The Relationship between Age, Education and Occupation ANC Visits for Primigravida Pregnant Women at the Sragen Health Center

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Abstract

Maternal health programs in Indonesia are struggling to reduce the Maternal Mortality Rate (MMR). Even though ANC services have increased, visit coverage has fluctuated. A preliminary study in Sragen Regency highlights the need to explore the relationship between age, education and employment with ANC visits among primigravida. This study aims to determine the relationship between age, education and employment with ANC visits among primigravida pregnant women at the Sragen Community Health Center, Central Java. This research is a quantitative study with a cross-sectional design. The research was conducted in October 2023 at the Sragen Community Health Center, Sragen Regency with a population of 100 primigravida pregnant women who visited ANC from January to August 2023. The sample collection technique was total sampling so that the research sample was 84 pregnant women. The research instrument used a questionnaire. Analysis of research data using bivariate analysis of the Chi-Square test processed with SPSS version 20. The research results showed that the majority of the 84 primigravida pregnant women studied at the Sragen Community Health Center were aged 20 to 35 years (90.5%), with a bachelor's education level (47.6%), and were not working (66.7%). There is no relationship between age (p-value=0.683), there is a relationship between education level (p-value=0.014), and there is a relationship between employment (p-value=0.040) and ANC visits by primigravida pregnant women at the Sragen Community Health Center. It is hoped that pregnant women will look for sources of information about the importance of ANC visits for pregnant women in order to learn and improve or increase their knowledge about ANC Services in order to reduce maternal mortality rates.

Keywords: ANC, Mortality Rate, Primigravida

INTRODUCTION

Maternal health programs in Indonesia still faces significant challenges significant challenges, especially in reducing Maternal Mortality Rate (MMR). Disproportionately proportionally, over 95% of maternal and newborn birth deaths take place in nations with Limited financial resources as well as lower-middle-income countries (Belay et al., 2023).

Data from the Ministry of Health show a sustained increase in MMR over the last few last year. In 2019, there were the number of maternal death cases amounted to 4.221 cases, 2020 increased from previous year to 4.627 and maternal mortality 2021 also experienced an increase to 7.389 cases (Kemenkes RI, 2019; Kemenkes RI, 2020). In Central Java, the the same shows a similar trend. At in 2019 there were 76.9 cases of maternal death. In 2020, the MMR jumped to 98.6 cases and in 2021 to 199 Case. Sragen Regency, as part of the province, also experienced a significant increase in the number of maternal death cases. There were 7 cases of maternal death in Sragen Regency in 2019, jumping to 23 cases in 2020 and jumping

again to 37 cases in 2021. In fact, in 2016 there were only 17 cases while there were 130 cases of infant mortality (Sragen District Health Service, 2019).

The main cause of maternal death each year is identified as bleeding, followed by hypertension, infection, and other causes such as circulatory system disorders (Rachmawati et al., 2017). Other causes of high maternal mortality rates are bleeding (28%), eclampsia (24%), infection (11%), abortion (5%), prolonged or obstructed labor (5%), obstetric embolism (3%), complications postpartum period (8%), others (11%) (Abu et al., 2017). To overcome this problem, the existence of antenatal services plays an important role in preventing and reducing MMR and IMR. In this case, midwives contribute to implementing quality ANC services according to standards (Muktiasari et al., 2022).

Quality ANC must meet government standards, namely 10T (weighing, measuring body height, blood pressure and fundal height and assessing nutritional status through measuring upper arm circumference (Trisnawati et al., 2020). Apart from that, assessment of the provision of health services for pregnant women can be carried out by paying attention to the coverage of K1 and K4. K1 coverage is the quantity of pregnant women who receive ANC services for the first time carried out by health workers by comparing the target quantity of pregnant women in a work area for one year while K4 coverage is the quantity of pregnant women who have received ANC at least four times during pregnancy by comparing the target quantity of pregnant women in a work area for 1 year (Suryanegara et al., 2023).

The importance of ANC services is still not the main alternative for some pregnant women (Penman et al., 2023). The impact if pregnant women do not make ANC visits at least 4 to 6 times is that high risks during labor are not detected early and abnormalities that occur during pregnancy are not detected and can increase mortality and morbidity rates (Cahyani, 2020). ANC visits are more important for primagravida mothers than multigravida mothers because primagravida pregnant women need more information about their pregnancy because they have no previous experience. Primgravida pregnant women feel more worried than multigravidas, so this influences ANC use. Multigravida pregnant women feel they have more knowledge and experience than primagravidas, even though every pregnancy is different so the circumstances and conditions will also be different (Mane et al., 2023).

This is because there are several factors based on Green's theory in Notoatmodjo (2018), these factors include factors that incline, fortify, and facilitate. Predisposing factors encompass age, education, occupation, parity, insight, and attitude. Reinforcing factors include distance of residence, family income and information media. Enabling factors include support from husbands and families, and from health workers (UNICEF, 2019).

Although ANC services have been widely provided, the coverage of ANC visits has fluctuated, such as in Sragen district, where in 2019 the K4 coverage was 93.4%, in 2020 it decreased to 92.9% and in 2021 it was good to 95.5% (Sragen District Health Service, 2019). The preliminary study of the Sragen District Health Office showed fluctuations in ANC visits of primigravida pregnant women over the past few years. K4 coverage in 2019 was 88.5%, in 2020 it decreased to 84.6%. In 2021, there was an increase to 95.3% and in 2022 there was no change (fixed), namely 95.3%. But in 2022, the target number of visits was not met because the number of visits was only 896 people. In 2023 for the January-August period, K4 coverage was 56.46% and K6 coverage for the same period was 48.25%.

The preliminary study of the Sragen District Health Office showed fluctuations in ANC visits of primigravida pregnant women over the past few years. K4 coverage in 2019 was 88.5%, in 2020 it decreased to 84.6%. In 2021, there was an increase to 95.3% and in 2022 there was no change (fixed), namely 95.3%. But in 2022, the target number of visits was not met because the number of visits was only 896 people. In 2023 for the January-August period, K4 coverage was 56.46% and K6 coverage for the same period was 48.25%.

When researchers made initial observations regarding the conditions and costs of ANC at Regional General Hospital and several Community Health Centers in Sragen, researchers found that there were no factors that were barriers to gaining access other than ANC health services. This indicates that the Sragen District Health Service has done its best to reach the community. Based on this, the researchers assume that there are other possible factors that cause ANC visits in Sragen District to be less than optimal, which are caused by the individual pregnant women themselves, namely those related to the age, education level and occupation of primigravida pregnant women.

This research aims to identify the correlation between age, education, and occupation and ANC visits among primagravida pregnant women at Puskesmas Sragen, Central Java. It is hoped that the results of this research will provide in-depth insights into efforts to increase the coverage of ANC visits and, ultimately, reduce maternal mortality.

METHODS

This research method applies a quantitative approach through a cross-sectional design. The research was conducted in October 2023 at the Sragen Community Health Center, Sragen Regency with a population of 100 primigravida pregnant women who visited ANC from January to August 2023. The sampling technique for this research is total sampling. The total sampling was 100 people, but at the time of the research there were 16 people who were not

involved in this research because 10 people moved and 6 people did not respond to the research questionnaire, so the sample for this research was 84 pregnant women. The minimum sample was 79.50 rounded up to 80 people.

The independent variables studied were age with an at-risk category, if the respondent's age was < 20 years and > 35 years was given a value of 1, while not at risk, if the respondent's age was 20-35 years was given a value of 0. Education with a high education category, if the respondent graduated from high school, diploma and bachelor's degree was given a value of 0, while low education, if the respondent graduated from elementary school and junior high school was given a value of 1. Finally, employment with the category of not working, if the respondent is an IRT (Housewife) is given a value of 0, while working, if working as a civil servant, private employee and self-employed is given a value of 1. Meanwhile, the dependent variable is ANC visits with the category according to the standard, if pregnant women make ANC visits at least 6x with at least 2x visits to obstetricians given a value of 0, while not according to the standard, if pregnant women do not carry out ANC visits at least 6x and or do not make visits to obstetricians given a value of 1.

Data were collected using a questionnaire instrument which aims to measure the variables studied, namely age, education (Swarjana, I, 2012), and occupation of primigravida pregnant women at the Sragen Community Health Center, while observation sheets were used to determine the frequency of Antenatal Services. ANC visits to primigravida pregnant women at the Sragen Community Health Center, both directly from respondents and from secondary sources such as the Sragen Regency Health Service and Community Health Center.

Data analysis using the Chi-Square test which has a significance of $\alpha = 0.05$ to determine the strength of the relationship between age, education and employment on ANC visits by primigravida pregnant women. This research data was processed using computer equipment in the form of Statistical Program for Social Science (SPSS) version 20. This research has received Ethical Clearance approval from the research ethics committee Number 790/III/HREC/2024.

RESULTS

The results of the study of 84 respondents of primigravida pregnant women at the Sragen Health Center can be seen from the frequency distribution results below:

Table 1. Characteristics of Respondents (n=84)

Respondent Characteristics	n	%
Age		
< 20 years	3	3.6
20-30 years	76	90.5
> 35 years	5	6.0
Minimum age	18 years	
Maximin age	44 years	
Education		
Elementary school	2	2.4
Junior high school	7	8.3
Senior High School	35	41.7
Bachelor	40	47.6
Husband's Education		
Elementary school	1	1.2
Junior high school	5	6.0
Senior High School	50	59.5
Bachelor	28	33.3
Occupation of the respondent		
Civil servants	2	2.4
Private employee	15	17.9
Self-employed	11	13.1
Housewife	56	66.7
Husband's occupation		
Civil servants/Indonesian National Army/Republic of Indonesia State Police	25	29.8
Private employee	36	
Self-employed	22	42.9
Laborer	1	26.2
		1.2
Family Income		
<1,500,000 (Low)	10	11.9
1,500,000- 3,000,000 (Medium)	41	48.8
>3,000,000 (High)	33	39.3
History of Diseases		
No	78	92.9
Yes	6	7.1

Source: Primary data 2023

Based on Table 1, the research results show that almost all respondents have an age between 20 to 35 years with a total of 76 respondents (90.5%) with a minimum age of 18 years and a maximum of 44 years. Most of the respondents had a high school education, 35 respondents (41.7%) and the majority of their husbands also had a high school education, 50

respondents (59.5%). In terms of employment, most respondents worked as self-employed, namely 56 respondents (66.7%) and most had husbands who worked as private employees, namely 36 respondents (42.9%). The majority of respondents' families had moderate income, namely 41 respondents (48.8%) and most respondents did not have a history of disease at the time of pregnancy, namely 78 respondents (92.9%).

Univariate analysis was carried out to obtain frequency distribution data for each variable, after which the data was presented in the form of a frequency distribution table (Notoatmodjo, 2018).

Table 2. Frequency of Age, Education, Occupation and ANC Visits in Primigravida Pregnant Women at Kalijambe Sragen Health Center (84)

Variable	n	%
Age		
No Risk	76	90.5
At Risk	8	9.5
Total	84	100
Education		
Low	9	10.7
High	75	89.3
Total	84	100
Work		
Work	28	33.3
Doesn't work	56	66.7
Total	84	100
ANC visit		
According to standards	60	92.9
Not according to standards	24	7.1
Total	84	100

Source: Primary data 2023

Bivariate analysis aims to determine the relationship between age, education and employment with ANC visits by primigravid pregnant women, which can be seen in Table 3 below:

Based on Table 2, the research results show that the majority of respondents were of a non-risk age, namely 76 respondents (90.5%), and 8 respondents who were of a risk age (9.5%). The majority of respondents had higher education, namely 75 respondents (89.3%), while those with low education were 9 respondents (10.7%). Most of the respondents were not working, namely 56 respondents (66.7%) while 28 respondents (33.33%) were working. The majority of respondents made ANC visits according to standards, namely 60 respondents (71.4%), while those who did not meet standards were 24 respondents (28.6%).

Table 3. Relationship between age, education and occupation with ANC visits among primigravida pregnant women at Sragen Health Center (84)

Variable	ANC Visit				Total		P-value
	Complete		Incomplete				
	n	%	n	%	n	%	
Age							
No risk	55	72.3	21	27.6	76	100	0.683
At risk	5	62.5	3	37.5	8	100	
Education							
Low	3	33.3	6	66.6	9	100	0.014
High	57	76	18	24.0	75	100	
Work							
Work	16	57.1	12	42.8	28	100	0.040
Doesn't work	44	78.5	12	21.4	56	100	

Source: Primary data 2023

Based on Table 3, the research results show that there are 55 respondents (72.3%) of primigravida pregnant women whose age is not at risk if ANC visits meet standards, while there were 5 respondents (62.5%) of pregnant women of risky age whose ANC visits meet standards. Based on statistical analysis using the Chi Square test, it is known that the significance value is p value = 0.683. Because the p value is > 0,05, there is no relationship between age and ANC visits among primigravida pregnant women at the Sragen Community Health Center.

There were 3 respondents (33.3 %) of pregnant women with low education whose ANC visits meet the standards, while there were 57 respondents (76%) of highly educated pregnant women whose ANC visits meet the standards. Based on the results of the analysis using the Chi Square test, it is known that the significance value is p value = 0,014. Because the p value is <0,05, statistically there is a relationship between education and ANC visits among primigravida pregnant women at the Sragen Community Health Center.

There were 16 respondents (57.1%) of primigravida pregnant women who worked with ANC visits meet the standards, while there were 44 respondents (78.5%) of pregnant women who did not work and their ANC visits meet the standards. Based on the results of the analysis using the chi square test, it is known that the significance value is p value = 0,040. Because the p value is <0,05, statistically there is a relationship between work and ANC visits among primigravida pregnant women at the Sragen Community Health Center.

DISCUSSION

The age of the pregnant woman will influence visits to ANC services because the age of the pregnant woman will influence whether the mother's condition during pregnancy is at risk or not. Age is one of a person's characteristic traits which is a consumer sociodemographic factor that can influence the use of health services (Azizah et al., 2021). Based on the research results obtained, it can be observed that in the age variable, there is no correlation significance between age and ANC visits in primigravida pregnant women at the Sragen Health Center with a p value = 0.683. This is supported by the percentage showing that primigravida pregnant women who have complete ANC visits tend to be pregnant women of no-risk age (65.5%) compared to pregnant women of at-risk age (6.0%). The results of this research are in line with research conducted by Wulan et al., (2020) which states that there is no correlation between age and the obedience of pregnant women to carry out ANC visits. Apart from that, this research is strengthened by Sari & Fruitasari (2022) stating that there is no significant relationship between the age of pregnant women and the regularity of ANC visits. This is because there are many factors attached to the mother in terms of education and also the support of those closest to her. Meanwhile, the results of this research are not in line with the research conducted by Anggriani (2020), which states that there is a correlation between age and ANC visits.

According to Putri et al (2017) stated that pregnant women of at risk age should be advised to make regular ANC visits because pregnancies that occur at risk of age are very vulnerable to causing pregnancy complications including preeclampsia, abortion and maternal infections.. It is better for a woman to get pregnant at the age of 20 to 35 years, because it is a safe era to get pregnant and the reproductive system has the readiness to accept pregnancy, and in a psychological way a woman is ready to play a role as a mother. Pregnant women aged 20 to 35 years old tend to attend ANC visits because they still consider ANC services very important, but mothers under 20 years old tend not to understand the importance of connecting with the correct ANC visit. People above 35 years old tend to oppose prenatal visits because they feel that they have a good experience in pregnancy, whereas both age groups should routinely check their pregnancies with a health professional because they have high risks in pregnancy and childbirth, among others.

Mothers who have low education are more indifferent and do not understand the importance of pregnancy control (Kusuma, 2018). The level of education can influence a person's use of health services. Highly educated community groups tend to be more aware of the benefits of health services. The level of maternal education will influence pregnant women in having their pregnancy checked. A person's education is related to a person's behavior in

carrying out pregnancy checks, therefore highly educated people will have their pregnancy checked regularly in order to maintain the health of themselves and the child in their womb (Zuchro et al., 2022).

In the education variable, the p value = 0.014 shows that education has a significant relationship with ANC visits for primigravida pregnant women at the Sragen Community Health Center. This is supported by the percentage showing that primigravida pregnant women who have complete ANC visits tend to be highly educated pregnant women (67.9%) compared to low educated pregnant women (3.6%). The results of this research are in line with the research conducted by Sari et al., (2023), which states if there is a significant correlation observance of ANC visits in the Muara Pinang Health Center, Empat Lawang Regency in 2023. This is also in line with research Sinambela et al., (2021), the research results showed that there was a significant relationship between maternal education and pregnancy checks. While the results of this research are not in line with the research conducted by Lorensa et al., (2021), which provides a statement if there is no correlation between the education of primigravida mothers to obedience in carrying out ANC visits at the Pekauman Health Center. Good insight of pregnant women is not certain that their antenatal visits are good, there are still many other factors, but with good insight of pregnant women, it is hoped that their antenatal visits will be stable or permanent. Based on the WHO, a pregnant woman gets the insight that pregnancy check-ups are crucial after experiencing when pregnant women experience problems during pregnancy (Veni & Widianti, 2022). The mother's level of education greatly influences how a person acts and looks for causes and solutions in his life. People who are highly educated will usually act more rationally. Therefore, educated people will more easily accept new ideas. Likewise, highly educated mothers will have their pregnancy checked regularly in order to maintain the health of themselves and the child in their womb (Anggriani, 2020).

The frequency of ANC visits for pregnant women is still a problem, because not all pregnant women have their pregnancies checked regularly. Issues like this will complicate the coaching process for pregnant women (Oktaviani et al., 2021). In current conditions, many pregnant women are still active in working, work is a series of tasks that must be carried out and completed by someone according to their profession, with the aim of earning a living and meeting the living needs of themselves and their families. (Hastutik et al., 2023). Work is also an activity that must be achieved in accordance with one's own expectations and work will also involve several aspects, namely, awareness, planning, results and satisfaction from the work activity. In a person's job, we can see a picture of the activities they carry out and a person's job can also describe their economic welfare status (Oktaviani et al., 2021).

The work variable has a p value = 0.040, it was found that there was a significant relationship between work and ANC visits among primigravida pregnant women at the Sragen Community Health Center. This is supported by the percentage showing that primigravida pregnant women who have complete ANC visits tend to be non-working pregnant women (52.4%) compared to working pregnant women (19.0%). The results of this research are in line with research conducted by Pratiwi et al., (2021), which stated that a correlation was found between mother's work and ANC compliance. Research result Cahyani (2020), shows that there is a relationship between the use of ANC services and employment (p-value = 0.004). Meanwhile, the results of this research are not in line with the research conducted by Hastutik et al., (2023), who stated that there was no significant correlation between employment and ANC visits among pregnant women. Mothers who do not work have more free time than working mothers so they can arrange time for ANC visits and result in complete coverage of pregnancy visits in each trimester (Yulianti et al., 2021). Mothers who have jobs tend to be more compliant with ANC than mothers who do not have jobs. Because working mothers want to have money to pay for and carry out ANC tests. At the same time, unemployed mothers are less likely to have the resources to access health care facilities (Retnowati, 2022). Alternatively, by working, the expectant mother will receive more advice and information regarding the health of her pregnancy so that she will be more motivated to carry out ANC examinations and her employment status will make it easier to obtain health services because there are many opportunities to obtain health services. receive information about the condition of her pregnancy (Luciana et al., 2022).

CONCLUSIONS

The results of the study showed that there was no significant relationship between age and ANC visits among primigravida pregnant women at the Sragen Community Health Center, there was a relationship between pregnant women's education and employment status and ANC visits among primigravida pregnant women at the Sragen Community Health Center. Pregnant women who are highly educated and work tend to be more compliant in carrying out ANC. Thus, education and employment factors play an important role in pregnant women's compliance with ANC visits.

It is recommended to the Sragen Community Health Center, especially Maternal and Child Health officers as examiners of pregnant women, to pay more attention to young mothers so that they are given more motivation in carrying out ANC visits through the role of cadres

because the role of cadres in the community is very dominant in increasing ANC compliance

which can be done through training and coaching in the Sragen Community Health Center area.

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