

## Correlation between Antenatal Care and Anxiety in Primigravida Pregnant Women at Glagah Community Health Center

Hawa Nur Salsabila<sup>1)</sup>, Sulistiawati<sup>2)</sup>, Ratna Dwi Jayanti<sup>1)</sup>

<sup>1)</sup>Faculty of Medicine, Universitas Airlangga

<sup>2)</sup>Public Health Medicine-Preventive Medicine

### ABSTRACT

**Background:** In the third trimester of pregnancy, the anxiety rate tends to increase, especially at the time of delivery. In addition, pregnant women who are less obedient in carrying out pregnancy tests and do not follow the integrated ANC. Therefore, pregnant women do not get information about preparation for childbirth so that when they are about to face labor, their anxiety increases. This study aims to analyze the relationship between Antenatal Care (ANC) Frequency and Anxiety in primigravida pregnant women in the third trimester at Glagah Health Center.

**Subjects and Method:** This is a quantitative study, which is observational analytic using a cross sectional approach. The number of samples was 94 subjects who were included in the inclusion criteria with purposive sampling technique. The study was conducted in September until October 2021. The dependent variable was anxiety. The independent variables were ANC frequency, age, education, economy, family support. Data were collected using a questionnaire and analyzed by chi-square test.

**Results:** The results showed that there was a significant relationship between frequency of ANC ( $p < 0.001$ ), education ( $p = 0.015$ ), socioeconomy ( $p = 0.042$ ), and family support ( $< 0.001$ ) on anxiety in third trimester primigravida pregnant women.

**Conclusion:** Anxiety in primigravida pregnant women was influenced by frequency of ANC, education, socioeconomy, and family support.

**Keywords:** ANC, anxiety, primigravida.

### Correspondence:

Sulistiawati. Faculty of Medicine, Universitas Airlangga. Jl. Mayjen Prof. Dr. Moestopo 47, Tambaksari, Surabaya, East Java 60132. Email: [sulistwt@hotmail.com](mailto:sulistwt@hotmail.com). Mobile: 08123076528.

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### BACKGROUND

The maternal mortality rate is one indicator of the success of efforts in assessing the degree of community welfare. Based on data from the Indonesian Health Profile, the maternal mortality rate in Indonesia in 2015 reached 305 per 100,000 live births. Although there is a tendency to decrease the maternal mortality rate, this figure has not succeeded in achieving the MDGs target

that must be achieved, which is 102 per 100,000 live births in 2015 (Ministry of Health RI, 2019).

The instability of the frequency of antenatal care (ANC) that is not carried out by pregnant women can lead to an increase in maternal morbidity, pregnancy abnormalities that are not detected and physical abnormalities that occur during delivery cannot be detected early (Ministry of

Health RI, 2018). Anxiety during pregnancy is a phenomenon that mostly occurs in third trimester of pregnant women before delivery. In East Java there were 679,765 pregnant women, and 355,873 mothers (52.3%) experienced anxiety in facing childbirth (Ministry of Health RI, 2014). In a study conducted by Sarifah in 2016, 22.5% of primigravida mothers experienced mild anxiety, 30% experienced moderate anxiety, 27.5% severe anxiety, and 20% experienced very severe anxiety.

One of the efforts that have been made by health workers to reduce anxiety rates in pregnant women is health education during ANC. Pregnant women can avoid unwanted risks due to pregnancy by carrying out good supervision of pregnancy, which is mothers carrying out integrated antenatal care (ANC) and making regular and routine visits to midwives and doctors (Missa et al., 2018).

Based on the above background, the purpose of this study was to determine the relationship between the frequency of ANC and the anxiety of primigravida pregnant women in third trimester at the Glagah Health Center.

## SUBJECTS AND METHOD

### 1. Study Design

This study was an observational analytic using a cross-sectional approach. This study was conducted at the Glagah Health Center from September to October 2021.

### 2. Population and Sample

The population in this study were primigravida pregnant women in the third trimester at Glagah Health Center. The sample used were 94 subjects who have fulfilled the inclusion criteria.

### 3. Study Variable

The dependent variable was the Anxiety of pregnant women primigravida in third trimester. The independent variables were the

frequency of ANC, age, economy, education and family support.

### 4. Definition of Operational Variable

**ANC Frequency** Antenatal visits are carried out by pregnant women during pregnancy, 6 times or more. The measuring instrument used is secondary data from the KIA/MCH book.

**Age** is the total age of the mother at the time of pregnancy. Which are grouped into 2. Risk group (<20 years old and >35 years old), non-risk group (20-35 years old).

**Education** is the mother's last diploma or the last education level owned by the subject.

**Economy** is a method carried out by an individual for all cumulative receipts of family income within one month to fulfill family needs.

**Family support** is a positive response from the family regarding the maternal pregnancy. Both material and psychological support.

**Anxiety** is the level of emotional state felt by the mother. By filling out a questionnaire on the level of anxiety of pregnant women. Which are categorized into 4 groups, including; no anxiety, mild anxiety, moderate anxiety, severe anxiety.

### 5. Study Instrument

The instrument used was a questionnaire to determine the level of maternal anxiety, and used secondary data from the number of maternal visits recorded in the MCH book. Questionnaires will be distributed if the mother agrees after informed consent has been obtained by the researcher.

The data collected includes age, education, economic status, health status, family support, and maternal emotional feelings during pregnancy.

### 6. Data Analysis

Analysis of the data from this study using the SPSS program with chi-square test to

determine the significance of the relationship between variables.

**7. Study Ethics**

This study was conducted with the approval of the study subject, without name, confidentiality, and ethical approval from the ethics committee of Faculty of Medicine, Universitas Airlangga which was declared ethically appropriate based on decision number: 157/EC/KEPK/FKUA/2021.

**RESULTS**

**1. The Characteristic of Study Subject**

Table 1 shows that the characteristics of most subjects in this study performed ANC more than 6 times by 48 subjects with a percentage of 51.1%. Based on the level of anxiety felt by pregnant women, most of them experienced mild anxiety by 37 subjects with a percentage of 39.4%.

**Table 1. The Characteristic of Study Subject**

Characteristic	Frequency (N)	Percentage (%)
<b>ANC Frequency</b>		
Adequate (>6 times)	48	51.1
Inadequate (>6 times)	46	48.9
<b>Level of Anxiety</b>		
No Anxiety	5	5.3
Mild Anxiety	37	39.4
Moderate Anxiety	32	34.0
Severe Anxiety	20	21.3

**DISCUSSION**

**1. The Relationship between Age and Anxiety in 3<sup>rd</sup> Trimester of Primigravida Pregnant Women**

The results of the Chi-square test analysis showed that there was no relationship between age and the anxiety of pregnant women. This is in line with previous Martini and Oktaviani (2016) which stated that there was no significant relationship between age and the level of anxiety felt by primigravida pregnant women in the third trimester.

**2. Univariate Analysis**

Table 2 shows that of the 94 subjects, most of the mothers had no risky age (20-35 years old) (94.7%), not working (64.0%), secondary education (63.8%), healthy (98.9%), family support (92.6%), pregnancy status (96.8%), gestational age of 8 months (55.3%), high economic status (59.6%), adequate frequency (51.1%), and mild anxiety level (39.4%).

**3. Bivariate Analysis**

Table 3 presents a bivariate analysis of the relationship between ANC Frequency and Anxiety of primigravida pregnant women in third trimester. From the results of the Spearman Rho test,  $p < 0.001$ , which mean that there was a relationship between ANC frequency and the anxiety of primigravida pregnant women in third trimester at Glagah Health Center.

Anxiety during pregnancy are normal conditions experienced by mothers, and it is common in every pregnancy. It is a process of natural adjustment to the physical and psychological changes that occur during pregnancy. With the enhancement of gestational age, the attention and thoughts of pregnant women begin to focus on something that is considered the climax, so that the anxiety and fear felt by pregnant women will intensify as the delivery process approaches (Astria et al., 2009).

**Table 2. Univariate analysis**

Variables	Frequency (N)	Percentage (%)
<b>Age</b>		
No Risk (20-35 years old)	89	94.7
At risk (<20 and >35 years old)	5	5.3
<b>Employment</b>		
Not employed	61	64.9
Employed	33	35.1
<b>Education</b>		
Primary education	7	7.4
Middle education	60	63.8
Higher education	27	28.7
<b>Nutritional Status</b>		
No CED	60	63.8
CED	34	36.2
<b>Health Status</b>		
Healthy	93	98.9
Not Healthy	1	1.1
<b>Family Support</b>		
Supporting	87	92.6
Not supporting	7	7.4
<b>Pregnancy Status</b>		
Wanted	91	96.8
Unwanted	3	3.2
<b>Gestational Age</b>		
7 months	21	22.3
8 months	52	55.3
9 months	21	22.3
<b>Economic Status</b>		
Low	38	40.4
High	56	59.6
<b>ANC Frequency</b>		
Adequate (>6 times)	48	51.1
Inadequate (>6 times)	46	48.9
<b>Level of Anxiety</b>		
No Anxiety	5	5.3
Mild Anxiety	37	39.4
Moderate Anxiety	32	34.0
Severe Anxiety	20	21.3

## 2. The Relationship between Education and Anxiety in 3<sup>rd</sup> Trimester of Primigravida Pregnant Women

From the results of the Spearman-Rho test that has been carried out in this study, it was found that there was a significant relationship between education and anxiety for primigravida pregnant women in third trimester. This is not in line with Vellyana, Lestari

and Rahmawati (2017). However, this study is in line with research conducted by Suyani (2020) which states that there is a relationship between maternal education level and anxiety in the third trimester of pregnant women.

Maternal education level has a significant influence on the anxiety they feel. A person's level of education is related to the

knowledge he has about specific problems, therefore, the higher the level of knowledge, the lower the level of anxiety (Suyani, 2020). The level of education of an individual will

also affect the process and ability to think so as to be able to capture new information easily (Hawari, 2016).

**Table 3. Bivariate Analysis of the Relationship between ANC Frequency and Anxiety in Third Trimester Primigravida Pregnant Women**

Independent variables	Level of Anxiety								P
	No Anxiety		Mild Anxiety		Moderate Anxiety		Severe Anxiety		
	n	%	n	%	n	%	n	%	
<b>ANC Frequency</b>									
Adequate	4	4.2	27	28.7	15	16	2	2.1	<0.001
Inadequate	1	1	10	11	17	18	18	19	
<b>Age</b>									
No risk	5	5.3	35	37.2	31	33.0	18	19.1	0.692
At risk	0	0	2	2.2	1	1.0	2	2.2	
<b>Education</b>									
Primary education	0	0	1	1.1	3	3.1	3	3.2	0.015
Middle education	4	4.2	21	22.3	20	21.3	15	16.1	
Higher education	1	1.1	15	16	9	9.6	2	2.1	
<b>Economy</b>									
High	1	1.1	22	23.4	24	25.5	9	9.6	0.042
Low	4	4.3	15	16.0	8	8.5	11	11.7	
<b>Family Support</b>									
Supporting	5	5.3	37	39.3	31	33.0	14	14.9	<0.001
Not Supporting	0	0	0	0	1	1.1	6	6.4	

### 3. The Relationship between Economic Status and Anxiety in 3<sup>rd</sup> Trimester of Primigravida Pregnant Women

The results of the Chi-square test analysis that has been carried out found that there was a relationship between economic status and anxiety for Primigravida pregnant women in third trimester. This is in line with Said et al. (2015) which stated that there was a relationship between the economy and the anxiety of primigravida mothers. However, in a study conducted by Velyana (2017) it is stated that there was no relationship between the economy and the anxiety of pregnant women.

Good economic status can guarantee the mother's physical and psychological health during her pregnancy, so as to pre-

vent anxiety in dealing with pregnancy due to emotional maturity. Pregnant women need an adequate family economy because pregnancy requires a special budget such as ANC costs, nutritious food for the mother and fetus, maternity clothes, delivery costs and the needs of the baby after birth (Ingewati, 2014). Someone with a low economic status tends to be more anxious and someone with a high economic status tends to be more relaxed. Worries and anxiety in pregnancy will have an impact and influence both physically and psychologically both for the mother and the fetus if it is not handled properly.

#### **4. The relationship between family support and anxiety in 3<sup>rd</sup> trimester of primigravida pregnant women**

The results of the Chi-Square test in this study stated that there was a significant relationship between family support and anxiety for pregnant primigravida pregnant women in the third trimester. This is in line with Septa (2019) which states that there is a relationship between the family support system and the anxiety level of pregnant women in third trimester.

During pregnancy, anxiety is often found. Anxiety is an emotional response without a specific object that is subjectively experienced and then communicated interpersonally. The existence of a good support system from all family members makes pregnant women feel cared for so that pregnant women will prioritize their own health and the health of the baby in their womb, namely by making regular visits to the Health Center or Hospital to perform Antenatal Care (Ike and Fujiana, 2021).

The form of family support can be in the form of positive appreciation for individuals, encouragement, approval of individual opinions, positive comparisons with other individuals, support and attention. This form of support will help individuals in building self-esteem and competence and emotional support includes expressions of empathy, concern and attention for the person concerned (Septa, 2019).

#### **AUTHORS' CONTRIBUTION**

In this study, Hawa Nur Salsabila and Sulistiawati collaborated to create a conceptual framework and methodology. Hawa Nur Salsabila collected the required data. Hawa Nur Salsabila, Sulistiawati, and Ratna Dwi Jayanti collaborated to analyze the data.

#### **FUNDING AND SPONSORSHIP**

This study used personal fund.

#### **CONFLICT OF INTEREST**

There are no conflicts of interest

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