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# ANALYSIS OF FACTORS RELATED TO USE OF ANTENATAL CARE SERVICES AT KARAWANG HOSPITAL YEAR 2023

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**Abstract**

Background: The impact if pregnant women do not take advantage of ANC visits at least 4 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. Objective: This study aims to determine the factors related to the utilization of ANC services at Karawang District Hospital in 2023. Method: This research is a cross-sectional study. The population of this study were all pregnant women who visited ANC at Karawang District Hospital, with a total sample of 103 pregnant women. Data collection was carried out using questionnaires. Hypothesis testing was carried out using the Chi-Square test at a significance level of 0.05. Results: The research results show that: (1) there is a relationship between age and the use of ANC services, with p-value (0.033) < 0.05; (2) there is a relationship between education level and utilization of ANC services, with p-value (0.011) < 0.05; (3) there is a relationship between employment status and utilization of ANC services, with p-value (0.007) < 0.05; (4) there is a relationship between family income level and utilization of ANC services, with p-value (0.003) < 0.05; and (5) there is a relationship between the number of family members and the use of ANC services, with p-value (0.028) < 0.05.

**Keywords**: ANC Utilization, Services

## Introduction

The maternal mortality rate (MMR) is one of the parameters for assessing maternal health in Indonesia. When compared with countries in ASEAN, the maternal mortality rate (MMR) in Indonesia is still relatively high. According to data from the Ministry of Health in 2016, it was recorded that 305 mothers experienced death per 100,000 live births. In 2022, the Indonesian Ministry of Health reports that the maternal mortality rate will be around 189 per 100 thousand births. The maternal mortality rate (MMR) in Indonesia is still the highest in the Southeast Asia region, and is still above the target set, namely 183 cases per 100,000 births in 2024 and less than 70 per 100,000 births in 2030. This situation shows the need more strategic and comprehensive steps, because to achieve the target of reducing the Maternal Mortality Rate (MMR) to 183 per 100,000 live births by 2024, it is necessary to reduce the maternal mortality rate by around 3%. Based on data from Sample Registration System (SRS) Litbangkes in 2016, the three main causes of maternal death involved hypertensive disorders (33.07%), obstetric bleeding (27.03%), and non- obstetric complications (15.7%). Meanwhile, according to Maternal Perinatal data Death Notification (MPDN) as of September 21 2021, the three main causes of maternal death are eclampsia (37.1%), bleeding (27.3%), and infection (10.4%), with the highest death rate occurring in hospitals ( 84%) (Kemenkes RI, 2022).

The maternal mortality ratio in West Java Province in 2020 reached 85.77 per 100,000 live births, exceeding the target set at 85 per 100,000 live births. The main cause is the increase in maternal mortality


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cases in West Java, which reached 745 cases in 2020, an increase from 684 cases in 2019. According to Komdat data , the number of maternal deaths in 2021 reached 1,188 cases, with Karawang Regency having the highest number of maternal deaths. the highest, namely 117 cases.

One intervention strategy that can reduce maternal and infant mortality is increasing the accessibility of health services for mothers. The government has taken steps to accelerate the reduction in Maternal Mortality Rate (MMR) by implementing antenatal care (ANC) services at least 4 times during pregnancy (Ekasari & Natalia, 2019).

In an effort to reduce the Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR), the Ministry of Health has issued a policy that refers to strategic interventions in safe motherhood . Safe motherhood is defined as four main pillars, namely family planning, antenatal services, clean and safe childbirth, and essential obstetric services. Implementation of safe motherhood requires application quality antenatal care (ANC) services (Mardliyataini et al., 2022).

ANC services are provided to Mother pregnant by force health, in particular midwife, at the facility health. This process takes place throughout the mother's gestational age, which is divided into the first trimester, second trimester and third trimester (Poerwaningsih, 2022). Antenatal Care (ANC) services must be implemented in a comprehensive, integrated and high-quality manner to ensure early detection and treatment of problems or diseases that may arise. Through integrated and quality ANC services, pregnant women can receive comprehensive and coordinated care, so that their reproductive rights can be fulfilled. This also helps avoid missed opportunities, and enables more effective and efficient health service delivery (Batbuall, 2021).

The consequence if pregnant women do not undergo at least four Antenatal Care (ANC) visits is that high risks and abnormalities in labor are not quickly identified, as well as an increased risk of death and disability. Many factors are related to the perception of ANC service utilization by pregnant women including age, parity, education level, employment, family income, number of family members, pregnancy spacing, (Akter et al., 2023; Berehe & Modibia, 2020; Kare et al., 2021)etc. Therefore, the research aims to examine the relationship between age, education level, employment status, family income and number of family members, pregnancy interval with the use of ANC services at Karawang District Hospital in 2023.

## Literature Review

### Antenatal Care Services

Antenatal care (ANC) refers to efforts to provide regular care to pregnant women during pregnancy, which includes corrective measures for potential abnormalities in accordance with established antenatal care guidelines (Ginting et al., 2022). ANC is a planned program in the form of observation, education and medical treatment for pregnant women carried out by health workers to achieve a safe pregnancy and birth process (Ekasari & Natalia, 2019).

Antenatal Care (ANC) services are an important element in health services for pregnant women, with the aim of reducing maternal and infant mortality rates. The high rate of maternal and infant mortality is caused by low knowledge of pregnant women and lack of regular ANC examinations. Not all pregnant women undergo scheduled pregnancy checks, causing difficulties in detecting abnormalities that may arise early in pregnancy(Setiana, 2021)

Antenatal care is care provided by skilled health care professionals to pregnant women and adolescent girls to ensure the best health conditions for mother and baby during pregnancy. It promotes the basis for health promotion, risk identification, prevention, and management of pregnancy-related diseases to avoid health problems in the fetus and mother and promote healthy behavior and parenting skills (Kare et al., 2021).

ANC service objectives according to Ministry of Health (2020) is:

1. Monitoring progress of the pregnancy process For ensure health mother and grow flower fetus inside.
2. Know exists complications possible pregnancy happen during pregnancy since age early, incl history disease and surgery.
3. Improving and maintaining the health of mothers and babies.
4. Prepare for the delivery process so that the baby can be born safely and minimize trauma that may occur during delivery.
5. Reducing maternal mortality and morbidity.
6. Preparing the role of the mother and family to accept the birth of the child so that it experiences normal growth and development.
7. Prepare mothers to go through the postpartum period well and be able to provide exclusive breast milk to their babies.

Antenatal monitoring is useful for detecting abnormalities that may occur during pregnancy at an early stage, enabling planning and preparation of steps to provide birth assistance. It is recommended that pregnant women undergo antenatal monitoring at least four times, namely once in the first trimester (K1), once in the second trimester (K2), and twice in the third trimester (K3 and K4). This aims to ensure adequate monitoring during the entire period of pregnancy (Andera et al., 2023).

Program policy in antenatal care emphasizes that antenatal visits should be carried out at least 4 times during pregnancy, with one visit in the first trimester, one visit in the second trimester, and two visits in the third trimester. The operational implementation is known as the 7T minimum standard, which consists of:

1. Weighing and measuring height, aims to assess the nutritional status of pregnant women.
2. Measurement pressure blood.
3. Measurement height of the uterine fundus.
4. TT immunization.
5. Giving iron tablets, at least 90 tablets during pregnancy.
6. Test against PMS.
7. Interview to prepare for the implementation of the referral.

Technical policies in antenatal care emphasize that every pregnancy has the potential to experience problems or complications at any time. Therefore, monitoring during pregnancy is important. Comprehensive treatment of pregnant women involves several components, such as: efforts to maintain a healthy pregnancy, carrying out initial treatment and referral if necessary, preparing for delivery in a clean and safe environment, as well as anticipatory planning and early preparation for referral if complications are discovered (Rehatta, 2020).

**Factors Influencing Utilization of Antenal Care**

Factors that influence the frequency of ANC visits by pregnant women can be categorized based on Lawrence Green's theory into behavioral causes and non-behavioral causes. Meanwhile, according to the concept and behavior of a person proposed by Green, these factors include predisposing *factors* , *enabling factors* and *reinforcing factors* .(Irwan, 2018)

Predisposing factors refer to factors within an individual to carry out certain healthy actions or behaviors. According to Andersen's model, predisposing factors reflect an individual's demographic characteristics, as well as social status (Gregory et al., 2020). The predisposing factors for the use of ANC services include age, education level, employment status, parity, pregnancy interval, attitude,

knowledge, etc. Enabling factors ( *facilitating factors* ) are factors that support the emergence of a particular action, facilities and infrastructure factors or health facilities for the community such as hospitals, polyclinics, posyandu, doctors or private practice midwives. Enabling factors that influence pregnant women's compliance with ANC visits include access or reach to health services, income or income, and exposure to information. (Chanda et al., 2020). Strengthening factors that influence pregnant women's compliance with ANC visits include pregnancy health education, service quality, social support and health support (Harun, 2021; Khoeriah et al., 2021; Yulianti et al., 2021).

## Methodology

This research is a *cross-sectional study* where data collection is carried out once on the same subject. Hypothesis testing uses an associative approach. This research was carried out at the Karawang Regional Hospital in December 2023 to January 2024. The population of this study were all pregnant women who had ANC visits at the Karawang Regional Hospital, with a sample size of 103 pregnant women respondents. This research uses a questionnaire as an instrument for collecting research data. Questionnaires were used to measure the variables of maternal age, education level, employment status, income, number of family members and utilization of ANC services. An open questionnaire was used to measure the variables of mother's age, education level, employment status, income, number of family members. To provide categories for each variable, researchers refer to the operational definition of the variable. A closed questionnaire was used for the ANC service utilization variable. The results were entered into a dichotomous model (1-3 ANC visits = 0 and 4 or more ANC visits = 1). This categorization is based on the previous WHO recommendation of 4 or more ANC visits during pregnancy. Each visit phase is given a score of 0 if you do not make a visit, and a score of 1 if you do not make a visit. Data analysis was carried out through the Chi-Square test . Via SPSS version 20 for Windows. If Chi-Square test results show p value > 0.05, then hypothesis zero (Ho) is accepted. On the other hand, if Chi-Square test results show p value < 0.05, then hypothesis alternative (Ha) is accepted.

## Research Result

### Respondent Characteristics (Univariate Analysis Results)

**Table 1. Frequency Distribution of Respondents Based on Age, Education, Occupation, Family Income, and Number of Family Members**

| Characteristics | Category | n | % |
|---|---|---|---|
| Age | <25 years | 13 | 13% |
| | 25-35 years old | 66 | 64% |
| | >35 years | 24 | 23% |
| Education | elementary school | 6 | 6% |
| | JUNIOR HIGH SCHOOL | 23 | 22% |
| | SENIOR HIGH SCHOOL | 54 | 52% |
| | PT | 20 | 19% |
| Work | IRT | 59 | 57% |
| | Self-employed | 16 | 16% |
| | Peg. Private | 15 | 15% |
| | Civil servants | 8 | 8% |
| | Other | 5 | 5% |
| Income Family | <1 million | 27 | 26% |
| | 1-3 million | 48 | 47% |

| | | | |
|---|---|---|---|
| | >3 million | 28 | 27% |
| Amount Member Family | <=4 people | 30 | 29% |
| | >4 people | 73 | 71% |

The table above shows that more pregnant women who were respondents in this study were aged 25-35 years than pregnant women aged <25 years or >35 years. Of the 103 pregnant women, there were 57 people (55%) aged 25-35 years. The high number of ANC visits at the age of 25-35 years is because this age range is the ideal age for women to get married because it is stated to be the best reproductive age.

Based on education level, the results of this study show that the majority of pregnant women in the sample have secondary education (SMA) and some of them have pursued higher education at university. However, there are a number of pregnant women with lower levels of education, such as elementary and middle school.

Based on job categories, more pregnant women work as housewives (housewives) than pregnant women as self-employed workers, private employees, civil servants or other jobs. Of the total 103 pregnant women, 58% of them were housewives.

Based on family income, the number of pregnant women with a family income of IDR 1-3 million/month is greater than the number of pregnant women with a family income of less than IDR 1 million/month or more than IDR 3 million/month. Of the total 103 pregnant women, 47% of them had a family income of IDR 1-3 million/month.

There are more pregnant women with family members ≤4 people in the household than pregnant women with family members ≤4 people. Of the 103 pregnant women, there were 68 people (66%) with family members > 4 people.

**ANC Visit Rate**

**Table 2. Number of Pregnant Women Based on ANC Visit Level**

| No | ANC visit | n | % |
|---|---|---|---|
| 1 | Not good (<4 times) | 30 | 29% |
| 2 | Good (≥4 times) | 73 | 71% |
| | Total | 103 | 100% |

Table above show that Mother pregnant with do ANC visits ≥4 times or utilise ANC service with Good more Lots compared to Mother pregnant with ANC visits < 4 times or not enough Good utilise ANC service. Where out of 103 mothers pregnant, there were 30 people (29%) with amount amount visits <4 times, and 73 people (71%) with amount visits ≥4 times.

**Number of ANC Visits in Each Trimester**

**Table 3. Number of Pregnant Women Based on Number of ANC Visits Each Trimester**

| Amount Visit | T1 | | T2 | | T3 | |
|---|---|---|---|---|---|---|
| | n | % | n | % | n | % |
| Never _ | 2 | 2 | 3 | 3 | 3 | 3 |
| 1 time | 50 | 49 | 54 | 52 | 54 | 52 |
| 2 times | 50 | 49 | 44 | 43 | 43 | 42 |
| 3 times | 1 | 1 | 2 | 2 | 3 | 3 |
| Amount | 103 | 100 | 103 | 100 | 103 | 100 |

The table above shows that in the 1st trimester there were more pregnant women who made ANC visits ≥4 times or made good use of ANC services than pregnant women who made <4 ANC visits or did not make good use of ANC services. Of the 103 pregnant women, there were 30 people (29%) with a total number of visits <4 times, and 73 people (71%) with a number of visits ≥4 times.

**Bivariate Analysis Results**

**Table 4. Bivariate Analysis Results**

| Characteristics / Criteria | Benefits. ANC Services | | | | Total | | *p-value* |
|---|---|---|---|---|---|---|---|
| | Good | | Not enough | | | | |
| | n | % | n | % | n | % | |
| Age | | | | | | | 0.033 |
| <25 | 11 | 85 | 2 | 15 | 13 | 100 | |
| 25-35 | 41 | 62 | 25 | 38 | 66 | 100 | |
| >35 | 21 | 88 | 3 | 13 | 24 | 100 | |
| Total | 73 | 71 | 30 | 29 | 103 | 100 | |
| Education | | | | | | | 0.011 |
| Elementary/Middle School | 15 | 52 | 14 | 48 | 29 | 100 | |
| SENIOR HIGH SCHOOL | 40 | 74 | 14 | 26 | 54 | 100 | |
| PT | 18 | 90 | 2 | 10 | 20 | 100 | |
| Total | 73 | 71 | 30 | 29 | 103 | 100 | |
| Job status | | | | | | | 0.007 |
| Work | 25 | 57 | 19 | 43 | 44 | 100 | |
| No | 48 | 81 | 11 | 19 | 59 | 100 | |
| Total | 73 | 71 | 30 | 29 | 103 | 100 | |
| Income Family | | | | | | | 0.003 |
| <1 million | 14 | 52 | 13 | 48 | 27 | 100 | |
| 1-3 million | 33 | 69 | 15 | 31 | 48 | 100 | |
| >3 million | 26 | 93 | 2 | 7 | 28 | 100 | |
| Total | 73 | 71 | 30 | 29 | 103 | 100 | |
| Amount Member Family | | | | | | | 0.028 |
| <=4 | 53 | 78 | 15 | 22 | 68 | 100 | |
| >4 | 20 | 57 | 15 | 43 | 35 | 100 | |
| Total | 73 | 71 | 30 | 29 | 103 | 100 | |

Pregnant mother with group age >35 years own more percentage _ tall in utilise ANC service with Good compared to Mother pregnant in the group age <25 years nor group aged 25-30 years . Of the 13 pregnant women aged <25 years, 11 people (85%) stated that they made good use of ANC services. There were 66 people in the 25-35 year age group, of which 41 people (62%) made good use of ANC services. Of the 24 people in the age group >35 years, 21 people (88%) stated that they made good use of ANC services. The results of hypothesis testing via the Chi-Square test ($X^2$) show p-value (0.033) <

0.05 so the decision taken is to accept Ha. This means that there is a relationship between the age of pregnant women and the utilization of ANC services at Karawang District Hospital in 2023. In other words, the variable age of pregnant women plays a significant role in influencing the utilization of ANC services at the hospital. These results have important implications for planning and providing maternal health services at RSUD Karawang, taking into account the age factor as one of the main considerations.

Pregnant women with higher education have a much higher percentage of making good use of ANC services compared to pregnant women with low and medium education. Of the 28 low-educated pregnant women, the majority (52%) made good use of ANC services. There were 53 people with secondary education, of which 40 people (74%) made good use of ANC services. Of the 22 highly educated pregnant women, 18 (90%) made good use of ANC services. The results of hypothesis testing via the Chi-Square test ($X^2$) show p-value (0.011) < 0.05 so the decision taken is to accept Ha. This means that there is a relationship between the educational level of pregnant women and the use of ANC services at Karawang District Hospital in 2023. This indicates that the higher the education level of a pregnant mother, the higher her tendency to use ANC services at the hospital. Because pregnant women with higher levels of education may have a better level of health awareness, a better understanding of the importance of prenatal care, or the ability to access better health information and services.

Pregnant women who are not working have a much higher percentage of making good use of ANC services compared to pregnant women who are working. Of the 44 pregnant women who work, most of 57% make good use of ANC services. Meanwhile, of the 59 people who were not working, the majority (81%) made good use of ANC services. The results of hypothesis testing via the Chi-Square test ($X^2$) show p-value (0.007) < 0.05 so the decision taken is to accept Ha. This means that there is a relationship between the employment status of pregnant women and the use of ANC services at the Karawang District Hospital in 2023. This indicates that pregnant women who do not work make better use of ANC services than pregnant women who work.

Pregnant women with a family income of more than IDR 3 million/month have a higher percentage of making good use of ANC services compared to pregnant women with a family income of less than IDR 1 million/month or medium IDR 1-3 million/month. Of the 27 pregnant women with a family income of less than IDR 1 million/month, the majority (52%) made good use of ANC services. Of the 48 people with a family income of IDR 1-3 million/month, 69% made good use of ANC services and 15 people (31%) made poor use of ANC services. Of the 28 pregnant women with a family income of more than IDR 3 million/month, 93% said they made good use of ANC services. Overall, mothers who make good use of ANC services are those with a family income of >3 million/month. The results of hypothesis testing via the Chi-Square test ($X^2$) show p-value (0.007) < 0.05 so the decision taken is to accept Ha. This means that there is a relationship between the level of family income of pregnant women and the use of ANC services at RSUD Karawang in 2023. This indicates that pregnant women with a high level of family income generally make better use of ANC services than pregnant women with a lower level of family income.

Pregnant women with family members ≤4 people have a much higher percentage of making good use of ANC services compared to pregnant women with family members >4 people. Of the 68 pregnant women with family members ≤4 people, there were 53 people (78%) who were good at using ANC services and 15 people (22%) who were not good at using them. Of the 35 people with family members >4, there were 50 people (57%) who made good use of ANC services and only 15 people (43%) who did not use ANC services well. Pregnant women who make the best use of ANC services are those with family members of ≤4 people in one household. The results of hypothesis testing via the Chi-Square test ($X^2$) show p-value (0.028) < 0.05 so the decision taken is to accept Ha. This means that there is a relationship between the number of family members in pregnant women and the use of ANC services at Karawang District Hospital in 2023. This indicates that pregnant women with a small number of family

members generally make better use of ANC services than pregnant women with a large number of family members.

## Discussion

### Relationship between Age of Pregnant Women and Utilization of ANC Services

The results of this study show that there is a relationship between the age of pregnant women and the use of ANC services at the Karawang District Hospital in 2023, where the Chi- Square ($X^2$) test results show a p- value (0.033) < 0.05. In other words, there is sufficient evidence to accept the proposed alternative hypothesis (Ha). These results indicate that as the age of pregnant women increases, there is an increase in the utilization of ANC services. It is possible that this association may be explained by factors such as greater health awareness, previous experience in pregnancy, and better understanding of the importance of prenatal care among older pregnant women. The results of research are in line with those conducted by (Awalia, 2022; Usman & Rusman, 2018)those who proved that age is related to ANC utilization, with p-values of 0.001 and 0.012 respectively.

Older pregnant women may have a higher level of health literacy due to longer life experiences and knowledge accumulated over time. With increasing age, individuals may be more likely to pay attention to their health and, in this context, understand the importance of prenatal care. Previous experience may also make older pregnant women more aware of the risks and complications that may occur during pregnancy, encouraging them to seek prenatal care more actively (Sumankuuro et al., 2019). With better understanding, older pregnant women may be more actively involved in decision making regarding prenatal care by making ANC visits (Ridani et al., 2023).

### Relationship between Pregnant Women's Education Level and Utilization of ANC Services

The results of this research show that there is a relationship between the educational level of pregnant women and the use of ANC services at Karawang District Hospital in 2023, where the Chi-Square ($X^2$) test results show a p- value (0.011) < 0.05. In other words, there is sufficient evidence to accept the proposed alternative hypothesis (Ha). The educational level of pregnant women appears to have a significant correlation with the utilization of Antenatal Care (ANC) services. These findings indicate that pregnant women with a higher level of education tend to make better use of ANC services compared to those with a lower level of education. Descriptively, there is a striking difference in the percentage of mothers who make good use of ANC services compared to mothers who make less use of pregnant women with higher education. The research results are relevant to the research results (Awalia, 2022; Kare et al., 2021)which show that there is an influence of education level on the use of ANC services, with p-values of 0.030 and 0.000 respectively.

Pregnant women with a higher level of education find it easier to gain knowledge about the importance of prenatal care and its positive impact on maternal and baby health. Higher levels of education often correlate with better health literacy. Pregnant women who have a higher level of education may be better able to understand complex health information, including instructions and recommendations regarding prenatal care. Pregnant women with a higher level of education may be more familiar with digital information sources or electronic health media which can increase the accessibility of current information (Nurmala et al., 2022; Pakpahan et al., 2021).

### Relationship between Pregnant Women's Employment Status and Utilization of ANC Services

The results of this study show that there is a relationship between the employment status of pregnant women and the use of ANC services at the Karawang District Hospital in 2023, where the Chi-Square ($X^2$) test results show a p- value (0.007) < 0.05. In other words, there is sufficient evidence to accept the proposed alternative hypothesis (Ha). Pregnant women who are not working have a much

higher percentage of making good use of ANC services compared to pregnant women who are working. The research results are in line with the results of research conducted (Cahyani, 2020)which also proves that employment status is significantly related to the use of ANC services by pregnant women, p-value 0.04.

Pregnant women who work full time may experience limited time to attend regular ANC visits. Busy work schedules and workloads can be barriers to optimal participation. Meanwhile, pregnant women who do not work may have greater time flexibility, making it easier for them to better schedule their ANC visits. Working mothers, especially in jobs with a high workload, may face obstacles in attending ANC visits due to long working hours or strict company regulations. High workloads can cause stress and fatigue, which may affect working mothers' ability to consistently utilize ANC services. Unemployed mothers may be more involved in the local community and receive support from those around them, which may motivate them to take more proactive health measures.

**Relationship between Pregnant Women's Family Income Level and Utilization of ANC Services**

The research results show that there is a relationship between the level of family income of pregnant women and the use of ANC services at the Karawang District Hospital in 2023, where the results of hypothesis testing via the Chi-Square ($X^2$) test show a p-value (0.003) < 0.05. This indicates that pregnant women with a high level of family income generally make better use of ANC services than pregnant women with a lower level of family income. The income level of the pregnant woman's family plays a significant role in influencing the utilization of ANC services at the hospital. More specifically, pregnant women with a high level of family income tend to make better use of ANC services compared to pregnant women who come from families with a lower level of income. The research results (Islam et al., 2022)also prove that the level of family income expressed by the family wealth index has a significant relationship with the use of ANC services, p-value 0.000.

The relationship between family income and utilization of Antenatal Care (ANC) services can be explained by a number of complex factors that influence the accessibility and use of health services by pregnant women. Family income level can influence a family's financial ability to access ANC services. Families with higher income levels may have better financial access, allowing them to afford costs associated with ANC, such as transportation, medical examinations, and laboratory tests. Family income level influences spending priorities. Families with higher incomes may be more able and willing to allocate funds for health services, including ANC, as part of their financial priorities. Families with higher incomes may live in areas that have better and more accessible health facilities (Rahmi et al., 2023).

**The Relationship between the Number of Family Members of Pregnant Women and the Utilization of ANC Services**

The research results show that there is a relationship between the number of family members in pregnant women and the use of ANC services at the Karawang District Hospital in 2023, where the Chi-Square ($X^2$) test results show a p- value (0.028) < 0.05. Pregnant women with a small number of family members generally make better use of ANC services than pregnant women with a large number of family members. The number of family members can influence the responsibilities and roles of pregnant women in the family. Larger families may have greater responsibilities and demands, and this may impact pregnant women's availability of time and resources to seek and utilize ANC services. The research results (Rurangirwa et al., 2017)also prove that there is a relationship between the number of family members and the use of ANC services, p- value 0.000.

Mothers with a larger number of family members often have an impact on the level of responsibility and demands placed on pregnant women in the family environment. Pregnant women in these families may have a significant role in carrying out daily tasks, such as caring for children,

preparing food, or taking care of other household needs. This can limit pregnant women's available time and energy to seek and utilize ANC services (Arianto, 2018). Larger families may face greater financial challenges. Pregnant women in these families may be expected to contribute to meeting the family's economic needs. These financial obligations can be a factor limiting the accessibility and utilization of ANC services (Di et al., 2021). The daily life pattern of a larger family may be more busy and have a full schedule. Pregnant women may face difficulty setting aside time to attend ANC visits or prenatal care if they are involved in many demanding family activities. The level of responsibility in the family can also influence a pregnant woman's ability to access health facilities. Busy families may encounter obstacles in traveling or scheduling visits to health facilities, limiting time available for ANC treatment.

**Research Limitations**

This study was conducted over a short period of time, so the data may not reflect sufficient variation in ANC service utilization. Limited time may also limit the ability to obtain more in-depth data. In addition, this study has a cross-sectional design or does not involve repeated data collection at different points in time, so the study cannot present a dynamic picture of ANC service utilization over time.

**Conclusion**

Based on results and Discussion results study so conclusion study This is as following:

1. Distribution frequency Mother pregnant, there were 30 people (29%) with amount amount visits <4 times, and 73 people (71%) with amount visits ≥4 times.
2. There's a relationship age Mother pregnant with utilization ANC services at Karawang District Hospital in 2023, with p-value (0.033) < 0.05.
3. There is a relationship between the educational level of pregnant women and the use of ANC services at Karawang District Hospital in 2023, with a p-value (0.011) < 0.05.
4. There is a relationship between the employment status of pregnant women and the use of ANC services at Karawang District Hospital in 2023, with a p-value (0.007) < 0.05.
5. There is a relationship between the level of family income of pregnant women and the use of ANC services at Karawang District Hospital in 2023, with a p-value (0.003) < 0.05.
6. There is a relationship between the number of family members of pregnant women and the use of ANC services at Karawang District Hospital in 2023, with a p-value (0.028) < 0.05.

**Suggestion**

1. Even though the figures show that 71% of mothers have ANC visits ≥4 times, there are still a small number of pregnant women who visit less than 4 times. Therefore, it is hoped that health institutions will carry out more intensive education and information programs for the community, especially families with a larger number of members, regarding the importance of ANC, its benefits for the health of pregnant women and babies, as well as the stages of ANC services provided at RSUD Karawang. .
2. It is hoped that health workers will provide comprehensive education and effective counseling to pregnant women and their families. Focus on explaining the benefits of prenatal visits, risks that may arise without good monitoring, and the importance of maintaining health during pregnancy so that there is an increase in the utilization rate of ANC services.
3. Future researchers are expected to be able to use a qualitative research approach to gain a deeper understanding of the perceptions, attitudes and beliefs of pregnant women regarding ANC services. Interview or focus groups discussions can open up space for rich and contextual narratives.

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