Analysis of Postpartum and Breastfeeding Mother’s Participation in The Covid-19 Vaccination Program

Ariu Dewi Yanti

1 Midwifery, School of Health Science Bina Sehat PPNI Mojokerto, 61364, Indonesia.

Correspondence should be addressed to Ariu Dewi Yanti; ariu914@gmail.com

Abstract

Postpartum and breastfeeding mothers are one of the targets of COVID-19 vaccination. Anxiety about the side effects of the COVID-19 vaccination makes people reluctant to participate in the vaccination program, as well as breastfeeding mothers. Therefore, this study aims to analyse the participation of postpartum and breastfeeding mothers in the COVID-19 vaccination program. This study uses quantitative (analytic) research methods using a cross-sectional design. The population in this study were all postpartum and breastfeeding mothers in the Wuluh Village and Carangrejo, Kesamben Area, Jombang Regency, with a total of 78 respondents. The analysis criteria included age, education, and occupation of postpartum and breastfeeding mothers. The analysis showed that 67.9% of postpartum mothers participated in the COVID-19 vaccination. With $\alpha = 0.05$ and p-value < 0.00001 so that Ho is accepted. The conclusion is that the COVID-19 vaccination program for postpartum mothers in Wuluh Village and Carangrejo, Kesamben Area, Jombang Regency is going well, and there is a relationship between age, education, and occupation of postpartum mothers on participation in the COVID-19 vaccination program.

Keywords: COVID-19, COVID-19 Vaccination, Postpartum and Breastfeeding

Introduction

Like other countries worldwide, the COVID-19 outbreak, which was announced for the first time in March 2020 and became prolonged, significantly impacted the health sector and the Indonesian economy. Indonesia has tried its best to overcome the existing challenges. The President of the Republic of Indonesia has formed a national team to accelerate the development of a COVID-19 vaccine. Presidential Decree No. 18/2020, issued on September 3, 2020, stipulates the formation of a COVID-19 vaccine development team under the supervision of the Coordinating Minister for Economic Affairs (Presidential Decree No.8 of 2020). Furthermore, the Ministry of Research and Technology is responsible for reporting the team's daily tasks to the President (Presidential Decree No.8 of 2020).

The Ministry of Health and UNICEF have signed a Memorandum of Understanding (MoU) to ensure vaccines are available at affordable prices. The
signing is part of Indonesia's commitment to COVAX, the Accelerator for Access to COVID-19 Equipment (ACT-Accelerator) under the leadership of Gavi and WHO, which aims to ensure smooth procurement and equitable distribution of COVID-19 vaccines to all countries. The Government of Indonesia estimates it will receive 30 million doses of vaccine by the end of 2020 through bilateral agreements with various vaccine manufacturers and an additional 50 million doses by early 2021. When a safe vaccine is available, the Government of Indonesia plans to immediately carry out vaccinations as mandated by the Presidential Decree issued in early October.

The Indonesian Technical Advisory Group on Immunization (ITAGI) has evaluated the situation related to COVID-19 vaccination and made some recommendations regarding access to vaccines for priority groups. The Ministry of Health, supported by ITAGI and development partners, has developed standard operating procedures and a roadmap for COVID-19 vaccination. The instruments have been disseminated throughout the provinces and other important preparations, including the instrument for assessing vaccine introduction readiness (VIRAT), are underway. All processes run simultaneously and according to ITAGI recommendations. With support from UNICEF and WHO, the Ministry of Health has conducted an online survey in Indonesia to understand public views, perceptions, and concerns regarding COVID-19 vaccination.

It is known that postpartum mothers and breastfeeding mothers are one of the targets of COVID-19 vaccination. Postpartum is the period since the baby is born and the placenta comes out of the uterus, until the next six weeks, accompanied by the recovery of organs related to the womb, which change such as injuries and so on related to childbirth (Rahmiati, 2018). The postpartum period is when the mother experiences a change in her role (Bobak et al. in Ernawati, 2016). According to Komariah (2015), self-care after childbirth is still lacking with nutrition, breast milk, and breastfeeding. Breast milk (ASI) is a liquid secreted by the mother's breast glands in the form of natural foods or the best nutritious and high-energy milk produced during pregnancy.

Anxiety about the side effects of the COVID-19 vaccination makes people reluctant to participate in the vaccination program, as well as breastfeeding mothers. Therefore, this study aims to analyze the participation of postpartum and breastfeeding mothers in the COVID-19 vaccination program, where this participation is an indicator of the success
of the COVID-19 vaccination program held by the government.

**Materials and Methods**

This study uses quantitative (analytic) research methods using a cross-sectional design where the objects are measured and collected within a certain time that the researcher has determined.

The population in this study were all postpartum and breastfeeding mothers in the Wuluh Village and Carangrejo, Kesamben District, Jombang Regency, with a total of 78 respondents. The sampling technique was purposive sampling, namely determining the sample following what the researcher wanted.

The research licensing process, coordination with village heads and midwives/vaccinators, and data collection were carried out in its implementation. Interviews were conducted with health workers to explore the implementation of the vaccination program for postpartum and breastfeeding mothers and the obstacles to health workers in carrying out their duties as implementers of the vaccination program.

The data collection process begins with an application for permission from the village head. After obtaining a research permit, the research was carried out in the Wuluh Village and Carangrejo, Kesamben area, Jombang Regency, and continued with sampling. In order to obtain the expected information, data collection and techniques used in this study include interviews, observations (observations), questionnaires, and documentation.

In this study, the researcher uses a data analysis model called the interactive model. This model consists of three main things: data reduction, data presentation, and conclusion drawing/verification.

**Results and Discussion**

**Results**

**Univariate Analysis**

The univariate analysis frequency distribution of the independent variables can be seen in the following table.

**Table 1. Distribution of Age Frequency of Postpartum Mothers, Education of Postpartum Mothers, Occupation of Postpartum Mothers, and Participation in COVID-19 Vaccination in Wuluh Village and Carangrejo Village, Kesamben District, Jombang Regency in 2021.**
Table 1 shows that the largest percentage of postpartum mothers is in the group 29–34 years (35.8%), education of postpartum mothers in the high school group (51.2%), the occupation of postpartum mothers as a housewife (57.7%), and participation in COVID vaccination -19, namely postpartum mothers who participated in the COVID-19 vaccination (67.9%).

**Bivariate Analysis**

1. Relationship between Postpartum Mother's Age and Participation in COVID-19 Vaccination

**Table 2.** Frequency Distribution of Relationship between Postpartum Mother's Age and Participation in COVID-19 Vaccination

<table>
<thead>
<tr>
<th>Variable</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. 20-28 Years</td>
<td>30</td>
<td>38.5</td>
</tr>
<tr>
<td>b. 29-34 Years</td>
<td>28</td>
<td>35.8</td>
</tr>
<tr>
<td>c. 35-40 Years</td>
<td>20</td>
<td>25.7</td>
</tr>
<tr>
<td>Last Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Junior High School</td>
<td>33</td>
<td>42.3</td>
</tr>
<tr>
<td>b. Senior High School</td>
<td>40</td>
<td>51.2</td>
</tr>
<tr>
<td>c. University</td>
<td>5</td>
<td>6.7</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Housewife</td>
<td>45</td>
<td>57.7</td>
</tr>
<tr>
<td>b. Worker</td>
<td>33</td>
<td>42.3</td>
</tr>
<tr>
<td>Vaccine Participation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Participate</td>
<td>53</td>
<td>67.9</td>
</tr>
<tr>
<td>b. Not Participate</td>
<td>25</td>
<td>32.1</td>
</tr>
</tbody>
</table>

Table 2 illustrates that the percentage of postpartum mothers who did not participate in the COVID-19 vaccination was greater in the 35-40 age group (75%), while the postpartum mother's age who participated in the COVID-19 vaccination was greater in the 20-28 year age group (86.7%). The results of statistical tests using chi-square with \(\alpha = 0.05\) obtained value \(< 0.00001\), where value \(< \alpha\) so Ho is accepted. Thus, it can be concluded that there is a relationship between a postpartum mother's age and participation in COVID-19 vaccination.
Table 3. Frequency Distribution of Relationship between Postpartum Mothers’ Education and Participation in COVID-19 Vaccination Participation in Wuluh Village and Carangrejo Village, Kesamben District, Jombang Regency in 2021

<table>
<thead>
<tr>
<th>Postpartum Mother's Education</th>
<th>Participation in COVID-19 Vaccination</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Participate</td>
<td>Participate</td>
</tr>
<tr>
<td>Junior High School</td>
<td>16</td>
<td>48, 5, 17</td>
</tr>
<tr>
<td>Senior High School</td>
<td>8</td>
<td>20, 4</td>
</tr>
<tr>
<td>University</td>
<td>1</td>
<td>20</td>
</tr>
</tbody>
</table>

The table above shows that the largest percentage of postpartum mothers who participated in the COVID-19 vaccination was high school and college education (80%), and the largest percentage of postpartum mothers who did not participate in the COVID-19 vaccination was junior high school education (48.5%). The analysis using the chi-square statistical test obtained a value of 0.028825, concluding a significant relationship between postpartum mother’s education and participation in COVID-19 vaccination.

3. Relationship between Postpartum Mother’s Occupation and Participation in COVID-19 Vaccination

Table 4. Distribution of Frequency of Postpartum Mother’s Occupation Relationship with Participation in COVID-19 Vaccination Participation in Wuluh Village and Carangrejo Village, Kesamben District, Jombang Regency in 2021

<table>
<thead>
<tr>
<th>Postpartum Mother's Occupation</th>
<th>Participation in COVID-19 Vaccination</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Participate</td>
<td>Participate</td>
</tr>
<tr>
<td>Housewife</td>
<td>20</td>
<td>44, 4</td>
</tr>
<tr>
<td>Worker</td>
<td>5</td>
<td>15, 2</td>
</tr>
</tbody>
</table>

The table above shows that the percentage of postpartum mothers who did not participate in the COVID-19 vaccination were mostly mothers who did not work or as IRT (44.4%). Meanwhile, mothers who worked outside the home (84.8%) mostly participated in the COVID-19 vaccination. The analysis using the chi-square statistical test obtained a value of 0.006166, concluding that there is a significant relationship between the work of
postpartum mothers and participation in COVID-19 vaccination.

Discussion

1. Relationship between Postpartum Mother’s Age and Participation in COVID-19 Vaccination

The results showed that respondents aged 29-34 years were more likely to participate in the COVID-19 vaccination than those aged 20-28 and 35-40. It can happen because age can affect the way a person thinks. The older someone gets, the more their perspective on an object develops. The age of a person can affect the way they think. According to Astuti et al. (2021), people with a history of comorbidities who refused to receive the vaccine were 3.80% of the respondents.

Another study also explained that age significantly affected vaccine acceptance (Kaadan et al., 2021). Respondents with young adults tend to receive the vaccine because they have consideration of living at home with their parents (Zhou et al., 2021). In addition, younger and unmarried age have high vaccine acceptance (Mohamad et al., 2021).

2. Relationship between Postpartum Mother’s Education and Participation in COVID-19 Vaccination

The results show that education plays a role in accepting the COVID-19 vaccine. In postpartum mothers with higher education and high school background, as much as 80.0% participated in vaccination, and junior high school education was only 51.5%. Education can develop information for the better. Good information will affect vaccine acceptance. It is in line with (Gallè et al., 2021) that a person's education will be able to influence vaccine acceptance. Higher education tends to accept government policies in the implementation of vaccines. Another thing is that based on one's experience will affect vaccine acceptance (Al-Metwali et al., 2021).

According to research conducted by (Syed Alwi et al., 2021), low education is related to a lack of knowledge. It causes an inaccurate perception of COVID-19 related to the next decision to receive the covid-19 vaccine (Wong et al., 2021; Abu Hammour et al., 2021). In this case, the government needs to pay attention to health education and education about COVID-19 and the COVID-19 vaccine are very necessary to increase public knowledge. It is hoped that with the right knowledge, the public will realize the importance of the COVID-19 vaccine as an effort to fight the spread of COVID-19 and carry out vaccinations as a form of compliance with government programs, although based on the results of other studies that knowledge and education are not directly related to compliance with implementing vaccines (Akiful Haque et al., 2021).
3. Relationship between Postpartum Mother's Occupation and Participation in COVID-19 Vaccination

In this study, respondents as housewives (55.6%) and respondents who worked outside the home (84.8%) participated in the COVID-19 vaccination. Workers are a population group with a dominant proportion and have a strategic role in the economic sector. The COVID-19 pandemic has caused an increase in unemployment and a decrease in income. The working population and workplace are also potential clusters for the spread of COVID19. Vaccination efforts in the working population by involving business actors are an opportunity to accelerate and expand national vaccination coverage. Accelerating the vaccination of workers and implementing health protocols to overcome the pandemic will also accelerate the recovery of productivity (Mansyur, 2021).

Conclusions

Through an analysis of the participation of postpartum and breastfeeding mothers in the COVID-19 vaccination program, it was found that the COVID-19 vaccination program for postpartum mothers in Wuluh Village and Carangrejo Village, Kesamben District, Jombang Regency was running well. It can be seen from the participation of postpartum mothers in COVID-19 vaccination of 67.9%. There is a relationship between age, education, and occupation of postpartum mothers on participation in the COVID-19 vaccination program. It can affect the respondent's level of knowledge about the COVID-19 vaccination program.

Data Availability

Please, contact of author.

Conflicts of Interest

No Conflicts of Interest

Funding Statement

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None.

Supplementary Materials

None.

References


