

## The Relationship between Pregnant Women's Knowledge about High-Risk Pregnancy and Compliance with Antenatal Care (ANC) Visits

Nadia Ropida<sup>1</sup>, Evi Diliانا R<sup>2</sup>

<sup>1,2</sup>Fakultas Ilmu Kesehatan Universitas Muhammadiyah Mataram

### Article Info

#### Article history:

Accepted: 18 June 2022

Published: 19 June 2022

#### Keywords:

Knowledge, Woman

Pregnancy, ANC

### Abstract

*Pregnant women is a women who is pregnant, is pregnant mother should pay more attention to their health due to pregnancy and childbirth very rizky to the health of mother and baby, one important element of nutrition in pregnancy is iron, iron work for the formation of hemoglobin which transports oxygen and nutrients throughout the body tissue and helps the metabolisme to produce energy, if maternal iron deficiency will cause bleeding, impaired fetal growth in the womb to maternal and fetal death. The specific aims of this study identifies maternal knowledge about high risk pregnancies, maternal adherence in ANC visits, and analyzed the relationship between knowledge of pregnant women in ANC visits compliance. Types of research used in this study is the correlation with the analytic method used is accidental sampling is that every pregnant woman who came checkups that would be given the questionnaire respondents. In this study, the 35 respondents who met the inclusion criteria in a specified period. After a study found that there is a relationship of knowledge about the pregnant women with high risk pregnancies compliance ANC visits at the health center. Nearly half of the respondents (42.86% have less knowledge about high-risk.*

*This is an open access article under the [Lisensi Creative Commons Atribusi- BerbagiSerupa 4.0 Internasional](#)*



### Corresponding Author:

Evi Diliانا R

Universitas Muhammadiyah

Mataram Email:

[diliana.evi@gmail.com](mailto:diliana.evi@gmail.com)

## 1. INTRODUCTION

The maternal mortality rate in every minute of every day a mother dies is caused by complications related to pregnancy, childbirth and postpartum. The level of public health is determined by the Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR). In accordance with the results of the Indonesian Demographic Health Survey (SDKI), in 2012, MMR was 305 per 100,000 live births and IMR was 24 per 1000 live births. [1]

A pregnant woman is a woman who is pregnant. When pregnant, a mother must pay more attention to her health because pregnancy and childbirth are very risky for the health of the mother and baby.[2]

In an effort to assist the government in achieving a reduction in MMR in Indonesia, the government has a target of Antenatal service coverage (K1) of 100% and Antenatal service coverage (K4) of 98%. There is also a target of 60% coverage of early detection of high-risk pregnancy by the public and 40% coverage of early detection of high-risk pregnancy by health workers. Antenatal service coverage for Mataram City reached (K1) 97.93% of the target (100%) and Antenatal service coverage (K4) 91.24% of the target (98%). [3]

The changes experienced by pregnant women cause the mother's health condition and the health of the fetus to become vulnerable. These changes are completely normal, but may be very important if pregnancy complications or pregnancy problems occur. Mothers must have good knowledge about pregnancy so that they can adapt to the changes that occur.[4]

Mothers must routinely have their pregnancies checked so that the pregnancy

progresses as expected, because early supervision will help to monitor early any abnormalities in the pregnancy so that they can be treated immediately, this is also so that the mother can adapt well to the changes that occur. [5] Women in developing countries have a 100 or 200 times greater risk of dying during pregnancy or childbirth compared to women in developed countries. One of the most important factors in the high risk of maternal mortality in developing countries is health service factors, ignorance and non-compliance of pregnant women in pregnancy check-ups [6]

The level of knowledge and motivation of pregnant women regarding the benefits of ANC and motivates mothers to comply with regular ANC visits at the Community Health Center.[7] According to medical record data obtained from the Karang Taliwang Community Health Center, ANC service coverage in 2011 (K1) was 93.6% and service coverage (K4) was 91.2%. The coverage for early detection of high-risk pregnancy by the community is 10% and the coverage for early detection of high-risk pregnancy by health workers is 20%.

Pregnancy checks should be carried out at least four times during pregnancy, at least once in the first trimester of pregnancy, at least once in the second trimester and twice in the third trimester. The main factor that influences pregnant women's compliance with ANC is the knowledge factor, the knowledge they have will influence a person's behavior, especially health behavior. Behavior that is based on knowledge will be more lasting than behavior that is not based on knowledge.[8]

## 2. RESEARCH METHOD

The research used in this research is correlation analysis using a cross sectional approach, namely a type of approach where each research subject is only observed once, both for the cause variable (independent variable) and the effect variable (dependent variable) carried out together or all at once. [9] In this study, the population is all pregnant women who had their pregnancies checked at the Karang Taliwang Health Center, for the period January – June 2021. In this study, the data collected was primary and secondary data. Primary data is data obtained directly from research subjects (respondents) regarding pregnant women's knowledge about high-risk pregnancies through questionnaires filled in directly by respondents. Secondary data in this study concerns the results of ANC compliance coverage of pregnant women who have been sampled at the Karang Taliwang Community Health Center in the form of documentation data in the KIA book and register. The side technique used is consecutive sampling. The instruments in this research were questionnaires and checklists. The analysis technique in this research is descriptive analysis and bivariate analysis using Chi-Square.

## 3. RESEARCH RESULTS AND DISCUSSION

**Table 1.** Frequency Distribution Based on Age and Education among Pregnant Women at the Karang Taliwang Community Health Center

Characteristics	Frequency	Percentage
<b>1. Age</b>		
<20 years	14	40
20-35 years	20	57.14
>35 years	1	2.86
<b>Total</b>	<b>35</b>	<b>100</b>
<b>2. Education</b>		
Base	7	20

Intermediate	24	68.57
Tall	4	11.43
<b>Total</b>	<b>35</b>	<b>100</b>

Based on table 1, it can be seen that of the 35 respondents, almost half of the 14 respondents (40%) were <20 years old, most of the 20 respondents (57.14%) were 20-35 years old, and a small number of respondents (2.86%) were aged >35 years. Based on the table above, of the 35 respondents, a small number of seven respondents (20%) graduated from primary education, the majority of 24 respondents (68.57%) graduated from secondary education, and a small number of four respondents (11.43%) graduated from higher education.

Knowledge is influenced by various factors, including age and educational factors. Based on the results of Fathiyah's research (2020), pregnant women who undergo ANC regularly are in the age range of 20-35 years. This shows that the majority of pregnant women are in the healthy reproductive age range. The age of 20-35 years is a mature age for a woman so that at that age a person has great curiosity and concern about their pregnancy as well as a high level of awareness to make regular ANC visits.[10]

The level of education influences awareness of the importance of health both for oneself and the environment which can encourage the need for health services, including the importance of information about the benefits of antenatal visits for pregnant women. Information obtained from formal and informal education can have a short-term influence that can increase knowledge. [11]

**Table 2** Frequency Distribution of Pregnant Women's Knowledge About the High Risk of Pregnancy with Compliance with ANC Visits at the Karang Taliwang Community Health Center

Knowledge	ANC Visit Compliance				TOTAL		X <sup>2</sup>
	Obedient		Not obey		F	%	
	F	%	F	%			
Good	11	31.43	1	2.86	12	34.29	24,257
Enough	4	11.43	3	8.57	7	20	
Not enough	0	0	16	45.71	16	45.71	
Total	15	42.86	20	57.14	35	100	

Table 2 shows that of the 35 respondents, almost half, 12 respondents (34.29%) had good knowledge, a small number of seven respondents (20%) had sufficient knowledge, and almost half, 16 respondents (45.71%) had poor knowledge. Based on the level of compliance with ANC visits from 12 respondents (34.29%) who had Nearly half had good knowledge, 11 respondents (31.43%) complied with ANC visits, a small number of one respondent (2.86%) did not comply, of the seven respondents (20%) who had sufficient knowledge, a small portion was four respondents (11, 43%) complied with ANC visits and a small percentage of three respondents (8.57%) did not comply, and of the 16 respondents (45.71%) who had less knowledge, none complied with ANC visits and almost half of the 16 respondents ( 45.71%) were non-compliant.

The results of research on the level of compliance of respondents in carrying out ANC showed that the majority of respondents were not compliant, as many as 20 respondents (57.14%), this result can be concluded that pregnant women have not behaved in a healthy lifestyle, namely they are not compliant in carrying out ANC examinations. An individual's compliant attitude in behaving towards health regulations is generally

influenced by internal and external factors of the individual concerned. The internal factors of pregnant women that may influence their non-compliance behavior include age and education. External factors that influence the formation of obedient behavior in carrying out ANC examinations are support from health workers and the availability of ANC service infrastructure.[4]

Knowledge is one of the indicators that makes a person take action, and when someone takes action based on good knowledge, that person will understand the importance of carrying out Antenatal Care checks, and will make more regular routine visits to the Community Health Center. Knowledge is indeed needed to support and grow a person's self-confidence as well as attitudes and behavior in every action and is the main factor in supporting a person's actions. [12]

According to Wahyu (2018), an adequate level of knowledge of pregnant women will make pregnant women more compliant in carrying out ANC, whereas if their knowledge is lacking then pregnant women will not be compliant in carrying out ANC. Pregnant women's non-compliance in carrying out ANC can result in various complications that can affect the pregnancy being unknown so that they cannot be treated immediately. Several factors cause non-compliance with ANC implementation, namely, laziness, the long distance between home and health service facilities, and lack of motivation to carry out ANC from health services such as Community Health Centers. [4]

Based on table 2, it also shows that the calculated  $X^2$  value is  $24.257 > X^2$  Table, namely 5.99, which states that there is a significant relationship between knowledge and compliance of pregnant women in making ANC visits at the Karang Taliwang Health Center. Based on Citrawati (2021) stated that there is a significant relationship between the level of knowledge of pregnant women about antenatal care at the Tampaksiring II Community Health Center, where from the research results it was found that out of 30 respondents there were 25 respondents who had good knowledge of carrying out regular antenatal care visits while 5 respondents had Insufficient knowledge and irregular antenatal care visits.[12]

#### **4. CONCLUSION**

Based on the results of the research that has been carried out, the following conclusions can be drawn:

1) Nearly half (34.29%) had knowledge in the good category; 2) The majority (57.14) have a level of compliance in the non-compliant category; 3) There is a significant relationship between knowledge and compliance of pregnant women in making ANC visits at the Karang Taliwang Community Health Center.

#### **5. ACKNOWLEDGEMENT**

The author would like to express his thanks to the Dean of the Faculty of Health Sciences, the Head of the Karang Taliwang Community Health Center, the KIA Coordinating Midwife and all the Lecturers in the Undergraduate Midwifery Study Program who have helped a lot in this research process.

#### **6. BIBLIOGRAPHY**

- [1] Kemenkes.RI, "Survei Demografi Kesehatan Indonesia," Jakarta,Indonesia, 2012.
- [2] I. B. Manuaba, ILMU KEBIDANAN PENYAKIT KANDUNGAN DAN KELUARGA BERENCANA UNTUK PENDIDIKAN BIDAN, 1st ed. Jakarta: EGC, 2012.
- [3] Dinas Kesehatan NTB, "Profil Kesehatan Provinsi NTB 2020," Mataram, 2020. Accessed: Jun. 13, 2020. [Online]. Available:

- <https://drive.google.com/file/d/1t16DZD9yqTRIL-rvenjJ5QSkp9vDrTUG/view>.
- [4] W. N. Suciani, "HUBUNGAN ANTARA PENGETAHUAN IBU HAMIL DENGAN KEPATUHAN PELAKSANAAN ANTENATAL CARE DI PUSKESMAS DAWE KABUPATEN KUDUS," *Pros. HEFA*, vol. 2, no. 2, 2018, Accessed: Jun. 13, 2022. [Online]. Available: <https://prosiding.stikescendekiautamakudus.ac.id/index.php/pros/article/view/346>.
- [5] Nonik Ayu Wantini, "FAKTOR YANG BERHUBUNGAN DENGAN KUALITAS TIDUR IBU HAMIL TRIMESTER III DI WILAYAH PUSKESMAS BERBAH, SLEMAN, DIY | | Prosiding Seminar Nasional Multidisiplin Ilmu," *Pros. Semin. Nas. UNRIYO*, no. DESEMBER, pp. 526–534, 2020, Accessed: Mar. 08, 2022. [Online]. Available: <http://prosiding.respati.ac.id/index.php/PSN/article/view/322>.
- [6] F. S. Hati and P. Lestari, "Pengaruh Pemberian Stimulasi pada Perkembangan Anak Usia 12-36 Bulan di Kecamatan Sedayu, Bantul," *J. Ners dan Kebidanan Indones.*, vol. 4, no. 1, p. 44, Jun. 2016, doi: 10.21927/jnki.2016.4(1).44-48.
- [7] S. Umamah, D. R. Faozah, and D. Raidanti, "Gambaran Pengetahuan Ibu Hamil Tentang Pentingnya Pemeriksaan Antenatal Care Di BPM Umi Aisyah, A.Md.Keb Di VIP, Kelurahan, Teluk Pucung, Kecamatan Bekasi Utara, Kota Bekasi. Tangerang," *J. JKFTUniversitas Muhammadiyah Tangerang*, vol. 5, no. 1, pp. 32–40, 2020.
- [8] M. Khaidir, "ANEMIA DEFISIENSI BESI," *J. Kesehat. Masy. Andalas*, vol. 2, no. 1, pp. 140–145, Sep. 2007, doi: 10.24893/JKMA.V2I1.23.
- [9] S. Notoatmodjo, *Ilmu Prilaku Kesehatan*. Jakarta: Rineka Cipta, 2015.
- [10] N. Fatkhiyah, S. T. Rejeki, and D. Atmoko, "KEPATUHAN KUNJUNGAN ANTENATAL CARE BERDASARKAN FAKTOR MATERNAL," *J. SMART Kebidanan*, vol. 7, no. 1, pp. 29–34, 2020.
- [11] F. Farhani, "Hubungan Tingkat Pendidikan dengan Pengetahuan Ibu Hamil tentang Hubungan Seksual Saat Kehamilan Di Wilayah Sukabumi Utara," Universitas Islam Negeri Syarif Hidayatullah, 2014.
- [12] N. ketut Citrawati and I. P. Satya Laksmi, "Hubungan Pengetahuan Ibu Hamil tentang ANC terhadap Kepatuhan Kunjungan ANC Di Puskesmas Tampak Siring II," *J. Keperawatan Sriwij.*, vol. 8, no. 2, pp. 19–26, 2021.