

## THE RELATIONSHIP BETWEEN THE REGULARITY OF ANTENATAL CARE EXAMINATIONS AND DISASTER PREPAREDNESS IN PREGNANT WOMEN AT THE KEBON EMPTY VILLAGE HEALTH CENTER KEMAYORAN DISTRICT

Illa Arinta<sup>1</sup>, Devi Yulianti<sup>2</sup>, Marsha Insyira Efendi<sup>3</sup>, Thesya Eka Putri<sup>4</sup>

<sup>1,2</sup>Lecturer of the Midwifery Study Program, STIKes RSPAD Gatot Soebroto

<sup>3,4</sup>Students of the Midwifery Study Program, STIKes RSPAD Gatot Soebroto

Email: illa\_arinta@stikesrspadgs.ac.id

### ABSTRAK : HUBUNGAN ANTARA KETERATURAN PEMERIKSAAN ANTENATAL DAN KESIAPAN BENCANA PADA WANITA HAMIL DI PUSAT KESEHATAN DESA KEBON EMPTY, DISTRIK KEMAYORAN

Latar Belakang: Kondisi ibu sebelum dan selama kehamilan sangat menentukan kondisi bayi yang lahir. Perdarahan pascapersalinan dikaitkan dengan anemia pada masa remaja dan selama kehamilan. Ibu hamil dengan anemia berisiko melahirkan bayi dengan berat badan lahir rendah. Jika BBLR (Perdarahan Pascapersalinan) tidak ditangani dengan benar, hal ini berisiko menyebabkan kematian dan stunting. WHO mengeluarkan rekomendasi untuk pelayanan antenatal yang bertujuan untuk memberikan pengalaman kehamilan yang positif bagi ibu dan mengurangi angka kematian dan kesakitan ibu dan anak yang disebut sebagai Model ANC WHO 2016, ANC dilakukan minimal 6 kali dengan minimal kontak dengan dokter 2 kali untuk skrining faktor risiko/komplikasi kehamilan pada trimester pertama dan 1 kali skrining faktor risiko persalinan pada trimester ketiga.

Tujuan: Untuk mengetahui hubungan antara keteraturan pemeriksaan perawatan antenatal dan kesiapsiagaan bencana pada ibu hamil di Puskesmas Kebon Kosong, Kecamatan Kemayoran.

Metode Penelitian ini menggunakan metode deskriptif kuantitatif dengan pendekatan cross-sectional dengan survei analitis di Puskesmas Kemayoran pada satu waktu yang sama. Instrumen yang digunakan adalah kuesioner dengan sampel dalam penelitian ini berupa incidental sampling, yaitu seluruh ibu hamil di Puskesmas Kebon Kosong, Kabupaten Kemayoran.

Hasil. Responden dengan kesiapan baik yang secara rutin melakukan kunjungan antenatal berjumlah 5,8% dan responden dengan kesiapan buruk tetapi tidak teratur dalam melakukan kunjungan antenatal berjumlah 38,2%. Sementara itu, responden dengan kesiapan kurang tetapi secara rutin melakukan kunjungan antenatal berjumlah 26,6% dan terdapat 29,4% responden dengan kesiapan kurang tetapi tidak teratur dalam melakukan kunjungan antenatal. Sementara itu, nilai p adalah  $0,035 < 0,05$  yang berarti terdapat hubungan yang signifikan antara pemeriksaan perawatan antenatal dan kesiapsiagaan bencana.

Kesimpulan: Terdapat hubungan yang signifikan antara pemeriksaan perawatan antenatal dan kesiapsiagaan bencana dengan nilai p sebesar  $0,035 < 0,05$ .

Kata kunci: ANC, Kesiapsiagaan, Bencana

### ABSTRACT

Background: The mother's condition before and during pregnancy greatly determines childbirth with the condition of the baby being born. Postpartum bleeding is associated with anemia in adolescence and during pregnancy. Pregnant women with anemia are at risk of giving birth to babies with low birth weight. If BBLR is not handled properly, it has a risk of death and stunting. WHO issued a recommendation for antenatal services that aims to provide a *positive pregnancy experience* for mothers and reduce maternal and child mortality and morbidity rates referred to as the 2016 WHO ANC Model, ANC is carried out at least 6 times with a minimum of contact with a doctor 2 times for screening for risk factors/pregnancy complications in the 1st trimester and 1x screening for childbirth risk factors in the 3rd trimester.

Objective: To find out the relationship between the regularity of antenatal care examinations and disaster preparedness in pregnant women at the Kebon Kosong Village Health Center, Kemayoran District.

Method. This study uses a quantitative descriptive method with a *cross sectional* approach with an analytical survey at the Kemayoran District Health Center at one time at the same time. The instrument used was

a questionnaire with the sample in this study being *incidental sampling*, namely all pregnant women at the Kebon Kosong Village Health Center, Kemayoran District.

Result. Respondents with good preparedness who regularly conduct antenatal care visits with a percentage of 5.8% and respondents with poor preparedness but irregular in conducting antenatal care visits are 38.2%. Meanwhile, respondents with less preparedness but regularly in conducting antenatal care visits with a percentage of 26.6% and there were 29.4% of respondents with less but irregular preparedness in conducting antenatal care visits. Meanwhile, the *p-Value* is  $0.035 < 0.05$  which means that there is a significant relationship between antenatal care examination and disaster preparedness

Conclusion : There was a significant relationship between antenatal care examination and disaster preparedness with a *p-Value* of  $0.035 < 0.05$ .

Keywords: ANC, Preparedness, Disaster

## INTRODUCTION

Indonesia is located in the *Pacific Ring of Fire* area, which is included in the area of risk of natural disasters that are quite high, because of the location of the area between volcanic clusters and the meeting point of the earth's plates. Based on BNPB information and communication data in 2023, Indonesia has 5,400 incidents, consisting of 2,051 fire disasters, 591 landslides, 174 drought incidents, 31 earthquakes, 33 tidal waves and abrasion events, and 4 volcanic eruptions. There were 8,491,288 disaster victims who suffered and were displaced, 275 people died, 33 people were missing, and 5,795 people were injured due to the impact of the disaster.

The Ministry of Health's Strategic Plan for 2020-2024 states that the general conditions and health problems of mothers and children in Indonesia include: Maternal Mortality Rate (AKI) of 305 per 100,000 live births (SUPAS, 2015) and Neonatal Mortality Rate (AKN) of 15 per 1000 live births (SDKI, 2017). The target of the 2024 RPJMN is AKI 183 per 100,000 live births and AKN 10 per 1000 live births. The following are the targets for reducing AKI and reducing AKN in 2020 – 2024, The main cause of maternal mortality is hypertension in pregnancy and postpartum hemorrhage. Meanwhile, the cause of death in the perinatal group was caused by intrapartum complications as much as 28.3% and babies with Low Birth Weight (BBLR) as much as 19% (SRS, 2016).

Based on Riskedas, there was a significant increase in cases related to anemia in pregnant women from 37.1% in 2013 to 48.9% in 2018. Meanwhile, access to health services has increased, as shown by the number of births in health care facilities has increased from 55.3% (Riskedas, 2010) to 79.3% (Riskedas, 2018) and the coverage of the first pregnancy examination (K1) has increased from 96.1%. The coverage of 4

pregnancy examinations (K4) increased from 70.4% (Riskedas, 2013) to 74.1% (Riskedas, 2018). Ante Natal Care (ANC) services in Indonesia refer to the WHO recommendation in 2001 to conduct a minimum of 4 visits called the Focused Antenatal Care (FANC) Model.

In 2016, WHO issued a recommendation for antenatal services that aims to provide a positive pregnancy experience for mothers and reduce maternal and child mortality and morbidity rates called the 2016 WHO ANC Model. All of this is provided by clinically competent health workers and have good interpersonal skills to pregnant women during the pregnancy process. One of the recommendations from WHO is that in normal pregnant women, ANC is carried out at least 8 times, after adaptation to related professions and programs, it is agreed in Indonesia, ANC is carried out at least 6 times with a minimum of contact with a doctor 2 times for screening for risk factors/complications of pregnancy in the 1st trimester and 1x screening for risk factors for childbirth in the 3rd trimester.

## RESEARCH METHODS

This study uses a quantitative descriptive method with a *cross sectional* approach with an analytical survey at the Kemayoran District Health Center at one time at the same time. (Sugiyono, 2014). This research will be carried out at the Kebon Kosong Village Health Center, Kemayoran District in 2025. The population in this study is all pregnant women at the Kebon Kosong Village Health Center, Kemayoran District, The sample in this study is *incidental sampling*, namely all pregnant women at the Kebon Kosong Village Health Center, Kemayoran District. The primary data was by using a questionnaire on pregnant women at the Kebon Kosong Village Health Center, Kemayoran District. Data analysis was carried out

with the help of SPSS. The data will be analyzed univariate and bivariate.

## RESEARCH RESULTS

### Univariate Analysis

**Table 1**  
**Frequency distribution based on ANC visits, Preparedness, Maternal Education, Maternal Work In pregnant women at the Kebon Kosong Village Health Center, Kemayoran District**

Variable	Sum	%=100%
ANC Visit		
Obedient	15	44,1 %
Non-compliant	19	55,9 %
Preparedness		
Ready	11	32,4%
Not on standby	23	67,6%
Education Level		
Tall	9	26,5%
Low	25	73,5%
Work		
Work	13	61,8%
Not working	21	38,2%

Based on Table 1, it can be concluded that the distribution of the frequency of ANC visits to mothers is dominated by non-compliance, which is 55.9%, while preparedness (>56%) was obtained by 23 respondents (67.6%); Maternal education is dominated by mothers with basic education as many as 25 respondents (73.5%); Maternal employment was dominated by non-working mothers with a lot of 21 respondents (61.8%).

### Bivariate Analysis

Based on table 2, respondents with good preparedness who regularly conduct antenatal care visits with a percentage of 5.8% and respondents with poor preparedness but irregular in conducting antenatal care visits are 38.2%. Meanwhile, respondents with less preparedness but regularly in conducting antenatal care visits with a percentage of 26.6% and there were 29.4% of respondents with less but irregular preparedness in conducting antenatal care visits. Meanwhile, the *p-Value* value is  $0.035 < 0.05$ , which means that there is a significant relationship between antenatal care examination and disaster preparedness.

**Tabel 2**  
**The Relationship between Regular Antenatal Care Examinations and Disaster Preparedness in Pregnant Women at the Kebon Kosong Village Health Center, Kemayoran District**

Disaster preparedness	Antenatal care visits						<i>p-Value</i>
	Orderly		Irregular		Sum		
	N	%	N	%	N	%	
Ready	2	5,8	13	38,2	15	44	0,035
Not on standby	9	26,6	10	29,4	19	56	

## DISCUSSION

### Frequency Distribution of Disaster Preparedness, Mother's Last Education, Mother's Work, and ANC Visits

#### Preparedness

According to Kartika (2022), disaster preparedness is an effort of activities carried out to anticipate the possibility of a disaster through the organizing stage and through appropriate steps to avoid casualties and property losses, and factors that can affect the level of preparedness include education and experience (Kartika et al. 2022) This is also in line with previous research conducted by Rifa Andini (2023) which examined the level of preparedness facing a tsunami in the community of Caringin Village, Labuan District, Pandeglang Regency in the future. The results of the study illustrate that preparedness is high/very ready as

much as (97%). People who have experienced disasters in the past will tend to learn to deal with disasters in the future, so that people know what to do when disasters occur. The community also knows most of the causes of disasters, what their families should do, signs and signals that indicate that disasters will occur, and are aware of the importance of preparedness in dealing with disasters in the future (Andini 2021).

Based on the results of the very ready preparedness, the better a person's behavior about disasters, the better prepared a person will be to face disasters. People who already have high preparedness will be better prepared to reduce the impact of the risk of future natural disasters, therefore, in pregnant women who have experienced disasters they will increase preparedness so that they do not feel anxiety, trauma and feel the same difficulties if they feel the

disaster again, because they pregnant women will have preparedness and have the same anticipation to face future natural disasters (Febe and Simaremare 2022).

#### Education

Education is a basic human need that is needed for self-development, the higher the level of education, the easier it is for a person to obtain and develop science and technology. Education level is a predisposing factor for behavior. The mother's education level greatly affects the frequency of antenatal care visits, so the more the mother understands the importance of conducting antenatal care visits (Luciana et al., 2022). Based on research by Yanti (2021), it shows that almost all pregnant women who have a final high school education (76.5%) are compliant in conducting antenatal care (anc) visits, while almost all pregnant women with basic education (sd) (80%) are not compliant in doing antenatal care (anc).

In Mantao (2018) research, data showed that as many as 83.89% of pregnant women with elementary school education levels complied with health check-up visits. Then the level of junior and senior high school education that complied with the inspection visit was 89.16% and those with higher education were 93.72% of the total university sample. So the level of education is one of the main factors for pregnant women in carrying out antenatal care examinations because the higher the level of education of pregnant women, and vice versa, if the lower the level of education of a pregnant woman, the ability to gain knowledge and obtain information about the importance of anc examinations will be less. However, this is different from the research of palancoi (2021) which shows that there is no relationship between the length of education and ANC compliance, respondents who have long education and non-compliance in carrying out antenatal care are the majority of 51 people, in this study, the compliance of pregnant women can only be influenced by the mother's employment status, however, not by the length of education.

#### Work

In Niken (2020's study), out of 78 respondents, 61 respondents were pregnant women who did not work, out of 61 respondents, 33 (54.1%) respondents who conducted minimum standard examinations, then 28 (45.9%) respondents who conducted examinations exceeded the minimum standards. Furthermore, pregnant women who worked as many as 17 respondents, out of 17 respondents, 16 (94.1%) respondents who carried

out examinations exceeded the minimum standards, then 1 (5.9%) respondents who carried out minimum standard examinations, so mothers who did not work could comply with antenatal care examinations. This research contradicts the research of Sari (2023) with the results of the study that most of the work of pregnant women as IRTs (housewives) with a total of 26 people (70.3%) with non-compliance with antenatal care, because mothers who do not work tend to have no costs in reaching health facilities.

According to the researcher's assumption, pregnant women who work with high and dense activities prefer to prioritize their careers compared to their own health, so it is difficult to be compliant in conducting antenatal care visits compared to housewives who have more free time to be able to arrange and schedule antenatal care visits optimally, and the economic status of mothers who do not work affects the level of compliance with antenatal care examinations.

#### **The Relationship between the Regularity of Antenatal Care Examinations and Disaster Preparedness in Pregnant Women at the Kebon Kosong Village Health Center, Kemayoran District**

Respondents with good preparedness who regularly conduct antenatal care visits with a percentage of 5.8% and respondents with poor preparedness but irregular in conducting antenatal care visits are 38.2%. Meanwhile, respondents with less preparedness but regularly in conducting antenatal care visits with a percentage of 26.6% and there were 29.4% of respondents with less but irregular preparedness in conducting antenatal care visits. Meanwhile, the *p-Value* value is  $0.035 < 0.05$ , which means that there is a significant relationship between antenatal care examination and disaster preparedness.

According to (Niken & Andri, 2020), the main thing that results in the occurrence of many victims due to disasters is the lack of preparedness about disasters and lack of preparedness in anticipating the disaster. The importance of disaster management is because it is one of the important elements of preparedness from disaster risk reduction activities. According to (Kusno, 2019) Preparedness plays a very important role when facing disasters. With the knowledge they have, it can affect attitudes and concerns to be ready to be ready in anticipating disasters, especially for those who live in disaster-prone areas such as floods. (Silviani et al., 2022) Preparedness is also one of the processes of disaster management, the

importance of preparedness is one of the important elements of disaster risk reduction prevention activities. (Habibi & Suratini, 2021). ANC compliance improves maternal knowledge and readiness in planning childbirth, including the selection of health facilities with adequate obstetric and neonatal readiness.

### CONCLUSION

From the calculations and statistical tests carried out, the following results were obtained:

1. The distribution of the frequency of ANC visits to mothers is dominated by non-compliance by 55.9%.
2. Preparedness (>56%) was obtained by 23 respondents (67.6%).
3. Maternal education was dominated by mothers with basic education as many as 25 respondents (73.5%).
4. Maternal employment was dominated by non-working mothers with as many as 21 respondents (61.8%).
5. The *p-Value* was  $0.035 < 0.05$ , which means that there is a significant relationship between antenatal care examination and disaster preparedness.

### SUGGESTION

1. Kemayoran District Health Center Health Workers of the Health Center of Kebon Kosong Village, Kemayoran, Central Jakarta collaborate with posyandu cadres, and community leaders to conduct joint learning, discussion and exchange experiences about disaster preparedness in accordance with the vision of STIKES RSPAD Gatot Soebroto maternal and child health (KIA) in a comprehensive and systematic manner and can be carried out on a scheduled and continuous basis as a program of STIKES RSPAD Gatot Soebroto in the fostered areas that have been determined by the official tribe. Central Jakarta Health.
2. STIKes RSPAD Gatot Soebroto  
It is hoped that it can add to the collection of books on preparedness in pregnant women in the library and it is hoped that the results in this study can be used as reference material for future research.
3. For Further Researchers  
Expand the scope of research with more samples and wider variables. And for future researchers to be even better at exploring and developing information about the class of pregnant women in the future.

### REFERENCES

- Andini, Rifa. 2021. "The Effect of Disaster Experience on Tsunami Preparedness in the Community of Caringin Village, Labuan District, Pandeglang Regency." Repository.Uinjkt.Ac.Id: 1–94. [https://repository.uinjkt.ac.id/dspace/bitstream/123456789/61262/1/11170150000040\\_Rifa Andini - RIFA ANDINI MHS 2017.pdf](https://repository.uinjkt.ac.id/dspace/bitstream/123456789/61262/1/11170150000040_Rifa%20Andini%20-%20RIFA%20ANDINI%20MHS%202017.pdf)
- Febe, and Sri Junita Simaremare. 2022. "The Relationship of Disaster Experience with Preparedness of Pregnant Women to Face Flood Disasters in Jati Murni Village, Bekasi." *Journal of Midwifery* 14(01): 102–10.
- Habibi, M. G., & Suratini. (2021). The Relationship between Knowledge Level and Preparedness for Earthquake Disasters in Students at SMA 1 Pundong Bantul. (Doctoral Dissertation, Aisyiyah University of Yogyakarta), 1–75
- Kartika, Kalpana et al. 2022. "The Relationship of Knowledge and Experience with Earthquake Disaster Preparedness in the Community in RT 01, RW 01Kuranji in 2022." *Journal of Education and Counseling* 4: 1349–58. <https://journal.universitaspahlawan.ac.id/index.php/jpdk/article/view/8838>.
- Luciana, L., Zaman, C., & Wahyudi, A. (2022). Analysis of Antenatal Care (ANC) Visits Compliance at UPTD Tanjung Agung Health Center, Ogan Komering Ulu Regency. *Saelmakers Health Journal Press*, 5(2), 273–280. <https://doi.org/10.32524/jksp.v5i2.666>
- Mantao, E., Dara, M., Suja, D., Society, I. K., Medicine, F., Society, K., Mada, U. G., & Back, L. (2018). The level of education of mothers with obedience. *Veterinary Medicine*, 34(5), 8.
- Ministry of Health of the Republic of Indonesia. (2015). *Guidelines for Balanced Nutrition*. Jakarta
- Ministry of Health of the Republic of Indonesia. (2015). *Guidelines for Dealing with Chronic Energy Deficiency (SEZ) in Pregnant Women*. Jakarta
- Ministry of Health of the Republic of Indonesia. (2015). *Guidelines for the Management of Blood Supplemental Tablets*. Jakarta
- Ministry of Health of the Republic of Indonesia. (2019). *Technical Instructions for Dietary Supplements for Toddlers and Pregnant Women*. Jakarta

- Ministry of Health of the Republic of Indonesia. (2020). KIA Book on Maternal and Child Health. Jakarta
- Niken Pradita Syafitri, Puji Astuti Wiratmo, & Widanarti Setyaningsih. (2020). The Relationship of Socioeconomic Status of Pregnant Women to Antenatal Care Visits. *Binawan Student Journal*, 2(2), 237–241. <https://doi.org/10.54771/bsj.v2i2.164>
- Palancoi, N. A., M, Y. I., & Nurdin, A. (2021). The Relationship between Age, Length of Education, Occupation, and Maternal Parity with the Level of ANC Compliance at Syekh Yusuf Hospital, Gowa Regency in 2018. *UMI Medical Journal*, 6(1), 54–61. <https://doi.org/10.33096/umj.v6i1.106>
- PP MORNING. Guidelines for Pregnancy Implementation of Pregnancy Complications. Jakarta World Health Organization. (2012). Guideline: Daily Iron And Folic Acid Supplementation In Pregnant Women. Geneva
- Sari, D. I., Wahyuni, N., Sucipto, C. D., & Indah, D. S. (2021). The relationship between knowledge, parity, maternal work and the regularity of pregnant women's visits to ANC during the Covid-19 pandemic. *Journal of Primary Health*, 6(1), 22–31. <http://jurnal.poltekeskupang.ac.id/index.php/jkp/article/view/530>
- Silviani, Y. E., Supriyanto, G., & Fadillah, C. (2022). The Relationship between Adolescent Knowledge and Preparedness in Dealing with Flood Disasters in Students of SMPN 11 Bengkulu City. *Journal of Midwife Mandira Cendikia*, 1(2), 60–65.
- Yanti, N. I. D., Krisnana, I., & Lestari, P. (2021). The Relationship of Education Level with Antenatal Care Compliance in Primigravida Early Marriage History. *Indonesian Midwifery and Health Sciences Journal*, 3(2), 98–106. <https://doi.org/10.20473/imhsj.v3i2.2019.98-106>