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Factors Influencing Increased Efforts to Examine Pregnant Womento Reduce the Risk of Maternal Death: A Systematic Literature Review

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Abstract: Maternal mortality is the yearly number of women's deaths from any cause. This research aims to determine the factors that influence antenatal care using a systematic literature review method from Indonesian scientific articles in the last ten years. Sixteen articles were carried out in-depth, and articles that stated differences in results between one study and another were found. The research results generally show a relationship between knowledge, distance to health service facilities, and support from health workers. However, some found no relationship between distance to health service facilities and support from health workers with the compliance with antenatal care visits.

Keywords: Antenatal Care, Risk of Maternal Death, Systematic Literature Review.

Introduction

Maternal mortality is the annual number of deaths of women from any cause related to or aggravated by pregnancy, labor, or childbirth within 42 days after the termination of pregnancy, regardless of the duration or location of the pregnancy stated per 100,000 live births in a specific time (Unicef, 2019). Maternal mortality rate is essential in assessing society's welfare and health status (Badan Pusat Statistik, 2012). Although substantive, this figure is a third of the annual figure of 6.4 percent needed to achieve the Sustainable Development Goals (SDG) goal of 70 maternal deaths per 100,000 live births by 2030 (WHO et al., 2023). Until now, in Indonesia, the maternal mortality rate is still around 305 per 100,000 live births. This figure has not yet reached the specified target of 183 per 100,000 KH in 2024 (Kemenkes, 2023).

Many factors can influence maternal mortality, including, according to McCarthy and Maine, risk factors for maternal mortality are divided into three: (1) distant determinants, which include education and employment; (2) intermediate determinants, which include maternal age, parity, residence location, referral status, number of antenatal visits, the distance between pregnancies, first aid delivery, place of delivery and risk factors existing in the mother, and (3) close determinants which include: complications in pregnancy, childbirth and during the postpartum period, as well as mode of delivery (McCarthy & Maine, 1992).

Antenatal Care (ANC), namely pregnancy checks, has the aim of maximally improving the physical and mental health of pregnant women (Kemenkes, 2018). Basic Health Research Data in 2018 Q1 was 86%, and Q4 was 74.1% (Riskesdas, 2018). The World Health Organization recommends antenatal care visits at least eight times. The first visit in the first trimester is 0-12 weeks of gestation, the second-trimester visit is 20 and 26 weeks, and the third-trimester visit is 30, 34, 36, 38, and 40 weeks of gestation (WHO, 2016).

Six antenatal visits are recommended with the frequency of visits: 1) 2 times in the first trimester, 2) 1 time in the second trimester, and 3) 3 times in the third trimester (Kemenkes, 2020). Regular antenatal visits have many benefits for mothers and can certainly be an effort to reduce maternal mortality. Several factors influence mothers' behavior in making antenatal visits. Based on Lawrence Green's opinion in Notoatmodjo (2012) predisposing factors include age, education, employment, parity, knowledge, and attitudes. Enabling factors include distance from residence, family income, and media information. Strengthening factors include support from the partner, family, and existing health workers (Notoadmodjo, 2012).

Apart from the behavioral factors of pregnant women in making ANC visits, the role of midwives or doctors is also closely related to increasing the coverage of visits by pregnant women in reducing maternal mortality. During this visit, the role of midwives and doctors is expected to be able to prevent complications that may occur during pregnancy so that they can be recognized early and can be treated quickly and appropriately. It can reduce the risk of morbidity and death for pregnant women (Roobiati et al., 2019). Based on the problems described above, the problem of this research was formulated as “What determinant factors influence pregnant women's visits for antenatal care”

Formulation of the purpose of the article

The research method is a Systematic Literature Review (SLR). The inclusion criteria for this literature review are limited to a maximum of the last ten years (2018-2023), articles used in Indonesian or English, and original research articles with full text available and free of charge. The main variables examined in this scientific search were antenatal care visits related to maternal knowledge, distance from residence to health services, and support from health workers. Search for articles using the search engines Garuda Portal, ResearchGate, and Google Scholar with the keywords "Knowledge", "Distance to Health Service Facilities", "Health Worker Support", and "Compliance with Antenatal Care Visits". Articles that met the inclusion criteria were then reviewed.

Reseach Results

Analysis of recent research and publications

The results of the analysis that has been carried out are described in Table 1. Sixteen articles were analyzed. There were differences in results among the articles. Many studies have been conducted to determine the factors influencing ANC. The research results generally show a relationship between knowledge, distance to health service facilities, and support from health workers with compliance with ANC visits. However, some found no relationship between distance to health service facilities and support from health workers with compliance with ANC visits (Table 1).

Table 1. Synthesis Results

	Author	Findings		
		Maternal/ANC Knowledge	Distance to Health Service Facilities	Health Worker Support
1	Afdilla (2023)	0,001	-	-
2	Winarni (2023)	0,006	-	-
3	Yolanda (2023)	0,000	-	-
4	Mulyati (2023)	0,010	**0,076**	-
5	Meilani (2023)	-	0,005	-
6	Simanjuntak (2023)	0,036	**0,063**	0,038
7	Suhada (2023)	0,000	-	0,000
8	Mangosa (2022)	0,007	-	-
9	Fibrianti (2022)	0,033	-	-
10	Trishinta (2022)	0,027	-	-
11	Irianti (2021)	0,030	-	-
12	Syahrir (2020)	0,000	**0,237**	0,000
13	Setyaningrum (2019)	0,001		0,456
14	Armaya (2018)	0,011	-	0,021
15	Tasliah (2017)	0,001	**0,574**	**0,909**
16	Safitri (2016)	0,003	0,001	-

Based on the findings from 16 articles originating from databases with searches related to factors that influence antenatal care visits, namely maternal knowledge, distance to health service facilities, and support from health workers which have been reviewed, 16 articles were found that conducted research related to knowledge variables, six related articles distance to health care facilities and six articles related to health worker support variables. All 16 articles used a quantitative research design with a cross-sectional approach.

Relationship between knowledge and compliance with ANC visits

Based on Table 1, 16 articles that researched were found 16 articles mentioned a relationship it follows research conducted by Oktavia (2018), which also shows that the research results show a relationship between pregnant women's knowledge about the danger signs of pregnancy and ANC examination visits with a p-value of 0.001. The respondent's level of knowledge about antenatal care was obtained from experience regarding pregnancy, level of education, environment, and so on. Experiences about pregnancy can be obtained from the respondent's pregnancy or information from other people's experiences (Oktavia, 2018). Some have never had an antenatal visit at all, so there are concerns that an unwanted pregnancy could occur (Mulyati et al., 2023).

Relationship between distance to health care facilities and compliance with ANC visits

Table 1 shows six articles researching the relationship between distance to health service facilities and compliance with ANC visits. Of the six articles, two show a relationship, and the other four show no relationship between distance to health service facilities and compliance with ANC visits. It may be because the proportion of respondents who adhere to ANC and live close to or less than 1 km (69.4%) is not much different from respondents who live far or more than 1 km (61.3%). Likewise, the proportion of respondents who do not comply with ANC who live close to each other (30.6%) is not much different from respondents who live far away (38.7%) (Setyaningrum et al., 2019).

Relationship between health worker support and ANC visit compliance

Table 1 shows six articles researching the relationship between health worker support and compliance with ANC visits. Of the six articles, five concluded there was a relationship, and one other showed there was no relationship between health workers' support and compliance with ANC visits. Respondents who did not complete ANC visits were respondents who received less support from health workers (Tasliah et al. 2017). Respondents who received less support from health workers were that they were not explained about the danger signs of pregnancy by health workers and were not reminded to attend classes for pregnant women.

Conclusion

Maternal knowledge, distance from residence to health services, and support from health workers are mostly related to compliance with antenatal care visits based on a systematic literature review study. Health workers and related parties need more intensive education and outreach on a regular and ongoing basis regarding the benefits of pregnancy check-ups and the impact of not having pregnancy check-ups, considering that the coverage of visits by pregnant women is still low.

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