Vol. 6, No. 2, August 2022, pp. 37-44

ISSN 1978-0524 (print) | 2528-6374 (online)

# The empowerment of health cadres in assisting pregnant women during the covid-19 pandemic

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Received February 8, 2022; accepted June 25, 2022; published July 20, 2022

#### **ABSTRACT**

The questionnaire results on pregnant women at the Primary Health Service of Jetis II in Bantul, Yogyakarta, shows data that a woman contrates Covid-19. Meanwhile, other findings are that pregnant women get tired quickly (81.82%), many are not orderly to wear masks (76%), about the effects of Covid on mothers and fetuses (over 50%). Health cadres have not been optimal in assisting pregnant women in preventive and follow-up efforts. The purpose of this community service program is to empower health cadres in helping pregnant women during the pandemic by increasing knowledge "About Covid-19 for pregnant women, prevention, and management efforts". The service method are a lecture and brainstorming activity for ten health cadres representing five hamlets. It is hoped that health cadres can become companions for pregnant women during the pandemic, as mediators in delivering health knowledge for mothers and fetuses, also giving preventive efforts that must be done by them. Community service activities through faceto-face and online meetings in Turen Hamlet, Jetis II Community Health Center, Bantul shows an increasing knowledge of health cadres. The discussion results before the lecture is that 35% health cadres can answer correctly, after the lecture 85% of them can answer and explain accurately and adequately. Conclusion: Efforts to increase knowledge about Covid-19 for pregnant women through health cadres' assistance are necessary to reduce morbidity and mortality rate of mothers and fetuses.



#### **KEYWORDS**

Covid-19 Pregnant mother Health Cadre Knowledge Improvement Accompaniment



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## 1. Introduction

During the pandemic, the number of deaths of pregnant women increased, data on maternal reports deaths since the beginning of the pandemic period as many as ten cases of maternal deaths [1]. This spike is thought to be due to being infected with the coronavirus (Covid-19). Probably the presence of pregnant women was not monitored optimally during the Covid-19 pandemic. This lack of monitoring has the potential to cause maternal mortality. Before the pandemic, officers could entrust the supervision of pregnant women to village cadres [2], [3]. Meanwhile, both cadres and pregnant women must implement social distancing duringthe pandemic. Posyandu activities for pregnant women automatically stopped since the pandemic began; pregnant women's health was not monitored. The number of officers at the Primary Helath service was limited [4]–[6]. The main problem with this community service partner is that, in more detail, data collection on pregnant women in the Primary Health Service of Jetis II, Bantul, Yogyakarta is not following up on information on the increase in maternal mortality during the pandemic.

The data collection was carried out by a community service team consisting of 2 Field Supervisors and students participating in the Community Service Program - Community Learning and Empowerment of Research Publication and Community Service Institute, University of Muhammadiyah Yogyakarta (KKN-PPM LP3M UMY). Google Form Questionnaires filled out by 31 out of 74 pregnant women in



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the Primary Health Service of Jetis II (41.89%). The data reveals that the pregnant women are between 18-36 years old, as many as 63.6% is unemployed, most are first pregnancies (54.5%), and the rest is second pregnancies. The gestational age of 3-6 months is 60%. Most pregnant women recieve Ante Natal Care (ANC) examinations at the Primary Health Service of Jetis II, Bantul.

Pregnant women are generally taking tests in the Primary Health Service routinely [7]–[10]. 61.3% respondents live in less than 3 km or less than one hour travel time. Most women, as many as 81.82%, get tired easily [11]. Some problems that need to be underlined and essential to consider for pregnant women, are; (1) get tired easily (81.82%); (2) One pregnant woman aged 18 years contracts Covid-19; (3) A questionnaire data states that there are still many pregnant women who do not wear masks and carry out health protocols during this pandemic in an orderly manner; (4) 68% of the pregnant women still lack knowledge on Covid-19 and its preventions. Breastfeeding is one of the preventive ways in Covid-19 transmission. Survivors of COVID-19 in pregnant and lactating women should always be evaluated for the health impact on the mother and the fetus they contain [12].

Data on maternal mortality in the Bantul district is relatively high. One of them is the Primary Health Service of Jetis II, Bantul. The general findings from the data collection results through the Google form show that one of them is the level of knowledge about Covid -19\_in pregnant women and its prevention still lacking [13],[14]. There is a relationship between knowledge and morbidity and mortality in pregnant women during the pandemic. Covid-19 is easily transmitted, especially to vulnerable groups with decreased immune factors. This vulnerable group includes pregnant women who are easily infected with Covid-19 [10]. The clinical symptoms of Covid-19 in pregnant women are almost the same as in the group of people who are not pregnant [15]. Several studies have shown that it has not been proven that pregnant women with Covid-19 affect the fetus and breast milk (ASI). Pregnant women, when giving birth, can still give their breast milk, with health protocols, such as wearing masks, washing hands, maintaining cleanliness, and staying away from crowds [16], [8].

The role of health cadres as extensions of health services for pregnant women during this pandemic is significant. Assistance for pregnant women runs optimally if these health cadres have good knowledge about Covid-19. The knowledge includes prevention of Covid-19, handling pregnant woman affected by Covid-19, knowledge about birth when affected by Covid-19, breastfeeding during covid, and important things needed by pregnant women affected by Covid-19 [17]. The impacts of the pandemic include reduced visits to health services for pregnant women, it is necessary to think about the methods that must be carried out so that Ante Natal Care (ANC) and Post Natal Care (PNC) for pregnant women can be carried out with the chosen method that is safe and harmless. The methods chosen include reducing the number of meetings for ANC and PNC, optimizing effective education and consultation through online or electronic media such as forming groups, conducting telemedicine, and others [18]–[20].

Community service aims to empower health cadres of Primary Health Service of Jetis II in Bantul in assisting pregnant women during the pandemic. The need is to increase the knowledge of health cadres [21]. Health cadres are given a safe and easy way to assist by forming groups between cadres and pregnant women in each hamlet. This group acts as a mediator between pregnant women, cadres, and the Primary Health Service, especially the MCH working group. Cadres provide knowledge training regarding health, prevention, and what pregnant women should do if they are positive for Covid-19. These community service materials will be distributed to cadres in teaching videos [22]–[25].

### 2. Method

The initial stage of community service was to disseminate data from Google Forms to pregnant women and follow it up by holding active lectures and discussions involving cadres from five hamlets who were pregnant women. This activity was planned to be centred in Canden Hamlet, near the Al Fatah Mosque, Turen, Canden, Jetis, Bantul. The Community Service Team with KKN students coordinated with the Person in Charge of Primary Health Service of Jetis II and the head of Canden Hamlet during the implementation of activities, providing materials and refreshments to health cadres from five hamlets. The

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ISSN 1978-0524 (print) | 2528-6374 (online)

results of the agreement on the implementation time are Friday, March 5, 2021, 16.00 - 18.00 at the home of the Head of Canden Hamlet, Al Fatah Mosque complex, Turen, Jetis, Bantul. Fig 1 is flowchart of The Implementation of PPM Community Service for Pregnant Women during The Pandemic.

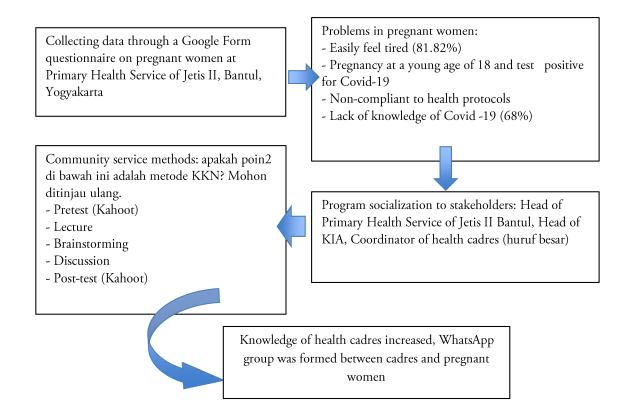


Fig. 1. Flowchart of The Implementation of PPM Community Service for Pregnant Women during The Pandemic

# 3. Results and Discussion

The spokeperson of The Community Service Program was dr. Ivanna Beru Brahmana., Sp.OG (K) who delivered an educational material in a video entitled "What and how is Covid-19 for Pregnant Women?". The event started with remarks from the Head of Canden Hamlet, Kurniawan Setiabudi, followed by a pretest for knowledge assessment "About Pregnant Women in a Pandemic Period". The event was held face-to-face directly at the house of the head of Canden Hamlet, Al Fatah Mosque Complex, which was attended by the guide, dr. Ana Majdawati, 5 KKN students, 5 cadres of the Posyandu Jetis II, and the Head of Canden Hamlet, Jetis II, Bantul. After the educational video was presented, discussion and brainstorming were conducted.

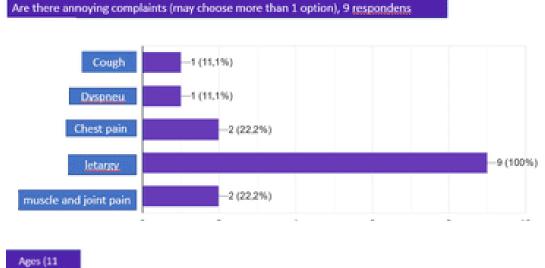
The questions related to pregnant and lactating women by KIA cadres were; (1) How to care for babies born to mothers infected with Covid-19; (2) Could pregnant women with confirmed Covid-19 breastfeed their babies. The discussion program was very lively. There was good enthusiasm from the health cadres, who later would pass on the information they got to the community through health activities in their respective hamlets. The results of the posttest with Kahoot showed better results or scores than the participants were given the material through educational videos. The average value of the pretest was 20-80 (average 55), while the posttest showed value of 60-100 (average 75). The educational video lecture material related to the Covid-19 problems for pregnant women is given to health cadres, which were expected to pass on to the community. Some of the problems that were seen from the Google Form results for Covid-19 survivors and pregnant women during the pandemic can be seen in Table 1.

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**Table 1.** List of Problems Collected from Google Forms for Covid-19 Survivors and Pregnant Women in Primary Health Service of Jetis II, Bantul

Lists of problem	Follow-up plan	Description
Most complaints in pregnant women: easy to feel tired (81.82%)	Lectures and refreshed information on complaints that commonly experienced by pregnant women and its anticipation.	Lectures have been carried out with educational videos on the Risks for Pregnant Women with Covid-19 and how to prevent it
One pregnant woman at a young age of 18 years old	Assistance for pregnant women aged 18 years old	The assistance has been carried out by the Puskesmas, needs evaluation and follow-up
Pregnant women who are non- compliant with health protocols	1. Refreshing 2. Evaluation	Educational lectures have been given.

Adolescent pregnancy occurs in women aged 14-20 years old, both married and unmarried, Fig 2. Adolescent pregnancy has a very high risk of maternal and infant mortality; adolescebt pregnancy can cause bleeding during pregnancy which is at risk for maternal death [9]. The problem of pregnancy in adolescence is very complex, related to immature reproductive organs, unstable psychological problems, inadequate socio-economic problems, and frequent health problems such as anaemia in pregnancy, and others [20], [26]. These problems will affect the fetus and the health of the pregnant women. Mentoring at a young age is very important, especially during a pandemic [22], [27], [28].



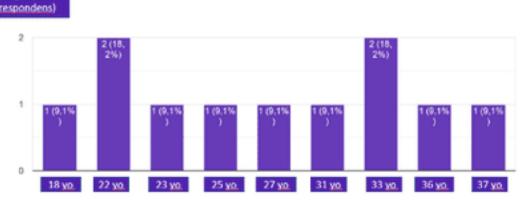


Fig. 2. Graphic of Complaints Experienced by Pregnant Women according to Age

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ISSN 1978-0524 (print) | 2528-6374 (online)

The correlation between the level of education and knowledge of pregnant women affects pregnant women's general comfort and health, especially during the pandemic [29]. Awareness and efforts to prevent Covid-19 disease in pregnant women are influenced by the level of education and knowledge of how pregnant women follow health protocols in an orderly manner, regularly check their pregnancies, and follow the recommendations of health workers [30]–[32]. The role of health cadres for pregnant women during the pandemic is very important as a motivator and mediator for pregnant women's problems to a higher level of health services. Anxiety in pregnant women about Covid-19 transmission can be overcome by providing good knowledge about transmission and how to take preventive actions against Covid-19 [33]–[35]. The short-term evaluation can be seen from the scores obtained by Covid-19 cadres before and after the provision of educational videos for pregnant women during this pandemic. The scores obtained showed an increase, and all obtained a pretty good score on the post-test after listening to the educational video. Fig. 3 is Pre-test and Post-test Conducted Using Kahoot. The participants are evaluating their understanding on the material.



Fig. 3. Pre-test and Post-test Conducted Using Kahoot. The participants are evaluating their understanding on the material

In terms of communication, some of the obstacles experienced related to implementing the Health Thematic Community Service program with the topic of problems for pregnant women during the pandemic. Quite often, the community service team, the primary health service, and the KKN students had difficulties for coordination, so the results wereless than optimal. Socialization to the community to fill the GF for pregnant women was still low, approximately15%. The implementation of community service program such as socialization, giving lectures through educational videos, and evaluating the achievement of scores or scores was less than optimal because of Covid-19. The number of cadres in the Primary Helath Service of Jetis II Bantul, community service team members, KKN students, and the participants originated from cadres and community leaders (5 cadres and 2 chiefs of hamlet) were limited. The information provided was less than optimal when done online. To overcome these obstacles, we held a material presentation event in 2 ways: online and partly offline with face-to-face. The educational videos that we had made were distributed to participants who were present and were expected to continue to be passed on pregnant and lactating women.

# 4. Conclusion

The empowerment of health cadres in the Primary Health Service of Jetis II Bantul has been carried out well; increasing knowledge of health cadres as mediators, motivators and companions for pregnant women during the pandemic. At the end of this activity, the goal of community service program was achieved, namely forming a group for each hamlet through WhatsApp by health cadres and a group of pregnant women in each hamlet consisting of 5 hamlets. It is hoped that there will be discussions sharing

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health information from the Primary Health Service and community service team in the form of videos by cadres to pregnant women so that pregnant women's health problems can be addressed be resolved.

# Acknowledgment

We would like to express our deepest appreciation to the Community Service Team of FKIK UMY, and LPM UMY for providing financial support to implement this activity. We would also thank various parties who have supported this community service event, namely the Head of the Primary of Health Service of Jetis II through the chairman of the KIA Working Group, the 2021 PPM KKN students, The Head of Canden Village, Al Falah Mosque Takmir, Turen Hamlet, Canden, and the Health Cadres. Lat but not least the community who have supported this activity so that this community service program could produce optimal activities, namely empowering health cadres for pregnant women during the pandemic.

## **Declarations**

**Author contribution.** All authors contributed equally to the main contributor to this paper. All authors read and approved the final paper.

**Funding statement.** None of the authors have received any funding or grants from any institution or funding body for the research.

**Conflict of interest.** The authors declare no conflict of interest.

**Additional information.** No additional information is available for this paper.

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