Training of Health Cadres in strengthening Assistance Program for Pregnant Women in the Region Arjowinangun Malang Community Health Center

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ABSTRACT
Maternal Mortality Rate (MMR) is an indicator of the impact of health development. The Maternal Mortality Rate (MMR) causes of are direct and indirect factors. These two factors can be prevented through prevention efforts based on community empowerment. One effort that can be made to empower the community is through empowering health cadres. This activity can be carried out through training to carry out pregnancy assistance by cadres. The aim of this training activity is to increase health cadres' knowledge about mentoring programs for pregnant women and skills in providing communication, information and education (KIE) related to the health of pregnant women and early detection of risky pregnancies. The method used is cadre group-based training in the Arjowinangun Malang Community Health Center area. The activity takes the form of cadre training regarding health assistance for pregnant women by health cadres. The results of this research showed that there was an increase in pre and posttest scores (74.6% in the sufficient category, to 91.15% in the good category). Meanwhile, the skills evaluation was in the good category (85.42%). The conclusion is that refreshing the material for cadres is necessary for optimal assistance for pregnant women. This pregnancy assistance program by cadres should become a Community Health Center program whose implementation also receives full support from the village government, and there are ongoing monitoring and evaluation efforts.

Keywords: Assisting pregnant women, cadre training, empowering health cadres

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INTRODUCTION
Maternal Mortality Rate (MMR) is an indicator of the impact of health development. The high MMR has an impact on the quality of the nation's next generation. Therefore, the government places efforts to reduce MMR as a priority program in health development. East Java Health profile data shows that maternal mortality in 2020 has increased from 2019 to 10.53% and MMR in Malang district is 74/100,000 Live Births (KH). In fact, as of January 2022, it was stated that the MMR in East Java had reached 1127, whereas previously it was only 600-650 MMR. One of the contributors to MMR was 1 person from the Arjowinangun Community Health Center (0.30%). Of course, this is still far from the target set by the government, in 2024...
it will be 183/100,000 KH, and in 2030 it will be 131/100,000 KH.

Maternal death is caused by direct and indirect factors. Direct causative factors are complications that occur during pregnancy, childbirth and postpartum. Indirect factors include maternal nutritional status, disease, and antenatal care, obstetric history, and transportation, social and economic status. Maternal death is the impact of a high-risk pregnancy that is not treated immediately, which can result in potential danger during pregnancy, childbirth and the postpartum period.

In an effort to reduce MMR and IMR, the government's role is very influential. This is related to the provision of quality health service facilities and the provision of skilled health personnel in health facilities. For this reason, there needs to be program integration mothers mortality Pregnancy Safer (MPS) with the Mother Love Movement (GSI) program which focuses more on community empowerment. Of course, this must be done immediately so that the accelerated reduction in MMR and IMR can be realized immediately. One of the prevention efforts based on community empowerment is through empowering health cadres. This activity can be carried out through training to carry out pregnancy assistance by cadres.

Health cadres are community members who carry the mission of health program plans at the lowest level. Health cadres work voluntarily, being an extension of the lowest health center, namely the Community Health Center. Cadres have higher health awareness than other communities, and have a high sense of concern for the surrounding environment. It is not uncommon for health cadres to be the first referral for residents for health care. This is what makes a cadre must be skilled and trained. The community assistance process is mainly carried out by village midwives. However, in the process of community mobilization, health cadres have an important role. The first benchmark for the success of community empowerment can be seen from increasing community participation. Therefore, health cadres must be skilled in integrating two things, namely optimizing the facilitation of the time that has been given and optimizing the community approach. However, until now the obstacles experienced by cadres are their educational level which is still lacking and they have not received maximum training regarding the main tasks of Posyandu cadres. (Tse et al., 2017).

Research on several similar programs has been carried out and obtained results that help pregnant women get assistance. These include training, coaching and assisting cadres of pregnant women in carrying out early detection of high risk pregnancy in Mojolangu Village, Malang City, Gerdaristi (High Risk Mother and Toddler Assistance Movement) in Nganjuk Regency and Friends of the Village.

In the cadre training carried out in Mojolangu Village, the cadres were given training and were previously given a pretest to determine the cadres' knowledge about pregnancy risk high and the Poedji Rohjati Score Card (KSPR) then given training about high risk pregnancy, how to fill out the KSPR and KIA book until finally the posttest was given again. The following day, after mutual agreement between the cadres and pregnant women, assistance was carried out for high-risk pregnant women accompanied by a team of trainers. The aim of this research is for cadres to understand that pregnant women are at high risk and must be assisted more intensively. (City, 2021).

In the Gerdaristi program (High Risk Mother and Toddler Assistance Movement) significant results were obtained for reducing MMR in Nganjuk Regency. This program takes the form of assistance to pregnant women who are at high risk with assistance provided during pregnancy from cadres and midwives. In the program, significant results were obtained, namely within 3 months the MMR had decreased. However, this program cannot be followed by all mothers, but only some pregnant women are unable and at high risk. (S, 2016).

In the Village Friends program, cadres serve as companions for high-risk pregnant women. This assistance starts from pregnancy to birth, including preparation for childbirth. This
program is only limited to 6 months but has been able to assist 2 pregnant women with healthy births. (Megatsari, 2019).

The research that has been carried out in Uganda is research using a cluster randomized trial research design, namely there are 4 people who are trained but paid cadres to accompany 82 volunteer cadres. This cadre is divided into 2 trained cadres and 40 volunteer cadres. Assistance for pregnant women is carried out for a year. The results obtained by MMR in Uganda are decreasing, the level of knowledge reproduction in women it increases and concern for washing hands also increases. (Singh et al., 2016).

In the Basic Modules Handbook of Community Health Volunteers (CHVs) it is stated that cadres work under basic level health facilities under the supervision of the relevant Department. On the basic skills of an internal cadre accompany A pregnant mother must know the danger signs early, prepare for birth, have regular follow-up and good communication, empathize with the mother's condition so that training is needed which ideally should be carried out for approximately 10 days by trained personnel.

Based on a review of these articles, the researchers concluded that there were aspects that had been developed regarding cadre mentoring training. These aspects are the educational and monitoring aspects. The aspect that has not been touched is the evaluation aspect. This aspect allows the public to know progress and continuous improvement for cadre assistance.

Meanwhile, the training developed in this community service activity involves observing skills after being given training. This evaluation consists of 2 types of evaluation, namely knowledge evaluation and skills evaluation of each cadre. The evaluation method used is knowledge evaluation with pre and posttest and evaluate skills with observation in the field to the cadres. This can provide a comprehensive understanding for the community, and make it easier for cadres to monitor health programs in an integrated manner.

The aim of this training activity is to increase health cadres' knowledge about mentoring programs for pregnant women and skills in providing communication, information and education (KIE) related to the health of pregnant women and early detection of risky pregnancies.

METHOD

Activity design devotion This community is based on a cadre group in the Arjowinangun Malang Community Health Center area. The activity takes the form of cadre training regarding health assistance for pregnant women by health cadres. All activities are carried out face to face by implementing strict health protocols at the Arjowinangun Community Health Center. The target for this activity is 48 health cadres, with activities carried out 3 times face to face on June 25, July 19 and August 1 2022. The stages of this activity are as follows:

1. Preparation phase
   Coordination between implementing teams, preparation of tools and materials/media (booklet Kasamil, cadre of friends of pregnant women), mothers mortality care of permits and coordinating with partners, namely the Arjowinangun Community Health Center. After that, hold a coordination meeting with related parties (Puskesmas, coordinating midwife and cadre head, along with all members of the community service team) for activity orientation.

2. Implementation Level
   At this stage it was divided into 3 meeting sessions, with material about the health of normal pregnant women and detection of risky pregnancies using the Puji Rohjati Score Card (KSPR), material on the use of the KIA (Maternal and Child Health) book, material on the role of health cadres in the assistance program for pregnant women, and KIE (Communication, Information, Education) skills in assisting pregnant women. The three
material sessions start with a pre-test and end with a post-test. Each session of this material is evaluated to provide an overview of knowledge to cadres. This evaluation was obtained from the results of the posttest carried out by the cadres.

3. Evaluation Stage

The evaluation design used is a descriptive design, which aims to provide an objective picture of a situation. By using this design, a comprehensive picture of the various input components related to health cadres' understanding of the "Pregnant Mother Assistance Program" is obtained. The data collection method uses document review from the results of the pretest and posttest carried out for each activity carried out (3 activities) for the knowledge aspect. Meanwhile, the aspect of assessing cadre skills uses instruments in the form of check list. This instrument also serves as a guide for cadres in assisting pregnant women through KIE. Evaluations are carried out by service providers when cadres carry out assistance activities for pregnant women.

RESULT

All community service activities have been carried out according to planning. Following is the activity documentation:

Figure 1. Implementation of education at the 1st meeting; brainstorming before the material is given.

Figure 2. Implementation of education at the 2nd meeting; training using lecture and discussion methods.
Below we also present the results of the evaluation of the implementation of community service activities:

1. **Characteristics of Training Participant Cadres**

   **Table 1. Frequency Distribution of Cadres Based on Characteristics**

<table>
<thead>
<tr>
<th>No</th>
<th>Characteristics</th>
<th>Number (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Age (Years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>21-30</td>
<td>3</td>
<td>6.25</td>
</tr>
<tr>
<td>2</td>
<td>31-40</td>
<td>9</td>
<td>18.75</td>
</tr>
<tr>
<td>3</td>
<td>41-50</td>
<td>27</td>
<td>56.25</td>
</tr>
<tr>
<td>4</td>
<td>51-60</td>
<td>9</td>
<td>18.75</td>
</tr>
<tr>
<td></td>
<td>Amount</td>
<td>48</td>
<td>100.00</td>
</tr>
</tbody>
</table>

   | B.  | Education     |            |                |
   | 1   | SD            | 4          | 8.3            |
   | 2   | JUNIOR HIGH SCHOOL | 7   | 14.6            |
Based on this table, it is known that the majority of participants were aged 41-50 years (56.25%), had a high school education (66.7%), worked as housewives (89.58), and had been a cadre for 11-20 years (35, 42%).

2. Cadres' knowledge about the Health Assistance Program for Pregnant Women Before and After Activities

Table 2. Descriptive Statistics of Knowledge before and After Training

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Number (n)</th>
<th>Median (Min-Max)</th>
<th>Rates±SD</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Test</td>
<td>48</td>
<td>15(11-18)</td>
<td>14.92±1.75</td>
<td>Enough (74.6%)</td>
</tr>
<tr>
<td>Post Test</td>
<td>48</td>
<td>18(15-20)</td>
<td>18.23±1.21</td>
<td>Good (91.15%)</td>
</tr>
</tbody>
</table>

The average pre-test score was 14.92 in the sufficient knowledge category (74.6%), while the post-test average was 18.23 in the good knowledge category (91.15%).


Table 3. Skills of Health Cadres after Participating in Training

<table>
<thead>
<tr>
<th>Category</th>
<th>Number (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>41</td>
<td>85.42</td>
</tr>
<tr>
<td>Enough</td>
<td>7</td>
<td>14.58</td>
</tr>
<tr>
<td>Less</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Based on this table, it is known that the majority of cadres' skills in providing IEC regarding the health of pregnant women and early detection of risky pregnancies after attending training are in the good category (85.42%).
4. Results of Evaluation of Community Service Activities

Table 4.1. Evaluation of Activities Based on Number of Participants

<table>
<thead>
<tr>
<th>Mean±SD</th>
<th>Median (Min-Max)</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>76,19±7,07</td>
<td>75,5(63-90)</td>
<td>Good (95,24%)</td>
</tr>
</tbody>
</table>

The overall activity evaluation shows that the activity is in the good category (95.24%).

Table 4.2. Evaluation of Activities Based on Activity Objectives

<table>
<thead>
<tr>
<th>No</th>
<th>Evaluation</th>
<th>Number (n)</th>
<th>Median (Min-Max)</th>
<th>Rate±SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Achievement of Activity Goals</td>
<td>48</td>
<td>9(8-10)</td>
<td>9,26±0,69</td>
</tr>
<tr>
<td>2</td>
<td>Explanation of the Material</td>
<td>48</td>
<td>9,5(8-10)</td>
<td>9,38±0,68</td>
</tr>
<tr>
<td>3</td>
<td>Time Allocation</td>
<td>48</td>
<td>9(4-10)</td>
<td>9,04±1,11</td>
</tr>
<tr>
<td>4</td>
<td>Relevance of Material</td>
<td>48</td>
<td>9(8-10)</td>
<td>9,33±0,74</td>
</tr>
<tr>
<td>5</td>
<td>Activity Management</td>
<td>48</td>
<td>9(0-10)</td>
<td>8,73±2,08</td>
</tr>
<tr>
<td>6</td>
<td>Speaker Presentation</td>
<td>48</td>
<td>10(8-10)</td>
<td>9,47±0,62</td>
</tr>
<tr>
<td>7</td>
<td>Material Availability</td>
<td>48</td>
<td>10(8-10)</td>
<td>9,52±0,58</td>
</tr>
<tr>
<td>8</td>
<td>Overall Activity Causality</td>
<td>48</td>
<td>10(8-10)</td>
<td>9,59±0,53</td>
</tr>
</tbody>
</table>

Based on the evaluation component table, it can be seen that all aspects of the evaluation received a satisfactory assessment. So it can be concluded that the training objectives can be achieved well.

DISCUSSION

The evaluation results showed that the process of providing the material went smoothly and was attended by 48 accompanying cadres. This can be seen in the activity evaluation table which has been assessed by participants as having a good overall evaluation average, with a minimum assessment result of 8 and a maximum of 10. This shows that the participants understand the material provided. At each material session, material related to cadre knowledge is also provided, namely the health of pregnant women which includes ANC examinations, knowledge and counseling needed during pregnancy, safe and comfortable labor and delivery. Materials for early detection of pregnant women for mothers at high risk are also provided. This is an effort to reduce MMR in East Java with preventive and promotive efforts through health cadres. Knowledge of early detection is obtained from the use of KSPR, so that cadres
will know what actions they can take if they encounter a pregnant woman with a high risk. (Widarta et al., 2015).

An in-depth discussion of the KIA book is also provided so that cadres are more competent in providing knowledge to pregnant women according to their roles, all of which are summarized in the KIA book. This goal has been achieved from the posttest scores carried out by the cadre's mother. So this will encourage harmony in the main role of a health cadre, especially a cadre of pregnant women, namely assisting pregnant women to continue giving birth with health workers. Delivery with health personnel will minimize undesirable conditions and delays in treatment. (Society et al., n.d.).

The role of cadres here is very important because it is proven that they can increase the number of visits Antenatal Care (ANC) (Liabsuetrakul et al., 2018). Antenatal care visits should begin as early as possible to facilitate early identification of any underlying problems and provide timely care to ensure that the woman is as healthy as possible during pregnancy and birth (WHO, 2007). Early ANC attendance is important in reducing maternal morbidity and mortality (Tran TK et al., 2011). This is because the cadres have skill communication that is easier to understand by pregnant women who live in the area and live in the same place. (Kuule, et al., 2017).

In the evaluation point regarding explanation of the material, the lowest score was 8 and the highest was 10. Meanwhile, in the material availability point, the lowest score was 8 and the highest was 10. This illustrates that the participants understood the material given, so the material was well received. This is also directly proportional to the presentation from the resource person which also received a positive response with the lowest score being 8 and the highest score being 10. This result illustrates that the facilitator explained the material well. Participants also assessed that the material was in accordance with what the cadres needed, as seen from the relevance of the material and also received a good response with the lowest score being 8 and the maximum score being 10. Participants also assessed that the provision of the material was in accordance with the assistance that the cadres would provide to pregnant women. This can be seen from the overall activity causality score given by the facilitator which was also assessed positively by the participants with the lowest score being 8 and the highest being 10. The material provided was focused and adapted to the main role of the cadres so that the cadres could refresh return to previously acquired knowledge. By achieving the suitability of this material, it is hoped that pregnant women will receive optimal assistance according to the duties and functions of health cadres.

This significant level is related to the characteristics taken to fulfill the research requirements, namely the first is the age of the cadres, namely 21 - 30 years as many as 3 (6.25%), 31-40 years as many as 9 (18.75%), 41-50 years as many as 27 (56.25%), and 51-60 years 48 (18.75%). This is in line with research conducted by (Tumbelaka et al., 2018) which states that the characteristics of public health center cadres are dominant at the age of 30-60 years. Due to this, this age is included in the productive age category where the responsibilities that exist in this age category are social responsibilities (Havighurst Development Theory).

Meanwhile, at the educational level, there were 4 cadres with basic education, 4 people (8.3%), 7 people with lower secondary education (14.6%), 32 people with upper secondary education (66.7%), and 32 people with higher education. 5 people (10.5%). Education level is one of the demographic characteristics which is a factor that can influence a person's performance. The higher a person's level of education, the faster a person's ability to complete and understand tasks will be. (Organizational Behavior, 2005).

In the employment results, 43 people (89.58%) of the cadres were housewives, 3 people (6.25%) of the cadres were self-employed, and 2 people (4.17%) had other jobs. Being a cadre has a large workload, there are quite a lot of categories in which they work, such as pregnant
women, immunizations, public health center for toddlers and the elderly, and (People with Mental Disorders) ODGJ but only a few are mentioned, not to mention the reports that must be given to the relevant agencies. Which is a reference for the region. So being a cadre is similar to work. “Part time”, it would be better if a cadre was a mother who did not have a role outside her family. (Kuule, et.al., 2017).

With appropriate characteristics, it would be better for cadres to receive refresher training which is carried out regularly or through other activities such as regular supervision meetings to assess cadre work results so that it can be seen what needs are needed by cadres (Turinawe, 2016).

This is in line with research conducted by Ika et.al (2018) that high-risk pregnancies can cause complications for the mother and fetus, and require early detection. Early detection requires the involvement of the community, health cadres, medical officers and the government. There is a need to increase the competency of public health cadres in detecting pregnancy complications, especially knowledge about high-risk pregnancies. Pregnancy complications training in his research was effective in increasing health cadres' knowledge. Most health cadres' knowledge about pregnancy complications before training was sufficient and increased afterward. There was a significant increase in cadres' knowledge scores about pregnancy complications after training. In line with research conducted by (Tippawan, 2018) which states that cadres who receive more training invite mothers to carry out ANC visits which function to detect early risks of pregnancy, this is because mothers live side by side with pregnant women so they know local habits rather than health workers who rarely interact directly.

Research conducted by (Singh, 2020) also stated that training for cadres needs to be improved and routine. Refreshing knowledge is needed to improve the abilities of individuals, community groups and social institutions in terms of knowledge, skills and behavior through interesting activities for cadres. This increase in ability is not only mentioned above but also in terms of the use of devices to increase communication achievements between pregnant women and cadres. The results of this study show that with good communication from cadres to pregnant women, pregnant women in the control group experienced an increase in hemoglobin (Hb) and body weight, which are benchmarks for a healthy pregnancy.

There are several roles of health cadres in assisting pregnant women which must be carried out on an ongoing basis, starting with assisting during pregnancy checks so that they are carried out regularly, providing vitamin A capsules, providing blood-boosting tablets, immunizations, providing exclusive breastfeeding, to assisting pregnant women with high risk. This assistance is expected to provide early detection of risks to pregnant women so that a comfortable pregnancy, smooth delivery and reduction in MMR and IMR can be realized. (Introduction, 2012).

According to research conducted by Arif (2021), 27.1% of the pregnant women studied were high-risk pregnant women, but 47.9% did not know enough information about high-risk pregnancies. Apart from the causes of each individual pregnant mother, another cause of the large number of pregnant women with high risk is that mothers too often postpone pregnancy checks due to seeing free examinations provided by the Government, equipment that is not optimal, and a lack of assistance for pregnant women. This assistance is not only from health workers but from those closest to them, such as family, local (subdistrict) officials and from health cadres (Funsani, 2021). A woman should receive special attention not only during pregnancy but starting from the beginning of pregnancy preparation, the pregnancy process and the postpartum period. Starting in terms of the nutrition eaten, the mother's mental state and the mother's readiness. In developing countries, health workers can collaborate with health workers, for example cadres, to provide assistance and good examples to influence the habits of pregnant women. (Unicef).
A cadre is a career that is voluntarily followed by certain people, this requires training that equalizes the perception of health used to accompany pregnant women (Mirkunzie, et.al., 2018). Lack of supervision, limited training, lack of clear role definitions, too many vertical programs and insufficient resources are the main barriers to success in health systems, as reported in research (van Ginneken et al., 2013; Gilmore and McAuliffe, 2013; Smith Paintai et al., 2014; Petersen et al., 2015; Shipton et al., 2017). Inadequate and/or uncomfortable training was a particular problem in several studies conducted by (Gogia et al., 2011; Gilmore and McAuliffe, 2013; van Ginneken et al., 2013; Shipton et al., 2017).

Facilitator success related to health systems in volunteer-led programs including recognition, supportive supervision and mentoring, provision of training in-service and adequate response to the logistical needs of volunteers (Kane et al., 2010; Gogia et al., 2011; Mdege et al., 2013; Babu and Babu, 2014; Smith Paintain et al., 2014; Kok et al., 2015). Several studies have reported that supportive supervision by those within the formal health system is an important facilitator for the success of cadre-led programs while a lack of support from the health system results in program failure (Gogia et al., 2011; Petersen et al., 2014; Smith Paintain et al., 2014). Petersen et al. identified the provision of in-service training and better responsiveness to counseling logistics needs as key facilitators of this program (Petersen et al., 2014). In this way, it can be seen that apart from support for cadres, training is also needed to refresh knowledge and form recognition for cadres.

There were several parts of the activity that did not meet the service's expectations even though the maximum score was 10. First, the time allocation given. This got a positive response from the accompanying team, even though there was a lowest score of 4, it got a maximum score of 10. Second, activity management got the lowest score, namely 0, with a maximum score of 10. This became input for the facilitator team to look at the activity as a whole, which is efficient and more attractive to cadres.

CONCLUSION

Health cadre training activities to strengthen the assistance program for pregnant women in the Arjowinangun Malang Community Health Center area have been carried out with good achievements. Some indicators of achievement are: an increase in pre and posttest scores (74.6% in the sufficient category, to 91.15% in the good category); skills evaluation results in the good category (85.42%); and evaluation of activities by cadres shows that activities are in the good category (95.24%). With these results, it can be concluded that refreshing material for cadres is needed for optimal assistance for pregnant women. This cadre's pregnancy assistance program should become a Community Health Center program whose implementation also receives full support from the village government, and there are ongoing monitoring and evaluation efforts.

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