ADMINISTRATION OF TETANUS TOXOID IMMUNIZATION TO PREGNANT MOTHERS DURING THE COVID-19 PANDEMIC

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Abstract

Background: The outbreak of the Covid-19 pandemic in Indonesia impacts women's reproductive health services, including pregnant women services that meet the standard, namely the administration of TT immunization. Officers at the Community Health Center (Puskesmas) are more focused on controlling the spread of COVID-19. The problem that arises due to pregnant women who are not administered Tetanus Toxoid during pregnancy is the occurrence of tetanus in the mother and baby. Objective: To determine the relationship between knowledge, attitudes, and support of MCH officers towards the administration of Tetanus Toxoid immunization during the COVID-19 pandemic at UPT Puskesmas Pasundan, Garut Regency, for the period of June-July 2021. Method: Analytic observational with the cross-sectional approach. The study was conducted from June to July 2021. The population and research sample consisted of 50 people. A questionnaire was used as a research instrument. Analysis: Univariate to explain the research variables and bivariate analysis to explain the relationship between knowledge, attitudes of pregnant women, and the support of MCH officers in administering Tetanus Toxoid immunization during the covid-19 pandemic. Hypothesis testing used a statistical test, namely the Chi-Square test with SPSS 2013, and the significance level was 0.05. Results: Relationship between Knowledge and Administration of Tetanus Toxoid Immunization, p-value = 0.015 (p < 0.05). Relationship between Attitude and Administration of Tetanus Toxoid Immunization, p-value = 0.0001 (P <0.05). Relationship between support of MCH officers and Administration of Tetanus Toxoid immunization, p-value = 0.0001 (p < 0.05). Conclusion: There is a relationship between knowledge, attitudes, and support of MCH officers towards the administration of Tetanus Toxoid immunization. It illustrates that the presence of COVID-19 slightly interferes with the administration of TT immunization to pregnant women. Suggestion: It is important to make various efforts and ways to increase the coverage of TT immunization for pregnant women during the covid-19 pandemic.

Keywords: Covid-19, Pregnant Women, TT Immunization.

INTRODUCTION

Tetanus infection is one of the causes of maternal and infant mortality. Death due to tetanus infection caused by unsafe/sterile delivery process or from wounds obtained by pregnant women before giving birth. Tetanus in non-neonatal is primarily due to work, especially jobs with high potential hazards such as agricultural workers, industrial workers, health workers, construction workers, and ironworkers. It can also be found in wounds that are not appropriately treated. (K., 2020).

The infant mortality rate (IMR) is a sensitive indicator of health service efforts, especially those related to perinatal and neonatal newborns (Kemenkes RI, 2020). It is reported, In 2019, the infant mortality ratio is 3.26/1000 live births or 2,851 cases, a decrease of 0.14 points compared to 2018 of 3.4/1000 live births or 3,083 cases. Causes of neonatal death are still dominated by 40.25% Low birth weight (LBW); 27.60% Assification; 0.13% Tetanus Neonatorum; 3.14% Sepsis; 17.28% other causes; and the remaining 11.59% congenital abnormalities (Jabar Dinkes, 2020).

Immunization is an effort to actively increase a person’s immunity to a disease so that if one day they are exposed to the disease, they will not get sick or only experience mild illness.

A vaccine is a biological product that contains antigens in the form of dead or living microorganisms that are attenuated, still intact, or parts of it, or in the form of toxin microorganisms that have been processed into toxoids, or recombinant protein, which is added with other substances, which when given to a person will cause active specific immunity against certain diseases (Kementerian Kesehatan Republik Indonesia, 2015)
As an effort to control tetanus infection, the Tetanus Toxoid (TT) immunization program is implemented for Women of Childbearing Age (WCA) and pregnant women. Regulation of Minister of Health Number 12 of 2017 concerning the Implementation of Immunization mandates that Women of Childbearing Age (WCA) and pregnant women are one of the population groups targeted for catch-up immunization. Catch-up immunization is a basic immunization repetition to maintain the level of immunity and to extend the life of protection. TT immunization for pregnant women protects the mother and the baby so that neonatal tetanus does not occur.

WHO (World Health Organization) officially declared the coronavirus (COVID-19) as a pandemic on March 9th, 2020. According to data released by the Task Force for the Acceleration of Handling COVID-19 of the Republic of Indonesia, positive confirmed cases until May 3rd, 2021 are 1,677,274 people, with the number of deaths 45,796 people. The case fatality rate due to COVID-19 is around 2.7%, and in June-July, the number of confirmed and dead is increasing. The outbreak of the Covid-19 pandemic in Indonesia affects the economy, education, and society sector. In addition, this situation also impacts health services such as women's reproductive health services. Reproductive health service for women is a must, and it cannot be postponed. These services include pregnant women services, maternity, postpartum, and family planning (Reza, 2021).

In Indonesia, many pregnant women do not check their pregnancies at health care facilities because they are afraid to come to the Community Health Center (Puskesmas) or other health services. It is due to the implementation of Large-Scale Social Restrictions (PSBB), which aims to prevent the spread of the coronavirus-19. Many mothers are not immunized with Tetanus Toxoids by trained health workers. A problem that may arise from pregnant women who are not immunized with TT is the possibility of tetanus to the mother and baby (dr. Marianti, 2021).

This study was conducted to determine the relationship between knowledge, attitudes, and support of Maternal and Child Health (MCH) officers towards the administration of Tetanus Toxoid vaccine to pregnant women during the COVID-19 pandemic at the UPT Puskesmas Pasundan Garut, Period June-July 2021.

Research Method

This research was analytic observational research with a cross-sectional approach, which was emphasized the measurement or observation of data once at a time on the independent variable (knowledge, attitudes of pregnant women, and support of MCH officers) and the dependent variable (administration of Tetanus Toxoid immunization). The population and the sample in this study do 50 pregnant women in the second trimester. Data collection used a questionnaire. Further, data analysis used computer applications.

Research Results

The research results are presented as follows:

1. The Relationship between Knowledge and Administration of Tetanus Toxoid Immunization

<table>
<thead>
<tr>
<th>Mother's Knowledge</th>
<th>Administration of Tetanus Toxoid Immunization</th>
<th>Total</th>
<th>OR (95% CI)</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete</td>
<td>Incomplete</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Good</td>
<td>16</td>
<td>53,3%</td>
<td>14</td>
<td>46,7%</td>
</tr>
<tr>
<td>Poor</td>
<td>3</td>
<td>15,0%</td>
<td>17</td>
<td>85,0%</td>
</tr>
</tbody>
</table>
The results showed that from 30 respondents (100%) have knowledge in the good category, 16 respondents (53.3%) have complete immunization status, and 14 respondents have incomplete immunizations (46.7%). Meanwhile, from 20 respondents (100%) have poor knowledge, 3 respondents (15.0%) have complete immunization, and 17 respondents have incomplete immunization status (85.0%). The statistical analysis result uses the Chi-square test is the p-value = 0.015 (p < 0.05), there is a relationship between knowledge and the administration of Tetanus Toxoid immunization to pregnant women at UPT Puskesmas Pasundan.

2. The Relationship between Attitude and Administration of Tetanus Toxoid Immunization

Table 1.2. The Relationship between Attitude and Administration of Tetanus Toxoid Immunization

<table>
<thead>
<tr>
<th>Mother's Attitude</th>
<th>Administration of Tetanus Toxoid Immunization</th>
<th>Total</th>
<th>OR (95% CI)</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete</td>
<td>Incomplete</td>
<td></td>
<td>n</td>
</tr>
<tr>
<td>Good</td>
<td>16</td>
<td>66.7%</td>
<td>8</td>
<td>33.3%</td>
</tr>
<tr>
<td>Poor</td>
<td>3</td>
<td>11.5%</td>
<td>23</td>
<td>88.5%</td>
</tr>
</tbody>
</table>

The results showed that from 24 respondents (100%) have an attitude in the good category, 16 respondents (66.7%) have complete immunization status and 8 respondents (33.3%) have incomplete immunization status. Meanwhile, out of 26 respondents (100%) have an attitude in the poor category, 3 respondents (11.5%) have complete immunization status, and 23 respondents (88.5%) have incomplete immunization status. The statistical analysis result uses the Chi-square test is the p-value = 0.0001 (p < 0.05), there is a relationship between attitude and the administration of Tetanus Toxoid immunization to pregnant women.

3. The Relationship between Support of MCH Officers and Administration of Tetanus Toxoid Immunization

Table 1.3. The Relationship between Support of MCH Officers and Administration of Tetanus Toxoid Immunization

<table>
<thead>
<tr>
<th>Support of MCH Officers</th>
<th>Administration of Tetanus Toxoid Immunization</th>
<th>Total</th>
<th>OR (95% CI)</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete</td>
<td>Incomplete</td>
<td></td>
<td>n</td>
</tr>
<tr>
<td>Good</td>
<td>15</td>
<td>71.4%</td>
<td>6</td>
<td>28.6%</td>
</tr>
<tr>
<td>Poor</td>
<td>4</td>
<td>13.8%</td>
<td>25</td>
<td>86.2%</td>
</tr>
</tbody>
</table>

The results showed that 21 respondents (100%) have support from officers in the good category, 15 respondents (71.4%) have complete immunization status, and 6 respondents (28.6%) have incomplete immunization status. Meanwhile, from 29 respondents (100%) who have support from officers in the poor category, 4 respondents (13.8%) have complete immunization status, and 25 respondents (86.2%) have incomplete immunization status. The statistical analysis result uses the Chi-square test is the p-value = 0.0001 (p < 0.05). It means there is a relationship between the support of MCH officers and the administration of Tetanus Toxoid immunization to pregnant women.

Discussion of Research Results

Based on the research results and interviews with respondents, respondents understand the importance of Tetanus Toxoid immunization for pregnant women and their babies. However, respondents do not carry out the Tetanus Toxoid immunization because of fear. Furthermore, respondents are afraid of getting sick after being immunized because of the COVID-19 pandemic. One of the factors that influence knowledge is education. Most pregnant women's education is in the medium category, namely Senior High School. It causes insufficient knowledge of pregnant women about Tetanus Toxoid immunization. In addition,
parity (second to fourth pregnancy) is parity where pregnant women do not want to carry out Tetanus Toxoid immunization because there are no problems without Tetanus Toxoid immunization in the previous pregnancy.

Another factor is pregnant women's fear of checking themselves at the Community Health Center (Puskesmas) due to the ongoing covid-19 pandemic, which requires social restrictions to break the chain of the spread of the coronavirus. Thus, pregnant women do not receive guidance from MCH officers about the importance of Tetanus Toxoid immunization. In addition, the implementation of Restrictions towards Community Activities (PPKM) causes pregnant women to be lazy and afraid to go to health facilities if not needed.

Efforts to increase knowledge of pregnant women are increasing counselling and disseminating information about Tetanus Toxoid immunization in Community Health Center (Puskesmas) and Integrated Services Post(Posyandu) activities by health workers and assisted by health cadres who have been trained regularly to the community or information can be given to pregnant women through online social media.

Knowledge is the result of knowing, and this happens after people have sensed a certain object. Sensing occurs through the five human senses, namely vision, hearing, smell, taste, and touch. Most human knowledge is obtained from the eyes and ears.(Sukidjo Notoatmojo, 2012). Knowledge is a factor that underlies a person's behaviour (Green dan Keuter) in Notoatmodjo (2012), knowledge is a very important domain for forming one's actions.

Theoretically, the level of knowledge will affect individual behaviour. According to (A.Wawan, 2011), the first factor influencing knowledge is the internal factor, namely education. Education means the guidance given by a person towards the development of others towards certain ideals that determine humans to act and fill life to achieve safety and happiness.

Education is needed to get information, such as things that support health to improve the quality of life. Education can influence a person, influencing a person's behaviour towards the pattern of life, especially in motivating to participate in development. In general, the higher a person's education, the easier that person is to receive information. The second factor is working. Working is a necessity that must be done, primarily to support his life and family life.

Working is not a source of pleasure but rather a boring, repetitive, and challenging way of earning a living. Meanwhile, work is generally a time-consuming activity. Working for mothers influences family life.

The third factor is age. Individual's age is starting from birth to have a birthday. According to (HURLOCK, 2008), the older a person is, the more mature a person's level of maturity and strength will be in thinking and working. In terms of public trust, someone who is more mature is more trusted than someone who is not mature enough. It is a result of the experience and maturity of the soul.

Then, external factors are environmental factors. Environmental factors are all conditions that exist around humans and can affect the development and behaviour of people or groups, and socio-cultural factors in society can affect attitudes to receive information. Behaviour-based knowledge will be more lasting than behaviour lack of knowledge. Rogers' research in Notoatmodjo (2012) reveals that before people adopt a new behaviour, a sequential process occurs within the person. The more knowledge of pregnant women about the importance of health, the higher the level of awareness of pregnant women to participate in implementing Tetanus Toxoid immunization.

According to researchers, during the COVID-19 pandemic, pregnant women are more focused on determining their attitude to maintain their health, especially their immunity, so that they do not get infected with COVID-19 than the Tetanus Toxoid vaccine. Respondents assume that they will be easily exposed to the coronavirus if they are sick after the Tetanus Toxoid vaccine. They are afraid to come to the Community Health Center (Puskesmas) or health facilities because many patients are sick and suffering from diseases caused by the coronavirus.

Attitude is a closed reaction or response from a person to a stimulus or object (Notoatmodjo, 2012). Attitude is a closed reaction, not an open reaction or open behaviour. Attitude is a readiness to react to objects in a particular environment as an appreciation of the object (Notoatmodjo, 2012). Attitudes have three main components: beliefs, ideas, and concepts towards an object, emotional life or evaluation of an object, and a tendency to act (tend to behave). These three components together form a complete attitude (total attitude). In determining this complete attitude, knowledge, thoughts, beliefs, and emotions play an essential role (Sukidjo Notoatmojo, 2012)
The process of attitude is the existence of stimuli such as public knowledge. This stimulus stimulates the community to respond positively and negatively, eventually manifesting in actual actions (Notoatmodjo, 2012). Theoretically, attitude will affect someone’s action because attitude is the beginning of an action. The attitude of pregnant women who realize that Tetanus Toxoid immunization is important can lead to readiness and willingness to implement Tetanus Toxoid immunization during pregnancy and is supported by good knowledge.

According to Law Number 32 of 2014, a health worker is any person who is devoted to the health sector and has the knowledge and/or skills through education in the health field for certain types requires the authority to make health efforts. A Health officer is responsible for providing health services to individuals and the community in a professional manner, and it will affect the health status of the community (Purwoastuti dan Walyani, 2015). The role of health workers is vital because they are the closest people who can convey all knowledge and maintain good reciprocity. Health workers should be closer to the community, known, and trusted to run other programs besides the Tetanus Toxoid immunization program.

Counselling or providing information regarding Tetanus Toxoid immunization given by health workers to pregnant women during the COVID-19 pandemic is not the main focus of the current MCH officer program. The current Tetanus Toxoid program targets pregnant women and WCA (Women of Childbearing Age), whether they are pregnant or not. The target of this program is also women starting from the bride-to-be (TT1-TT5), whether pregnant or not. According to the author's observations, health workers are currently focusing on breaking the chain of the coronavirus spread. Thus, the administration of Tetanus Toxoid immunization to pregnant women is not a top priority. Further, the Covid immunizations program has also started for pregnant women over 13 weeks and breastfeeding mothers. It is expected that pregnant and lactating women have immunity against the coronavirus.

**Conclusion**

From this research, it can be concluded that there is a relationship between knowledge, attitudes, and support of MCH office targets pregnant women and WCA (Women of Childbearing Age), whether they are pregnant or not. The target of this program is also women starting from the bride-to-be (TT1-TT5), whether pregnant or not. According to the author's observations, health workers are currently focusing on breaking the chain of the coronavirus spread. Thus, the administration of Tetanus Toxoid immunization to pregnant women is not a top priority. Further, the Covid immunizations program has also started for pregnant women over 13 weeks and breastfeeding mothers. It is expected that pregnant and lactating women have immunity against the coronavirus.

**REFERENCES**