healthcare. Furthermore, high health literacy and the presence of social capital such as family support or workplace flexibility allow working mothers to prioritize early pregnancy detection[14]. This phenomenon also points to a possible homogeneity in the respondents' types of employment, particularly in the informal sector where schedules are more flexible, resulting in K1 attendance patterns similar to those of housewives. Consequently, the hypothesis stating a relationship between employment status and the first visit is not proven in this study.

The statistical analysis shows no significant relationship between maternal parity and the timeliness of the first antenatal care (K1) visit at UPTD Puskesmas Klungkung II ($p = 0.843$). Among 16 mothers with high-risk parity (>3), 81.2% (13 mothers) completed a timely K1 visit, while among 66 mothers with low-risk parity (<3), 83.3% (55 mothers) demonstrated similar compliance. Theoretically, mothers with low parity are expected to be more proactive due to a lack of prior experience, whereas those with high parity may become more relaxed or overconfident based on previous pregnancies[16]. However, the high compliance across both groups in this study suggests that prior birth experience is no longer a definitive barrier to seeking early care.This finding contrasts with earlier studies such as Marwiyah[6], which identified parity as a significant factor in delayed ANC. However, it aligns with more recent research by Handayani, which argues that in areas with high health literacy, parity does not dictate health seeking behavior [16]. Furthermore, a study by Simanjuntak suggests that modern maternal awareness has shifted; experienced mothers now recognize that every pregnancy carries unique risks requiring early professional monitoring [17]. The lack of significance in this study indicates that the experience factor has been neutralized by effective health education and environmental support in the Klungkung II area. When pregnant women, regardless of their obstetric history, receive consistent information regarding the importance of the first trimester, their behavior becomes more standardized. Consequently, the hypothesis stating a relationship between parity and the timeliness of K1 visits is not proven in this study.

CONCLUSION

The characteristics of pregnant women at UPTD Puskesmas Klungkung II indicate that the majority are at a non-risky age (20–35 years), have a secondary education (high school), are unemployed, have a parity of ≤3 children, and have performed a timely first antenatal visit (pure K1). There is no significant relationship between the age of pregnant women and the first visit (pure K1) at UPTD Puskesmas Klungkung II. There is no significant relationship between the education level of

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pregnant women and the first visit (pure K1) at UPTD Puskesmas Klungkung II. There is no significant relationship between the employment status of pregnant women and the first visit (pure K1) at UPTD Puskesmas Klungkung II. Furthermore, there is no significant relationship between the parity of pregnant women and the first visit (pure K1) at UPTD Puskesmas Klungkung II.

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