

Review Article: Systematic Review, Meta-Analysis, Integrative Review, Scoping Review

ANALYSIS OF THE ROLE OF MIDWIVES IN ACHIEVING ANTENATAL K4 VISIT COVERAGE: A LITERATURE REVIEW

Irma Sagita S Halim^{1*}, Werna Nontji², Mardiana Ahmad¹, Nur Aliya Arsyad¹

¹ Midwifery Study Program, Graduate School Hasanuddin University, Makassar, Indonesia

² Department of Nursing, Hasanuddin University, Makassar, Indonesia

***Correspondence:**

Irma Sagita S Halim

Midwifery Study Program, Graduate School Hasanuddin University, Makassar, Indonesia

Graduate School, Hasanuddin University Makassar, Jln. Perintis Kemerdekaan KM.10, Makassar-90245
Email:

halimiss20p@student.unhas.ac.id

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Abstract

Background: In Indonesia, this maternal mortality rate is still a major problem in the field of health. The high maternal mortality rate is related to the low quality of various programs in efforts to reduce AKI implemented by the government, namely *Safe Motherhood*, one of the pillars by improving access and quality of *antenatal care* services, namely on K4 visits that meet the National target of 90%.

Objectives: This study aimed to analyze the role of Midwives in the achievement of K4 Visit coverage.

Design: The method used in writing this article is the study of literature by descriptive methods.

Data Sources: Search for articles using data-based ScienceDirect and Google Scholar by entering the keywords Antenatal care, Factors, Utilization, Pregnancy in the literature search section with inclusion criteria, namely articles discussing antenatal visits for pregnant women, published years 2018-2021, International Publications, articles using English, original article, full text and open access.

Review Methods: The literature review method is in the form of a narrative review based on predetermined criteria, then collected and made a summary of the journal which includes the name of the researcher, the year of publication of the journal, the title of the study, the method, and a summary of the results or findings. The summary of the research journal is entered into a table according to the format.

Results: From the search obtained 52,900 articles filtered the year obtained 16,900, journal selection based on inclusion criteria obtained by fourteen journals that are *eligible* for review. articles the journal review found that the role of health workers/midwives is one factor that can increase antenatal visits. A good role by health workers to pregnant women can make mothers realize the importance of making visits to increase the utilization of health services.

Conclusion: The role of health workers/midwives is one of the factors that can increase antenatal k4 visits, namely by providing quality services, improving health promotion, and a friendly attitude full of concern for pregnant women's complaints. And it must be supported by complete skills, facilities, and infrastructure.

Keywords: *Role of Midwife, Antenatal Visit K4, Pregnant Women.*

INTRODUCTION

About 830 pregnant women die with preventable causes related to pregnancy and childbirth complications worldwide, and (99%) deaths occur in developing countries. (National Statistical Office, 2015; Tareke et al., 2021; World Health Organisation, 2020). The causes of the mother's high mortality are hypertension (pre-eclampsia/eclampsia) and antepartum bleeding, which are associated with inadequate care during pregnancy. (Lincetto et al., 2013).

Research reports that more pregnant women are dying from pregnancy-related complications in countries with low *Antenatal Care* (ANC) visits. (Funsani et al., 2021; Lincetto et al., 2013; W. H. Organization, 2015; Tareke et al., 2021).

The World Health Organization (WHO) in 2010 recommended *antenatal care* visits at least four times, but with the increase in maternal mortality so that in 2016 there was a change in the framework of lowering AKI and improving the care services of pregnant women, namely with *Antenatal Care* (ANC) visits of at least eight visits. In the first trimester once, then two visits in the second trimester and five visits in the third trimester.

Antenatal Care (ANC) visit aims to provide pregnant women with the opportunity to use health services optimally, conduct early detection of pregnancy and treatment of complications immediately (Benova et al., 2018; Funsani et al., 2021; Mutowo et al., 2021; World Health Organisation, 2020).

But in reality, only about half of the world's pregnant women make visits based on the latest recommendations (Lincetto et al., 2013; Tareke et al., 2021). The percentage of pregnant women who visit the ANC is at least four times the lowest at 45.8% in the least developed countries and the highest at 96.6% in North America (World Health Organization, 2016).

The low coverage of antenatal visits is due to lack of awareness, economy, education, laziness factors, distance, unfavorable health facility environments, and health worker factors. In addition, age factors, previous

pregnancy history, geographical location, decision-makers in action, and pregnancies that are kept secret in early pregnancy (Adewuyi et al., 2018; Agho et al., 2018; Ahrne et al., 2019; Alkema et al., 2016; Banda, 2015; Funsani et al., 2021; Khanal et al., 2015; Merdad & Ali, 2018; Mugo et al., 2015; Mustafa & Mukhtar, 2015; Roberts et al., 2017).

In Indonesia, maternal mortality is still a major problem in the health sector. The high maternal mortality rate is related to the low quality of various programs in efforts to reduce AKI implemented by the *government, namely Safe Motherhood*, one of the pillars by improving access and quality of *antenatal care* (ANC) services (Direktur Jenderal Bina Kesehatan Masyarakat, 2015; Maryono, 2020).

The Ministry of Health (2017) reported the coverage of K1 pregnant women visits was 94.61% of the target of 95% and K4 pregnant women's visits as much as 88.54% of the Renstra target of 80% (Kementrian Kesehatan RI, 2019).

West Papua province is a contributor to the high number of maternal deaths. In 2017-2018 maternal deaths decreased by 204 and 184. However, the decline is still far from the *Sustainable Development Goals* (SDGs), which is 70 per 100,000 live births by 2030 (Susiana, 2019).

The high number of maternal deaths in West Papua Province is associated with low service to pregnant women marked by a decrease in K1 and K4 coverage in the period 2017-2018, namely K1 from 66.97% to 24.13% and K4 0.0% to 41.5%, as well as childbirth by health workers in 2017 by 48.87% decreased by 38.3% in 2018 (Dinas Kesehatan Papua Barat, 2018).

While the coverage of maternity health services (K1) in 2017 was reported at 88.2%. This was an increase compared to K1 coverage in 2016 of 87.2%. While the coverage of maternity health services (K4) in 2017 was reported at 48%. It was decreased when compared to 2016 coverage of 51.3%. Thus the coverage of antenatal visits K4 Puskesmas

Kaimana has not been achieved from the National target of (90%).

The low coverage of visits of K4 pregnant women shows the performance of health services for pregnant women is very low. So that to achieve the expected targets in addition to the health worker factor is also needed participation pregnant women themselves. Therefore, there needs to be counseling that aims to increase maternal knowledge about pregnancy care; thus, it is expected to improve maternal knowledge, especially for pregnant women, towards pregnancy care so that it will be able to change attitudes in carrying out pregnancy examinations.

With the low coverage of K4 antenatal visits, it is interesting to study more deeply the role of midwives in *antenatal care* services to increase the scope of K4 antenatal visits.

METHODS

Design

The design of this research is Literature Review or literature review. The nature of this study is descriptive analysis, which is the regular parsing of data that has been obtained, then given understanding and explanation in order to be well understood by readers.

Search Methods

The literature review is compiled through the search of research articles that have been published both nationally and internationally. The population and sample were pregnant women with anemia.

Search for scientific articles using Mendeley application by entering the keyword "*Antenatal care, Factors, Utilization, Pregnancy*" with the year published 2018-2021. Articles selected based on:

1. Inclusion Criteria
 - a. Article discussing antenatal visits of pregnant women;
 - b. Year of publication 2018-2021;
 - c. International Publications;
 - d. Articles using English; and
 - e. Original articles, full text, and open access.

2. Exclusion Criteria

- a. Articles other than English; and
- b. Randomized controlled trial.

Search Outcome

From the search obtained 52,900 articles filtered the year obtained 16,900 articles. The next search using the ScienceDirect database by entering the keyword "*Antenatal care, Factors, Utilization, Pregnancy*" obtained 5,065 articles and then filtered 1,283 articles. After filtering related abstracts, titles, open access, and duplication for databased google scholar obtained 80 articles while ScienceDirect as many as 100 articles. The final process is to conduct journal selection based on inclusion criteria obtained by 14 journals that are *eligible* for review. Article Search Strategy can be seen in figure 1.

Quality Appraisal

This literature review is synthesized using narrative methods by grouping similar extraction data according to the results measured to answer the purpose. Research journals that fit the inclusion criteria are then collected and made journal summaries, including the name of the researcher, the year of publication of the journal, the title of the study, methods, and summary of results or findings.

The summary of the research journal is entered into the table in accordance with the format mentioned above. To further clarify abstract analysis and full text, the journal is read and observed. The journal summary has then conducted an analysis of the content contained in the purpose of the research and the results/findings of the study.

Analysis of the journal's contents then coded into the contents of the journal reviewed based on the outline or core of the study, is done by parsing in a sentence then if it has been collected then searched for similarities and differences in each study then discussed to draw conclusions.

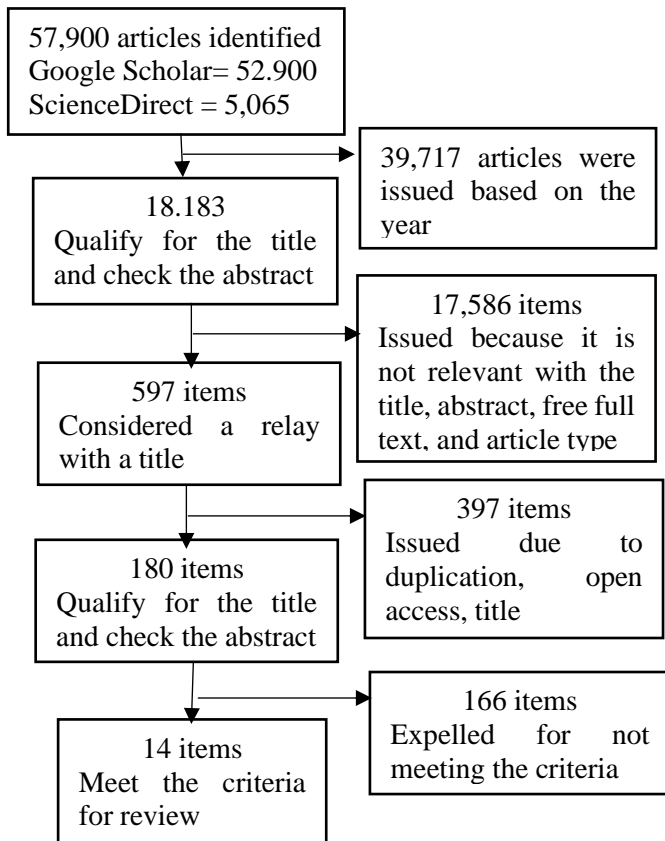


Figure 1. Article Search Strategy.

Data Abstraction

Researchers accompanied by two supervisors simultaneously review and read the full article, then discuss to agree on the decision of the article that is adjusted to the criteria of inclusion.

Data Analysis/ Synthesis

Fourteen articles were selected based on inclusion criteria that address.

RESULTS

From the search for articles using the ScienceDirect and Google Scholar databases, the results can be seen in table 1 of the results of the extraction of research which discusses the factors that affect pregnancy checks in pregnant women.

Table 1. Extraction of Research Results.

| Author/Year | Title | Type of Research and Sample | Data Analysis | Result |
|------------------------|--|---|---|---|
| (Akowuah et al., 2018) | Determinants of Antenatal Healthcare Utilisation by Pregnant Women in Third Trimester in Peri-Urban Ghana | Descriptive. 200 third trimester pregnant women. | Multiple Linear Regression | Age, household size, and employment status were identified as important determinants of antenatal service utilization among respondents. Other factors are distance to ANC, quality of service, and service satisfaction. |
| (Funsani et al., 2021) | Why pregnant women delay to initiate and utilize free antenatal care service: a qualitative study in the Southern District of Mzimba, Malawi | Qualitative exploratory. The 22 people in the in-depth interview consisting of pregnant | Thematic analysis approaches were adopted to identify facilitators and barriers in the initiation and | Constraints in the utilization of focused antenatal services are additional costs for services, lack of equipment, inhospitable adolescent reproductive health services, and HIV stigma. |

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|------------------------|--|---|--|--|
| | | women and community midwife assistants were conducted from December 2015 to January 2016. | utilization of FANC. | |
| (Tareke et al., 2021) | Underutilization of the recommended frequency of focused antenatal care services in Northwest Ethiopia: Using Andersen's healthcare service utilization model approach | Cross-sectional study. 367 people. | Logistic regression | Underutilized antenatal visits due to lack of information through the media, residence away from health facilities, and lack of partner participation, |
| (Islam et al., 2020) | Triggering factors associated with the utilization of antenatal care visits in Bangladesh: An application of negative binomial regression model | Survey. BDHS 2014 data set | Chi-square Multiple logistic regressions | Factors of respondents' education level, wealth index, respondent's residence, media access, and birth order numbers have a major influence on the utilization of antenatal care services. |
| (MERRIEL et al., 2021) | A cross-sectional study to evaluate antenatal care service provision in three hospitals in Nepal | Cross-Sectional Study. 538 inpatients | Multivariable analysis | To improve antenatal contact must meet clinical goals and mutual respect. Communication and counseling for staff, investment in health promotion, and delivery of core services are required. |
| (Mutowo et al., 2021) | Barriers to using antenatal care services in a rural district in Zimbabwe | Qualitative Study. Focus research at St. Michaels Mission Hospital. | Thematic analysis is used to analyze data. | Barriers to the use of antenatal care services are disrespect for the mother, lack of resources in health facilities, low client knowledge, fear of maternal and partner HIV testing, poverty, household responsibilities, lack of support and partner involvement, and failure to apply traditional/traditional and religious knowledge |

| | | | | | |
|-----------------------|---|---|---|--|---|
| | | | | | preventing women from utilizing ANC services. |
| (Sarkar et al., 2021) | Determinants or barriers associated with specific routine check-ups in antenatal care in gestational period: A study from EAG states, India | Survey Cross-Sectional. 147,049 samples of women of reproductive age (15-49 Years). | Chi-square, multivariate binary logistics regression | | Maternal age, marital age, place of residence, and education are the main determinants of ANC visitation behavior. While religious beliefs, affiliations with certain social categories have little influence on the BEHAVIOR of ANC examinations. |
| (Basha, 2019) | Factors Affecting the Utilization of a Minimum of Four Antenatal Care Services in Ethiopia | Cross-Sectional. Ethiopian Demographic and Health Survey (EDHS) 2016. | Logistic regression model | | Factors such as residence, region, maternal education level, family income, desire to get pregnant, frequency of reading newspapers, frequency of radio listening, and frequency of WATCHING TV are associated with the minimum utilization of four ANC services. |
| (Toteja et al., 2006) | Antenatal Care Service Utilization Among Adolescent Pregnant Women—Evidence from Swabhimaan Programme in India | Cross-Sectional. <i>Sample</i> = 278 teenage girls (15–19 years old). | Chi-Quadrat, Logistic Regression | | Religion, wealth, food insecurity, Village Sanitation and Nutrition Day meetings, the rights of public distribution systems and integrated child development services, and knowledge of birth control methods have a significant effect on the utilization of ANC services. |
| (You et al., 2019) | Factors Associated with Prescribed Antenatal Care Utilization: A Cross-Sectional Study in Eastern Rural China | Cross-Sectional. 896 rural women. | Univariate analysis and multivariate logistic regression analysis | | Factors significantly related to the timing of an ANC examination include income, distance from nearby hospitals, chronic illness, and parity. Factors related to the ANC examination include education, women's medical personnel in cities and villages, and parity. |
| (Noh et al., 2019) | Factors associated with the use of antenatal care in Sindh province, Pakistan: A population-based study | Mother and Child Health Program | Logistic regression model | | Environmental factors, higher education, wealth, information from the mother of health workers, support of |

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|--------------------------|---|--|----------------------------------|--|
| | | Indicator Survey. Ten thousand two hundred women who have given birth in 2013 and 2014. | | the mother-in-law or other relatives/friends or nurses/midwives related to the utilization of pregnancy services |
| (Orboi et al., 2019) | The Factors Influencing Four Visited Antenatal Care in Primary Health Centre in Sanggeng Manokwari District, West Papua Province | Cross Sectional. Total sample 86 Pregnant women use purposive sampling. | Chi-quadrat, Logistic regression | Education, affordability of health facilities, attitudes, and support of husbands are the dominant factors of K4 pregnancy visits. |
| (Ramadhani et al., 2021) | Determinants of K1 and K4 Visits Coverage at Dungaliyo Community Health Centre | Cross-Sectional. 306 pregnant women. | Chi-square test | Distance to health care; economic status; access to transportation availability; Family support |
| (Inyomusi et al., 2019) | The Factors Affecting the Performance of Midwifery Services of Mother and Children's Health Program in Ransiki Health Primary Manokwari Selatan District and Bintuni Borderline | Cross-sectional. 46 pregnant women. | Chi-quadrat, Logistic regression | There is a relationship between age, employment status, tenure, and midwife performance in ANC services at Ransiki Health Center. |

DISCUSSION

This literature review aims to analyse the role of midwives in efforts to increase the scope of K4 antenatal visits. Low coverage is caused by several factors, including the role of health care. From the extraction table, it is found that the quality of midwife power in pregnant women has not been optimal, the availability of facilities and infrastructure in supporting the implementation of K4 visits has not been adequate so as to hamper the smooth running of the ANC. In addition, the lack of socialization carried out by midwives is associated with low coverage of k4 visits (Bayo et al., 2020; Chang et al., 2018).

In some studies, it is reported that a good role by midwives to pregnant women can make mothers realize the importance of making visits

so as to increase the utilization of health services (Surtimanah & Herawati, 2017). *Antenatal Care* services are one of the prevention strategies to improve the well-being of mothers and babies, so information related to pregnancy care and nutrition is very important provided by health workers during visits.

Factors that make pregnant women do not take advantage of health services related to health workers, namely delays in officers and unfriendly attitudes, make pregnant women rarely do examinations. Health workers should be more active in motivating the mother to do a pregnancy examination and more direct pregnant women to act as well as possible to themselves from dangers that can threaten the life of the mother and fetus (Ngamel et al., 2020; Putra & Pujiyanto, 2020).

Antenatal care services should actually be provided by officers or health professionals and so that they are able to approach and provide a good and easy explanation by pregnant women. Good service will make pregnant women interested and motivated to return to routine check-ups. A midwife has a duty or role in supervising the growth and development of the mother and fetus; this aims to optimize the mother's health to stay healthy until the delivery process (Acharya et al., 2018; Ayalew et al., 2021; Putra & Pujiyanto, 2020).

The role of health workers is very important in terms of motivating the interest and activeness of pregnant women to make visits, such as that the optimal health worker is a routine procedure that aims to foster a good relationship with pregnant women so that pregnant women can be active and trust the services provided. Health care workers should tell the mother that the benefits of being accompanied by an expert can help report the delivery process (Wulandari & Rohmah, 2019).

Good health workers can help successful, *safe motherhood* in an effort to reduce maternal and fetal mortality and mortality. The success of this service certainly needs to be known and become a responsibility by all existing health workers; more and more officers who play a role in Antenatal services can reduce the risk of complications that can occur in the mother and fetus. According to Lawrence Green, who developed the theory of health mentioned there are factors that influence a person to utilize health care factors and include in *reinforcing* factors. Health workers who are active in providing and introducing health benefits can trigger the mother to leave bad habits that can damage her pregnancy and begin to love her pregnancy, and this is what encourages the mother to be active in the pregnancy examination because the mother realizes that the health of the mother and fetus during pregnancy is very important.

In addition, other factors that affect a person in utilizing health services, namely complete health facilities and infrastructure,

can increase one's interest, in this case, pregnant women, to utilize services. (Vidler et al., 2016).

CONCLUSION

The role of health workers is one of the factors that can increase antenatal visits k4, namely by providing quality services, improving health promotion, and a friendly attitude full of concern for pregnant women's complaints. And it must be supported by complete skills, facilities, and infrastructure.

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DECLARATION OF CONFLICTING INTEREST

This comprehensive summary or systematic review is independent writing, so there is no conflict of interest.

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AUTHOR CONTRIBUTION

Irma Sagita S Halim: Designing studies, collecting and analyzing articles, and contributing to the completion of systematic reviews.

Werna Nontji: Contribution as a supervisor involved in planning and supervision in the completion of the literature review.

Mardiana Ahmad: Contribution as a supervisor guide and discuss the final results of the review literature manuscript.

Nur Aliya Arsyad: Contribution make improvements to the article.

ORCID

Irma Sagita S Halim

None.

Werna Nontji

None.

Mardiana Ahmad

<https://orcid.org/0000-0002-0798-0457>

Nur Aliya Arsyad

<https://orcid.org/0000-0003-1987-8780>

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