


Analysis of the Relationship between Knowledge of Adolescent Girls and Cervical Cancer Prevention Efforts in Class X of Dharma Bakti Private High School, Tanah Jawa, Simalungun Regency

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Article Info	ABSTRACT
<p>Article history:</p> <p>Received March 15, 2022 Revised April 17, 2022 Accepted May 27, 2022</p> <hr/> <p>Corresponding Author: Yeni Trisna Purba Program Studi Kebidanan, Fakultas Kesehatan, Universitas Efarina, Indonesia Email: yenitrisnap@gmail.com</p>	<p>Cervical cancer is the most common gynecological disease. It's a disease feared by all women because it's the leading cause of death among women in developing countries, including Indonesia. From the results of the study on the relationship between the knowledge of young women and efforts to prevent cervical cancer in Class X of Dharma Bakti Private High School, Tanah Jawa, Simalungun Regency, the following conclusions can be drawn: Young women in Class X of Dharma Bakti Private High School, Tanah Jawa, Simalungun Regency have good knowledge, this is indicated by the frequency distribution of the level of knowledge of young women about cervical cancer, 39 respondents (78%) who know the causes, methods of transmission, symptoms, development, examination, treatment, and efforts to prevent cervical cancer, while the level of knowledge of young women who are not good about efforts to prevent cervical cancer is 11 respondents (22%). Young women in Class X of Dharma Bakti Private High School, Tanah Jawa, Simalungun Regency are able to know how to prevent cervical cancer, this is indicated by 42 respondents (84%) trying to stay away from the causes of cervical cancer and are able to prevent it, but there are still 8 respondents (16%) who do not know the efforts to prevent cervical cancer. The level of knowledge of young women with efforts to prevent cervical cancer in Class X of Dharma Bakti Private High School, Tanah Jawa, Simalungun Regency has a significant relationship where there is a chi square test result, namely $p < 0.05$ (0.01).</p> <p>Keywords: Knowledge, Adolescent Girls, Cancer, Cervix</p> <p>This article is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License</p> 

1. INTRODUCTION

Cervical cancer is the most common disease among other gynecological diseases. Cervical cancer is a disease feared by all women because it is the main cause of death in women in developing countries including Indonesia [1]. According to WHO in 2005, there are 5,000,000 new cervical cancer sufferers found every year worldwide, and more than 90% occur in developing countries such as Indonesia, almost 260,000 women die from cervical cancer, of which 95% occur in developing countries. The number of cancer cases reported to the Central Java Provincial Health Office in 2012 with the number of cervical cancer incidents of 909 cases. Meanwhile, data reported to the Central Java Health Office in 2013 with the number of cervical cancer incidents of 2,295 cases. Every year the incidence of cervical cancer increases [2]. One of the diseases that is quite common in women is cervical cancer. According to WHO, every year there are hundreds of thousands of cases of women in the world infected with cervical cancer and thousands of them die every year.

Cervical cancer in Indonesia ranks second in the order of malignancies in women, namely 16 people per 100,000 women according to hospital information system data [3], the incidence of cervical cancer is 5,786 cases or 10.3% of other malignancies. In fact, around 500,000 women worldwide are diagnosed with cervical cancer and an average of 270,000 people die each year. The incidence of cervical cancer increased in 2006 from 4,696 cases to 5,786 cases or 11.07% and around 70% of sufferers are in advanced stages. Data from hospitals in Indonesia in 2008 showed

the incidence of breast cancer (18.4%) while cervical cancer (10.3%) the above data was obtained from patients who were hospitalized in hospitals. Globally, cervical cancer contributes 12% of all cancers that attack women. Estimates around the year 2000 show that the incidence of this disease is approximately 493,243 people per year, while deaths due to this cancer are 273,505 people per year. Meanwhile, as many as 80% of the number of sufferers come from developing countries. Because this disease is the number one killer of women due to cancer in developing countries. In 2009, the number of cervical cancer cases in East Java Soekarwo, in his press release in Surabaya, Monday, said that in 2009 the number of cervical cancer cases in the area reached 1879 cases consisting of 1185 people undergoing inpatient treatment and 649 outpatient treatment. With the figure of 1879, East Java is ranked first in cervical cancer cases at the national level. In Ponorogo from January 2011 to December 21 2011, there were 106 cervical cancer sufferers [4].

Cancer is one of the leading causes of death in this century. While cancer can affect almost any part of the human body, the most common site of cancer is the female reproductive system, particularly the cervix. Cervical cancer is a gynecological malignancy that poses significant health problems for women, particularly in developing countries. Cancer incidence peaks between the ages of 25 and 34, peaking between the ages of 45 and 54 [5]. The World Health Organization (WHO) in 2012 stated that cancer is a non-communicable disease that causes the most deaths in the world. In this case, cancer ranks second as a deadly disease after heart and blood vessel disease. Every year there are 12 million sufferers of cervical cancer and 7.6 million of them die (Ministry of Health, 2012). The cause of cervical cancer is a virus known as human papillomavirus (HPV). HPV is a type of virus that attacks humans and 95% of cervical cancers are caused by this virus. There are more than 100 types of HPV, most of which are harmless, do not cause visible symptoms and will disappear on their own. HPV infections most often occur in young adults (18-28 years). Cervical cancer tends to appear in women aged 35-53 years but can also appear in women of younger ages. Hurlock (1999) said that early adulthood begins at the age of 18 years to the age of 40 years, when physical and psychological changes that accompany reduced reproductive ability. The lifestyle of young adults can put them at risk of disease or disability during middle or late adulthood [6].

Cervical cancer remains a health problem with increasing incidence and mortality rates in Indonesia. Delayed diagnosis at an advanced stage, poor general health, and low socioeconomic status among most cervical cancer patients affect the prognosis. The prognosis for cervical cancer is also influenced by education levels and a lack of knowledge about cervical cancer, which can be detected early as a preventative measure for sexually active women, such as using Pap smears and visual acetate inspection (VIA).

Cervical cancer prevention can be done in several ways, namely the Pap Smear and Visual Acetic Acid (VIA) tests. A Pap Smear is a cytology examination performed by a pathologist to look for cell changes that indicate inflammation, dysplasia, or cancer. The Pap Smear works by taking cells from the cervix using a special spatula and brush, then applying them to a glass slide to be read by a specialist. Results will be obtained approximately one week to one month later. According to R. Mcwhinney, the Pap Smear is the gold standard for cervical cancer screening. The Visual Acetic Acid (VIA) examination is one of the screening methods for detecting uterine wall cancer that is often and easily performed. It works by applying acetic acid to the cervix, the surface of the uterine wall infected by cancer cells will turn white. A positive VIA test result does not necessarily mean you have cancer. A positive result indicates the presence of precancerous lesions, which if left untreated are likely to become cancer [7].

IVA examination can be done in hospitals, community health centers or clinics. Compared to Pap Smear examinations that require more expensive costs and infrastructure that are usually only available in large cities and specialized experts, and results can be received several weeks later, this situation can be a problem in areas with limited resources and remote. However, until now, women's awareness to undergo IVA screening is still low (DKK Wonosobo, 2013). Based on IVA examinations conducted by Wonosobo district in 2012, IVA examinations of 633 women were found to be positive for abnormalities, while 92.89% showed negative results. Based on risk factors, age at marriage < 20 years = 10 (22.2%), history of childbirth more than 4 times = 9 (20%), frequent vaginal discharge = 1 (2.22%), exposure to cigarette smoke more than 1 hour a day = 2 (4.44%), Age > 35 years = 22 (48.88%). In 2015, a number of 451 female couples of childbearing age (PUS) underwent IVA examination, 40 participants were found to be positive. According to data from the Selomerto Community Health Center, there were 5,889 couples of childbearing age [8].

Knowledge about cervical cancer in adolescents is very important because adolescent girls are the next generation who may be affected by cervical cancer, especially if they have a bad sexual history, for example by changing partners, therefore it is necessary for adolescent girls to know about cervical cancer prevention efforts that must be known early in order to prevent cervical cancer and know how to prevent it, one of which is by doing the HPV vaccine. In adolescent girls, there will be no significant symptoms because the incubation period of cervical cancer is quite long, which can be up to decades. To overcome this problem, namely by doing the HPV vaccination because this vaccine is very safe and has almost no side effects and by avoiding the causative factors, including avoiding cigarettes, incorrect vaginal washing, having sex with multiple partners and dirty environments and not using towels that are used alternately [9].

Febriyanti [10] conducted a study on the relationship between adolescent knowledge about cervical cancer and attitudes in cervical cancer prevention efforts using descriptive correlation on some ninth grade female adolescents at

SMA PGRI 1 PONOROGO. The study used simple random sampling, with a sample of 34 respondents. The results of the study showed that 12 respondents (80%) had good knowledge and 14 respondents (73.69%) had poor knowledge, while 3 respondents (20%) had positive attitudes and 5 respondents (26.31%) had negative attitudes [11].

Yanti [12] conducted a study on the description of knowledge of young women about cervical cancer in Lieue Village, Darusalam District, Aceh Besar Regency, Banda Aceh Province using descriptive research methods. The population in the study were all young women in Lieue Village, Darusalam District, Aceh Besar Regency. The sampling method was total sampling with a total of 57 respondents. Data collection was carried out from July 29 to August 6, 2012 by distributing questionnaires to respondents consisting of 12 questions that were analyzed by presentation. The results of the study were knowledge of young women about cervical cancer in the sufficient category, namely 22 respondents (38.6%), education of young women about cervical cancer in the basic category, namely 34 respondents (59%), information of young women about cervical cancer in the never category, namely 31 respondents (54.38%).

Based on the background above, the researcher is interested in knowing the relationship between the knowledge of young women and efforts to prevent cervical cancer in Class X of Dharma Bakti Private High School, Tanah Jawa, Simalungun Regency.

2. LITERATURE REVIEW

Knowledge is new information and experience is a creative process to maintain new knowledge, while according to the big Indonesian dictionary [13] knowledge is everything that is known regarding a subject matter. Notoatmojo [14] says that knowledge is the result of knowing, and this occurs after someone senses through the five human senses in the form of sight, hearing, smell, taste, and touch towards a particular object. So it can be concluded that knowledge is new information and experience resulting from the use of the five senses to maintain new knowledge.

Knowledge is one of the important tools to influence a person's actions. Behavior based on knowledge will produce a positive attitude, and will be lasting. If a person's behavior is not based on knowledge, it will not last long. Knowledge can be in the form of objects either through the senses or through reason, it can also be an object understood by humans in an ideal form or related to psychological problems. According to Erfandi [15] knowledge is a continuous formation by a person who is constantly reorganized due to new understandings. Knowledge is the result of human efforts to know [16]. The work of knowing is the result of knowing, being aware, understanding, and being clever.

From the above understanding, it can be concluded that knowledge is the result of knowing obtained after sensing a particular object, then the results of this knowing will become a memory of the materials that have been studied from human efforts to know and will become a continuous formation by someone who is constantly reorganizing because of new understandings. The process of knowing such as seeing, hearing, feeling, and thinking which is the basis for humans in behaving and acting.

Adolescence is a period of developmental transition between childhood and adulthood, involving biological, cognitive, and socio-emotional changes. The main task of adolescents is to prepare themselves to enter adulthood [17]. In western countries, the term adolescent is known as "adolescence" which comes from the Latin word "adolescere" (the noun is *adulescentia* = adolescent), which means growing into adulthood (Desmita 2007). According to WHO (the United Nations agency for world health) the age limit for adolescents is 12 to 24 years. Meanwhile, in terms of service programs, the definition of adolescents used by the Ministry of Health is those aged 10 to 21 years (www.ceria.bkkbn.go.id). According to Kusmiran [18] the definition of adolescents themselves can be reviewed from three perspectives, namely:

- a. Chronologically, teenagers are individuals aged between 11-12 years to 20-21 years.
- b. Physically, adolescence is characterized by changes in physical and physiological appearance, especially those related to the sexual glands.
- c. Psychologically, adolescence is a period where individuals experience changes in cognitive, emotional, social and moral aspects, between childhood and adulthood.

Gunarsa [19] stated that adolescence is a transition period from childhood to adulthood, which includes all developments experienced as preparation for entering adulthood. Adolescence is an important period in the journey of human life. This age group is important because it is a bridge between free childhood to adulthood that demands responsibility. In general, adolescence is divided into 3 parts, namely [20].

Tobacco contains carcinogenic substances that can increase the risk of many types of cancer, including cervical cancer. Women who smoke have twice the chance of getting cancer than women who do not smoke. The nicotine content in cigarettes makes it easier for all mucous membrane cells throughout the body to react and easily stimulate the throat, lungs, and cervix.

Many fruits and vegetables contain antioxidants and are effective in preventing cancer by up to 20%. A significant deficiency in vitamin A, such as retinol, can increase the risk of cervical dysplasia. Consuming vitamin C can increase the risk of infection; pervasive HPV infections are lower among women with adequate vitamin C intake.

Brisk walking for at least 30 minutes per day, 3-5 days per week, can prevent many diseases, including cervical cancer [21]

The vagina contains a barrier or special layer of normal vaginal flora that functions to filter various impurities that enter. This layer is where germs first enter, and there are bacteria that function to protect a woman's vital area, namely Doderlyne bacteria. Continuous use of cleansing soap will erode Doderlyne bacteria and other bacteria will more easily enter the vagina. The antiseptic in cleansing soap is useful for killing and fighting bacteria and germs. This kills bacteria, including beneficial bacteria, making it easier for other bacteria to enter the vagina. Furthermore, vaginal soap can also cause irritation. The skin on the cervix is very thin, so irritation can trigger cell abnormalities. This condition is susceptible to triggering cervical cancer [22].

3. METHOD

This type of research is descriptive correlation through a *cross-sectional approach*, where data collection for the dependent variable and the independent variable is carried out simultaneously through a questionnaire instrument. In private high schools Dharma Bakti Tanah Jawa, Simalungun Regency. The research was conducted from September to October 2020, with preparations beginning with the proposal drafting in September 2020.

The population is the entire research object or object studied and determined by the researcher to be studied and then conclusions drawn [23]. And the population of female adolescents at Dharma Bakti Private High School, Tanah Jawa, Simalungun Regency in 2012 was 100 respondents.

The sampling technique used was accidental sampling, namely by selecting respondents who were available at the time of the research. The number of research samples was determined using the Slovin formula [24], namely :

$$n = \frac{N}{1 + N (e^2)}$$

Information:

n = Estimated number of samples

N = Estimated sample size

e² = The magnitude of the deviation is 10%(0.1)

$$n = \frac{100}{1 + 100 (10\%)^2}$$

So the sample from the population is 50 female students in class X of a private high school. Dharma Bakti Tanah Jawa Simalungun Regency.

In this case, the data collection process is done by asking the principal of the private high school. Dharma Bakti Tanah Jawa, Simalungun Regency. About:

1. Regarding the available population.
2. The researcher provided an explanation of how to fill out the questionnaire and provided an opportunity to ask questions about things that were not yet understood.
3. Before collecting the questionnaires, respondents were given the opportunity to review the completeness of the forms. If any were incomplete, the researcher gave them another opportunity to complete the data immediately. After the respondents completed the questionnaires, they were returned to the researcher.

To obtain information from respondents, researchers used a questionnaire as data collection tool. To measure knowledge about cervical cancer, 10 questions were given, with correct and incorrect alternatives. Each correct answer was given a score of 1 and an incorrect answer was given a score of 0. Thus, the highest score was 1 and the lowest score was 0. Knowledge categories were created using the formula [25].

$$P = \frac{\text{Rentang}}{\text{Banyak kelas}}$$

$$P = \frac{10-0}{5}$$

$$P = 2$$

So the categories are:

a. Good knowledge if score: 6– 10

b. Knowledge is poor if the score is: 0 – 5

To measure cervical cancer prevention efforts, 10 questions were given, with yes and no alternatives. Each YES answer was scored 1 and NO answer was scored 0. So the highest score was 1 and the lowest score was 0. The information source category was created using the formula [26].

$$P = \frac{\text{Rentang}}{\text{Banyak kelas}}$$

$$P = \frac{10-0}{5}$$

$$P = 2$$

So the categories are:

- a. Prevent cervical cancer if score: 6-10
- b. Does not prevent cervical cancer if score: 0-5

Before analyzing the data obtained, researchers first carry out several important steps so that the results of the data obtained are clear, namely:

1. Editing, to prove that the data obtained is complete and can be read well and clearly
2. Coding is the process of assigning a code to each variable with the aim of making it easier for researchers to tabulate and analyze data.
3. Tabulating, namely grouping data based on predetermined categories which are then tabulated in the following way: each questionnaire is given a code for statistical analysis purposes using a computer.
4. Data entry is the process of entering data into a computer for further analysis.
5. Data cleaning before analysis is carried out, data cleaning is carried out using a program on the computer to ensure it is free from errors before analysis.
6. Processing is data entry into a computer program.
7. Scoring against level of knowledge

The instrument in this study was in the form of a list of questions or questionnaires created by the researcher. In this study, two variables were measured, namely the knowledge of young women and efforts to prevent cervical cancer [27].

In this case, the data collection process is done by asking the head of public relations of private high schools. Dharma Bakti Tanah Jawa, Simalungun Regency Regarding the available population, the researcher provided an explanation on how to fill out the questionnaire and provided an opportunity to ask questions about things that were not understood. Before the questionnaire sheets were collected, the respondents were given the opportunity to re-check the completeness of the sheets and if there were still respondents who were incomplete, the researcher gave them another opportunity to complete the data immediately. After the respondents had responded and completed the questionnaire, it was collected back to the researcher [28].

This analysis aims to describe each variable studied. This analysis was carried out using statistical procedures and hypothesis testing. Where the principle of the hypothesis is to compare the sample value (data obtained from the study) with the value of the proposed hypothesis. The variables in this study are ordinal (categorical) so the test uses chi-square [29].

4. RESULTS AND DISCUSSION

Research result

After conducting research on the relationship between the knowledge of young women and efforts to prevent cervical cancer in Class X of Private High Schools Dharma Bakti Tanah Jawa Simalungun Regency, the following results can be obtained.

Univariate Analysis

This is done to explain or describe the characteristics of each research variable used to obtain factors that influence the knowledge of young women regarding cervical cancer prevention efforts.

Distribution of respondents based on knowledge of female adolescents regarding cervical cancer in Class X of Private High Schools Dharma Bakti Tanah Jawa Simalungun Regency.

Description of respondent characteristics based on female adolescents' knowledge of cervical cancer in Class X of Private High Schools Dharma Bakti Tanah Jawa Simalungun Regency, can be seen in the table below :

Table 1. Distribution of respondents based on knowledge of female adolescents regarding cervical cancer in Class X of Private High Schools Dharma Bakti Tanah Jawa Simalungun Regency.

No	Characteristics	Frequency (n)	Percentage (%)
1	Good	39	78
2	Not good	11	22
Total		50	100

Based on research from 50 respondents, it shows that the majority of respondents have good knowledge, namely 39 respondents (78%) and the rest have poor knowledge, namely 11 respondents (22%).

Distribution of respondents based on efforts to prevent cervical cancer in adolescent girls in Class X of Dharma Bakti Private High School, Tanah Jawa, Simalungun Regency.

The description of the characteristics of respondents based on efforts to prevent cervical cancer in adolescent girls in Class X of Dharma Bakti Private High School, Tanah Jawa, Simalungun Regency, can be seen in the table below :

Table 2, Distribution of respondents based on efforts to prevent cervical cancer in female adolescents in Class X of Private High Schools Dharma Bakti Tanah Jawa Simalungun Regency.

No	Characteristics	Frequency (n)	Percentage (%)
1	Prevent	42	84
2	Does not prevent	8	16
Total		50	100

Based on research from 50 respondents, it was shown that the majority of those who had prevented it were 42 respondents (84%) and those who had not prevented it were 8 respondents (16%).

Bivariate Analysis Results

To test the relationship between independent variables, including knowledge, and the dependent variable, namely cervical cancer prevention efforts, a chi-square test with $\alpha = 0.05$ was used, as described below.

The relationship between knowledge and cervical cancer prevention efforts

The relationship between adolescent girls' knowledge and cervical cancer prevention efforts in Class X of Private High Schools Dharma Bakti Tanah Jawa Simalungun Regency, can be seen in the following table:

Table 3. Relationship between knowledge of adolescent girls and efforts to prevent cervical cancer in class X of private high schools Dharma Bakti Tanah Jawa Simalungun Regency.

Knowledge	Cervical cancer prevention efforts				Total		ρ Value
	Prevent	%	Does not prevent	%	Jlh	%	
Good	37	94.9	2	5.1	39	100	0.01
Not good	5	45.5	6	54.5	11	100	
Total	42	84.0	8	16.0	50	100	

Based on the table of the relationship between the knowledge of young women and efforts to prevent cervical cancer, it was found that out of 39 respondents who had good knowledge and prevented cervical cancer, namely 37 respondents (94.9%) and 2 respondents (5.1%) did not prevent cervical cancer. Then out of 11 respondents who had a poor level of knowledge of young women and prevented cervical cancer, namely 5 respondents (45.5%) and for respondents who had poor knowledge, 6 respondents (54.5%) did not prevent cervical cancer. The results of the *chi square statistical test analysis* were carried out to see whether there was a relationship or not between the knowledge of young women and efforts to prevent cervical cancer, obtained a significance value (p-value) of 0.01. The test results showed a significance value smaller than 0.05 ($0.01 < 0.05$) then H_0 was rejected and H_a was accepted, meaning there was a significant relationship between knowledge and efforts to prevent cervical cancer in class X of SMA SwastaDharma Bakti Tanah Jawa, Simalungun Regency [30].

Discussion

Knowledge Distribution

That out of 50 female students in class X of SMA SwastaDharma Bakti Tanah Jawa, Simalungun Regency, 39 respondents (78%) had good knowledge and 11 respondents (22%) had poor knowledge, this means that the respondents' knowledge was good regarding the definition, causes, transmission methods, symptoms, development, examination, treatment, and prevention of cervical cancer.

Knowledge is information, and new experiences are a creative process for retaining new experiences (Potter and Perry, 2005). Therefore, to acquire new knowledge, someone must be exposed to information and have experienced something (experience). The higher a person's level of knowledge, the easier it will be to receive information about objects or things related to that knowledge (Notoadmodjo, 2010).

As we know, knowledge can be acquired not only through formal education but also through sensing a particular object, through media or experience. The internet is one of the most popular media for today's teenagers to obtain various information, including about cervical cancer.

So, it is possible for respondents to get information about cervical cancer through media such as print media or electronic media or experiences from friends, previous family, so that 39 respondents (78%) had good knowledge.

A similar study conducted by Febriyanti (2010), conducted a study on the relationship between adolescent knowledge about cervical cancer and attitudes in cervical cancer prevention efforts using descriptive correlation on some ninth grade female adolescents at SMA PGRI 1 PONOROGO. The study used simple random sampling, with a sample of 34 respondents. With the results of the study, 12 respondents (80%) had good knowledge and 14 respondents (73.69%) had poor knowledge, while 3 respondents (20%) had positive attitudes and 5 respondents (26.31%) had negative attitudes [31].

Distribution of Prevention Efforts

Based on research from 50 respondents, it was shown that the majority of respondents (42 respondents (84%) had tried to prevent the disease, while 8 respondents (16%) had not. The study showed that respondents' good knowledge significantly influenced cervical cancer prevention efforts. Other factors also affected cervical cancer prevention efforts, such as diet, lifestyle, and irregular exercise .

This research is similar to that conducted by Anty, a student from a university in Surabaya. The sample taken was 70 female adolescents in grades X, XI, and XII at a vocational high school in Surabaya as an instrument for data collection. It was concluded that there is a relationship between students' knowledge about cervical cancer and the behavior of cervical cancer prevention efforts carried out by students of Kartika Vocational High School Surabaya [32].

The relationship between knowledge level and cervical cancer prevention efforts

The results of the analysis of the relationship between knowledge and cervical cancer prevention efforts obtained that of the 39 respondents who had good knowledge, namely 37 respondents (94.9%) had knowledge in cervical cancer prevention efforts, and 2 respondents (5.1%) did not have knowledge in cervical cancer prevention efforts. Then of the 11 respondents who had a poor level of knowledge and could prevent cervical cancer, namely 5 respondents (45.5%) and for respondents who had poor knowledge, 6 respondents (54.5%) did not prevent cervical cancer. The results of the chi square analysis obtained a significance value (p-value) of 0.01. The test results showed a significance value smaller than 0.05 ($0.01 < 0.05$) then H_0 was rejected and H_a was accepted, meaning there was a significant relationship between the level of knowledge and cervical cancer prevention efforts in class X in Class X of SMA SwastaDharma Bakti Tanah Jawa, Simalungun Regency. Based on the results of the *chi-square* statistical test with a significance level of $\alpha = 0.05$, a *p value* of 0.01 was obtained, which means that there is a relationship between knowledge and efforts to prevent cervical cancer. The results of the study showed that the relationship between knowledge and efforts to prevent cervical cancer in Class X of SMA SwastaDharma Bakti Tanah Jawa, Simalungun Regency is good. This can be seen from the results found that 37 respondents (94.9%) were able to have knowledge in efforts to prevent cervical cancer.

Research conducted by Berlian Racmani et al. [33] showed a strong relationship between knowledge and attitudes of young women towards cervical cancer prevention efforts. Another study was conducted by Winda on the relationship between adolescent knowledge about cervical cancer and behavior in cervical cancer prevention efforts at SMA Negeri 1 Kei Kecil. The study concluded that there was a significant relationship between adolescent knowledge about cervical cancer at SMA Negeri 1 Kei Kecil. According to the author's assumption [7] the level of knowledge is related to cervical cancer prevention efforts because high knowledge can help overcome health problems and have opportunities for a healthy life obtained from various mass media such as the internet, television, radio, newspapers, magazines, and others [34].

5. CONCLUSION

From results study about connection knowledge teenager daughter with prevention efforts cancer Cervical cancer in Class X of Private High School Dharma Bakti Tanah Jawa Simalungun Regency, then can withdrawn conclusion as following: Teenager daughter in Class X of Dharma Bakti Private High School, Tanah Jawa, Simalungun Regency has knowledge Good matter This shown with distribution frequency level knowledge teenager daughter about cancer cervix as big as 39 respondents (78%) who know causes, methods transmission, symptoms, development, examination, treatment, and prevention efforts cancer cervix whereas level knowledge teenager less daughter Good about prevention efforts cancer cervix There is as much as 11 respondents (22%). Teenager daughter in Class X of Dharma Bakti Private High School, Tanah Jawa, Simalungun Regency is able to know method prevention efforts cancer cervix matter This shown with 42 respondents (84%) trying to stay away reason cancer cervix And capable prevent it but Still There were 8 respondents (16%) who did not know about prevention efforts occurrence cancer cervix. Level of knowledge teenager daughter with prevention efforts cancer Cervical cancer in Class X of Dharma Bakti Private High School, Tanah Jawa, Simalungun Regency is present significant relationship Where there is results test *chi-square* that is $p < 0.05$ (0.01).

For School Dharma Bakti Private High School, Tanah Jawa, Simalungun Regency. It is hoped that the school will can increase knowledge his students about cancer cervix through counseling that is not only involving student but

also his parents. For Educational Institutions. It is hoped that this research will serve as reference material or reading material to increase the knowledge of lecturers and students regarding the relationship between knowledge teenager daughter with prevention efforts cancer cervix. For Researchers Next. It is hoped that the study will be carried out more wide related variables with knowledge student to prevention efforts cancer cervix. For public general or elderly. It is hoped that it can add And develop insight for the general public and students in other high schools about prevention efforts cancer cervix anywhere.

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