The Correlation of Knowledge with Leucorrhea in Female Students of MTsN Batang Toru

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ABSTRACT

The worst health problems of female reproduction have reached 33% of the total burden of disease that affects women in the world. One of the symptoms of the occurrence of abnormalities or diseases of the reproductive organs is leucorrhea. Leucorrhea that affects is pathological leucorrhea caused by infection in the vagina. World Health Organization states that 5% of teens in the world contracted Sexually Transmitted Diseases with leucorrhea symptoms every year. There are several factors that affect the occurrence of leucorrhea in women, especially in adolescents, such as lack of adolescent knowledge about leucorrhea. This research aims to determine the correlation of knowledge with leucorrhea in female students of MTsN Batang Toru on 2017. The type of this research is analytic descriptive by using cross sectional approach. The population of this research were all of female students class of 7th and 8th of MTsN Batang Toru South Tapanuli District as many as 259 respondents. Statistical tests performed using the Chi-square test with α = 0,05. The results of research by bivariate analysis shows that there was a relationship between knowledge and leucorrhea (p < 0,001). From the results obtained, it is advisable to female student of MTsN Batang Toru to find more information and read books about leucorrhea and its impact on reproductive health, especially for adolescents so that it can motivate themselves to know more about prevention.

Keywords : Knowledge, Leucorrhea, Female Students

1. INTRODUCTION

One of the symptoms of reproductive system disorder is leucorrhoea (fluor albus). One of the symptoms of disease in the reproductive organs is leucorrhoea. Leucorrhoea that gives impact is leucorrhoea pathology. Leucorrhoea pathology is infection in the vagina which is caused by fungi, bacteria, parasites and viruses (Prawirohardjo, 2011). Health problem regarding bad female reproductive system disorder has reached 33% of total diseases that attacking females all around the world. Based on the study regarding reproductive system health, there were about 75% of women in the world had had leucorrhoea, at least once in a life time and about 45% of the women could have leucorrhoea twice or more (NCBI, 2015).

World Health Organization (WHO) said that about 5% of teenagers in the world was infected by sexually transmitted diseases each year with leucorrhoea as the symptom, in United States about one of 8 teenagers. Women between 15 to 24 years old had leucorrhoea about 31,8%. It was in line with the result of survey of Survei Pusat Penelitian Kesehatan Universitas Indonesia (Health Research Centres of University of Indonesia) who cooperated with World Population Foundation Indonesia in 2011 found among 65% of teenagers had had leucorrhoea. It showed that female teenagers had potentially high to have leucorrhea (Badaryati, 2012).

Generally in Indonesia about 75% of women had leucorrhoea at least once in a life time and a half of them had leucorrhoea twice or more. It associated to the humid weather that made Indonesian women easily had leucorrhoea, wherein humid weather made infected fungi to breed easier. Leucorrhoea risk occurred in female teenagers. Female teenagers had physiological changes especially reproductive organs. Some bad impacts would occur female in teenager's reproductive health, if they did not know about problems regarding reproductive organ. (Maghfiroh, 2015).

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Mokodongan's study (2015) that conducted at 4 four high schools in Manado and Kotamobagu, found 41 respondents (64,1%) had bad knowledge of fluor albus. It was in line with Setyorini's study (2014), that found out the association between the level of knowledge of fluor albus and the incidence of flour albus in girl adolescents, from 200 respondents, the study found 74 respondents (37%) had lack of knowledge and 59 respondents (79,7%) of 74 respondents had fluor albus.

It was important for the teenagers to know about the sign, symptom and the cause of leucorrhoea and to differentiate between physiologic leucorrhoea and pathological leucorrhoea so they could prevent, handle and check it soon if there were signs and symptom of abnormal leucorrhea. The reproductive organ problems in teenagers especially leucorrhea needed a serious attention. Although leucorrhea generally did not endanger life, however pathological leucorrhea that could not be solved could cause a serious consequences such as infertility, ectopic pregnancy, menstruation disorder, and cervical cancer (Rabiu, 2010). The teenagers' knowledge of reproductive health is a provision for teenagers in having a healthy attitude and responsible, but not all teenagers have enough information and correct regarding reproductive health. One of some efforts that is performed by the government to solve reproductive health in teenagers is by the

2. METHOD

This is a cross sectional study that was conducted data collection and the measurement variable of female students' knowledge of leucorrhea and the variable of leucorrhea incidence was only once at the same time. This research aims to analyze the association between female students' knowledge of leucorrhea with the leucorrhea incidence in female students of MTsN Batang Toru of South Tapanuli District 2017.

Populations in this research were all the female students in the class VII about 130 students and about 129 female students in class VIII, the total of population were 259 female students of MTsN Batang Toru of South Tapanuli District. The samples were female students in the class VII and in the class VIII that registered actively in MTsN Batang Toru of South Tapanuli District

program of Pusat Informasi dan Konseling Kesehatan Reproduksi Remaja (PIK-KRR or Information Centre and Counseling of Teenagers' Reproductive Health), however teenager's reproductive problem keeps on happening especially leucorrhea.

Based on the data of Badan Pusat Statistik of Sumatera Utara in 2015 that the numbers of citizen with age >15 years old were about 9.351.041 people that consisted of 4.611.630 males and 4.739.411 females, about 75% of the females were teenagers that had leucorrhea. Whereas in South Tapanuli District 2014, there are 274.905 teenagers and 45% of the teenagers had leucorrhea (DINKES Provinsi Sumatera Utara, 2015).

Based on the prior survey that have been conducted on 16th of March 2017, the result of the interview by the researcher to 24 person of 259 total population of all female student at class VII and class VIII, 12 female students in class VII and 12 female students in class VIII of MTsN Batang Toru, actually all the female students (100%) had lack of knowledge of leucorrhea. From 24 of the female students, 19 students (76,17%) had leucorrhea, 14 students (58,33%) of the 19 students had pathological leucorrhea based on complains; the amount of fluid a lot, viscous, yellow/greenish, smelling bad and itchy every day.

about 77 students. The samples were chosen from each class randomly by using random number wherein each unit of population has the same potential chance to be chosen as the samples (Notoatmodjo, 2015). The following table was the sample of each grade :

Table 1. The Numbers of Sample in Each Grade

No	Class	N	Count	Samples
1	Class VII-1	19	19 : 130 x 39	6
2	Class VII-2	26	26 : 130 x 39	8
3	Class VII-3	23	23 : 130 x 39	7
4	Class VII-4	20	20 : 130 x 39	6
5	Class VII-5	20	20 : 130 x 39	6
6	Class VII-6	22	22 : 130 x 39	6
7	Class VIII-1	20	20 : 129 x 38	6
8	Class VIII-2	23	23 : 129 x 38	7
9	Class VIII-3	20	20 : 129 x 38	6
10	Class VIII-4	18	18 : 129 x 38	5
11	Class VIII-5	24	24 : 129 x 38	7
12	Class VIII-6	24	24 : 129 x 38	7
	Total	259		77

The research used primary data that taken from direct interview to the female students by

using questionnaire and secondary data were taken from administration office of MTsN Batang Toru South Tapanuli District associated to the overview of location, total numbers of all students, the numbers of classes in 2017 and other supporting data.

The instrument of the research was tested the validity and the reliability. The validity test used product moment correlation. The questionnaire was valid if the value of $r_{count} > r_{table}$ and vice versa. In the level of significance 95% for 30 samples wherein the value of r_{table} 0,361. Reliability of the data was tested by *Cronbach's Alpha* method. This method was used to analyse reliability of the measuring instrument from one measurement. The instrument was reliable if the value of $r_{count} > r_{table}$ wherein the value of r_{table} 0,60 (Notoatmodjo, 2015). The questionnaire trial was conducted to 30 respondents, they were the female students of MTs Nahdlatul Ulama Batang Toru.

The data were analysed by univariate analysis and bivariate analysis. Univariate data analysis was used to find out the description of respondents distribution by making distribution frequency table. Based on the variables that examined then analysed descriptively. Whereas bivariate analysis was used to find out the association between variables by using *chi-square test* with the p-*value* (0,05). If the result of the test showed the value of p < p-*value* (0,05) so the hypothesis was accepted, it meant that both variables statistically had a signifant relation.

3. RESULTS

Table 2. The Association between Knowledge and Leucorrhea Incidence in Female Students of MTsN Batang Toru South Tapanuli District 2017

Female Students Knowledge	Leucorrhea				Total		p value
	Yes		No				
	n	%	n	%	N	%	
Good	5	33,3	10	66,7	15	100	
Enough	10	50,0	10	50,0	20	100	<0,001
Lack	36	85,7	6	14,3	42	100	

Table 2. showed that 15 female students had good knowledge; about 5 of them (33,3%) had leucorrhea and 10 of them (66,7%) had no leucorrhea, 20 female students had enough knowledge; about 10 of them (50,0%) had leucorrhea and 10 of them (50,0%) had no leucorrhea and 42 femalstudents had lack of

knowledge; 36 of them (85,7%) had leucorrhea and 6 of the them students (14,30%) had no leucorrhea. The statistics test found the value of p = <0,001 the value of α = 0,05 it meant that there was relation between female students knowledge and the leucorrhea incidence.

4. DISCUSSION

The knowledge of leucorrhea correctly will help in differentiating between normal leucorrhoea and pathological leucorrhea to prevent the leucorrhea incidence and to treat earlier. The result of the research showed that mostly the female students had lack of knowledge of leucorrhea about 85,7%, whereas female students who had no leucorrhea mostly the students had good knowledge about 66,7%. Statistically this research stated that there was a significant relation between knowledge of leucorrhoea and leucorrhea incidence in female students of MTsN Batang Toru South Tapanuli District with the value of p= < 0,001 at the level of α = 0,05.

It was in line with Sari (2014). The result of her research showed that there was a relation between knowledge and the incidence of pathological fluor albus with the value of *p-value* = 0,001 and OR = 4,469. So it can be concluded that female students who had lack of knowledge of leucorrhea could cause the incidence of leucorrhea. It was also in accordance with Setyorini (2014), her research entitled The Association between Level of Adolescents Girl Knowledge on Fluor Albus and the Incidence of Fluor Albus in SMK Negeri 3 Kabupaten Purworejo. The result of her research stated that there was a relation between the adolescents girl knowledge and the incidence of fluor albus in SMK Negeri 3 Kabupaten Purworejo with the value of p=0,001, and the numbers of incidence and fluor albus about 73,3%.

Based on the above discussion, according to the writer, knowledge was one of predisposition factors in creating female students' attitude. This factor came from within their selves that cause or motivatethe female students to do something. It was important for the female teenagers to know about leucorrhoea, so they know about the signs, symptom of leucorrhoea, the cause, and could differentiate physiological leucorrhea and pathological leucorrhea so the teenagers could prevent earlier, solve it and check it soon if there

were sign and symptom of abnormal leucorrhea.

5. CONCLUSION

Based on the result, it could be concluded that knowledge of leucorrhoea related to the leucorrhea incidence in female students of MTsN Batang Toru South Tapanuli District. It was suggested to the school staffs to improve the facility of reproduction health information in many performances to all the students through the utilization of information media such as adding book collection regarding reproduction health, or through counselling by the teachers at school. Public Health Office should activate more the programs in Puskesmas (the public health care centre) in performing health counselling especially reproduction health in the female teenagers group of schools around the area of work of the Puskesmas. Female teenagers should seek reproduction health information more actively from many sources and media, by achieving enough information female teenagers could improve their knowledge.

Acknowledgments

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