

## THE EFFECT OF REPRODUCTIVE HEALTH EDUCATION TOWARD ATTITUDE OF CANCER SERVICES IN HIGH SCHOOL STUDENTS IN WEST PART SERAM REGENCY

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### ABSTRACT

Health education about the prevention of cervical cancer among adolescents can affect one's knowledge and attitudes. This study aims to determine the Effect of Reproductive Health Education on Attitudes to Prevent Cervical Cancer in High School Girls in West Seram Regency. This type of quantitative research with quasi-experimental design before and after treatment. The research method used is a quasi-experimental study with two groups pre-test post-test design. The sample of this study were 39 people for the intervention group and 40 people for the control group. Data analysis using the Friedman test to determine whether there is a difference between pretest and posttest. The results showed the attitude of SMA 3 West Seram students about cervical cancer prevention between 32.1 to 36.2. An increase in attitude change in posttest I between 38.9 to 44.2. And there was a decrease in attitude change at posttest II between 37.4 to 42.9 Hypothesis test results of 0,000 <0.05, it can be concluded that there were changes in student attitudes about the prevention of cervical cancer before and after being given health education. It is recommended that schools hold reproductive health counseling in adolescents, especially in the prevention of cervical cancer

**Keywords:** Health Education, Prevention of Cervical Cancer, Adolescent Girls.

### INTRODUCTION

Cervical cancer is a disease that can be prevented because it has a fairly long precancerous phase. The incidence of cervical cancer requires a process from 3 to 20 years starting from HPV infection to becoming cancerous. Therefore teenagers should have started an effort to prevent cervical cancer. The precancerous phase has not caused significant symptoms or complaints (Kurnaesih, 2018).

Cervical cancer is caused by the Human Papilloma Virus (HPV). In certain conditions such as lack of cleaning the femininity area when menstruation can trigger the development of HPV. A study states that 83% of Indonesian women are at risk of contracting vaginal infections and 62% of these statistics are related to the use of pads (Intami, 2016).

Adolescence is a period of transition from childhood to adulthood (puberty). Changes in emotions, roles, behavior, and attitudes occur. Changes that affect the appearance of confusing conditions, doubts, fears, and anxieties (Abrori et al., 2017).

These changes can be passed by teenagers well and there are also some adolescents who experience obstacles and disturbances in the development process so that it can hinder the achievement of further development tasks. Therefore, the most appropriate time to provide health education is in the early teens (Mbachu, 2017)

Based on data from cervical cancer patients obtained from RSUD (Regional General Hospital) Piru, data on the number of cervical cancer sufferers in Piru Regency in 2017-2019 obtained 4 cervical cancer sufferers, and the most occurred in 2018 with the number of cervical cancer sufferers of 2 people. While the age range that most become cervical cancer sufferers is the age range above 55 years.

In addition, the authors conducted interviews with medical staff at Piru Regional Hospital, stating that the small number of cancer patients recorded was due to lack of knowledge and awareness of sufferers to go to the hospital, and the reporting data from several Community Health Centre was also not perfect.

One of the efforts to prevent cervical cancer that must be done is health education in order to increase awareness in preventing cervical cancer. Preventive behavior is very important to avoid cervical cancer, the lack of awareness of women in the prevention of cervical cancer can pose a risk for cervical cancer (Fitriani, 2011).

Health education aims to increase public knowledge and understanding of healthy habits and behavior, so that early detection of cervical cancer can be found, and the possibility of recovery is greater. Health education about cervical cancer prevention itself is informing someone about how to prevent cervical cancer (Kusumawati et al., 2016).

In connection with the background explanation above, it is very important to further research about health education towards prevention attitudes about cervical cancer in high school students. Health education provided is a preventive effort or prevention of cervical cancer.

## **METHODS**

This research was conducted in This research was carried out in West Seram 3 High School (SMA 3) and West Seram 2 High School (SMA 2). In West Seram Regency (SBB), Maluku Province. This research uses quantitative research. The research method used was a quasi-experimental study with two groups pre-test post-test design. Health education in this research focuses on providing material to students with lecture and audiovisual methods.

The population of this study were all XI grade high school students in West Seram Regency who were officially registered in the 2019/2020 school year. To determine the number of sample sizes using the sample size formula ( $n$ ) paired category-numerical analytical research in studies with a quasi-experimental design. respondents in this study in the intervention group were 39 people and the control group was 40 people.

This research uses primary data and secondary data. Primary data obtained from the results of the distribution of questionnaires for quantitative data. Thus, the selected items will measure the variables to be measured, or in other words, will meet the validity criteria. Data analysis was performed using the Chi-Square and Friedman tests at a significance level of 0.05.

## RESULTS AND DISCUSSION

Table 1. Characteristics of Respondent Data in SMA 3 Intervention Group and SMA 2 Control Group

Characteristics	School		Total	
	SMA 3 (Intervention)	SMA 2 (Control)		
Age	15 YO	n 3	11	14
		% 7.7%	27.5%	17.7%
	16 YO	n 22	15	37
		% 56.4%	37.5%	46.8%
	17 YO	n 11	10	21
		% 28.2%	25.0%	26.6%
Parent's Occupation	18 YO	n 3	4	7
		% 7.7%	10.0%	8.9%
	Teacher	n 1	0	1
		% 2.6%	0.0%	1.3%
	Farmer	n 34	36	70
		% 87.2%	90.0%	88.6%
Civil Servant	n 2	2	4	
	% 5.1%	5.0%	5.1%	
entrepreneur	n 2	2	4	
	% 5.1%	5.0%	5.1%	
Total	n 39	40	79	
	% 100.0%	100.0%	100.0%	

Source: (Primary Data, 2020)

In the characteristics of the age group at SMA 3 SBB most of the respondents were at the age of 16 years by 56.4%. In SMA 2 SBB most of the respondents were at the age of 16 years by 37.5%. In the characteristics of the occupational group of parents at SMA 3 SBB, most of them work as farmers by 87.2%. In SMA 2 SBB, most parents work as farmers by 90.0%.

Table 2. Descriptive Statistics of Student Attitudes Before and After Being Given a Health Education Intervention About Prevention of Cervical Cancer in the Intervention Group SMA and SMA 2 Control Group

Category	N	Min	Mean	Max	SD	Median	95% CI	Total Questionnaire Value
<b>SMA 3</b>								
Pretest	39	18	34,1	45	6,48	35,0	32,1 36,2	50
Posttest 1	39	18	41,5	50	8,17	44,0	38,9 44,2	
Posttest 2	39	18	39,9	50	7,77	42,0	37,4 42,9	
<b>SMA 2</b>								
Pretest	40	18	37,2	44	5,13	37,5	35,5 38,8	50
Posttest 1	40	14	39,9	47	7,01	41,5	37,7 42,1	
Posttest 2	40	30	38,9	48	4,83	37,0	37,3 40,4	

Source: Primary Data, 2020

Based on the results of the pretest analysis, the average value of student attitudes about preventing cervical cancer before being given health education is 34.1, the lowest value is 18 and the highest value is 45, with a total value of 50 if the respondent can answer all questions. After an intervention in the form of health education about cervical cancer prevention, the results of the analysis of the average posttest 1 value obtained was 41.5 with the lowest value 18 and the highest value was 50. The median value was 44.0 with a standard deviation of 8.17. After an intervention in the form of health education about cervical cancer prevention, the results of the analysis of the average posttest 1 value obtained was 41.5 with the lowest value 18 and the highest value was 50. The median value was 44.0 with a standard deviation of 8.17.

Whereas based on the results of the pretest analysis the average attitudes of SMA 2 SBB students as a control group were 37.2, the lowest score was 18 and the highest score was 44, with a total score of 50 if the respondent could answer all questions. The median value is 37.5 with a standard deviation of 5.13. Then the attitudes of the second high school students were measured as a control group, the results of the average posttest 1 analysis obtained were 39.9 with the lowest value of 14 and the highest value of 47. The median value was 41.5 with a standard deviation of 7.01.

**Table 3. Differences in Attitudes About Reproductive Health in the Intervention and Control Groups**

School		Stance				P-Value
		Pre	Post 1	Post 2	Change	
<b>SMA 3 (Intervention)</b>	Mean	34.10	41.56	39.97	5.87	0.000
	SD	6.48	8.18	7.77	6.45	
<b>SMA 2 (Control)</b>	Mean	37.23	39.95	38.93	1.70	0.000
	SD	5.13	7.02	4.84	6.57	

Source: Primary Data, 2020

The attitude variable in SBB 3 SMA is an intervention group with the mean or average value from each measurement of the observed attitude variable, which is pretest 34.10% with standard deviation 6.48, and at posttest 1 after health education intervention about cervical cancer prevention is an increase in attitude by 41.56% with a standard deviation of 8.18, whereas in posttest 2 giving a decrease in attitude by 39.97% with a standard deviation of 7.77 so that it can be concluded that there is a change of 5.87% with a standard deviation of 6.45. In SMA 2 SBB as a control group with the mean or average value of each measurement of the observed attitude variables, namely 37.23% pretest with a standard deviation of 5.13, and at posttest 1 without intervening health education about cervical cancer prevention there was an increase in attitude amounted to 39.95% with a standard deviation of 7.02, while in posttest 2 there was a decrease in attitude by 38.93% with a standard deviation of 4.84 so it can be concluded that there was a change of 1.70% with a standard deviation of 6.57.

Based on the Friedman test it is known that the value of  $p < 0.05$ , so it can be concluded that there are differences in attitudes about the prevention of cervical cancer before and after health education given by SBB 3 SMA students

Based on the results of research on attitude variables, the average value of student attitudes about prevention of cervical cancer before being given health education about prevention of cervical cancer is 34.1, the lowest value is 18 and the highest value is 45, with a total value of 50 if the respondent can answer all questions. The median value is 35.0 with a standard

deviation of 6.48. The results of 95% confidence interval (CI) can be concluded that 95% are believed to be the attitude of SBB 3 SMA students about cervical cancer prevention between 32.1 to 36.2. So it can be concluded that the attitude of students in the prevention of cervical cancer in SMA 3 SBB is still quite lacking.

After an intervention in the form of health education about cervical cancer prevention, the results of the analysis of the average posttest 1 attitude variable values obtained were 41.5 with the lowest value of 18 and the highest value of 50. The median value was 44.0 with a standard deviation of 8.17. The standard deviation illustrates the distribution of sample values, the smaller the standard deviation, the closer it is to the mean, which means that the data is better than before.

The 95% CI results showed that 95% believed to be female students about cancer prevention was between 38.9 and 44.2. So that the data illustrates that an increase in the average attitude of SBB 3 SMA students after being given health education related to cervical cancer prevention.

Whereas at posttest 2 after a month after being given health education about cervical cancer prevention the average analysis result obtained was 39.9 with the lowest value 18 and the highest value was 50. The median value was 42.0 with a standard deviation of 7.77. Results of 95% (CI) 37.4 to 42.9. Based on these data it can be concluded that there was a decrease in the average female students' attitude after being held posttest 2.

And the attitude variable at SMA 3 SBB is an intervention group with the mean or average value of each measurement of the observed attitude variable, which is pretest 34.10% with standard deviation 6.48, and at posttest 1 after health education intervention about cervical cancer prevention, there was an increase in attitude by 41.56% with a standard deviation of 8.18, whereas in posttest 2 there was a decrease in attitude by 39.97% with a standard deviation of 7.77 so that it could be concluded that there was a change of 5.87% with a standard deviation of 6.45.

In SMA 2 SBB as a control group with the mean or average value of each measurement of the observed attitude variables, namely 37.23% pretest with a standard deviation of 5.13, and at posttest 1 without intervening health education about cervical cancer prevention there was an increase in attitude amounted to 39.95% with a standard deviation of 7.02, while in posttest 2 there was a decrease in attitude by 38.93% with a standard deviation of 4.84 so it can be concluded that there was a change of 1.70% with a standard deviation of 6.57.

Based on the Friedman test it is known that the value of  $p < 0.05$ , so it can be concluded that there are differences in attitudes about the prevention of cervical cancer before and after being given health education for SBB 3 SMA students. So it can be concluded that the provision of health education about the prevention of cervical cancer can increase the attitude change of high school 3 students in West Seram Regency

Interventions in the form of health education about the prevention of cervical cancer can in fact influence the increasing attitudes of SBB 3 SMA students towards the importance of reproductive health in order to avoid cervical cancer. The attitude of students regarding cervical cancer prevention is influenced by respondents' knowledge of the same thing, and there is also a possibility that existing attitudes are formed due to personal experience, mass media and the influence of education/health institutions. Attitude is a pattern of behavior, tendency, or anticipatory predisposition readiness to adapt to social situations or simply. Attitude is a

response to social stimulation that has been conditioned. To be the basis for forming attitudes, personal experience must leave a strong impression (Laferani, 2016). Therefore, attitudes are more easily formed when personal experiences occur in situations that involve emotions, the appreciation of the experience will be deeper and longer-lasting. Changes in attitude requires a lot of time, and requires a variety of factors to support a change in attitude (Ismawati, 2014)

The factors that influence the formation of one's attitude are personal experience, culture, other people who are considered important, the mass media, institutions or educational institutions, and religious institutions as well as emotional factors in individuals (Amalia et al., 2018). This is also reinforced by the theory put forward by Fitriani (2011) health education as well as a process where the process has inputs, processes and outputs in a health education process leading to the achievement of health education goals namely changes in behavior or attitudes this is also consistent with the role of health education in changing behavior (Bieri et al., 2013; Sallis et al., 2015)

The important role of family and health workers related to the importance of health education in preventing the occurrence of cervical cancer in students is very important to improve one's knowledge, attitudes, and behavior. Health education about reproductive health in preventing cervical cancer is very important given by adolescents, especially to students (Dianti et al., 2016; Ramli, 2020).

This is in line with research Buzarudina (2013) entitled the effectiveness of adolescent reproductive health counseling on the level of knowledge of students of SMAN 6, East Pontianak Regency. The results of the study obtained a value ( $p < 0.05$ ) which indicates that there is a significant difference between the score before counseling with the score after counseling. The conclusion is that counseling about adolescent reproductive health is effective in increasing respondents' knowledge about adolescent reproductive health

## CONCLUSION

The attitude value of SBB 3 SMA students after the intervention (posttest 1 and 2) can be concluded that there was a significant change in the attitude of SMA 3 SBB (West Seram) students after posttest I and the average decline in SBB 3 SMA student attitude after conducted posttest II, based on Friedman's test known value of  $p < 0.05$ . So it can be concluded that there are differences in attitudes about the prevention of cervical cancer before and after the health education given to SMA 3 SBB students. It is hoped that the school can provide health education about cervical cancer in the form of lectures with audio-visual aids as well as the implementation of feedback in the form of questions and answers. In its application, this health education counseling activity can be used to support teaching and learning activities in schools.

## REFERENCES

- Abrori H. & Ermulyadi. (2017). Faktor Yang Berhubungan Dengan Kejadian Keputihan Patologis Siswi SMAN 1 Simpang Hilir Kabupaten Kayong Utara. *Unnes Journal of Public Health*, 6(1):24-34.
- Amalia L. & Herawati E. (2018). Hubungan Pengetahuan dan Sikap dengan Pelaksanaan Perawatan Metode Kanguru. *Jurnal Pendidikan Keperawatan Indonesia*, 4(2):152-161.

- Bieri, F. A., Gray, D. J., Williams, G. M., Raso, G., Li, Y. S., Yuan, L., & McManus, D. P. (2013). Health-education package to prevent worm infections in Chinese schoolchildren. *New England Journal of Medicine*, 368(17), 1603-1612.
- Buzarudina F. & Fitriangga A. (2013). Efektivitas Penyuluhan Kesehatan Reproduksi Remaja terhadap Tingkat Pengetahuan Siswa SMAN 6 Kecamatan Pontianak Timur Tahun 2013. *Jurnal Mahasiswa Kedokteran Untan*, 3(1): 55-59
- Dianti N.R. & Isfandiari A. (2016). *Perbandingan Risiko Ca Serviks Berdasarkan Personal Hygiene Pada Wanita Usia Subur Di Yayasan Kanker Wisnuwardhana Surabaya*. *Jurnal Promkes*, 4(1):82-91.
- Fitriani S. (2011). Promosi Kesehatan. Cetakan 1. Yogyakarta: Graha Ilmu
- Intami E. (2016). *Gambaran Pengetahuan, Motivasi dan Peran Petugas Kesehatan Tentang Pencegahan Kanker Serviks pada Wanita Usia Subur di Wilayah Kerja Puskesmas Kenali Besar Kota Jambi Tahun 2016*. *Scientia Journal*, 7(2):17-23
- Ismawati, dkk (2014). *Promosi Kesehatan dalam Meningkatkan Pengetahuan, Sikap dan Perilaku Deteksi Dini Kanker Serviks pada Ibu-Ibu Anggota Pengajian*. *Jurnal Berita Kedokteran Masyarakat*. Yogyakarta
- Kurnaesih, dkk (2018). *Gambaran Karakteristik Penderita Kanker Serviks Berdasarkan Faktor Risiko Di Rsu Sumedang Tahun 2014*. *Prosiding Seminar Nasional 2018 Sinergitas Multidisiplin Ilmu Pengetahuan dan Teknologi*, vol. 1, 2018.
- Kusumawati Y. & Rahmawati E.N. (2016). Pengetahuan, deteksi dini dan vaksinasi HPV sebagai faktor pencegah kanker serviks di Kabupaten Sukoharjo. *Jurnal Kesehatan Masyarakat*, 11(2):204-213.
- Laferani, dkk (2016). *Pengaruh Pendidikan Kesehatan Terhadap Sikap Pencegahan Hiv/Aids Pada Remaja Kelas X Di SMA N 1 Gamping*. Universitas 'Aisyiyah Yogyakarta
- Mbachu.C. (2017). *Effects of peer health education on perception and practice of screening for cervical cancer among urban residential women in south-east Nigeria: a before and after study*. *BMC Women's Health*. Page 1-8
- Ramli, R. (2020). Prevention and Treatment of Reproductive Tract Infection. *Journal La Medihealthico*, 1(1), 8-12.
- Sallis, J. F., Owen, N., & Fisher, E. (2015). Ecological models of health behavior. *Health behavior: Theory, research, and practice*, 5(43-64).