

ANALYSIS OF FACTORS RELATED TO SERVICES ANTENATAL CARE IN PREGNANT MOTHERS

Sri Rahayu Suparman¹, Nur Qalbi Talib²

¹⁻²Health Administration Study Program, Fatima Parepare Health Sciences College

Email: rahayu.ra75@gmail.com

ABSTRACT

Background: Antenatal care is a comprehensive and quality antenatal service provided to all pregnant women. One indicator in measuring health status is the maternal mortality rate. One effort that can be made to reduce MMR is by providing quality maternal health services such as compliance with ANC visits. ANC visits are carried out at least four times during pregnancy. **Objective:** This research is to review and analyze what factors are related to antenatal care services for pregnant women. **Research methods:** using the Literature Review method by taking data sources from articles searched from Google Scholar and the Garuda Portal. Selected based on search criteria, namely from 2019-2023. **Results:** Based on the results of the analysis of 15 research articles reviewed, the results showed that there were four factors related to antenatal care, including knowledge, attitudes, family support and the role of health workers. **Suggestion:** It is hoped that pregnant women will pay attention to their pregnancy by always having regular check-ups at health facilities according to their needs and concerns.

Keywords: service antenatal care, knowledge, attitudes, family support and the role of health workers

INTRODUCTION

Antenatal care is a comprehensive and quality antenatal service provided to all pregnant women. Every pregnancy in its development has a risk of experiencing complications or complications, therefore antenatal care must be carried out routinely, in an integrated manner, and in accordance with quality antenatal care standards. Antenatal care services are able to detect early problems and illnesses experienced by pregnant women, carry out adequate interventions so that pregnant women are ready to undergo normal childbirth, where services begin in the first trimester (Indonesian Ministry of Health, 2020)

Maternal and child health problems have become a global problem whose handling is included in the Sustainable Development Goals (SDGs) agenda. Around 830 women die every day due to complications of pregnancy and childbirth that could have been avoided. Approximately 99% of all maternal deaths occur in developing countries. Globally, there has been a significant reduction in infant mortality but neonatal mortality rates are decreasing at a slower rate than those of older infants and children (World Health Organization, 2018).

Based on WHO (World Health Organization) data regarding improving maternal health which is one of the goals of the Millennium Development Goals (MDG's) according to the National target according to the MDGs, namely reducing the Maternal Mortality Rate by $\frac{3}{4}$ of the Maternal Mortality Rate in 2018 according to WHO is 165/100,000 births living, while the decline in 2015 was 126/100,000 (WHO, 2019). Data from the Ministry of Health shows that the number of maternal deaths increased by 10.25% in 2020 (4,627 people), in 2019 the number of maternal deaths was 4,197 people (Ministry of Health, 2021)

Percentage of women aged 15-49 who were served by any provider at least four times during pregnancy

(UNICEF, 2022). Globally, 85% of pregnant women attend at least one ANC visit with a skilled health service, and 58% attend at least 4 ANC visits (Force, 2016). The Maternal Mortality Rate is still in the range of 305 per 100,000 Live Births, not yet reaching the specified target of 183 per 100,000 KH in 2024. The Indonesian Ministry of Health stipulates that examinations for pregnant women or antenatal care be carried out at least 6 times over 9 months (Ministry of Health, 2023).

One indicator in measuring health status is the maternal mortality rate. According to the World Health Organization (WHO), maternal death is the death of a woman during pregnancy or within 42 days after termination of pregnancy, regardless of the duration and location of the pregnancy from any cause related to pregnancy disorders or their management. Globally, according to WHO5 data in 2018, there were 47% of maternal deaths due to problems with childbirth or pregnancy that occurred in developing countries. In 2018, the maternal mortality rate (MMR) in the Association of Southeast Asian Nations (ASEAN) was 16,000/100,000 live births. According to the Indonesian Ministry of Health, in 2018 there was a decline in the MMR in Indonesia in 1991-2015 from MMR 390 to 305 per live birth. Even though there has been a decline in MMR, it has still not reached the MDGS target of 102 per 100,000 live births. (Indonesian Ministry of Health, 2018).

One effort that can be made to reduce MMR is by providing quality maternal health services such as compliance with ANC visits. According to WHO7 in 2002 ANC visits were carried out at least four times. In 2020 ANC visits were changed. This was done again by the Ministry of Health of the Republic of Indonesia six times with the aim of reducing maternal and infant mortality rates. The results of the achievement of health efforts for pregnant women can be assessed using K1 and K4 coverage indicators (WHO, 2016).

ANC services used by mothers during pregnancy are essentially a manifestation of a form of behavior in the health sector which is influenced by behavioral aspects (behavioral causes) and non-behavioral aspects (non-behavioral causes). According to Lawrence Green, individual and community health behavior is influenced by three factors. Predisposing factors take the form of knowledge and attitudes, traditions and beliefs, beliefs or perceptions, values held by individuals. Enabling factors are in the form of the physical environment, whether health facilities or facilities are available or not, whether health services are affordable or not, including information media. Reinforcing factors take the form of attitudes and behavior of families, community leaders, religious leaders and health workers as reference groups for community behavior (Tassi et al, 2021).

The high maternal and infant mortality rates are partly due to the low level of maternal knowledge and the irregular frequency of ANC examinations. The regularity of ANC can be demonstrated through the frequency of visits. It turns out that this is a problem because not all pregnant women have their pregnancies checked regularly, especially normal pregnant women, so that abnormalities that arise during pregnancy cannot be detected as early as possible. There are several factors that cause why pregnant women are less motivated to carry out Antenatal care regularly and on time, including: lack of knowledge of pregnant women about Antenatal care, busyness, low socio-economic level, lack of husband's support, lack of convenience for maternal services, poor medical care, lack of trained personnel and life-saving medicines (Wiratmo, 2020).

Research on factors related to prenatal care in pregnant women has been widely reported in several quantitative research designs with a cross-sectional approach. Therefore, the author is interested in compiling a literature review regarding the analysis of factors related to antenatal care services for pregnant women.

RESEARCH METHODS

This research method uses literature review research with the Systematic Literature Review (SLR) method. This research uses secondary data sources in the form of national and international journals which are accessed

via Google Scholar and the Garuda portal can be downloaded in full text. The journal publication time range used is the last 5 years (2019 - 2023). When searching for articles, use keywords that match the variables, namely: factors related to antenatal care services for pregnant women.

Researchers collected relevant information using 15 articles relevant to the research. The inclusion criteria used by researchers are articles that have titles and content that are relevant to the researcher's objectives. Research articles published from 2019 to 2023, articles with pregnant women as respondents, full text articles in accordance with the research objectives, using a cross sectional research design, articles in Indonesian and English. Meanwhile, the exclusion criteria are articles using the literature review method, articles that are not related to the topic of discussion, and articles that do not have a complete structure.

RESULT

Table 1 List of Journal Review Literature

NO	WRITER	YEAR	LOCATION	DESIGN EDUCATION	RESULTS
1	Riani Diana Putri, Sri Dinengsih	2023	Public health center Karangpawitan Regency Garut	cross-sectional	Factors related to ANC services are knowledge ρ -value of 0.004, education ρ -value of 0.002, family support, ρ -value of 0.014
2	Desni Roma Putra Nasution, Rahmat Alyakin Dachi, Masdalina Pane	2023	Public health center Cape Botung	cross-sectional	Factors associated with visiting pregnant women were knowledge (p 0.000), distance (p 0.031), husband's support (p 0.003) and health worker support (0.002)
3	Bd. Marhumi, S.ST.M.,Kes	2023	Public health center Pammana Subdistrict Pammana Regency Wajo	cross sectional study	Analysis of the relationship between knowledge and attitudes towards compliance using the Spearman Rho correlation test shows a significant relationship with $p = 0.000 (< \alpha 0.05)$
4	amalia Fajrika, Khairunnisa Situmorang, Rosmani Sinaga, Anna Waris Nainggolan	2023	BPM Sukianti District. Sinaboi District. Lower Rokan	cross-sectional	Factors related to ANC services are knowledge (p 0.002) and attitude (p 0.005)
5	Dealita Khairani Daulay, Balqis Nurmauli Damanik, Asnita Yani	2023	Public health center Pancur Batu	Cross Sectional	There is a relationship between Mother's Knowledge of Integrated Antenatal Care, $p=0.010$. There is a relationship between the Role of the Family in Integrated Antenatal Care, $p=0.001$
6	Wa Ode Nurul Mutia	2023	Public health center My-my-my	Cross Sectional	There is a significant relationship between knowledge, attitudes and choice of health facilities for pregnant women on integrated antenatal care visits

7	Agustina's daughter, Silvia Mariana	2023	White Sands Mother's Love Clinic, Jambi City	cross-sectional	Factors related to ANC services are knowledge (p 0.005), attitude (p 0.010)
8	Elfrida Dana F. Riwoe Rohi, Aloysius Liliweri, Sabina Gero	2022	Kupang City Health Center	cross-sectional	Factors related to ANC services were knowledge (p 0.006), health workers (p 0.001), husband's support (p 0.043)
9	AyuBetzia Mangosa, Nathalie E. Kailola, Ritha Tahitu, Elpira Asmin	2022	Public health center Rijali	cross-sectional	Factors related to visits by pregnant women are knowledge (p 0,007)
10	Bella Ayu Nurfitriyani, Novia Indah Puspitasari	2022	Public health center Blooto	cross-sectional	Factors related to ANC visits for pregnant women are knowledge, attitudes, the role of medical personnel, and the availability of health protocol facilities
11	Welhelmina Daril Tassil, Masrida Sinaga, Rut Rosina Riwu	2021	Public health center Go ahead	cross-sectional	The factor that is related to the behavior of using ANC services is the mother's level of knowledge (p=0.000), mother's attitude (p=0.006), service accessibility (p=0.035), and exposure to information media (p=0.000)
12	Nuzulul Rahmi, Faradilla Safitri, Asmaul Husna, Fauziah Andika, Sri Yanti	2021	Ie Alang Community Health Center Regency Aceh Besar	cross-sectional	Factors that are related to ANC visits are family support (P value 0.005), and the role of health workers (P value 0.004)
13	G. Angriani	2020	Public health center Prabumulih city market	Accidental Sampling	Mother's knowledge has a significant relationship with antenatal care visits (p value 0.000)
14	Praise Astuti Wiratmo, Lisnadiyanti, Nurkamilia Sopianah	2020	Public health center Subdistrict Rebo Market, East Jakarta	cross-sectional	Influencing factors ANC visits are knowledge with a correlation value (r = 0.409), a p-value of 0.000; husband/family support with correlation value (r = 0.417), p-value of 0.000; attitude with correlation value (r = 0.597)
15	Reineldis Elsidianastika Trisnawati	2020	Public health center Dintor Regency Manggarai	cross-sectional	Factors related to ANC visits are the results of family support with a p value = 0.045

DISCUSSION

From the results of the articles selected from the data, 15 articles were related to factors related to antenatal care for pregnant women. Apart from that, from the fifteen articles, it was found that there were 4 (four) factors related to antenatal care, including knowledge, attitudes, family support and the role of health workers.

Of the fifteen articles, researchers used a quantitative research design with a cross-sectional approach.

Cross sectional research is research to study the dynamics of the correlation between risk factors and effects, using an approach, observational approach or data collection. Cross sectional research only observes once only and measurements were carried out on subject variables at the time of the research (Notoatmodjo, 2018).

The relationship between knowledge and antenatal care services

From the findings of the fifteen articles, thirteen articles were found which revealed that knowledge was related to antenatal care services for pregnant women. Knowledge is a decisive first step in making a decision, the better the knowledge, the better the change in behavior will be. Mother's knowledge greatly influences the mother's actions during ANC visits. The higher a person's level of knowledge, the more likely that person is to do something good (Fajrika, 2023). The better the knowledge that pregnant women have, the more likely they are to want to know the condition of their pregnancy so that they will carry out pregnancy checks more often (Nurfitriani, 2022).

Pregnant women must have knowledge about pregnancy to be able to prepare them physically or mentally so that they will be healthy until the end of their pregnancy. If there are physical or psychological abnormalities, they can be found early and treated, and give birth without difficulty with a healthy baby (Mutia, 2022). Mothers who have good knowledge have 4,924 times the chance of having a complete ANC visit, compared to those who have less good knowledge. Mothers who have good knowledge regarding obstetric examinations at that time obtained from health guidance or information based on the mass media. After obtaining information, one can guarantee that people behave appropriately with the knowledge obtained (Marhumi, 2023).

Mothers who have had early contact with health workers based on previous experience or knowledge will do the same thing to immediately check themselves with health workers as in previous experiences. Pregnant women's knowledge about first visit ANC examinations can be obtained either from friends, information media, books, or based on previous pregnancy experiences. Pregnant women can gain knowledge through pregnancy class activities and other health education provided regularly by health workers in their area. Good maternal knowledge about the importance of the first ANC examination will change the mother's behavior to immediately have her pregnancy checked as early as possible when she feels pregnant (Dinengsih, 2023).

Lack of knowledge is based on the lack of sources of information obtained by mothers regarding antenatal care, so that mothers who have less knowledge choose to be lazy about having their pregnancy checked. There are even some who have never had ante-antal visits at all, so they are worried about unwanted pregnancies (Daulay et al. al, 2023).

It will be easier for mothers who want to have their pregnancy checked if they know what the benefits of a pregnancy check are, who and where the pregnancy check is carried out. The lack of understanding and knowledge of mothers and families regarding the importance of pregnancy checks has an impact on pregnant women (Nasution et al, 2023). Lack of knowledge is based on the lack of sources of information obtained by mothers regarding antenatal care, so that mothers who have less knowledge choose to be lazy about having their pregnancy checked. There are even some who have never had ante-antal visits at all, so they are worried about unwanted pregnancies (Daulay et al. al, 2023).

Apart from that, factors that influence knowledge are age, education, experience and information. This age is an age that has a more rational level of thinking compared to young people. As age increases, a person's knowledge will increase (Roma et al, 2022). Behavior that is based on knowledge will survive better than behavior that is not based on knowledge. The completeness of ANC visit status is influenced by the level of knowledge. With good knowledge, the mother knows the correct information regarding the benefits and purpose of ANC visits so

that it will affect the complete health status of the mother and fetus (Agustina, 2023).

According to Rohi (2023), knowledge will greatly influence the implementation of ANC, especially in teenage pregnancies, if they have good knowledge it will be proven by them carrying out ANC examinations according to the stage. However, in reality, more pregnant teenagers do not have a complete ANC examination. This is greatly influenced by not knowing the correct information about ANC examinations. Apart from that, the reproductive system is not yet mature for the pregnancy process and the age factor is that they are still in the period of finding their identity so they will be very closed off from getting correct information from the source. As a result, this will affect ANC visits.

Apart from that, there are also those who say that knowledge is not one of the reasons why pregnant women do not make ANC visits, but there are other factors that hinder them, such as the health of pregnant women, the work of pregnant women so that pregnant women do not make ANC visits according to standards. This is where the role of health workers must be increased and optimized by conducting home visits and carrying out ANC examinations at pregnant women's homes so that the health condition of pregnant women and their fetuses is monitored (Rahmi, 2021).

The relationship between attitudes and antenatal care services

From the findings of the fifteen articles, six articles were found which revealed that attitudes were related to antenatal care services for pregnant women. According to Notoatmodjo (2018) attitude is an action, perception, or thought pattern carried out in dealing with an object or situation. Attitudes actually connote the appropriateness of reactions to certain stimuli, which in everyday life are emotional reactions to social stimuli.

The positive attitude shown by pregnant women towards ANC services is their regular ANC visits in each trimester of pregnancy and always following the things recommended by the midwife and doctor every time they make an ANC visit. The results of the bivariable analysis also show that mothers with positive attitudes utilize ANC (K4) more than those who do not, and conversely, mothers with negative attitudes do not utilize more than those who do (Tassi et al, 2021)

This follows the behavioral theory in Notoatmodjo (2018) that the knowledge aspect is a very important domain in shaping individual behavior. If an individual's level of knowledge is higher, it will form thought patterns and attitudes towards something which can ultimately support behavioral change. If behavior is based on knowledge, awareness and a positive attitude, then the behavior will last longer, likewise if it is not based on knowledge and awareness, the behavior will not last long.

Most mothers who have high knowledge also have a positive attitude towards the use of ANC (K4) services. The positive attitude shown by pregnant women occurs because pregnant women have good knowledge and pregnant women with good knowledge are 1.65 times more likely to have a positive attitude in providing antenatal care services compared to pregnant women with low knowledge (Nurfitriani, 2022).

Theoretically, attitude is a closed reaction or response, not an open reaction from an individual to a particular stimulus or object. The manifestation of attitudes cannot be seen directly, but is previously translated through closed behavior. Therefore, an attitude is not automatically manifested in an action. To make an attitude into a real action, supporting aspects or enabling conditions are needed, including facilities and support factors from other parties. In this research, there is a tendency for the majority of mothers who have a positive attitude in utilizing antenatal care (K4) to be helped by other supporting factors, for example information obtained from midwives and local cadres, husbands and family members, as well as information media (Tassi et al, 2021) .

On the other hand, he said that the attitude of pregnant women had nothing to do with ANC services. The

lack of attitude of pregnant women in carrying out ANC is because mothers feel that they do not need to do ANC because they already have experience with previous pregnancies, and also feel embarrassed about having a pregnancy check-up because they already have many children. A positive maternal attitude will influence the mother's desire to carry out antenatal care behavior. On the other hand, negative maternal attitudes will be a problem in carrying out antenatal care because many mothers do not know the importance of carrying out antenatal care behavior during pregnancy (Nasution et al, 2023).

There are two articles which state that attitude does not have a significant relationship with antenatal care services for pregnant women because differences in respondents' attitudes do not affect the regularity of pregnancy check-ups, but attitude is an important factor in efforts to improve maternal and child health visits so that maternal and child deaths can be prevented. . With a positive attitude, pregnant women can also respond or assess the importance of ANC so that the attitude of pregnant women in prenatal examinations can be improved (Fajrika, 2023).

Attitudes are more easily formed if the experience involves emotional factors. Positive maternal attitudes can emerge through the mother's personal experience in providing antenatal care in previous pregnancies (Nasution et al, 2023). This is also in line with research by Asmin (2022) which states that respondents who are still afraid to check for pregnancy, visits are not recorded in the KIA book when carrying out pregnancy checks at specialist doctors and respondents who check for pregnancy only when there are complaints about their pregnancy.

The relationship between family support and services antenatal care

From the findings of the fifteen articles, six articles were found which revealed that family support was related to antenatal care services for pregnant women. Family support is assistance that can be given to other families in the form of goods, services, information and advice, which makes the recipient of the support feel loved, appreciated and at peace. Family and marriage are the most important sources of social support.

Family support is defined as verbal or non-verbal information, advice, real help or behavior provided by people who are familiar with the subject in their environment or in the form of presence and things that can provide emotional benefits and influence the behavior of the recipient. In this case, people who feel they have received emotional support feel relieved because they are cared for, get advice or a pleasant impression on themselves (Dinengsih, 2023).

High family support increases the behavior of pregnant women to immediately carry out pregnancy checks as early as possible so that mothers have the enthusiasm, confidence and desire to carry out pregnancy checks as early as possible to a midwife or doctor so that the baby they are carrying receives optimal health services (Dinengsih, 2023) .

According to (Rahmi, 2021) family support plays a very important role in ANC visits for pregnant women, because family support is very meaningful for pregnant women. The support referred to also means emotional support, action support and economic support. In order for families to support the implementation of ANC visits, families must be given information about the importance of ANC examinations that comply with standards so that the health of the mother and fetus can be determined and detect abnormalities and danger signs early during pregnancy.

Family support is very useful in controlling a person's anxiety levels and can also reduce the pressures that arise from conflicts that occur to him. Family support also functions as a collector and disseminator (information disseminator) where the family will provide information about pregnancy that is needed to maintain the pregnancy (Rohi et al, 2023).

Mothers who receive good support from their families have the opportunity to make K4 antenatal care visits. Mothers will feel motivated to make ANC K4 visits because they receive support from the family, for example when having a pregnancy check-up with a health worker, the mother is accompanied by the family. Family roles are a collection of behavioral norms for someone in a special position, such as husband, wife, children and other family members (Daulay et al, 2023).

This is different from the opinion expressed by Tassi (2021) who states that there is no meaning or relationship between husband's support and mother's behavior in using antenatal care (K4) services because the percentage difference is only small. This means that not all mothers who receive husband's support can utilize ANC services (K4) and also mothers who do not receive husband's support, not all of them do not utilize antenatal care services (K4). Based on the results of observations during the research, it was discovered that most pregnant women who underwent pregnancy checks were accompanied by their husbands to the health center. However, her husband did not accompany her to the examination room and only waited outside the health center or was usually picked up after the mother had finished the examination. This can be a determinant of the mother's behavior in utilizing ANC (K4) services.

The husband's support shown is not only limited to taking the mother to a health service for a pregnancy check-up. Accompanying and accompanying the mother during the pregnancy check-up are several forms of support that should be shown by the husband so that the pregnant mother feels cared for and of course does not feel alone going through her pregnancy. It is hoped that the husband's presence during the pregnancy check-up process can motivate the mother to regularly check her pregnancy. Likewise, husbands can be a reminder to mothers about the importance of undergoing pregnancy checks following the recommended schedule. This is the role of a husband that is most needed by mothers in utilizing antenatal care (K4) services during their pregnancy (Tassi et al, 2021).

The relationship between the role of health workers and services antenatal care

From the findings of the fifteen articles, three articles were found which revealed that the role of health workers was related to antenatal care services for pregnant women. The support of health workers is no less important during ANC visits because health workers are anyone who dedicates themselves to the health sector and has knowledge about health and the authority to improve health efforts. One of the roles of health workers is to form a class of pregnant women who can improve health services for pregnant women and their families because with classes for pregnant women it will increase the knowledge of pregnant women and their families about the health of pregnant women which can have an impact on the attitudes and behavior of pregnant women in utilizing health services, especially in checking pregnancies (Ministry of Health of the Republic of Indonesia, 2017). According to Nasution (2023), research stated that the majority of health workers' support was in the poor category. Little is known about the support of health workers from respondents' answers regarding officers not taking enough time to conduct questions and answers regarding maternal complaints during pregnancy, not explaining the stages and results of pregnancy checks and not helping to provide solutions to every complaint or problem of pregnant women. This causes pregnant women not to attend ANC visits. This is in line with the opinion of Harun (2021) that friendly health service in providing health-related explanations and providing enthusiasm to maintain and control the condition of pregnancy well can motivate pregnant women to carry out complete ANC visits. Friendly service from health workers who provide health-related explanations and provide encouragement to maintain and control the condition of pregnancy well can motivate pregnant women to complete ANC visits. Medical personnel, especially midwives, play an important role in providing counseling and education, such as forming classes for pregnant women so that pregnant women gain knowledge not only about pregnancy checks,

but also obtain contraceptive and postpartum information and it is hoped that pregnant women's knowledge will increase (Nurfitriani, 2023).

The role of health workers is very important to increase ANC visits among pregnant women. The task of health workers is not only to carry out examinations but also to provide motivation and health education to pregnant women and their families so that pregnant women and their families know the importance of carrying out ANC visits regularly and in accordance with specified standards. Apart from that, health workers must also provide excellent service so that pregnant women feel happy and want to make their next ANC visit. The form of the midwife's role in ANC is the use of operational health assistance (BOK) outside the building such as data collection, services at posyandu, sweeping DO cases and establishing partnerships with traditional healers. The supporting factor for the success of K4 is the introduction of integrated ANC to officers health at community health centers, improving facilities and infrastructure for integrated ANC services, surveillance through local area monitoring (Rahmi et al, 2022).

CONCLUSIONS

The higher the level of knowledge of pregnant women, the more they will form thought patterns and attitudes towards something which can ultimately support behavior change. Behavior that is based on knowledge will survive better than behavior that is not based on knowledge. The completeness of ANC visit status is influenced by the level of knowledge. With good knowledge, the mother will know the correct information regarding the benefits and purpose of ANC visits so that it will affect the complete health status of the mother and fetus.

As well as high family support, the behavior of pregnant women to immediately carry out pregnancy checks as early as possible increases so that mothers have the enthusiasm, confidence and desire to carry out pregnancy checks as early as possible to the midwife or doctor so that the baby they are carrying gets optimal health services and that is the role of the workforce. Health to provide optimal services regarding antenatal care services for pregnant women.

With this review, it is hoped that pregnant women will pay attention to their pregnancy by always having regular check-ups at Health Facilities according to their needs and concerns that will occur. By routinely checking mothers' pregnancies at Health Facilities, it will reduce the negative impacts that will occur on the mother and fetus.

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