

THE CORRELATION BETWEEN KNOWLEDGE AND ATTITUDE OF PREGNANT WOMEN WITH TETANUS DIPHTHERIA IMMUNIZATION TO PREGNANT WOMEN IN BANDAR SETIA VILLAGE

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ABSTRACT

One of the causes of maternal death is infection. Tetanus infection caused by the bacterium Clostridium tetani is one of the causes of maternal and infant mortality. The author aims to conduct research on the relationship between knowledge and attitudes of pregnant women with tetanus diphtheria immunization in the village of Bandar Setia, Deli Serdang Regency. This was a descriptive study with a cross sectional approach. The population was pregnant women recorded at the Bandar Setia Polindes in January - March 2023 totaling 34 people. The sampling technique in this study was the total sampling technique because the total population was less than 100 people. The time of the study was January - March 2023. The data collection technique was primary data by filling out a questionnaire. Questionnaires are used to measure the knowledge and attitudes of pregnant women, while secondary data is obtained from the register of pregnant women who come to check their pregnancies. Data analysis included Univariate and Bivariate with the chi square test. The test was carried out to determine the significance test using a 95% confidence level and an error rate (α) = 5%. The results of the chi square statistical test on the knowledge variable, the value of $p = 0.003$ ($p < 0.05$) this shows that knowledge has a significant relationship with the administration of Td immunization, as well as on the attitude variable the results of the chi square statistical test obtained a value of $p = 0.001$ (< 0.05) this shows that attitude has a significant relationship with giving Td immunization to pregnant women. It is hoped that health workers will promote more promotion of Tanus Diphtheria Immunization for women of childbearing age, especially pregnant women, to increase the knowledge of women of childbearing age about Tetanus Diphtheria immunization.

Keywords: Knowledge, attitude, immunization, tetanus diphtheria



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INTRODUCTION

Family development is carried out in an effort to create a quality family

that lives in a healthy environment. Mothers and children are family members who need to get priority in implementing health efforts. The

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success of the maternal health program can be assessed through the main indicator Maternal Mortality Rate (MMR). In general, there was a decrease in maternal mortality during the 1991-2015 period from 390 to 305 per 100,000 live births. Even though there has been a downward trend in the maternal mortality rate, this figure has failed to achieve the MDGs target of 102 per 100,000 live births by 2015. The results of the 2015 Inter-Census Population Survey show that the maternal mortality rate is three times higher than the MDGs target. The number of maternal deaths collected from family health program records at the Ministry of Health increases every year. In 2021 there were 7,389 deaths in Indonesia. This number shows an increase compared to 2020 of 4,627 deaths.

Maternal mortality in this indicator is defined as all deaths during the period of pregnancy, childbirth and childbirth caused by its management but not due to other causes such as accidents or incidentals. One of the causes of maternal death is infection. Tetanus infection caused by the bacterium *Clostridium tetani* is one of

the causes of maternal and infant mortality. Death due to tetanus infection is the result of an unsafe/sterile delivery process or comes from wounds obtained by pregnant women before giving birth.

As an effort to control tetanus infection which is a risk factor for maternal and infant mortality and to provide additional protection against diphteria, a Tetanus Diphteria immunization program for Women of Reproductive Age has been implemented. Regulation of the Minister of Health Number 12 of 2017 concerning Implementation of Immunizations mandates that women of childbearing age (especially pregnant women) are one of the population groups that are targeted for further immunization. Follow-up immunization is a repeat of basic immunization to maintain the level of immunity and to extend the life of protection. Women of childbearing age who are the target of Td immunization are in the age group of 15-39 years consisting of pregnant and non-pregnant women of reproductive age.

Pregnant women are important in carrying out Tetanus Toxoid immunization because by immunizing

during pregnancy, immunoglobulin molecules will be distributed from the mother to the baby through the placenta as passive immunity for the baby. If the mother does not carry out the Tetanus Toxoid immunization, it will cause the baby to get infected with neonatal tetanus which results in the baby dying (Wiknjosastro, 2010).

Screening for "T" status in Women of Reproductive Age must be carried out before administering the vaccine. Td immunization is not necessary if the screening results show that the status of a woman of childbearing age has reached T5, as evidenced by the Maternal and Child Health book, medical record, cohort or other immunization register book. The group of pregnant women who have received Td2 to Td5 immunization are said to have received Td2+ immunization.

Based on Indonesia's health profile data for 2021, immunization coverage for Td1 to Td5 for pregnant women in 2021 is still very low, namely less than 20%. Td5 coverage of 12.5%, decreased compared to 2020 of 15.8%. The coverage of Td2+ immunization for pregnant women in 2021 is 46.4%. This coverage is lower than in 2020 of

54.7%, and also lower than the coverage of services for pregnant women Visit 4 which is 88.8%. Whereas Td2+ is a prerequisite for health services for pregnant women Visit 4. Based on provincial distribution, the Provinces of North Sumatra, Lampung and North Maluku did not send reports so there was no data on Td2+ immunization coverage (Kemenkes RI, 2022).

Based on research Sutrisari Sabrina Nainggolan (2021), regarding factors related to the administration of tetanus toxoid immunization to pregnant women, concluded that the factors related to the administration of tetanus toxoid immunization are knowledge, attitudes and family support.

With increasing age a person will experience changes in his physical and psychological aspects. In the psychological aspect, the level of one's thinking will be more mature and mature so that more knowledge is obtained. Td immunization is very important to be given to pregnant women to provide protection for mothers and newborns. The higher a person's education, the easier it is to receive information so that the mother has more knowledge. However, what

happened was that some pregnant women did not understand the importance of carrying out the tetanus toxoid immunization so that they did not support a positive attitude towards pregnant women. In addition, family support that has been given to pregnant women may not necessarily be a determinant for pregnant women to carry out tetanus toxoid immunization because pregnant women themselves do not have the desire or do not care about the importance of tetanus toxoid immunization.

From the problems above, the authors are interested in conducting research on the relationship between knowledge and attitudes of pregnant women with tetanus diphtheria immunization in Bandar Setia Village, Deli Serdang Regency in 2023.

MATERIAL AND METHOD

The research method used is descriptive with a cross sectional approach. The population is pregnant women recorded at the Bandar Setia Polindes in January - March 2023 totaling 34 people. The sampling technique in this study was the total sampling technique because the total population was less than 100 people. The time of the study was January - March 2023. The data collection technique was primary data by filling out a questionnaire. Questionnaires to measure the knowledge and attitudes of pregnant women, while secondary data were obtained from the register book of pregnant women who came to check their pregnancies. Data analysis included Univariate and Bivariate with the chi square test. The test was carried out to determine the significance test using a 95% confidence level and an error rate (α) = 5% (Sugiyono, 2017).

RESULT

Table 1. Frequency Distribution of Respondents Based on Characteristics

Variabel		f	%
Age	20-25 years	11	32,4
	26-30 years	13	38,2
	31-35 years	10	29,4
	Total	34	100
Level of education	Tall	7	20,6
	Low	27	79,4
	Total	34	100
Knowledge	Good	8	23,5
	Not enough	26	76,5
	Total	34	100
Attitude	Positive	9	26,5
	Negative	25	73,5
	Total	34	100
Giving Tetanus diphteria	Given	11	32,4
	Not given	23	67,6
	Total	34	100

Table 1 above shows that based on age, the majority of respondents were aged 26-30 years with 13 respondents (38.2), based on education, the majority had low education as many as 17 people (79.4), based on less

knowledge as many as 26 people (76.5), based on attitude, the majority were negative as many as 25 people (73.5), and based on giving tetanus diphteria the majority did not get tetanus diphteria as many as 23 people (67.6).

Table 2. Analysis of knowledge and attitudes with the administration of tetanus diphteria immunization

Variabel		Giving Tetanus diphteria		Total	p-Value	OR (95% CI)
		Given	Not given			
Knowledge	Good	6	2	8	0,003	18,37 (2,74 – 122,94)
	Not enough	5	21	26		
	Total	11	23	34		
Attitude	Positive	7	2	9	0,001	12,60 (1,93 – 82,08)
	Negative	4	21	25		
	Total	11	23	34		

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Table 2 above shows the results of the chi square statistical test on the knowledge variable, the value of $p = 0.003$ ($p < 0.05$) this shows that knowledge has a significant relationship with the administration of Td immunization, as well as on the attitude variable the results of the chi square statistical test obtained a p value $= 0.001$ (< 0.05) this shows that attitude has a significant relationship with diphteria tetanus immunization in pregnant women.

DISCUSSION

Knowledge is the result of knowing from human sensing of a particular object. The sensing process occurs through the five human senses, namely the senses of sight, hearing, smell, taste, and through the skin. Knowledge (cognitive) is a very important domain in shaping one's actions, actions based on knowledge will influence individual behavior rather than behavior that is not based on knowledge (Notoatmodjo, S., 2012).

According to (Lede et al., 2021) in his research on the Determinants of

Tetanus Texoid (TT) Immunization Coverage in Pregnant Women in Indonesia: Literature Review states that increasing one's knowledge will be the basis for doing various things and understanding many things related to the latest information. How to increase this knowledge can be done through virtual education. In addition, it is hoped that health workers can carry out screening when pregnant women are immunized against tetanus toxoid in his research on the Determinants of Tetanus Toxoid (TT) Immunization Coverage in Pregnant Women in Indonesia: Literature Review states that increasing one's knowledge will be the basis for doing various things and understanding many things related to the latest information. How to increase this knowledge can be done through virtual education. In addition, it is hoped that health workers can carry out screening when pregnant women are immunized against tetanus toxoid.

According to (Saam, Z., & Wahyuni, S., 2012), there are several factors that influence one's knowledge, namely factors that come from within the individual himself such as education

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and perception. Other factors that come from outside that affect one's knowledge such as information, social, culture, and environment. Technological advances have resulted in the availability of various mass media that can influence public knowledge, especially pregnant women. Based on this theory it can be seen that the importance of information so that new knowledge can emerge about an object, this can form new behaviors by individuals which in this case illustrates the respondent's knowledge about Tetanus Toxoid immunization.

Likewise with research (Naibaho, 2021) regarding the Relationship between Knowledge and Attitudes of Pregnant Women About Tetanus Toxoid Immunization at the Nunpene Health Center in 2019, the results showed that there was a positive and significant relationship between knowledge and attitudes of pregnant women about tetanus toxoid immunization.

This is in accordance with the results of this study in table 2, it is known that there were 8 people who had good knowledge and 6 of them received Td immunization, on the other

hand there were 26 people who had less knowledge and only 5 people who received Td immunization, the majority who had less knowledge were 21 people do not get immunized.

Increasing knowledge is not absolutely obtained from formal education, but can also be obtained from non-formal education. The higher a person's education level, the higher the motivation to use health facilities because they already have more outside knowledge and insight. So that the education level of pregnant women can influence the mother in making decisions to carry out Tetanus diphteria immunization

Mothers who have good knowledge about Tetanus Toxoid immunization, then these pregnant women will not experience tetanus because pregnant women have carried out Tetanus Toxoid immunization which aims to protect mothers and babies who will be born from tetanus disease or infection and tetanus neonatorum in infants, while mothers pregnant with less knowledge will be close to the occurrence of tetanus both for the mother and the baby itself, because of the limited knowledge and

ability of the mother to find various information related to things that need to be done so that tetanus does not occur by carrying out Tetanus Toxoid immunization since pregnancy.

In the study it was also found that there were only 7 respondents with higher education, this indicates that it is possible that the low education of the respondents affected the lack of knowledge and it was seen from the number of respondents who did not get immunizations and was supported by statistical test results with a value of $p = 0.003$ (<0.05), which means that knowledge has a significant relationship with tetanus diphtheria immunization.

Attitude is a reaction from a person's closed response to a stimulus or object. Attitudes cannot be seen immediately but can only be interpreted in advance and covered behavior. Attitude has three components, namely trust/belief, family and the concept of an object of emotional life or emotional evaluation of an object, emotional tendency to act. One's knowledge of an object also contains two aspects, namely positive and negative aspects. These two aspects will ultimately determine a person's attitude towards a

particular object. The more positive aspects of an object that are known, the more positive attitudes towards certain objects will grow (Notoatmodjo, S., 2012).

Attitude really determines a person towards a better direction. A positive attitude will bring out the behavior of pregnant women who will carry out Tetanus Toxoid immunization in pregnant women. The attitude of pregnant women about immunization has a positive attitude towards Tetanus Toxoid immunization. Especially in attitudes regarding the provision of Tetanus Toxoid immunization, this occurs due to several external factors such as environmental and socio-cultural factors. From these two factors, even though the mother has sufficient knowledge, because of the positive attitude of the mother, the immunization status for Tetanus Toxoid is complete.

According to research (Naibaho, 2021) stated that there was a significant relationship between knowledge and attitudes of pregnant women about tetanus toxoid immunization at the Nunpene Health Center in 2018 with bivariate analysis between knowledge and attitudes of pregnant women about

tetanus toxoid immunization ($p = 0.006$).

In this study it was also found that there were 9 respondents who had a positive attitude, the majority of whom were 7 people who received Td immunization. On the other hand, there were 25 respondents who had a negative attitude, the majority of whom were 21 people who did not receive Td immunization. In addition, the statistical test results obtained $P = 0.001$ (<0.05) this indicates that there is a significant relationship between the attitude of pregnant women and the provision of Tetanus diphtheria immunization.

CONCLUSION

The results of the chi square statistical test on the knowledge variable, the value of $p = 0.003$ and also on the attitude variable, the value of $p = 0.001$ ($p < 0.05$) this shows that knowledge and attitudes have a significant relationship with the administration of Tetanus diphtheria immunization. It is expected that health workers will promote more promotion of Tanus Diphtheria Immunization for women of childbearing age, especially

pregnant women, to increase the knowledge of women of childbearing age about Tetanus Diphtheria immunization.

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