Application of the Antenatal Education Model on Improving Cadres' Capacity on Health Services

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ABSTRACT
Antenatal education is a form of education for health cadres equipped in the service of pregnant women at the Community Health Center. The obstacles faced in several cities in Indonesia are limited knowledge, service standards, and attitudes in providing services. This study is an experiment on the application of antenatal education and involves 100 cadres in Makassar City. Subject determination based on research is based on the service area of cadres, namely 50 cadres who are in-charged in the city center and 50 others who are in-charged in the urban fringe. The antenatal education model provided includes four modules: 1) Compliance with antenatal care standards; 2) Family quality; 3) The process of childbirth and baby care. And 4) a healthy lifestyle. This study indicates that cadres in the city center have better antenatal education knowledge than cadres in the suburbs. Furthermore, applying the antenatal education model significantly increased both groups' health services knowledge and attitudes.

Keywords: Service standard; Knowledge; and Attitude.

1. INTRODUCTION
Health services for pregnant women are vital for preventing adverse conditions associated with pregnancy. Various bad situations can happen to pregnant women, such as miscarriage or disease risk. The worst state that can happen is death[1].

Various facts in developing countries show that maternal mortality and child birth are influenced by several factors: education, knowledge, culture, economy, geography and environment, maternal accessibility to health facilities, and macro policies in the quality of health services [2][3]. Facts in Indonesia show that poverty is one factor that influences maternal mortality [4].

The number of maternal deaths by the province in 2018-2019 decreased from 4,226 to 4,221 maternal deaths in Indonesia. In 2019, the most common causes of maternal death were bleeding (1,280 cases), hypertension in pregnancy (1,066 points), infection (207 patients) details per province. This figure shows that it is still far from the Millennium Development Goals target of 102 per 100,000 live births but is still the highest in the Southeast Asia region (Central Bureau of Statistics, 2020).

On average, the causes of maternal death in South Sulawesi occur because families are late in recognizing danger signs and making decisions. While the health workers who assist childbirth are late in referring and mothers give birth, causing delays incorrect handling supported by limited facilities and infrastructure in health facilities and competent human resources.

Efforts to accelerate maternal mortality are carried out by ensuring that every mother can access health services. Good health services provide trained health workers to guide mothers through pregnancy, postpartum care for mothers and babies, and unique babies. In Indonesia, health services provide family planning assistance after childbirth [5].

Most cases of maternal death were caused by factors related to childbirth complications, postpartum complications, and reproductive status factors [6]. Furthermore, there are also data stating the mother's age, nutritional status, and the number of visits to health services.

Specifically, 2018 data shows that bleeding cases dominate the cause of death of pregnant women in South Sulawesi Province. In addition, there is also a high frequency of maternal deaths caused by hypertension and stroke. With reducing maternal mortality, health services are responsible for increasing maternal awareness of the risks of pregnancy.

In some references, the idea is formed to provide health services to pregnant women. However, education aims to increase pregnant women's knowledge, attitudes, and awareness to check their pregnancy routinely.

Health cadres play a role in reducing maternal mortality through assistance to pregnant women until
delivery is complete. Therefore, increasing the role of cadres in early detection and health cases of pregnant women is an integral part of efforts to reduce maternal mortality. Cadres guide pregnant women in finding birth referrals for readiness and preparedness for complications in mothers and newborns.

Health cadres are volunteers elected by the community whose job is to promote healthy habits or as health promoters. Cadres are trained to address fundamental health issues and develop people's willingness to visit health services.

Cadres play a role in providing information about the urgency and forms of health services for pregnant women. In addition, the cadres also assist pregnant women in preparing for the birth process and provide advice on health services for children. The problems faced by cadres are still lack of knowledge about the health of pregnant women, infants, and toddlers [7]. In addition, the attitude of cadres during health services also dramatically affects the desire of pregnant women to visit for examinations.

Cadres should know the importance of service standards during pregnancy, namely antenatal care when declared pregnant up to 12 weeks, gestational age of 20 weeks and 26 weeks, and gestational age of 30 weeks, 34 weeks, 36 weeks, 38 weeks, 40 weeks, and make contact again with health workers if at the period of 41 weeks there has not been a delivery. With knowledge of health service standards, the attitude of pregnant women to pregnancy check-ups will be formed. This cadre assistance refers to the antenatal education model, which includes four modules, namely: 1) Fulfillment of ANC standards (T14); 2) Family quality; 3) The process of childbirth and baby care, and 4) a healthy lifestyle.

Antenatal education is designed by considering the needs and concerns of pregnant women for health services. These needs are not only physical services but also psychological services. Therefore, antenatal education must be carefully designed to increase the confidence of pregnant women to prepare to become parents so that happiness and satisfaction after childbirth is formed. The resulting impact is increased community welfare and health status [8].

The Makassar City Government provides 948 health cadres spread over all sub-districts in Makassar City. Factually, cadres have access to different information, thus allowing for differences in cadre competencies based on the location of their services. Researchers suspect differences in knowledge and attitudes of cadres towards antenatal education in health services in the city center and the outskirts of Makassar.

Implementing the antenatal education model is expected to increase the knowledge and attitudes of cadres towards health services in reducing maternal mortality.

2. METHOD

The type of research used in this research is descriptive quantitative research. The location of this research is in Makassar City. The population in this study is the people who live around the community health center. This study used purposive sampling to consider cadres who an active community health center directly appointed.

The sample collection technique used the Slovin formula and obtained as many as 100 respondents who became the research sample, 50 cadres who worked in the center of Makassar City, and 50 other cadres who worked on the outskirts Makassar City.

Table 1. Cadre Knowledge Score Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very High</td>
<td>0.81 - 1.00</td>
</tr>
<tr>
<td>High</td>
<td>0.61 - 0.80</td>
</tr>
<tr>
<td>Moderate</td>
<td>0.41 - 0.60</td>
</tr>
<tr>
<td>Low</td>
<td>0.21 - 0.40</td>
</tr>
<tr>
<td>Very Low</td>
<td>0.00 - 0.20</td>
</tr>
</tbody>
</table>

Measurement of cadre knowledge is done by giving a value of 1 for correct answers and 0 for incorrect answers. The scores of all respondents were accumulated and then averaged. The average score is divided into five categories presented in Table 1.

Table 2. Attitude Cadre Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very High</td>
<td>4.2 - 5.00</td>
</tr>
<tr>
<td>High</td>
<td>3.4 - 4.1</td>
</tr>
<tr>
<td>Moderate</td>
<td>2.6 - 3.3</td>
</tr>
<tr>
<td>Low</td>
<td>1.8 - 2.5</td>
</tr>
<tr>
<td>Very Low</td>
<td>1.00 - 1.7</td>
</tr>
</tbody>
</table>

Measurement of the attitude of cadres is done by giving a value of 1 to 5. The lowest value indicates a low attitude, while a score of five indicates the best attitude in service. The scores of all respondents were accumulated and then averaged. The average score is divided into five categories presented in Table 2.

3. RESULT AND DISCUSSION

3.1. Cadre knowledge about antenatal education

The knowledge of cadres in this study includes understanding service standards, lifestyle, service quality, and childbirth. The descriptive analysis of Cadre Knowledge scores about antenatal care in the two groups showed a difference (Figure 1).

The cadres' knowledge about antenatal care standards shows the competence of cadres in motivating pregnant women to have their pregnancy checked regularly. Visits
to health services will impact the mother's health during pregnancy until delivery. These results illustrate that cadres have understood the importance of maintaining a healthy lifestyle for the health of pregnant women and their babies.

The quality of everyone’s family is very different, depending on everyone’s interpretation. Cadre assistance is also expected to improve families’ quality to help pregnant women during pregnancy and after. The results of this study illustrate that cadres can assist pregnant women in coming to health services. Cadres are also responsible for educating pregnant women until they enter the delivery process. Cadres must understand pregnant women about the risks during the delivery process until after delivery. The results of this study indicate that cadres in both regions have understood the delivery procedure until after delivery.

### 3.2. Cadre’s Attitude towards Antenatal care

The measurement of cadre attitudes is divided into three indicators: cognitive, affective, and conative. The mental aspect is the cadre’s belief about the benefits of antenatal care. In comparison, the affective element concerns feelings or emotions in providing services. The conative part of cadres is acting due to habits that have been carried out in the past.

The analysis results above show that the cadres in both groups have good cognition. The attitude of cadres about antenatal education is manifested by the tendency to provide education based on their knowledge. Cadres are willing to guide pregnant women on the importance of pregnant women's health.

The attitude of cadres towards antenatal education is also well-formed due to their convenience when providing services. Good experiences formed in the past resulted in a tendency to assist pregnant women. In urban cadres, the attitude of affection manifested well, but it was different in the case of suburban cadres who showed lower preference.

On the other hand, the conative aspect as a supporter of the attitude of cadres has a number between 1.8 – 2.5. The capacity of urban and suburban cadres on this indicator is relatively low compared to affective and cognitive aspects.

The analysis results show that urban cadres have knowledge and attitudes towards antenatal education. This capacity contributes to the level of antenatal care in Makassar City. However, the suburban cadres showed lower ability in their knowledge and attitudes towards service.

Theoretically, Ajzen, in his theory of planned behavior, describes that their knowledge and attitudes form a person’s behavior. The cadre with knowledge and attitudes towards health services will provide optimal service. Antenatal education will be more meaningful if it is supported by competent health workers [2].

### 4. CONCLUSION

Cadres' knowledge of antenatal education in the city center is higher than that of cadres on the city's outskirts, while cadres' attitude to antenatal education is relatively the same. These results indicate that the application of the antenatal education model significantly increases the knowledge and attitudes of cadres.

### REFERENCES


