

Research Article

Knowledge, Attitude, and Utilization of Antenatal Care in Kupang City, East Nusa Tenggara, Indonesia

Firda Kalzum Kiah^{1*}, Lilik Zuhriyah² and I Wayan Agung Indrawan³

¹Master of Midwifery Student, Faculty of Medicine, Brawijaya University, Malang, East Java, Indonesia Polytechnic Health Ministry of Kupang, East Nusa Tenggara, Indonesia. (kalzum_firda@yahoo.com)

²Department of Public Health Science, Faculty of Medicine, Brawijaya University, Malang, East Java, Indonesia

³Department of Obstetrics and Gynaecology, Saiful Anwar Hospital, Malang, East Java, Indonesia

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Abstract: **Introduction** – Antenatal Care (ANC) is one of the four pillars of maternal safety, an initiative to promoted and improved health during pregnancy and the early postpartum period, through prevention and management of pregnancy and childbirth. ANC Visit is an indicator to determine pregnant women's access to ANC. The utilization of ANC is depending on personal behavior that influences knowledge and attitude. The study aimed to describe the knowledge, attitudes, and utilization of ANC in Kupang City, East Nusa Tenggara, and Indonesia. **Methods** – The study was used a descriptive study with a cross-sectional approach. The study was conducted from March to June 2020 at four community health centers in Kupang City, which were selected randomly. The subjects of the study were pregnant women with gestational age ≥ 36 weeks and having the Maternal and Child Health (MCH) Handbook. A total sampling technique was applied to obtain the respondent. Data were collected using a questionnaire and a Maternal and Child Health Handbook. **Results** – 120 pregnant women participated in the study. The results show that majority of the respondent (86.7%) have good knowledge. More than half of the respondents (62.5%) have a positive attitude in the utilization of ANC. Seventy-one (59.2%) of the respondents have completed the ANC visit as scheduled. **Discussion** – Knowledge and attitude are the cornerstones of the utilization of ANC among pregnant women. The other factors that involve age, educational background and parity have a precise role in the adherence of ANC visits.

Keywords: Antenatal Care Visits, Attitude, Knowledge.

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INTRODUCTION

Maternal Mortality Rate (MMR) is an important indicator in assessing health status and the success of health sector development because of its sensitivity to improving health services in terms of accessibility and quality. This indicator is influenced by the status of health, education, and services during pregnancy and birth. Maternal mortality cases include deaths of pregnant women, women who give birth, and postpartum mothers (Indonesian Ministry of Health, 2018). The government has made efforts to reduce MMR through the Ministry of Health by launching a safe motherhood initiative, a mother-loving movement, a Making Pregnancy Safer strategy, and the Expanding Maternal and Neonatal Survival (EMAS) program. Antenatal Care (ANC) is one of the four pillars of safe motherhood initiatives to promote and improve health during pregnancy and early postpartum, through prevention and management of complications of pregnancy and childbirth (Tekelab *et al.*, 2019). Coverage of first visit (K1) and visit 4 times (K4) during pregnancy is an indicator that describes the

access of pregnant women to health workers who have the competence and authority according to health service standards, namely midwives, obstetrician, trained doctors and nurses (Indonesian Ministry of Health., 2014; Kupang city health office., 2018).

There are several benefits of ANC. Unfortunately, the utilization of ANC in developing countries is still weak (Dulla *et al.*, 2017). Moreover, about half a million women die from complications during pregnancy, childbirth, 6 weeks postpartum, and nearly all deaths (99%) occur in developing countries. The utilization of ANC was associated with improving the health status of mothers and children, especially fetal development and maternal health. These benefits can be achieved only by early and regular antenatal care visits during pregnancy (WHO, 2007).

According to Green's theory, health behavior can be influenced by three factors i.e first, predisposing factors that are manifested in knowledge, attitudes, beliefs, and beliefs. Second, the supporting factors

(enabling factors), namely the physical environment, the availability of health facilities or facilities, such as health centers, examination tools, and medicines. Third, the reinforcing factor, namely the group that becomes a reference for community behavior such as the attitudes and behavior of health workers or other figures (Notoatmodjo, 2014). The utilization of ANC was indirectly influenced by knowledge and environmental factors (Gustina, 2018). Additionally, the behavior was influenced by knowledge and attitudes (Notoatmodjo, 2014). Meanwhile, the knowledge was influenced by several factors such as age, education, experience, environment, culture, and facilities. Based on data obtained from the Profile of the Kupang City Health Office in 2018, not all community health centers (CHCs) in Kupang City had reached the target of K4 coverage for pregnant women in the Kupang City Health Office's Strategic Plan, which is 85 %. Of the 11 CHCs in Kupang City, only 6 CHCs (54.5%) achieved the K4 target. This study aimed to describe the knowledge, attitudes, and visiting rate of ANC in Kupang City.

METHODS

This is a descriptive study with a cross-sectional approach. The study was conducted from March to June 2020 in four CHCs in Kupang City. These four CHCs were randomly selected. The study participants were pregnant women with gestational age ≥ 36 weeks. A total sampling technique was used to obtain participants in the study. Data were collected using a questionnaire and the Maternal and Child Health Handbook. The study was approved by the Institutional Review Board with the number LB.02.03/1/0032/2020.

RESULTS

There were 120 pregnant women participated in this study. The age of the respondents was the majority (83.3%) aged 20-35 years. Half of the respondents (63 pregnant women) have senior high school background. One-third (91 pregnant women) of the respondents are household. In terms of parity, more than half (68 pregnant women) of the respondents are multigravida (see **Table 1.**).

Table 1. Characteristics of Respondents

| Variable | n = 120 | % |
|--------------------|---------|------|
| Age | | |
| < 20 years | 5 | 4,2 |
| 20-35 years | 100 | 83,3 |
| > 35 years | 15 | 12,5 |
| Education | | |
| Elementary School | 23 | 19,2 |
| Senior High School | 63 | 52,5 |
| High School | 34 | 28,3 |
| Occupation | | |
| Household | 91 | 75,8 |
| Employee | 29 | 24,2 |
| Parity | | |
| Primigravida (1) | 52 | 43,3 |
| Multigravida (>1) | 68 | 56,7 |

Knowledge, Attitude, and the Utilization of Antenatal Care

The respondents' level of ANC knowledge was the majority at a good level (86.7%). Only 62.5%

of the respondent have a positive attitude by following the ANC visit schedule. Seventy-one respondent had completed their ANC visit as scheduled (see **Table.2.**).

Table 2. The Distribution of Knowledge, Attitude, and the Utilization of Antenatal Care

| Category | n = 120 | % |
|---------------------------|---------|------|
| Knowledge | | |
| Good | 104 | 86,7 |
| Enough | 10 | 8,3 |
| Poor | 6 | 5 |
| Attitude | | |
| Positive | 75 | 62,5 |
| Negative | 45 | 37,5 |
| Utilization of ANC | | |
| Complete (≥4) | 71 | 59,2 |
| Incomplete (<4) | 49 | 40,8 |

According to the correct answer to the knowledge questionnaire, the majority of the respondents are well-known of the types of services and benefits, and the purpose of the ANC was 88.3% and 65%, respectively. Unfortunately, the respondents had a lack of knowledge (41.7%) of the ANC frequency and

schedule. In average, the respondents had a positive attitude in all of the question dimension i.e the frequency and schedule of the ANC, the purpose of the ANC, and the types and benefits of the ANC that was 79.2%, 71.7%, and 59.2%, respectively (see **Table.3**).

Table 3. The Distribution of Correct Answer of the Knowledge and the Attitude Questionnaire

| Question Dimension | Knowledge | Attitude |
|-------------------------------|----------------------------------|----------------------------------|
| | Number of the correct answer (%) | Number of the correct answer (%) |
| Frequency and Schedule of ANC | 50 (41.7) | 95 (79.2) |
| Purpose of ANC | 78 (65) | 86 (71.7) |
| The types and Benefits of ANC | 106 (88.3) | 71 (59.2) |

DISCUSSION

Antenatal Care Visits in Kupang City

The results show that the majority of respondents had completed the ANC visit, have good knowledge, and positive attitudes towards ANC visits. ANC visit is categorized as complete if the pregnant women had at least 4 times visit the CHCs during pregnancy. These visits are scheduled at least 1 time in the first trimester, 1 time in the second trimester, and 2 times in the third trimester (Indonesian Ministry of Health, 2010). The adherence of ANC visit is in accordance with Green's theory that individual behavior can be influenced by knowledge and attitudes (Notoatmodjo, 2014). Additionally, the ANC visit is an indicator to determine the access of pregnant women to ANC services, because every development of pregnancy has a risk of experiencing complications (Indonesian Ministry of Health, 2014).

Knowledge of Pregnant Women about Utilization of Antenatal Care in Kupang City

The results of the study show that most of the respondents had a good knowledge of antenatal care visits. The possible reason is that most of the respondents have senior high school background. The higher level of education, the more they will have a good understanding of health problems and health services according to their needs. Besides, good

knowledge and higher educational background support pregnant women to search for the information of ANC (Gustina, 2018). Also, it could influence their decision making regarding their pregnancy and fulfilling their nutrition during pregnancy (Notoatmodjo, 2014; Islam and Masud, 2018). Higher education influences individual behavior and motivation (Wawan & Dewi, 2010).

Based on the correct answer, the respondents were well-knowledge for ANC, types of ANC services, and benefits of ANC. Contrary, the respondents have a lack of knowledge about the frequency and ANC schedule. Most pregnant women do not know that they need to visit CHC at least four times during their pregnancy. This result was in accordance with Tanzania's pregnant women, who do not know that pregnant women need at least five visits during their pregnancy (Lilungulu, *et al.*, 2016).

Attitudes of Pregnant Women about Antenatal Care Visits in Kupang City

The results show that most of the respondents had a positive attitude towards ANC visits. For this reason, the respondents' knowledge and educational background have an important role (Enok *et al.*, 2015). The other factors that can affect the utilization of ANC i.e. mass media, influenced by other people, healthcare providers' behavior, and healthcare facilities (Sari,

2017). Attitude is a closed response to a stimulus and tendency to act, but not yet in the form of action. This attitude consists of components of belief, ideas, and concepts to form a complete attitude. Therefore, efforts are needed to convince mothers as early as possible about the benefits of ANC services for the health of mothers and babies (Notoatmodjo, 2012).

Women with higher education are more aware and have positive attitudes towards almost all aspects of ANC (Akhtar *et al.*, 2018). However, women with less education did better practices regarding nutrition and other factors. Behavior also influenced by personal experience, involved the experience of checking her pregnancy (Wawan & Dewi, 2010). This statement was in accordance with the recent study that most of the respondents' parity status is multigravida. Based on their experiences, most of the respondents were adherence to utilize ANC services. These results were supported that most of the respondents have a positive attitude in all three dimensions of attitude questions i.e. frequency and schedule of ANC, the purpose of ANC, and the types and benefits of ANC. Conversely, there are pregnant women those have lack of awareness to monitor their pregnancy because they do not have any complaints.

The study suggests that healthcare providers, especially midwives need to improve health education among women in childbearing-aged. The information disclosure related to the pregnancy process and its care is a demanding topic. The health education can be delivered through counseling, social media, and technology used. Interactive communication between midwives and pregnant women through communication-technology can be an alternative approach to monitor the examination schedule and the condition of pregnant women. Finally, all pregnant women should receive a good quality ANC to reduce maternal and perinatal morbidity and mortality through the detection and management of complications during pregnancy.

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