Relationship between the Role of Health Cadres with Immunization of Tetanus Toxoid (TT) in Women of Childbearing Age in the Work Area of Mangasa Health Center of Makassar

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ABSTRACT

The implementation of TT (Tetanus Toxoid) Immunization is a form of tetanus infection that is currently still a risk factor for maternal death and infant death, with one of them in the form of a health cadre in promotive efforts sustainably. The purpose of this research was to determine the role of health cader with TT immunization in Women of Childbearing Age. Design of research was Cross-Sectional Study with population all women of childbearing age who were in the working area of Mangasa Health Center of Makassar City. The population was estimated at 1140 people and based on the formula, the number of samples was 296 respondents with a purposive sample method and data analyzed with chi-square test. The study results were the relationship of the role of health cadres with the Immunization of TT obtained a value of p = 0.000. There was a relationship between the role of health cadres with the provision of TT immunization in Women of Childbearing Age in the Working Area of Mangasa Health Center in Makassar City. For health centers and related agencies to increase the knowledge of women of childbearing age and their families to be motivated to carry out TT immunizations; This includes increasing cadre knowledge about the importance of TT immunization.

Keywords: Role of Health Cadres, Tetanus Toxoid Immunization, Women of Childbearing Age

INTRODUCTION

The MDGs program or the fifth Millineum Development Goals Program is an improvement in maternal health in Indonesia. The Ministry of Health is working on improving maternal health with the Maternal and Neonatal Tetanus Elimination program (Wibowo, 2014). The maternal and neonatal tetanus elimination program aims to reduce the number of cases of tetanus in maternal and neonatal so that there are no health problems in the community (Ministry of Health, 2015). Tetanus toxoid immunization is a process to build immunity to prevent tetanus infection (Idanati, 2005). Pregnant women are important in immunizing TT because immunizing during pregnancy will channel immunoglobulin molecules from mother to baby through the placenta as passive immunity for the baby (Wiknjosastro, 2010). If the mother does not immunize, TT will cause the baby to get a tetanus neonatorum infection, resulting in the baby experiencing death (Bartini, 2012). The national target of all complete immunization programs is 80% (Ranuh, 2011). In Indonesia pregnant women who immunize TT-1 reach (23.4%), TT-2 reaches (21.8%), TT-3 reaches (9.4%), TT-4 reaches (7.8%), TT-5 reaches (8.2%), and TT2+ reaches (47.3%) (Ministry of Health, 2015). Immunization is part of the Maternal and Neonatal Tetanus Elimination (MNTE) program, one of the additional immunization activities that aim to reduce neonatal tetanus cases in each district to less than 1 case per 1000 live births per year. In the past, the target of MNTE activities was prospective and pregnant women, but achieving the target is felt rather slowly. Hence, it is necessary to accelerate giving TT-5 doses to all women of

childbearing age (ages 15-39 years), including pregnant women (Ministry of Health, 2003). Tetanus Toxoid immunization is a process to build immunity to prevent tetanus infection. Tetanus vaccine is a tetanus germ toxin that has been attenuated and then purified (Putriazka, 2005). Women of childbearing age who will enter the marriage level need to be maintained health conditions. Pregnant women need iron to prevent anemia and maintain optimal fetal growth. The Ministry of Health recommends that pregnant women take at least 90 iron pills during their pregnancy (Ministry of Health, 2001). Riskesdas 2013 asked if you consumed iron during pregnancy and how many days you consumed iron during pregnancy. Iron in question is all iron consumption during pregnancy, including over-the-counter and multivitamins that contain iron.

Women of childbearing age are reproductive age 15-49 years old, both married, widowed, or unmarried (Ministry of Health, 2003). Premarital health is a process to improve the community's ability to maintain and improve its health aimed at the reproductive community of prenuptial. Health services begin with the maintenance of the health of mothers-to-be (Ministry of Health, 2006). Before marriage, Women of childbearing age do health checks to maintain premarital health. In addition, also immunizing Tetanus Toxoid is one of the conditions for marriage. Tetanus Toxoid immunization in Women of Childbearing Age is carried out one time before marriage. The administration is 2x the vaccine by SC (subcutaneous), and the time of administration is at least four weeks or one month before the wedding (Ranuh, 2008).

Based on data from the Indonesian Ministry of Health, the maternal mortality rate (MMR) in Indonesia is still relatively high, which is 359/100,000 live births. At the same time, the infant mortality rate (IMR) is 32/1000 live births. One of the causes of maternal and infant death is tetanus infection caused by clostridium tetani bacteria due to an unsafe/sterile labor process or from wounds obtained by pregnant women before giving birth. *Clostridium Tetani* enters through an open wound and produces toxins that attack the central nervous system (Kemenkes RI, 2016).

The epidemiological profile of Indonesia obtained tetanus toxoid immunization coverage data on women of childbearing age: TT1 84% and TT2 77%, with the national target is 95% for TT1 90% for TT2. It gives TT as much as five doses at specific intervals that have become a target that must be met in women of childbearing age. From the 2007 chart as much as 27.1%, 2008 as much as 24.7%, 2009 as much as 11.2%, 2010 as much as 8.6%, and in 2011 as much as 11.8%. The percentage of Tetanus Toxoid immunization in women of childbearing age continues to decrease by 18.5% between the highest and lowest coverage in the last five years. Tetanus Toxoid immunization coverage in women of childbearing age appears to be very low, below 30%.

RESEARCH METHODS

The purpose of this study was to find out the factors associated with the Immunization of TT in women of childbearing in the working area of Mangasa Health Center in Makassar. The type of research was analytical survey research with a *Cross-Sectional Study* approach. This approach intends to look at factors related to the Immunization of TT in women of childbearing age in the working area of Mangasa Health Center in Makassar. Variables of this study was Knowledge,

Family Support, Health Workers, Health Cadres.

The population in this study was all women of childbearing age who were in the working area of Mangasa Health Center of Makassar City. The population is estimated at 1140 people. Based on the formula, the number of samples was 296 people.

The sample unit of the subject of this study was women of childbearing age between 23 years and 35 years. The sampling technique selected in this study was purposive sampling with criteria are:

Inclusion Criteria:

a) Women of childbearing between 23 years and 35 years
b) Can read and write
c) Willing to be a respondent

Exclusion Criteria:

a) Not willing to be a respondent.
b) Temporary stay (boarding/contract) in the working area of Mangasa Health Center of Makassar, do not stay settled for less than one year
c) Student status

RESEARCH RESULTS

This research was carried out from July to October 2018. The data was obtained by simple questionnaires to look at factors associated with the administration of TT immunization in women of childbearing age. The number of samples in this study was 296 people, but due to several inhibitory factors, the sample only amounted to 293 people. Questionnaires collected then processed one by one to see the completeness, writing, and clarity of identity and answer points and provide a code of answers from each questionnaire question, then arranged in the form of a master table to facilitate data analysis. The results are then analyzed and presented in a frequency distribution table.:

Table 4.1
Distribution of Age Frequency of Respondents in the Work Area of Mangasa Health Center in Makassar

Item	Category	(f)	(%)
Age	Age 23-29 years	167	57
	Age 30-35 years	126	43
Sum		293	100

Source: primary data 2018

Table 4.1 shows that of the 293 respondents, 167 (57%) were respondents aged 23-29 years and the rest aged 30 - 35 years.

Table 4. 2
Distribution of The Frequency of Respondents Work in Mangasa Health Center Work Area Makassar

Work	(f)	Percentage (%)
Housewife	277	94,5
Employee	4	1,4
Self employed	5	1,7
Goverment employees	2	0,7
Contractor	1	0,3
Dental Nurse	1	0,3
Honorary employee	3	1,0
Sum	293	100

Data source: Primary data 2018

Table 4. 2 showed that of the 293 respondents, 277 (94.5%) respondents were housewives, and the rest worked as employees, self-employed, civil servants, contractors, dental nurses, and honorees.

Table 4. 3
Frequency Distribution of The Role of Health Cadres in Mangasa Health Center Work Area
Makassar City

Health Cadre	Frequency (f)	Percentage (%)
Enough	223	76,1
Less	70	23,9
Sum	293	100

Based on Table 4. 3 pointed out that of the 293 respondents, 223 (76.1%) respondents considered that health cadres contributed sufficiently in providing TT immunization to Women of childbearing age. The rest showed that the contribution of health contributions is still low.

Table 4. 4
Distribution of Frequency of TT Immunization to respondents in Work Area of Mangasa Health Center Makassar

Administration of TT Immunity	(f)	Percentage (%)
Given	236	80,5
Not given	57	19,5
Sum	293	100

Data source: Primary data 2018

Based on Table 4.4, the number of respondents who received TT immunization has as many as 236 people (80.5%), and respondents who did not get TT immunization as many as 57 people (19.5%).

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Table 4. 5
The Relationship of the Role of Health Cadres with Immunization of TT

The Role of Health Cadres	TT Immunization				Total		*R*
	Already		Do not				
	f	%	f	%	f	%	
Enough	218	74,4	5	1,7	223	76,1	0,000
Less	18	6,1	52	17,7	70	23,9	
Total	236	80,5	57	19,5	293	100	

Source: Primary Data 2018

Based on table 4. 5 pointed out that of the 223 (76.1%) respondents who stated the role of health cadres in the provision of TT immunization in the excellent category, 218 (74.4%) respondents received TT immunization. In comparison, the rest (1.7%) did not do TT immunization. In addition, of the 70 (23.9%) respondents who stated the role of health cadres in Immunization in the lesser category, 18 (6.1%) immunized TT. In comparison, the remaining 52 (17.7%) did not do TT immunization.

DISCUSSION

Relationship between The Role of Health Cadres with Immunization of Tetanus Toxoid to Women of Childbearing Age

Based on Table 4. 5 pointed out that of the 293 respondents, 223 (76.1%) respondents considered that health cadres contributed sufficiently to the provision of TT immunization to women of childbearing age. The rest showed that the contribution of health contributions is still less.

Furthermore, of the 223 (76.1%) respondents who stated the role of health cadres in the provision of TT immunization in the excellent category, 218 (74.4%) respondents received TT immunization. In

comparison, the rest (1.7%) did not do TT immunization. In addition, of the 70 (23.9%) respondents who stated the role of health cadres in Immunization in the lesser category, 18 (6.1%) immunized TT. In comparison, the remaining 52 (17.7%) did not do TT immunization. Moreover, based on the results of the chi-square test analysis shows the value of $p <$ from the value of α ($\alpha = 0.05$; $p = 0.000$), it can be interpreted that there is a relationship between the role of health cadres and the Immunization of TT in women of childbearing age in the working area of Mangasa Health Center in Makassar City.

The above data can describe the active role of health cadres in their region in motivating women of childbearing age to perform TT immunizations by having a good knowledge and motivation in carrying out his duties as a health cadre in his region.

This is in line with research conducted by Indah Sari (2018) on the relationship of cadre knowledge about the duties and functions of integrated health care centers with the activeness of cadres in the working area of The Bombana Regency Competition Health Center, which shows the value of $p = 0.025 < \alpha = 0.05$ with X 2 count = 7,369, which means there is a relationship between knowledge and the activeness of health cadres. According to Sahlan (2003) in Indah Sari (2013), if the level of knowledge is high, one will be more critical in dealing with various problems. This knowledge is obtained both formally and informally. For a good knowledge, a cadre should always get guidance from health workers.

It cannot be denied that the active role of health cadres as one of the spearheads of health development in their region is primarily determined, among others, by the knowledge of health cadres in carrying out their duties. This can also provide a positive assessment from respondents in this study about the active role of health cadres in carrying out their duties related to the Immunization of Tetanus Toxoid (TT) in women of childbearing age. In addition, of the 70 (23.9%) respondents who stated the role of health cadres in Immunization in the lesser category, 18 (6.1%) immunized TT.

Many factors that affect the activeness of cadres include knowledge about integrated healthcare centers, so they can participate in activities, and support the implementation of every program so that it will affect success goals can be achieved. A cadre who has good knowledge, even the need for support from a family, will raise awareness to be active in integrated healthcare centers. The level of knowledge of individuals affects the circumstances that participate in an activity and impacts behavior (Notoadmojo, 2007).

However, when further analyzed, the process of forming action is not only influenced by knowledge. So, knowledge alone is not enough to change a person's behavior because behavior change is a complex process and takes a long time. Therefore, regular and continuous training can help cadres keep applying their knowledge in action so that in a certain time can make them skilled in carrying out their duties, including networking and motivating women of childbearing age to carry out TT immunizations.

CONCLUSION

There is a relationship between the role of health cadres and TT immunization in the working area of Mangasa Health Center in Makassar City.

SUGGESTIONS AND RECOMMENDATIONS

1. For the Health Center and related agencies to increase the knowledge of women of childbearing age) and their families to be motivated to perform TT immunizations.
2. For the Puskesmas and related agencies, to improve coaching on health cadres to conduct women of childbearing age networking to be given TT immunization.
3. Increased knowledge for a cadre about cadres' duties and functions, including in netting and providing counseling on TT immunization on women of childbearing age.
4. For further researchers, it is expected to dig further into other factors associated with TT immunization.

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