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## FACTORS RELATED TO THE INCIDENCE OF VAGINAL DISCHARGE AMONG FEMALE ADOLESCENT IN X JUNIOR HIGH SCHOOL DISTRICT SUMEDANG 2023

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Vaginal discharge has long been a problem for women. Adolescents are one part of the population at risk of vaginal discharge that needs special attention. An initial survey of adolescent girls at X Junior High School in March 2023 found that 7 (70%) students experienced vaginal discharge and 3 (30%) students did not experience vaginal discharge. The purpose of this study was to determine the factors that influence the incidence of vaginal discharge in adolescent girls at SMP X Conggeang District, Sumedang Regency. The method used was descriptive analytic research with a cross sectonal design. The sampling technique used was Proportional Stratified Random Sampling with 69 respondents. The results showed that there was an influence between knowledge (p-value = 0.003) with the incidence of vaginal discharge. There is an influence between personal hygiene (p-value=0.005) with the incidence of vaginal discharge and there is no influence between lifestyle (p-value=0.067) with the incidence of vaginal discharge. It is expected that adolescents need to have the awareness to seek correct information about reproductive health problems, especially about the incidence of vaginal discharge. Schools are more proactive in providing counseling guidance on adolescent reproductive health issues.

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ABSTRACT

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## 1. INTRODUCTION

Understanding adolescent reproductive health is one of the important things to know because adolescence is a transition period from children's reproductive organs to adult reproductive organs. Monks et al. (2006) said that adolescents are individuals aged between 12-21 years who are experiencing a transition from childhood to adolescence, with the division of 12-15 years of age is early adolescence, 15-18 years of age is middle or middle adolescence, and 18-21 years of age is late adolescence.

Adolescence is often preceded by the maturity of the reproductive organs that provide many changes in adolescents. One of the changes in adolescents is physical changes that have a major influence on the development of the adolescent psyche such as body growth followed by the functioning of reproductive organs and other secondary sexual signs, which can lead to reproductive health problems in adolescents, one of which is vaginal discharge. The reproductive health problem of vaginal discharge that can occur in adolescence is often not taken seriously by women

because in general they consider vaginal discharge as normal. Whereas vaginal discharge can be an indication of diseases such as uterine cancer (Husseini in Satriani et al., 2022)..

According to Koes Irianto (2014) Vaginal discharge or what is known by the medical term Flour Albus is excessive fluid that comes out of the vagina. The vagina produces fluids to maintain moisture, clean from the inside, and maintain vaginal acidity because it contains many beneficial bacteria. Normal vaginal discharge is clear white in color, when attached to underwear it will be bright yellow, mucus-like consistency, thin or thick.

Vaginal discharge can be divided into 2 types, namely normal or physiological and abnormal or pathological vaginal discharge. (Pradnyandari, Surya, & Aryana, 2019).. Normal vaginal discharge occurs in accordance with the female reproductive cycle or in accordance with the cycle of the female body with a clear type of discharge, not excessive, odorless and does not cause itching or burning. Whereas abnormal vaginal discharge is characterized by a large amount of discharge, white like stale milk, yellow or greenish, itchy, sore, and accompanied by a fishy or rotten smell, very disturbing comfort for women. (Marhaeni, 2016).

According to the World Health Organization (WHO) in 2018 in Aldriana & Haryanti (2018), that about 75% of women in the world will definitely experience vaginal discharge at least once in their lifetime, and as many as 45% will experience it twice or more, while women in Europe who experience vaginal discharge are 25%.

Data in Indonesia 90% of women experience vaginal discharge and as many as 60% are experienced by adolescent girls (Prabawati et al., 2019). About 90% of women in Indonesia have the potential to experience vaginal discharge because Indonesia is a tropical climate, so fungi are easy to develop which results in many cases of vaginal discharge. Vaginal discharge symptoms are also experienced by unmarried women or adolescent girls aged 15-24 years, which is around 31.8%. This shows that adolescents are more likely to have vaginal discharge. (Azizah in Mularsih & Elliana, 2019).

According to statistical data, the total population in West Java Province reaches 11,358,740 people or women who experience vaginal discharge 27.60% of the total population in West Java are adolescents and women of childbearing age aged 10-24 years. (Department of Health, 2015).

A preliminary study of 10 adolescent girls aged 12-14 years at SMP X was conducted on March 20, 2023, by means of non-formal interviews with 10 students, it was found that 7 people (70%) of SMP X students who experienced vaginal discharge because they did not know about the causes, treatments that must be done if vaginal discharge occurs and there is still a lack of understanding about vaginal discharge itself so that there are still many adolescents who consider vaginal discharge often makes them reluctant to consult a doctor while 3 people (30%) did not experience vaginal discharge. From this description, the researcher is interested in conducting research on "Factors Affecting the Incidence of Vaginal Discharge in Adolescent Girls at SMP X Sumedang Regency in 2023".

## 2. METHODS

The research method used is quantitative research with a cross sectional approach. The population in this study were adolescent students aged 12-14 years at SMP X Sumedang Regency, classes VII, VIII, totaling 186 people. The sampling used in this study was Proportional Stratified Random Sampling with 69 respondents. The instrument used was a questionnaire using google form media. Data analysis includes univariate and bivariate analysis using the Chi-square test.

## 3. RESULTS AND DISCUSSION

#### 3.1. Results

- A. Univariate Analysis
  - 1. Knowledge

1 8	Table 1 Frequency Distribution of Knowledge					
Knowledge	Frequency	Percent (%)				
Good	17	24,6				
Simply	39	56,5				
Less	13	18,3				
Total	69	100,0				

#### Table 1 Frequency Distribution of Knowledge

Based on table 1 on the Frequency Distribution of Knowledge, it shows that the highest percentage of respondents belonging to the moderate category is 39 respondents (56.5%).

## 2. Personal Hygiene

I able 2 Fre	Table 2 Frequency Distribution of Personal Hygiene					
Personal Hygiene	Frequency	Percent (%)				
Good	15	21,7				
Simply	30	43,5				
Less	24	34,8				
Total	69	100,0				

Table 2 Frequency Distribution of Personal Hygiene

Based on table 2 on the Frequency Distribution of Personal Hygiene, it shows that the highest percentage of respondents belonging to the moderate category is 30 respondents (43.5%).

## 3. Lifestyle

Lifestyle	Frequency	Percent (%)			
Good	21	30,4			
Simply	31	44,9			
Less	17	24,6			
Total	69	100,0			

## **Table 3 Lifestyle Frequency Distribution**

Based on table 3 on the Frequency Distribution of lifestyle, it shows that the highest percentage of respondents belonging to the moderate category is 31 respondents (44.9%).

4. Incidence of Vaginal Discharge

Table 4 Frequency Distribution of vaginar Discharge					
Incidence of Vaginal	Frequency	Percent (%)			
Discharge					
Experience	48	69,6			
Not experienced	21	30,4			
Total	69	100,0			

**Table 4 Frequency Distribution of Vaginal Discharge** 

Based on table 4 above, it shows that out of 69 adolescent girls at SMP X Sumedang Regency who have experienced vaginal discharge as many as 69.6% (48 respondents), while they have never experienced as many as 30.4% (21 respondents).

## B. Bivariate Analysis

1. Knowledge

### Table 5 Cross Tabulation of Knowledge with Vaginal Discharge Incidence

		Incidence of Vaginal Discharge					
Knowledge	Experience		Not experier	nced	То	otal	P Value
	f	%	f	%	f	%	
Good	13	11,8	4	5,2	17	17,0	
Simply	31	27,1	8	11,9	39	39,0	0,003
Less	4	9,0	9	4,0	13	13,0	
Total	48	48,0	21	21,0	69	69,0	

Based on table 5, it is known that 69 respondents (100%) there were a majority of respondents with sufficient knowledge as many as 39 respondents (56.5) who experienced vaginal discharge as many as 31 respondents (27.1%), and who did not experience vaginal discharge as many as 8 respondents (11.9%). While the results of the chi-square statistical test using the Statistical Program for Social Science (SPSS) application obtained a p value = 0.003 at the 95% confidence level with (0.05). Thus the p-value (0.003) <0.05 which indicates that there is a significant relationship between the knowledge of adolescent girls and the incidence of vaginal discharge at SMP X Sumedang Regency.

## 2. Personal Hygiene

	Incidence of Vaginal Discharge						
Personal Hygiene	Experience		Not expe	erienced	То	otal	P Value
11)8	f	%	f	%	f	%	
Good	11	10,4	4	4,6	15	15,0	
Simply	26	20,9	4	9,1	30	30,0	0,005
Less	11	16,7	13	7,3	24	24,0	
Total	48	48,0	21	21,0	69	69,0	

Table 6 Cross-tabulation of Personal Hygiene with Vaginal Discharge Incidence

Based on table 6, respondents whose personal hygiene is good, there are only 11 respondents (10.4%) who experience vaginal discharge and those who do not experience only 4 respondents (4.6%). Meanwhile, those whose personal hygiene is sufficient who experience vaginal discharge are 26 respondents (20.9%) and those who do not experience only 4 respondents (9.1%). Meanwhile, those whose personal hygiene is less, who experience vaginal discharge are 11 respondents (16.7%) and those who do not experience 13 respondents (7.3%). Based on the results of the chi-square statistical test using the Statistical Program for Social Science (SPSS) application, the p value = 0.005 at the 95% confidence level with (0.05). Thus the p-value (0.005) <0.05 which indicates that there is a significant relationship between personal hygiene of adolescent girls and the incidence of vaginal discharge at SMP X Sumedang Regency.

## 3. Lifestyle

	Incidence of Vaginal Discharge						
Lifestyle	Experience		Not expe	erienced	Тс	otal	P Value
	f	%	f	%	f	%	
Good	16	14,6	5	6,4	21	21,0	
Simply	24	21,6	7	9,4	31	31,0	0,067
Less	8	11,8	9	5,2	17	17,0	
Total	48	48,0	21	21,0	69	69,0	

Table 7 Cross Tabulation of Lifestyle with Vaginal Discharge Incidence

Based on table 7, the results of the chi-square statistical test using the SPSS application obtained a p-value = 0.067 at the 95% confidence level with (0.05). Thus the p-value (0.067) >0.05 which indicates that there is no significant relationship between the lifestyle of adolescent girls and the incidence of vaginal discharge at SMP X Sumedang Regency.

## 3.2. Discussion

## A. Knowledge Overview

The picture shown in this study is that the knowledge of adolescent girls about vaginal discharge at SMP X Sumedang Regency in 2023 is mostly with sufficient categories, namely 39 respondents (56.5%), while the good category is 17 respondents (24.6%), and for knowledge with a frequency of less categories, namely 13 respondents (18.3%). This is because by having sufficient knowledge about vaginal discharge, adolescent girls are able to prevent vaginal discharge, understand the symptoms and how to prevent vaginal discharge.

Knowledge about vaginal discharge is an important tool in preventing vaginal discharge and for adolescent health. According to Notoatmodjo (2012) knowledge covered in the cognitive domain has 6 levels, namely: Know, understand, application, analysis, synthesis, evaluation.

Meanwhile, the results of research conducted by Siti Novy Romlah, Puji Wahyuningsih, Dwi Mechory (2018) found that out of 85 respondents, 57 students (67.1%) had good knowledge, while the fewest were students in the category of poor knowledge as many as 28 students (32.9%). This shows that most students have good category knowledge, because the school is located in an urban area where information about vaginal

discharge is easy to access or obtain through the media, especially electronic media. Media has a very important role in conveying new information about something that provides a new cognitive basis for the formation of behavior towards this matter.

Not in line with the results of research conducted by Febria (2020) entitled "The Relationship between the Level of Knowledge of Adolescent Girls with the Incidence of Vaginal Discharge in Mtsn Koto Tangah Padang Students in 2020", namely 78 respondents, there were 52.6% with a high level of knowledge about vaginal discharge in schoolgirls. There are still many of these students experiencing vaginal discharge with low knowledge, and it can be concluded from the table that students with low levels of knowledge can experience vaginal discharge. Knowledge is the result of knowing, and this occurs after sensing a certain object. Sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste and touch. Most human knowledge is obtained through the eyes and ears (Notoatmodjo, 2012).

The researcher assumes that by having sufficient knowledge about vaginal discharge, adolescent girls are able to prevent the occurrence of vaginal discharge, understand the symptoms and how to prevent the incidence of vaginal discharge. This is in accordance with the results of the study which proved a significant relationship between knowledge and the incidence of vaginal discharge.

#### **B.** Personal Hygiene Overview

The picture shown in this study is that the personal hygiene of adolescent girls about vaginal discharge in SMP X Conggeang District, Sumedang Regency in 2023 has the highest percentage of respondents who are classified in the sufficient category, namely 30 respondents (42.5%), while the good category is 15 respondents (21.7%), and for personal hygiene with a frequency of less categories, namely 24 respondents (34.8%). This is because personal hygiene is less considered, such as often using dirty toilets, unhealthy lifestyles such as rarely exercising, often scratching female organs, if it is allowed and considered trivial, it will have a negative impact on the health of reproductive organs and reduce the quality of life.

Personal hygiene is the cleanliness and health of individuals that aims to prevent various diseases in themselves and others both physically and psychologically. Personal hygiene includes the care of the eyes, ears, nose, mouth, nails, feet and hands, skin and genital area. (Silalahi & Putri, 2017).

In line with research conducted by Batubara & Rahmayani (2022), in the Personal Hygiene factor, the majority of female students have poor Personal Hygiene behavior, as many as 64 people (54.2%). This is due to personal hygiene that is less noticed such as lack of personal hygiene.

Not in line with research conducted by Ekawati (2019), showing that most respondents had good personal hygiene behavior as many as 53 respondents (79.1%) while 1 respondent (1.5%) had poor personal hygiene behavior. This is because most of the respondents who have poor personal hygiene behavior are due to lack of access to information and habits regarding personal hygiene.

The researcher assumes that poor personal hygiene is due to the lack of information received by adolescents in SMP X so that most of them still do not know the causes of vaginal discharge.

### C. Lifestyle Overview

The picture shown in this study is that the lifestyle of adolescent girls about vaginal discharge in SMP X Conggeang District, Sumedang Regency in 2023 has the highest percentage of respondents who are classified in the moderate category, namely 31 respondents (44.9%), while the good category is 21 respondents (30.4%), and for lifestyles with a frequency of less categories, as many as 17 respondents (24.6%). This is because the majority of teenagers in SMP X already know how to dress well and the average teenager has a good lifestyle.

According to Kotler, translated by Bob Sabran (2009:210) said: "Lifestyle is broadly defined as a person's pattern of life in the world which is revealed in his activities, interests and opinions. Lifestyle describes the whole person who interacts with his environment." Lifestyle is a collection of behavioral characteristics that matter in a time and place, including social relationships, entertainment use, and clothing.

In line with research conducted by Yeni Purnamasari on lifestyle, it shows that the highest percentage of respondents belonging to the good category is 42.2% (27 respondents). This is because many teenagers in SMA X already know about how to dress properly, know what foods can cause vaginal discharge and the average teenager has a good lifestyle.

## D. Incidence of Vaginal Discharge

The picture shown in this study is that out of 69 adolescent girls at SMP X who have experienced vaginal discharge as much as 69.6% (48 respondents), while considering that they have never experienced as much as 30.4% (21 respondents).

Vaginal discharge is where white discharge from the female genitalia and is not blood. Vaginal discharge can also attack women ranging from young age, healthy reproductive age and old age and does not recognize the level of economic and socio-cultural education. (Trisetyaningsih & Febriana, 2019).

In line with Febria's research (2020), it can be seen that most 93.6% of adolescent girls experience vaginal discharge and as many as 6.4,% of adolescent girls do not experience vaginal discharge. In this case, the incidence of vaginal discharge in female students is almost all female students experience vaginal discharge. Vaginal discharge is a liquid that comes out of the vagina. Under normal circumstances, this fluid does not come out, but it is not necessarily pathological. Normal vaginal discharge includes: before or after menstruation and stress, both physical and psychological while pathological vaginal discharge includes: fungal infections, bacterial infections, protozoan parasitic infections, gonorrhea infections and cervical cancer malignancies.

## E. The Effect of Knowledge on the Incidence of Vaginal Discharge

Based on the bivariate table 5, the results of the chi-square statistical test using the SPSS application obtained a p value = 0.003 at the 95% confidence level with (0.05). Thus the p-value (0.003) < 0.05 which shows that there is a significant relationship between the knowledge of adolescent girls and the incidence of vaginal discharge at SMP X.

Knowledge is the result of knowing, and this happens after people perceive a certain object. Sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste and touch. Most human knowledge is obtained through the eyes and ears. Knowledge or cognitive is a very important domain in shaping a person's actions (overt behavior). Because from experience and research it turns out that behavior based on knowledge will be more lasting than behavior that is not based on knowledge. (Notoatmodjo, 2012).

Adolescent girls who have good knowledge are very influential on the incidence of vaginal discharge. Because with the knowledge possessed by these young women, it will lead to a desire from a person to do what he already knows, such as knowledge about the prevention of vaginal discharge. Limited knowledge and understanding can lead young women to risky directions. In this study there are still many young women who have poor knowledge, this is because there are still many young women who do not know how to prevent vaginal discharge.

This research is in line with that conducted by Novita Lusiana with the title "Factors Affecting Vaginal Discharge in Adolescent Girls at SMAN 11 Pekanbaru in 2018". The statistical test results obtained a p value = 0.050 (<0.05), it can be concluded that there is an influence between knowledge and the occurrence of vaginal discharge in adolescent girls at SMAN 11 Pekanbaru. The knowledge factor is related to the occurrence of vaginal discharge, because before conducting research, researchers have briefly described vaginal discharge to adolescent girls at SMAN 11 Pekanbaru, but have not made the knowledge of adolescent girls increase, this happens because it is the first time hearing and knowing the meaning of vaginal discharge explained. So that when questions arise in the research questionnaire, young women tend not to master the vaginal discharge that has been conveyed by the researcher.

Not in line with research conducted by Chyka Febria entitled "The Relationship between the Level of Knowledge of Adolescent Girls with the Incidence of Vaginal Discharge in Students of Mtsn Koto Tangah Padang in 2020" The results of the study in table 3 show that of the 78 respondents, 93.6% had vaginal discharge as much as 97.6% who had vaginal discharge due to a low level of knowledge and only 89.2% had vaginal discharge with a high level of knowledge. This result is reinforced by the chi square test conducted by the researcher obtained a value = 0.184 (p> 0.05) where there is no significant relationship between the level of knowledge and the incidence of vaginal discharge. Knowledge is a person's insight into an object or thing. Knowledge is a very important domain in shaping a person's actions. An action based on good knowledge will be more lasting than an action that is not based on good knowledge (Notoatmodjo, 2012).

From the results of the study, the researcher assumes that by having sufficient knowledge about vaginal discharge, adolescent girls are able to prevent vaginal discharge, understand the symptoms and how to prevent vaginal discharge. This is in accordance with the results of the study which proved a significant relationship between knowledge and the incidence of vaginal discharge.

## F. The Effect of Personal Hygiene on the Incidence of Vaginal Discharge

Based on bivariate Table 6, the results of the chi-square statistical test using the SPSS application obtained a p value = 0.005 at a 95% confidence level with (0.05). Thus the p-value (0.005) < 0.05 which shows that there is a significant relationship between personal hygiene of adolescent girls and the incidence of vaginal discharge at SMP X.

Personal hygiene is individual hygiene and health that aims to prevent various diseases in oneself and others both physically and psychologically. Personal hygiene includes the care of the eyes, ears, nose, mouth, nails, feet and hands, skin and genital area. (Silalahi & Putri, 2017).

This research is in line with the research of Batubara & Rahmayani (2022), with the title "Factors Associated with the Incidence of Vaginal Discharge (Flour Albus) in Adolescent Girls at the Modern Pesantren Al-Zahrah Bireuen" Based on the results of the chi-square test of the relationship between personal hygiene and the incidence of vaginal discharge (Flour Albus) with a confidence level of 95% ( $\alpha = 0.05$ ) the results of the calculation show that there is a significant relationship between personal hygiene and the incidence of vaginal discharge (Flour Albus) in adolescent girls with a p value (0.003) <  $\alpha$  (0.05), RP value = 4.22 and 95% CI = 1.54 - 11.59 so that santriwati who have poor personal hygiene behavior will increase the risk of vaginal discharge (fluor albus) by 4.22 times greater than santriwati who have good personal hygiene behavior.

Not in line with Ekawati's research (2019), with the title "Relationship between Personal Hygiene Behavior and the Incidence of Vaginal Discharge in Adolescent Girls at Smp Negeri 3 Gamping Sleman Yogyakarta" it was found that there was no relationship between personal hygiene and the incidence of vaginal discharge in adolescent girls at SMP Negeri 3 Gamping Sleman Yogyakarta which showed a p value of 0.159 and a significant value of 0.05 (p-value =  $0.159 > \alpha = 0.05$ ), where the p-value is greater than the significant value (0.159> 0.05). From the description above, personal hygiene does not affect the incidence of vaginal discharge, but genital personal hygiene habits, personal hygiene of hair in the female organ area, and personal hygiene of hands; stress management; and poor knowledge can lead to vaginal discharge. If the incidence of vaginal discharge is not resolved immediately, many unexpected things will occur, ranging from urinary tract infections, female organ infections that cause complaints of pathological vaginal discharge, and can even become one of the risk factors for cervical cancer and do not rule out the end of death.

From the results of the study, the researcher assumes that personal hygiene is not good due to the lack of information received by adolescents in SMP X so that most of them still do not know the causes of vaginal discharge, as for the causes of vaginal discharge because of personal hygiene that is less considered such as often using dirty toilets, unhealthy lifestyles such as infrequent exercise, often scratching the female organs, if it is allowed and considered trivial it will have a negative impact on the health of the reproductive organs and reduce the quality of hyd up.

## G. The Effect of Lifestyle on the Incidence of Vaginal Discharge

Based on table 7, the results of the chi-square statistical test using the SPSS application obtained a p value = 0.067 at the 95% confidence level with (0.05). Thus the p-value (0.067) >0.05 which indicates that there is no significant relationship between the lifestyle of adolescent girls and the incidence of vaginal discharge at SMP X.

According to Kotler, translated by Bob Sabran (2009:210) said: "Lifestyle is broadly defined as a person's pattern of life in the world which is revealed in his activities, interests and opinions. Lifestyle describes the whole person who interacts with his environment." Lifestyle is a collection of behavioral characteristics that matter in a time and place, including social relationships, entertainment use, and clothing.

The results showed that there was no effect of Lifestyle of adolescent girls on the incidence of vaginal discharge at SMP X with a p-value of 0.156 (p<0.05). This is because the majority of adolescents in SMP X already know how to dress properly and the average teenager has a good lifestyle. From the results of the study, the researcher assumes that lifestyle is not related to the incidence of vaginal discharge because the average teenager in SMP X has a good lifestyle.

#### 4. CONCLUSIONS

Based on the results of research that has been conducted and the discussion that has been described previously regarding "Factors Affecting the Incidence of Vaginal Discharge in Adolescent Girls at SMP X District Sumedang Regency in 2023", the following conclusions are obtained:

- a. The description of the knowledge of adolescent girls about vaginal discharge is mostly in the sufficient category, namely 39 respondents (56.5%).
- b. The picture of personal hygiene of adolescent girls about vaginal discharge is mostly in the sufficient category, namely 30 respondents (43.5%).
- c. The description of the lifestyle of adolescent girls about vaginal discharge is mostly in the sufficient category, namely 31 respondents (44.9%).
- d. The picture of vaginal discharge shows that out of 69 adolescent girls who have experienced vaginal discharge as much as 69.6% (48 respondents), while those who have never experienced as much as 30.4% (21 respondents).
- e. There is an effect of knowledge of adolescent girls on the incidence of vaginal discharge with a p-value (0.003) <0.05.
- f. There is an effect of personal hygiene of adolescent girls on the incidence of vaginal discharge with a p-value (0.005) < 0.05.
- g. There is no effect of lifestyle of adolescent girls on the incidence of vaginal discharge with a p-value (0.067) <0.05.

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## THE RELATIONSHIP BETWEEN KNOWLEDGE AND BREAST SELF-EXAMINATION BEHAVIOR (SADARI)

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#### ABSTRACT

The high prevalence of breast cancer in Indonesia is caused by late treatment at an early stage. Breast self-examination is an examination that is the cheapest and easiest to do to detect breast cancer early. This study aims to determine the relationship between knowledge and attitudes with breast selfexamination behavior (SADARI) in grade 11 students at SMK Negeri 2 Sumedang in 2023. The design of this study is descriptive correlation with a crossectional approach. The population in this study was 552 and the sample size in this study was 85 people using the Stratified Random Sampling Technique. Data collection methods in this study using a questionnaire. Data analysis using univariate and bivariate analysis with chi-square statistical tests. The results showed 48 students (56.5%) had sufficient knowledge, and 68 students (80.0%) had unsupportive behavior. From the results of the chisquare test, it was found that there was a relationship between knowledge and SADARI behavior (p=0.005). It is expected that the school cooperates with health workers to provide counseling on SADARI to detect early breast cancer.

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## 1. INTRODUCTION

Breasts are a woman's valuable asset, but are often considered a taboo body part that should not be discussed (Suryono, 2018). Breast cancer is a malignant cancer that often occurs in women in developed countries and second only to cervical cancer in developing countries, and constitutes 29% of all cancers diagnosed each year (Kartini, 2019). Along with the times, the number of breast cancer patients in Indonesia is increasing. Initially breast cancer attacks women who are over 30 years old but currently the age of breast cancer sufferers is becoming a younger woman or teenager (Fres, 2015). Based on the findings of breast cancer patients at a young age, that not a few teenage girls aged fourteen years suffer from tumors in their breasts, where tumors that occur can cause breast cancer if not detected early. Although not all of them are malignant, it shows that there is a trend of higher breast cancer symptoms in adolescence. The specific cause of breast cancer is still unknown, but many factors are thought to have an influence on the occurrence of breast cancer, including age, age at first menstruation, history of breast cancer, unhealthy lifestyle (consuming instant food and drinking alcoholic beverages) (Mulyani and Rinawati 2013).

Based on the WHO report (2019), breast cancer is the most common cancer among women, affecting 2.1 million women each year and is also the cause of the largest number of cancer-related deaths among women. In 2018, an estimated 627,000 women died from breast cancer, which is about 15% of all cancer deaths among women (WHO, 2019).

In Indonesia, the prevalence of cancer in Indonesia is quite high. Data presented by the Directorate General of Disease Prevention and Control of the Ministry of Health of the Republic of Indonesia (2019) that the incidence rate of cancer in Indonesia (136.2/100,000 population) is ranked 8th in Southeast Asia, while in Asia it is ranked 23rd. The highest incidence rate in Indonesia for men is lung cancer, which is 19.4 per 100,000 population with an average mortality of 10.9 per 100,000 population. While the highest incidence rate for women is breast cancer, which is 42.1 per 100,000 population. While the highest incidence rate for women is breast cancer, which is 42.1 per 100,000 population with an average mortality of 17 per 100,000 population, followed by cervical cancer at 23.4 per 100,000 population with an average mortality of 13.9 per 100,000 population.

According to the 2018 Indonesian Health Profile, West Java is in the first position with the highest number of breast cancer patients compared to Central Java with 4,141 breast cancer patients, and 149 suspected breast cancer with early detection. This number increased compared to 2016 which only amounted to 452 people while those suspected of breast cancer with early detection were none (Ministry of Health RI, 2019).

In Sumedang district, from the data of the Sumedang Health Office (2022), data were obtained regarding the number of results of puskemas examinations from early detection, namely a total of 1132 people were examined, there were tumors / lumps 3 people, suspected cancer 1 person, breast abnormalities 12 people and referred 12 people. For breast cancer patients themselves there are none.

Early detection is the first and most important step in cancer prevention. Early detection is expected to reduce mortality and morbidity rates, and health costs will be lower. Early detection and screening are the key to high survival rates in patients (Saputra, 2021). Early detection can reduce mortality. In addition, to improve the recovery of breast cancer patients, the key is early discovery, early diagnosis, and early therapy. For this reason, it is necessary to disseminate knowledge about breast cancer, and education to do SADARI (Kemenkes RI, 2018).

Breast self-examination (SADARI) can be done by women since they feel the growth of their breasts with the aim of getting used to examining their breasts early on in addition to being a means of early detection of breast cancer, because by conducting early examinations breast cancer can be prevented from a higher risk, and can reduce mortality at an early stage will provide a longer life expectancy (Kartini, 2019). Doing SADARI can reduce the mortality rate caused by breast cancer by 20%, but women who do SADARI are still low at 25% - 30%. The SADARI technique is very easy to do but many women do not know this method and there are still many who do not care and are sensitive to abnormal symptoms in their breasts. It is also caused by lack of information and motivation to get information about prevention and early detection of breast cancer (Anggrayni, 2017).

Based on the results of previous research conducted by Friska Wulandari with the title of the relationship between the level of knowledge and attitudes with the behavior of female students' breast self-examination (SADARI), it shows that there is a relationship between knowledge (p = 0.000) with the behavior of PGSD students of STKIP Muhammadiyah kuningan, West Java province. The existence of information provided by health workers about SADARI can affect a person's attitude, a lack of attitude can be caused by emotional factors and an individual who is less responsive to SADARI.

From the results of preliminary studies conducted by researchers on Monday, April 3, 2023 conducted by interviewing ten female students at SMK Negeri 2 Sumedang. Then the results obtained 6 (60%) of 10 female students have sufficient knowledge about breast cancer, 4 (40%) of 10 female students take awareness actions but do not do it regularly, 7 (70%) of 10 female students do not exercise regularly and often consume unhealthy foods (junk food). This is very concerning and has an impact on the occurrence of breast cancer.

Based on the data and description above and considering the importance of breast self-examination (SADARI) as an effort to detect breast cancer early and whether there is a relationship between breast cancer knowledge and breast self-examination behavior (SADARI), the researcher is interested in taking research on "The relationship between knowledge and breast self-examination behavior (SADARI) among grade 11 students at SMK Negeri 2 Sumedang".

### 2. METHODS

The research method used was quantitative research with a Cross Sectional approach. The population in this study were 11th grade students at SMKN 2 Sumedang. The sampling used in this study was Stratified Random Sampling, with a sample size of 85 female students. The instrument used was a questionnaire. Data analysis includes univariate and bivariate analysis using the Chi Square test.

## 3. RESULTS AND DISCUSSION

#### 3.1. Results

#### A. Univariate Analysis

1) Knowledge Overview

Knowledge	Frequency	Percent (%)
Less	27	31,8
Simply	48	56,5
Good	10	11,8
Total	85	100,0

#### Table 1 Knowledge of 11th grade students at SMKN 2 Sumedang

Based on Table 1, it can be concluded that students at the level of knowledge with the highest frequency are in the sufficient category 48 students (56.5%).

2) Overview of SADARI Behavior

## Table 2 Overview of SADARI Behavior in Grade 11 Girls at SMKN 2 Sumedang

SADARI Behavior	Frequency	Percent (%)
Not in favor	68	80,0
Support	17	20,0
Total	85	100,0

Based on Table 2, it can be concluded that the majority of female students in SADARI behavior with the highest frequency are in the non-supportive category as many as 68 female students (80.0%).

#### B. Bivariate Analysis

1) Relationship between Knowledge and Behavior of SADARI

The Grade Girls at SWIKE 2 Sumedang							
Knowledge	SADARI Behavior						P Value*
	Not in	Not in favor Support Total					
	F	%	F	%	F	%	
Less	27	31,8	0	0,0	27	31,8	
Simply	35	41,2	13	15,3	48	56,5	0,005
Good	6	7,0	4	4,7	10	11,7	
Total	68	80,0	17	20.0	85	100.0	

# Table 3 Relationship between Knowledge and SADARI Behavior 11th Grade Girls at SMKN 2 Sumedang

Based on Table 3, the significance result is 0.005, there is a significant relationship between knowledge and breast self-examination behavior (SADARI) in grade 11 students at SMKN 2 Sumedang. With a sufficient level of knowledge with unsupportive SADARI behavior, the highest frequency is 35 students (41.2%).

#### 3.2. Discussion

#### A. Knowledge Overview

Based on the results at the level of knowledge with the highest frequency, 48 students (56.5%) were in the sufficient category. Notoatmodjo in 2010 emphasized that there are several ways that can increase the knowledge of female students about breast self-examination, one of which is by providing health education. Through health education about breast self-examination, there will be a transfer of information to female students and they will perceive the information so that the information they have increases and finally their knowledge about SADARI can increase.

The results of this study are supported by previous research which states that WUS about breast selfexamination in the sufficient category (32.0%) in performing SADARI. This happens because these young women do not get enough information about SADARI, besides that the surrounding environment is also less supportive to do SADARI. According to the researchers, information about breast self-examination is not adequately or effectively conveyed, and girls have limited knowledge about the methods and importance of performing the examination. Educational curricula or health programs do not place adequate emphasis on breast self-examination.

#### **B.** Overview of SADARI Behavior

An overview of the results of univariate analysis showed the results of SADARI Behavior with the highest frequency, namely in the Unsupportive category, namely 68 female students (80.0%) and a small portion in the Supportive category, namely 17 female students (20%).

The results of this study are not in line with the results of research conducted by Azizah (2017) that adolescent girls at SMA Negeri 1 Kawali who have a supportive behavior towards SADARI behavior as many as 49 people (55.7%). This is due to high self-awareness of breast health. gives a person control over their own health. By doing self-examination, having an active role in early detection and prevention of disease.

According to the researcher, the lack of support for SADARI behavior is due to a lack of knowledge and awareness. There are students who do not have sufficient knowledge about breast self-examination or lack of awareness of the importance of early detection of breast cancer. Lack of accurate information about the procedure and benefits of breast self-examination can make a person unmotivated to do it. Fear and anxiety are also experienced by students, where they are afraid if they find abnormalities or abnormal results, and they are uncomfortable with touching and physical exploration of their own breasts. That's why this anxiety can prevent someone from doing regular examinations.

#### C. Relationship between Knowledge and Behavior of SADARI

From the results of this study obtained a significance value of 0.005, there is a significant relationship between knowledge and SADARI behavior in female students of SMKN 2 Sumedang. Most with a sufficient level of knowledge and SADARI behavior do not support the highest frequency, namely there are 35 students (41.2%).

According to the Health Belief Model theory put forward by Skinners (2008), this Health Belief Model emphasizes the role of individual beliefs about the severity of disease, susceptibility to disease, the benefits of preventive measures, and the obstacles that may arise in adopting healthy behavior.

- Severity; If a person believes that breast cancer is a serious disease and can adversely affect their life, they may be more motivated to perform SADARI behavior.
- Vulnerability; If a person believes they are susceptible to breast cancer, they may be more likely to engage in SADARI behavior.
- Benefits; If a person believes that SADARI behavior has benefits in detecting breast cancer early and increasing the chances of cure, they may be more motivated to do it.
- Barriers; Barriers may include factors such as fear, concern about undesirable outcomes, or difficulty in accessing health services.

This study is in line with the research of Bunga Sisxa Fefiani (2019) based on the Chi Square test obtained a p-value of 0.001 < a (0.05). It is concluded that there is a significant relationship between knowledge and SADARI behavior in female students of SMK NU Unggaran. Because the level of knowledge about Sadari is closely related to Sadari behavior. In line with the theory of Snehandu B. Karr's theory that "Whether or not there is information about health, a person will tend to follow an action if he has a complete explanation of the action he will take." Research that is not in line by Kurniawati (2021) based on the statistical test p = value of 0.869 > a (0.05), it can be concluded that Ha is rejected, meaning that there is no relationship between the knowledge of adolescent girls and sadari behavior. Because in Notoatmodjo's theory which states that knowledge is an important factor in determining a person's behavior because knowledge can lead to changes in people's perceptions and habits. So that there is a gap between theory and research results because knowledge is not related to awareness behavior and there is no relationship between knowledge and behavior due to other factors such as environmental factors because the environment is all the conditions that exist around the village and its influence that can affect the development and behavior of people or groups and can also be due to social culture because the socio-cultural system that exists in society can influence attitudes in receiving information.

According to researchers, knowledge affects breast self-examination behavior in that the higher a person's level of knowledge about the importance of breast self-examination and how to perform it, the more likely they will perform regular breast self-examination. Good knowledge about the risk of breast cancer, the

benefits of breast self-examination, and the necessary steps can be a motivation for students to adopt this SADARI behavior.

#### 4. CONCLUSIONS

Based on the results of research on the relationship between attitudes and breast self-examination behavior (SADARI) in 11th grade students at SMKN 2 Sumedang, it can be concluded:

- 1. Most of the students at the level of knowledge with the highest frequency were in the moderate category, namely 48 students (56.5%).
- 2. Most of the students in the SADARI behavior with the highest frequency were in the Unsupportive category, namely 68 students (80.0%).
- 3. There is a relationship between knowledge and SADARI behavior in female students of SMKN 2 Sumedang with a significance value of p=0.005.

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## ANALYSIS OF THE SANITATION KNOWLEDGE AMONG OYSTER MUSHROOM FARMERS IN NALUK VILLAGE

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## ABSTRACT

Sanitation is an important factor in disease prevention efforts that focus on processed food and food products. Modern agriculture is one of the operations of processed food, most of which use chemical fertilizers to produce abundant harvests and avoid pests. Including the organization of oyster mushroom cultivation carried out in Naluk Village, Cimalaka District. The research method used is a qualitative research method using interviews, observations, and literature studies. Oyster mushroom cultivation is a vegetable cultivation that must meet the standard operating procedures issued by the ministry of agriculture so that farmers must pay attention to several aspects to keep the value of hygiene sanitation maintained, especially having to meet Indonesian national standards (SNI). Farmers' knowledge is the key to how the implementation of oyster mushroom cultivation is carried out in accordance with existing standards. If only farmers have extensive knowledge of oyster mushroom cultivation, the results achieved are not only the amount of harvest but the quality of the mushrooms produced will be healthy and meet SNI standards.



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## 1. INTRODUCTION

Sanitation is an important part of the food processing process that must be carried out properly so that food safety of the products produced can be realized. Food sanitation is the most important of all sanitation sciences because so many environments are directly or indirectly related to the human food supply (Aini, 2019). Food sanitation cannot be separated from environmental sanitation because food sanitation is an effort to secure and save food to keep it clean, healthy and safe. Poor food sanitation can be caused by three factors, namely physical factors, chemical factors, and microbiological factors (Aini & Hana, 2021).

Based on the Government Regulation of the Republic of Indonesia No. 28 of 2004 concerning the safety, quality and nutrition of food consumed by the public must be of high quality by meeting several criteria including safe, nutritional quality and affordable by the community. Safe, quality, nutritious, diverse and sufficient food is the main prerequisite that must be met in an effort to implement a food system that provides health protection and plays a role in increasing human prosperity and welfare. For this reason, food supervision is needed to protect the public from food that does not meet the provisions regarding quality standards of health requirements (Giyarto, 2004). One of the requirements for quality food is that it is safe from harmful ingredients.

The Indonesian government through the Minister of Health has standardized many quality food requirements to maintain food quality so that it is safe for consumption in line with the Minister of Agriculture who issued a policy on standard operating procedures for processing fruit and vegetable cultivation number 48 of 2009.

The importance of public awareness to maintain the quality of food consumed so that people will be free from diseases caused by unhealthy food. Hazard Analysis and Critical Control Points (HACCP) is a systematic, science-based method that identifies specific hazards and their control measures to ensure the safety of the food products produced. Focusing on prevention, HACCP is a standard that has been set by WHO (World Health Organization) that can help change including designing equipment and processing procedures with 7 (seven) standards in line with Indonesian National Standard (SNI) number 01-4852-1998.

The mapping of food management risk factors issued by the Ministry of Health of the Republic of Indonesia in 2020, has illustrated to us that there are often extraordinary events of food poisoning as illustrated in diagram 1.1 above. The BPOM report also states that based on the type of food causing food poisoning outbreaks, household cooking is the highest food causing food poisoning outbreaks (38%). This needs to be a serious concern because most small and medium enterprises are run at the household level. The percentage of food poisoning outbreaks ranked second is snack food (25%) (Ministry of Health, 2020).

Food safety is a condition and effort needed to prevent food from possibly and endangering human health and not contradicting the religion, beliefs, and culture of the community so that it is safe for consumption (Indonesian Law No. 18 of 2012). Sanitary hygiene is an effort to control food factors, places and equipment that can or may cause disease or health ideas. Sanitary hygiene requirements are technical provisions set for restaurant and restaurant products, personnel and equipment which include bacteriological, chemical and physical requirements (Harnani & Yessi, 2018). Farmer is someone who is engaged in agriculture, mainly by managing the land with the aim of growing and maintaining plants (such as rice, flowers, fruit and others), with the hope of obtaining the results of these plants for their own use or selling them to others.

Based on the results of observations made by researchers to the oyster mushroom plant business in Naluk Village, Cimalaka District, Sumedang Regency, it was found that some oyster mushroom plants did not meet the sanitary hygiene requirements that had been set and were often encountered by oyster mushroom farmers were difficulties in making baglogs (Oyster mushroom planting media), slow mycelium proliferation which resulted in the lack of low mushroom quality.

#### 2. METHODS

The type of research used is This research uses a qualitative research design with a single case study approach. Qualitative research method is a research procedure that produces descriptive data in the form of written or spoken words from people and behaviors that can be observed as they are. A single case study is to understand a case, certain people or situations in depth (Creswell, 2014).Qualitative research uses openended interview methods and observation to understand the attitudes, views, feelings, and behaviors of individual oyster mushroom cultivation farmers. Researchers try to explore the responses that arise in farmers when carrying out oyster mushroom cultivation activities that are associated with sanitary hygiene values. Researchers chose to use this method because researchers will get a picture with an in-depth and thorough analysis of what factors and how the relationship between knowledge, attitudes, and behavior of farmers in cultivating oyster mushrooms, so that data can be collected in the form of words from in-depth interview scripts and observations.

## 3. RESULTS AND DISCUSSION

#### 3.1 Results

Based on the results of interviews and observations that have been conducted, the authors get the results that the knowledge and skills of oyster mushroom cultivation farmers determine the quality and yield of oyster mushrooms. The number of employees who cultivate oyster mushrooms as many as 10 (ten) people carry out oyster mushroom cultivation activities based on the direction of the owner of the oyster mushroom cultivation. This means that the knowledge of farmers organizing oyster mushroom cultivation is limited in accordance with the experience gained by the owner who has tested the implementation of cultivation with various planting media. The cultivation media used for oyster mushrooms is the physical factor that most determines the value of hygiene in the implementation of oyster mushroom cultivation. The following is the result of the interview:

- Personal oyster mushroom farmers and employees include knowledge, attitudes and behavior when
  organizing oyster mushrooms, both during seeding and planting. Farmers' knowledge that currently
  exists is based on experience alone, without compensating for it with formal training, even the results of
  interviews mention that until now there has been no training obtained by farmers in organizing oyster
  mushroom cultivation from related agencies.
- 2. The next point is the attitude and behavior of farmers, namely how farmers use the right method in their cultivation. For example, the results of interviews conducted by researchers on the maintenance carried out, farmers only use simple equipment not in accordance with the standard equipment procedures used.

The next behavior is maintaining the sterilization of seed media and planting media or the behavior of farmers who ignore gloves when seeding and planting oyster mushroom seeds into plastic baglogs.

#### 3.2 Discussion

The analysis was carried out on hygiene and sanitation standards against the standards of mushroom grower organization in accordance with the Minister of Agriculture regulation number 48 of 2009 concerning guidelines and good fruit and vegetable cultivation. The next analysis is to deepen the Indonesian national standards SNI on the application of HACCP and SNI 01-694-52003 oyster mushrooms (Color, Cleanliness, appearance, and aroma) to enrich the theory in analyzing farmers' knowledge of the value of hygiene and sanitation in oyster mushroom growers. The fact is that the knowledge of oyster mushroom cultivation farmers is very limited, especially knowledge of the value of hygiene and sanitation in the implementation of oyster mushroom cultivation. Researchers tried to conduct in-depth observations and interviews about how farmers' knowledge and skills about organizing oyster mushroom cultivation. The theme results obtained are:

1. Physical factors

## a. Building:

The oyster mushroom cultivation area in Naluk Village, Cimalaka Sub-district, Sumedang Regency has a large enough land area to organize oyster mushroom cultivation. The building made by farmers is divided into three parts, namely a building made of bamboo as an oyster mushroom nursery room, a nursery room made of iron which is formed according to needs and a storage room for nursery media and plastic polybags which are stored in the owner's house.

## b. Equipment

The equipment used in organizing oyster mushroom cultivation is divided into two parts, namely nursery media and oyster mushroom seedling growing media. Nursery media is the initial media made of glass bottles used to make the mushroom seeds themselves. While the planting media is the media used to grow oyster mushroom seedlings made of plastic baglogs which are stored in the oyster mushroom planting room rack.

#### 2. Operational factors

The implementation of oyster mushroom cultivation carried out by farmers has largely met the standard operating procedures issued by the Minister of Agriculture, but farmers who organize this cultivation prefer methods based on experience, for example, the standard nursery media must be cleaned properly to avoid nuisance microbes, but the media used is cleaned only by ordinary washing and the nursery media is stored in any place not in a special place that has the required hygiene value. The next activity of farmers is the building where they store plastic polybags for oyster mushroom growing media, which still uses wooden shelves, some of which do not meet the standards of cultivation equipment. Room temperature is important, therefore the building made must also have criteria according to the standards of the oyster mushroom growing media storage building.

#### 3. Personal factors

This factor is the determining factor for the quality of the mushrooms produced. It is not only the quantity that is the measure, but the quality of the oyster mushroom itself must really be a concern. Even the standards issued by the Ministry of Agriculture state that the oyster mushrooms produced must meet the Indonesian National Standard (SNI). Personal oyster mushroom farmers and employees include knowledge, attitudes and behavior when organizing oyster mushrooms, both during seeding and planting. The knowledge of farmers that currently exists is based on experience alone, without balancing it with formal training, even the results of interviews mention that until now there has been no training obtained by farmers in organizing oyster mushroom cultivation from related agencies. The next point is the attitude and behavior of farmers, namely how farmers use the right method in their cultivation. For example, the results of interviews conducted by researchers on the maintenance carried out, farmers only use simple equipment not in accordance with the standard equipment procedures used. The next behavior is maintaining the sterilization of seed media and planting media or the behavior of farmers who ignore gloves when seeding and planting oyster mushroom seeds into plastic baglogs.

## 4. CONCLUSIONS

Sanitation is an important factor in disease prevention efforts that focus on processed food and food products. Modern agriculture is one of the operations of processed food, most of which use chemical fertilizers to produce abundant harvests and avoid pests. Including the organization of oyster mushroom cultivation carried out in Naluk Village, Cimalaka District.

Oyster mushroom cultivation is a vegetable cultivation that must meet the standard operating procedures issued by the ministry of agriculture so that farmers must pay attention to several aspects to maintain the value of sanitary hygiene is maintained, especially must meet Indonesian national standards (SNI).

Farmers' knowledge is the key to how oyster mushroom cultivation is carried out in accordance with existing standards. If only farmers have extensive knowledge of oyster mushroom cultivation, the results achieved are not only the number of harvests but the quality of the mushrooms produced will be healthy and meet SNI standards.

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# THE RELATIONSHIP BETWEEN THE ATTITUDE OF HEALTH WORKERS AND THE LOW UTILIZATION OF HEALTH SERVICES IN HEALTH INSURANCE PATIENTS

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## ABSTRACT

Health service utilization is an effort to use health facilities in improving health to organize individual health service efforts, both promotive, preventive, curative, and rehabilitative carried out by the government, local government, and the community. This study aims to determine the factors associated with low utilization of health services for BPJS Health patients at the Cisitu Health Center. The variables in this study include the attitude of health workers, and the utilization of health services. This research was conducted using quantitative methods that are analytic in nature with a cross sectional design. The population in this study were all BPJS Health participants at the Cisitu Health Center, totaling 20,403 people. The sample in this study was 100 people using the Slovin formula. The sampling technique in this study used purposive sampling technique. data collection using a questionnaire. Bivariate analysis using chi square test. The results of the bivariate test showed that there was a significant relationship between the variable attitude of health workers (p-value 0.001) with the low utilization of health services for BPJS patients. Based on the results of the research and overall discussion, to increase participants, it is recommended that BPJS Kesehatan can maintain and improve the quality of its services which are realized by the five dimensions of service quality, namely tangible, reliability, responsiveness, assurance and empathy. Among them are providing better facilities for the convenience of participants and further improving the services provided by officers. So that by maintaining and improving the services provided, the utilization of participants to BPJS Health will also increase.



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## 1. INTRODUCTION

The World Health Organization (WHO) states that good health is the result of a lifelong commitment to physical, mental and social well-being that enables everyone to live productive social and economic lives.

Utilization of National Health Insurance (JKN) services emphasizes that there are several causes of utility (utilization of outpatient and inpatient services) of National Health Insurance participants. (JKN) managed by BPJS Kesehatan from Contribution Assistance Recipient (PBI) membership is lower than independent participants. Based on 2018 data obtained by BPJS Watch, PBPU utility for outpatient care was 86.15 percent and PBI APBN was 11.69 percent. PBPU utility for inpatient care is 9.73 percent and PBI APBN is 2.68 percent.

Based on data obtained from the Health Office, Puskesmas Cisitu is one of the Puskesmas that has the lowest number of visits compared to other Puskesmas in Sumedang. Cisitu Health Center from the beginning of 2020 to the beginning of 2023 the number registered as BPJS Health participants amounted to 20,403 people. While the number of BPJS Health participant visits at the Cisitu Health Center from the beginning of 2020 to 2022 amounted to 26,542 people. For the number of BPJS Health Non-Recipient of Contribution Assistance (Non PBI) visits amounting to 7,759 people, the recipient of Contribution Assistance (PBI) participants amounted to 18,783 people. Puskesmas Cisitu in 2020 the number of BPJS Health visits reached 10,338 but from January to December 2021 patients visiting to take advantage of health services experienced a decrease from the previous year. The number of BPJS Health patient visits during the Covid-19 pandemic in 2021 was 6,319 patients (Health Profile of Cisitu Health Center, 2023). From the data of the total number of participants of 20,403 people with BPJS Health membership, only 9,885 people in 2022 used the BPJS Health card for the purpose of seeking treatment at the Cisitu Health Center. So it is obtained that only 48% use the BPJS Health card for treatment at the Cisitu Health Center.

## 2. METHODS

The type of research used in this study is quantitative which is analytic in nature with a cross sectional design. Cross sectional design is a study to study the dynamics of the correlation between risk factors and effects, by means of an approach, observation or data collection at one time (Notoatmodjo, 2012). This study aims to see and prove the research hypothesis which will answer the research question, namely to determine the factors associated with low utilization of health services for BPJS Health patients at the Cisitu Health Center in 2023. The independent variable is the attitude of health workers while the dependent variable is the low utilization of health patients at the Cisitu Health Center in 2023.

## 3. RESULTS AND DISCUSSION

**3.1 Univariate Analysis** 1. Health worker attitude

Table 1 Overview of Health Workers' Attitudes

Health worker attitude	Frequency	Percentage (%)
Less	64	64%
Simply	36	36%
Good	0	0%
Total	100	100%

Based on the table on the frequency distribution of the attitude of health workers at the Cisitu Health Center in 2023 where in the category of less is the most amount with a frequency of 64 (64%), and enough with a frequency of 36 (36%).

2. Overview of Health Service Utilization of BPJS Health Patients

Health worker attitude	Frequency	Percentage (%)
Less Simply	72 28	72% 28%
Total	100	100%

Table 2 Overview of Health Service Utilization of BPJS Health Patients

Based on the table on the frequency distribution of the description of the utilization of health services for BPJS Health patients at the Cisitu Health Center in 2023 where in the category of less is the largest number with a frequency of 72 (72%), and enough with a frequency of 28 (28%).

### 3.2 Bivariate Analysis

1. The Relationship between Health Workers' Attitudes and Utilization of Health Services for BPJS Patients at the Cisitu Health Center in 2023

Health worker	Utilization of Health Services for BPJS Health Patients at the Cisitu Health Center in 2023				Р-				
attitude	Good Simply Less Total				Value				
	F	%	F	%	F	%	F	%	
Less	0	0%	25	25%	39	39%	64	65%	
Simply	0	0%	3	3%	33	33%	36	36%	0,001
Good	0	0%	0	0%	0	0%	0	0%	
Total	0	0%	28%	28%	72	72%	100	100%	

# Table 3 Relationship between Health Workers' Attitudes and Utilization of Health Services for BPJS Patients at the Cisitu Health Center in 2023

Based on the table from the statistical calculation of the chi-square test with a *p*-value = 0.001 with an alpha ( $\alpha$ ) of 0.05, it means that the *p*-value < alpha. This shows that the two variables have a positive relationship. So it can be concluded that there is a significant relationship between the attitude of health workers and the low utilization of health services for BPJS health patients at the Cisitu Health Center in 2023.

#### **3.3 Discussion**

## 1. The Relationship between Health Workers' Attitudes and Utilization of Health Services for BPJS Patients at the Cisitu Health Center in 2023

Based on the results of research on the attitude of health workers with low utilization of health services for BPJS patients at the Cisitu Health Center in 2023, it was found that out of 100 respondents, most of the health workers' attitudes were less as many as 64 (64%) and 36 (36%) respondents were sufficient. So from the results of the *chi-square* statistical test, the *p-value* = 0.001 was obtained so that H zero was rejected and or it could be said that there was a relationship between the attitude of health workers and the low utilization of health services for BPJS patients at the Cisitu Health Center in 2023.

Based on the results of this study and data processing, the variable attitude of health workers is related to the low utilization of health services for BPJS Health patients because it is quite influential on the behavior or attitude of health workers towards the low utilization of health service utilization for BPJS Health patients. Thus, the existence of good knowledge, attitudes and behavior is an important thing that must be possessed by health workers in dealing with health problems and services.

The attitude of health workers will also support and strengthen the formation of behaviors that the attitude of public health workers is part of human resources whose role is very important to increase higher awareness of promotive and preventive health services (Notoatmodjo, 2003).

The results of this study are in line with research conducted by Wulandari 2016 study entitled "Factors Associated with Utilization of Health Services at UPTD Puskesmas Langgara West Wawonii District Konawe Islands Regency in 2016". There is a significant relationship between the attitude of health workers and the utilization of health services (p = 0.288). Because according to the results of observations of researchers conducted at the Langara Health Center, the attitude of health workers is an attitude in providing services to the community or patients who utilize health services must be required to provide good 5 H T health services in services so that people are happy with the attitude shown by health workers.

Research that is not in line with this research is Rohima's research (2013), with the title "The Influence of the Attitude of Health Workers and the Availability of Medicines on the Level of Satisfaction of BPJS Cardholders of Ahmad Ripin Hospital, Muara Jambi Regency" shows that there is a positive and significant influence on the attitude of health workers on the level of satisfaction of BPJS cardholders in Muara Jambi community. The better the attitude of health workers, the higher the level of satisfaction of BPJS card holders in the Muara Jambi community. This is also evidenced by the r value of 0.409 and an effective contribution of 13.36%. Because the attitude of health workers is one of the important things because from the results of this study the attitude affects the level of satisfaction of patients holding JAMKESMAS cards at Ahmad Ripin Hospital, Muaro Jambi Regency. There is a positive and significant effect of the attitude of health workers on the level of satisfaction of Jamkesmas card holders in the Muaro Jambi community. The better the attitude of health workers, the higher the level of satisfaction of JAMKESMAS cardholders in Muaro Jambi; and conversely, the worse the attitude of health workers, the lower the level of satisfaction of JAMKESMAS cardholders in Muaro Jambi. According to the results of the researchers' observations conducted at the Langara Community Health Center, the attitude of health workers is the attitude in providing services to the community or patients who utilize health services must be required to provide good 5 H T health services in services so that the community is happy with the attitude shown by health workers. According to researchers, the weak ability of health workers in planning health services and their behavioral attitudes in anticipating health problems greatly influences patients to take advantage of

BPJS Health services. In this study, patients assessed the attitude of health workers who were lacking because in the environment there were still many health workers who were less friendly. What health workers must have is competence which is a combination of knowledge, skills and attitudes of health workers needed to provide services to the community.

## 4. CONCLUSIONS

Based on the results of research on factors related to the low utilization of health services for BPJS Health patients at the Cisitu Health Center in 2023, the following conclusions can be drawn:

- 1. Most of the respondents at the Cisitu Health Center in 2023 stated that the attitude of health workers was lacking, namely a total of 64 (64%).
- 2. Most of the respondents at the Cisitu Health Center in 2023 stated that the utilization of health services for BPJS Health patients was lacking, namely a total of 78 (78%).
- 3. There is a significant relationship between the attitude of health workers and the Low Utilization of Health Services in BPJS Health Patients in 2023 with p value = 0.001 where P value <0.05.

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## OVERVIEW THE INCIDENCE OF PREMENSTRUAL SYNDROME AMONG ADOLESCENT

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#### ABSTRACT

Premenstrual syndrome is a common condition related to the menstrual cycle. Premenstrual syndrome can interfere with daily activities if not understood and treated properly. This research aims to describe the incidence of premenstrual syndrome in female students at Situraja State High School, Sumedang Regency in 2023. The type of research used is quantitative research with descriptive study approach . The population in this study was 84 female students in class X and XI at Situraja State High School using a sampling technique (Proportional Random Sampling ). The data analysis used was univariate. The research results show premenstrual syndrome among female students at Situraja State High School Sumedang Regency in 2023 is currently in light symptomp about 66,7%. It is hoped that schools will provide education regarding reproductive health, especially premenstrual syndrome so that female students can apply ways to deal with premenstrual syndrome well.



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## 1. INTRODUCTION

Reproductive health is a state of complete physical, emotional, mental and social well-being, not just freedom from disease or disability in all aspects relating to the reproductive system, its functions and processes (WHO, 2008). Premenstrual syndrome is a common condition related to the menstrual cycle. Symptoms can range from physical symptoms to mental and psychological symptoms (Ningsih and Chalil, 2022) . Premenstrual syndrome can interfere with daily activities if not understood and treated properly. Many female students who do not go to school experience premenstrual syndrome. Premenstrual Syndrome is influenced by many other factors such as: biological factors , psychology, daily lifestyle , reproductive history and socio-economics (Unaningsih P and Aisa S , 2017). The lack of knowledge regarding basic biology , especially physical health problems in young women, reflects a lack of knowledge about the risks associated with their bodies and how to prevent them. Knowledge and attitudes about reproductive health among teenagers are still relatively low, especially in terms of knowledge about the use of reproductive organs, their form and function, and their care (Simatupang, 2018).

In the world, Established studies shows that around 90% of women of childbearing age experience symptoms of mild to acute premenstrual syndrome. Among them, around 20% to 40% suffer from premenstrual syndrome (Gao, 2022). In Indonesia, 95% of women experience premenstrual syndrome, with 5% of women experiencing moderate to severe premenstrual syndrome (Clarita, et al. 2022). In West Java, specifically in Bandung, the prevalence of premenstrual syndrome is in the moderate category at 47.5%, severe at 31.8% and mild at 22% (Lestarini, 2019). Based on data from the Sumedang District Health Service from 2021 - 2022 shows that menstrual disorders including premenstrual syndrome in women aged 10 - 14 years are 270 people, aged 15-19 years the number is 539 people, with a total of 809 person.

Based on a preliminary study at Situraja State High School, Sumedang Regency on March 27 2023, 10 female students were interviewed and it was found that 10 of these students experienced premenstrual syndrome . Common symptoms include chest pain, bloating, changes in appetite, irritability and difficulty concentrating. Vaginal discharge sometimes feels itchy but does not smell. When menstruating, female students experience quite severe stomach pain, so that it disrupts activities, especially school activities. Sometimes this female student drops out of class because of premenstrual syndrome . Based on a preliminary study, 7 female students (70%) did not know enough about reproductive health and premenstrual syndrome and were unable to overcome premenstrual syndrome problems . Students also do not take the initiative to find out for themselves about how to deal with monthly premenstrual syndrome . Due to a lack of knowledge and curiosity about how to treat premenstrual syndrome , many female students ignore it and assume that premenstrual syndrome is something that usually happens to every woman .

## 2. METHODS

The type of research used was quantitative descriptive with a descripive study approach used to describe the incidence of premenstrual syndrome in female students at Situraja State High School, Sumedang Regency in 2023. Data analysis was carried out using univariate analysis. The population in this study was 544 female students in classes X and The sampling technique used was proportional random sampling. The data collection tool in this research used a questionnaire. This research questionnaire consists premenstrual syndrome . The data obtained was then processed using SPSS version 26.

## 3. RESULTS AND DISCUSSION

### 3.1. Univariate Analysis

1. Description of Premenstrual Syndrome

Table	2	Description	of Prem	enstrual	Syndrome
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Premenstrual Syndrome	Frequency (F)	Percentage (%)
Mild	56	66.7%
Moderate	22	26.2%
Heavy	6	7.1%
Total	84	100 %

It can be seen that the number of 84 female students shows that there are 56 students who experience premenstrual syndrome in the mild category (66.7%), in the moderate category there are 22 students (26.2%) and in the severe category there are 6 students (7.1%).

#### 3.3 DISCUSSION

Based on the research results, of the 84 female students most of them experienced mild premenstrual syndrome, amounting to 56 students (66,7%). Attitude is an evaluation process carried out by a person towards an object (Seftyani, et al . 2020). Complete attitudes are influenced by a person's knowledge, beliefs and emotions. Someone who has received information about premenstrual syndrome will lead the female student to think about how to deal with premenstrual syndrome well (Husnida N & Sutianingsih H, 2016).

These results are in line with the results of research conducted by Suriati Lubis and Sari Rahma Fitri in 2019 regarding the relationship between knowledge and attitudes of young women about reproductive health and premenstrual syndrome in Environment V, Bambu Village, Medan Tuntungan District. The statistical test results were obtained (p = 0.000) in this case p < 0.05. This shows that statistically there is a relationship between the attitudes of young women regarding reproductive health and premenstrual syndrome in Environment V, Bambu Cillage, Perioductive health and premenstrual syndrome in Environment V, Bambu Village, Perioductive health and premenstrual syndrome in Environment V, Bambu Village, Medan Tuntungan District in 2019 (Lubis S & Fitri SR, 2019).

These results are not in line with research conducted by Nintinjri Husnida and Hani Sutianingsih in 2015 regarding the relationship between knowledge and attitudes about premenstrual syndrome and behavior in dealing with premenstrual syndrome among students majoring in midwifery at Rangkasbitung Poltekkes Kemenkes Banten. The statistical test results obtained p value = 0.062 ( p > 0.05). This shows that statistically there is no significant relationship between attitudes and behavior in dealing with premenstrual syndrome in students majoring in midwifery at Rangkasbitung Poltekkes Senten in 2015 (Husnida and Sutianingsih, 2016).

The differences in research results are caused by differences in research location, year of research and characteristics of respondents, especially culture. The predisposing factors of Situraja State High School students from the attitude section have been explored in depth, such as beliefs, beliefs, values and so on. That there is a relationship between attitudes about reproductive health and premenstrual syndrome in female students at Situraja State High School, Sumedang Regency in 2023. The results showed that female students'

attitudes were in the sufficient category, causing students to experience mild premenstrual syndrome. The better attitude you have about reproductive health, the better your treatment will be when you experience premenstrual syndrome. This is because every female student will experience a stage of reproductive organ development and one of the impacts of reproductive organ development is the hormonal changes that occur before menstruation. So, this female student had quite good treatment when she experienced premenstrual syndrome in female students is influenced by the response given and the response is quite good, so that discussing reproductive health, especially premenstrual syndrome with friends or other people and even inviting or influencing other people to respond is quite optimal.

## 4. CONCLUSION

Based on the results of research conducted on "The Relationship between Knowledge and Attitudes about Reproductive Health and Premenstrual Syndrome in Female Students at Situraja State High School, Sumedang Regency in 2023" the following conclusions can be drawn that the description of premenstrual syndrome among female students at Situraja State High School, Sumedang Regency in 2023, the majority (66.7%) experienced mild premenstrual syndrome.

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## OVERVIEW OF THE ANTENATAL CARE BEHAVIOR AMONG PREGNANT WOMEN

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#### ABSTRACT

Antenatal care is a pregnancy examination provided by health workers for pregnant women to optimize the physical and mental health of pregnant women. So that pregnant women are able to face childbirth, the postpartum period, prepare for breastfeeding and return to normal reproductive health. This study aims to describe behavior of pregnant women in antenatal care in the Paseh Community Health Center working area. The research was conducted using quantitative survey research methods with a descriptive study approach. The population in this study was 286 pregnant women. The sample in this study was 75 people taken using the Slovin formula. The sampling technique in this research was the Accidental Sampling technique . Data collection uses a questionnaire. Result of this study showed that frequency distribution of antenatal care behavior at the Paseh Community Health Center in 2023 most of them behaved badly, 41 (54.7%). Health workers are encouraged to continue to provide encouragement and counseling by carrying out antenatal care (ANC) counseling programs at posyandu or home visits regarding the importance of regular pregnancy checks for the health and development of the mother and fetus.



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## 1. INTRODUCTION

According to WHO (2019), the maternal mortality rate is the number of maternal deaths resulting from pregnancy, childbirth and postpartum processes which is used as an indicator of women's health status (Khoirunnisa & Futriani, 2022). Maternal mortality rate is one of the targets of the global Sustainable Development Goals (SDGs) in reducing the maternal mortality rate (MMR) to 70 per 100,000 live births by 2030. According to WHO (2019 in Khoirunnisa & Futriani, 2022) the Maternal Mortality Rate (MMR) in the world is 303,000 people. The Maternal Mortality Rate (MMR) in ASEAN is 235 per 100,000 live births (ASEAN Secretariat, 2020).

Based on the 2021 Sumedang Regency Health Service Profile, the number of maternal deaths in Sumedang Regency from 2016 to 2020, it can be seen that the trend of maternal deaths in Sumedang Regency is a significant increase in cases of maternal death from 2019 to 2020, this is due to the impact from the COVID-19 pandemic where there were delays in treating patients due to inadequate referral chains and restrictions on accepting the number of patients from regional referral facilities due to inadequate referral facilities. Based on the evaluation results, maternal deaths in 2020 were Hypertension in Pregnancy (HDK) in 6 cases, bleeding in 3 cases, heart disease in 5 cases, and others in 7 cases (Ministry of Health , 2020)

Based on data from the Paseh Community Health Center, the number of cases of maternal death in 2022 in the Paseh Community Health Center Working Area is 1 case caused by the heart. And based on a preliminary study conducted at the Paseh Community Health Center, there is coverage of Antenatal Care Services that has not reached the target. Namely, K1 coverage in 2022 is 89.78% and K4 is 74.79% (Paseh

Community Health Center, 2022). Paseh Community Health Center's efforts to improve the health of mothers and children are by conducting routine classes for pregnant women, visiting pregnant women's homes with blessings.

Human behavior is essentially human action or activity, both observable and unobservable by human interaction with the environment, which is manifested in knowledge, attitudes and actions. Behavior can be interpreted more rationally as the response of an organism or person to stimuli from outside the subject. This response is formed in two types, namely passive and active forms, where the passive form is an internal response, that is, it occurs within humans and cannot be directly seen by other people, while the active form is when the behavior can be observed directly (Adventus, et al, 2019). Based on the background above, it encourages researchers to conduct research on " Overview of Antenatal Care behavior among Pregnant Woman in the Paseh Health Center Working Area, Sumedang Regency".

#### 2. METHOD

The type of research used in this research is quantitative research. This research uses a descriptive study method . This research was conducted at the Paseh Community Health Center, Sumedang Regency. The population of this study was 286 pregnant women with a sample of 75 respondents calculated using the S lovin formula. The research instrument used in this research is a questionnaire that has been tested for validity and reliability by previous researchers. Data analyses using uni-variate analyses.

#### 3. RESULTS AND DISCUSSION

#### 3.1. Results

#### 3.1.1 Univariate Analysis

#### A. Description of Pregnant Women's Behavior

Behavior	Frequency (F)	Percentage (%)
Bad	41	54.7%
Good	34	45.3%
Total	75	100%

#### Table. 2 Description of the Frequency of Pregnant Women's Behavior Regarding Antenatal Care

Based on table 2 regarding the frequency distribution of Respondent Behavior at the Paseh Community Health Center in 2023 most of them behaved badly, 41 (54.7%).

#### **3.2.** Discussion

The analysis results in table show that the behavior of pregnant women in antenatal care majority have had behaved badly about 54,7%. The results of this research are in line with Lestari (2015), attitude is a process of assessing a person towards an object or situation which is accompanied by certain feelings and provides a basis for that person to make a response or behave in a certain way that he chooses. From the information above, it turns out that attitudes have character, the strength and weakness of character greatly influences a person's behavior. A person's strong attitude towards checking himself (ANC) will lead to real behavior in implementing ANC.

Based on this explanation, the author believes that attitudes greatly influence the behavior of pregnant women in antenatal care. This is because attitudes are able to encourage humans to do something so that it reflects that attitudes will influence human behavior in doing something. Likewise, pregnant women who have a positive attitude will be encouraged to make antenatal care visits by making the best possible use of antenatal care services by having good antenatal care visits.

### 4. CONCLUSION

Based on the results of research on factors related to the behavior of pregnant women in antenatal care in the Paseh Community Health Center working area in 2023, the following conclusions can be drawn:

1. Most of the respondents at the Paseh Community Health Center in 2023 had bad behavior, 54.7%.

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## THE RELATIONSHIP BETWEEN KNOWLEDGE WITH ANTI-TUBERCULOSIS TREATMENT AND MEDICATION ADHERENCE AMONG TUBERCULOSIS PATIENTS

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## ABSTRACT

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Tuberculosis is still one of the 10th deadliest diseases in the world The biggest risk factor for this disease is a weakening of the body's immune system caused by several diseases such as HIV/AIDS and malnutrition. The aim of this research is to find out the picture and relationships knowledge and the level of compliance of Tuberculosis sufferers in treatment at the Margajaya Health Center, Tanjungsari District, Sumedang Regency in 2023. The research method used in this research is quantitative research. The population in this study were all Tuberculosis sufferers who were treated at the Margajaya Community Health Center from November 202 2 to May 202 3. The sampling that will be used in this research is total sampling, namely samples taken from the entire population, which in this study are all Tuberculosis sufferers treated at the Margajaya Community Health Center who at the time of the research were still undergoing treatment with details of 35 people using univariate and bivariate data analysis techniques in SPSS application. The results of this research have a significance value of 0.0 03, so there is a significant influence between Knowledge to Compliance of Tuberculosis patients in treatment at Margajaya Community Health Center . It is hoped that Tuberculosis sufferers can carry out treatment as fully as possible so that they do not experience treatment failure which results in the patient failing to recover or even getting worse due to bacterial factors becoming increasingly resistant to the medication being taken.

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#### 1. INTRODUCTION

Tuberculosis (TB) is an infectious disease caused by the bacterium Mycobacterium Tuberculosis (WHO, 2014). The biggest risk factor for this disease is a weakening of the body's immune system caused by several diseases such as HIV/AIDS and malnutrition. Bad environmental factors and bad habits can increase the risk of developing tuberculosis . Health workers who work in health centers also have a high risk of contracting tuberculosis patients (Ministry of Health, 2022). Tuberculosis is still one of the 10th deadliest diseases in the world. It is estimated that 1.2 million people worldwide died from Tuberculosis with a negative HIV test and 280,000 people died from Tuberculosis with a positive HIV test (Previously 678,000 people in 2018). The death rate is lower compared to previous years (WHO, 2020). Everyone can get this disease, both children and adults. However, adults are more often affected by Tuberculosis . In 2019 the number of Tuberculosis cases worldwide reached a total of 10 million confirmed cases with 5.6 million male cases and 3.3 million female cases (WHO, 2020).

Indonesia is one of the countries with the highest incidence of tuberculosis in the world apart from China, Pakistan, India, the Philippines, South Africa and Nigeria. The most common tuberculosis disease in Indonesia is pulmonary tuberculosis . In Indonesia, the estimated number of Tuberculosis cases has reached 842,000 cases and the number of Tuberculosis cases in Indonesia ranks third in the world after India and China (Ministry of Health of the Republic of Indonesia, 2019). In 2019, Tuberculosis cases in Indonesia totaled 361,832 with an incidence rate of 136 per 100,000 population. Of this number, 40% were found to be of productive age, namely 20-45 years (Ministry of Health of the Republic of Indonesia, 2019).

In West Java, the number of new cases of bacteriologically confirmed Tuberculosis in 2019 totaled 189,303, men dominated with a total of 103,705 cases followed by women, namely 85,598 cases (opendata.jabarprov.go.id). In 2021, the total number of Tuberculosis cases in Sumedang was found to be 1,321 cases. Of these cases, there were 184 cases of Tuberculosis in children aged 0 - 14 years, while at the Margajaya Community Health Center in 2021 it was known that there were 35 people suffering from BTA (+) pulmonary tuberculosis , of which 32 people had finished treatment and 3 people had dropped out of treatment . In 2022 cases will increase to 40 cases with 35 people completing treatment and 5 still undergoing treatment. From several surveys, the number of new cases of Tuberculosis is 2 times higher in men than in women. This may occur due to men's smoking habits (Ministry of Health of the Republic of Indonesia, 2018).

Tuberculosis can be prevented and cured. Approximately 85% of Tuberculosis patients can be cured by administering a drug regimen for 6 months by obediently taking the medication given. The high rate of Tuberculosis in Indonesia is influenced by several factors, namely, knowledge and attitudes, residential density, lighting, humidity, ventilation, house floors and house walls . The sanitation of the home environment greatly influences the presence of Mycobacterium Tuberculosis bacteria , where Mycobacterium Tuberculosis bacteria can live for 1-2 hours or even several days to weeks depending on the presence or absence of sunlight, ventilation, humidity, temperature and density of the home occupants (WHO, 2019) . Several other factors that influence the transmission of Tuberculosis in general include the concentration of the number of germs inhaled, the length of time since being infected with the germ, the age of the person infected, and the person's immune system (Ministry of Health of the Republic of Indonesia, 2014).

Tuberculosis has a direct impact on the cost of health services (diagnosis, treatment and transportation control) for sufferers and their families, decreases the performance and productivity of sufferers, and causes a decrease in family income (Annual household income) by 20-30% so that efforts to prevent and control Tuberculosis are necessary. Moreover, currently Tuberculosis is not just regular Tuberculosis , but there have been many cases of Tuberculosis -HIV, Tuberculosis -MDR, and Tuberculosis -DM which require special treatment and treatment. Efforts to prevent and control Tuberculosis are carried out using the DOTS (Directly Observed Treatment Shortcourse Chemotherapy) approach or treatment of pulmonary Tuberculosis with direct supervision by the Drug Ingestion Supervisor (PMO). This is to monitor medication taking so as to reduce the risk of being absent or dropping out of medication.

Failure to follow up or patient non-compliance with the provisions and duration of regular treatment to achieve healing is a result of low levels of public knowledge. The healing process for Tuberculosis patients can be realized quickly, if cooperation between the patient and his family and health service providers, especially doctors, must be well established and supported by the patient's knowledge of the importance of complete Tuberculosis treatment (Octavienty et al. 2019). Data in 2022 there will be 3 people who are absent from follow-up and do not comply with treatment and it can be concluded that the number of sufferers of BTA (+) pulmonary tuberculosis cases at the Margajaya Community Health Center is still non-compliant during the treatment period so that out of 40 patients or 100% target compliance with taking medication Tuberculosis only reached 32 patients or 80 % , so the author was interested in conducting research on "The Relationship between Knowledge and Compliance with Tuberculosis Patients in Treatment at the Margajaya Health Center, Tanjungsari District, Sumedang Regency in 2023 ".

## 2. METHOD

When conducting research, we need to follow the applicable rules or principles, so that the research results obtained can be said to be valid. Research methods are basically scientific ways to obtain data with specific purposes and uses. The research method used in this research is quantitative research. Quantitative means based on quantity or quantity. Quantitative Research is research that takes large amounts of data. It could be tens, hundreds, or maybe thousands. This is because the population of quantitative research respondents is very broad. Generally, quantitative research uses survey methods to collect data from large populations.

The type of research used in this research is quantitative research. This research uses an analytical research type using a cross- sectional method. This research was conducted at the Margajaya Health Center, Tanjungsari District, Sumedang Regency. The population of this study was 35 TB patients recorded at the Margajaya health center in the period November 2022 - May 2023. The sample was taken using a total

sampling technique so that the number of respondents for this study was 35 people. The research instrument used in this research is a questionnaire that has been tested for validity and reliability by previous researchers. Hypothesis testing was carried out using the Chi-Square test.

## 3. RESULTS AND DISCUSSION

## a. Results

The research results include independent variables (knowledge and attitudes about Tuberculosis ) and dependent variables (Medication Adherence). Data are presented in frequency and percentage distributions and analyzed using the Chi Sq ua re test :

## **Univariate Analysis**

Based on the results of collecting research data by distributing a questionnaire containing 24 statements regarding knowledge about Tuberculosis and Compliance with its treatment, the following data was obtained :

#### 1. Knowledge Overview

Knowledge	Frequency	Percentage (%)	
Good	17	48.6	
Enough	10	28.6	
Not enough	8	22.9	
Total	35	100.0	

Table 1 Knowledge Based Overview

Based on table 1, it can be concluded that the patients with the most knowledge and frequency are in the Good category, 17 of them patients (48, 6%) and patients with the least knowledge and frequency were in the less than 8 category patients (22, 9%).

## 2. Compliance Overview

Tab l e 2 Overview Based on Compliance

Obedience	Frequency	Percentage (%)
Obedient	22	62.9
Not obey	13	37.1
Total	35	100.0
Total	100	100.0

Based on table 2, it can be concluded that the patients with the highest frequency of compliance were in the 22 compliance category patients (62, 9%) and 13 patients (37.1%) were non-compliant.

#### **Bivariate Analysis**

Bivariate analysis in this research was carried out to determine the influence between the independent variable (knowledge and attitudes about Tuberculosis ) and the dependent variable (Medication Adherence ) on patients. Tuberculosis in the UPTD Margajaya Health Center, Sumedang Regency in 2023. The statistical test used is Chi Square

## 1. The Relationship between Knowledge and Adherence to OAT Treatment in TB Patients

The following are the results of research regarding the influence between Knowledge and Compliance were tested using the Chi Square Statistical Test technique using the help of the Statistical Product and Services Solution 25 program (SPSS). The following is a table of test results for the two variables.

Table 3 Results of Statistical Tests of Relationships Knowledge with Compliance in Tuberculosis patients in treatment at the Margajaya Health Center

Knowledge	Obedience						P-value
Kilowicuge	Obedient		Not obey		Total		1 - value
	F	%	F	%	F	%	
Not enough	1	3.0	7	20.0	8	23.0	
Enough	7	20.0	3	8.5	10	28.5	0.003
Good	14	40.0	3	8.5	17	48.5	
Total	22	63.0	13	37.0	35	100.0	

Based on table 3, the result is P=Value 0.0 03, so there is a significant influence between Knowledge and Compliance in Tuberculosis Patients in treatment at the Margajaya Health Center. This shows that both variables have an influence Positive, meaning getting better Knowledge means the patient will be more compliant with treatment and vice versa. Knowledge level patients Which good and obedient with the highest frequency, namely 14 patients (40.0%).

### **3.2 Discussion**

## 1. Compliance Overview

The picture shown in this study is that the majority of patients with the highest level of compliance with the highest frequency are in the adherent category, namely 22 patients (62, 9%), while the frequency of the non-compliant category was 13 patients (37, 1%). One of the problematic factors in Tuberculosis treatment is treatment compliance, based on data from the Ministry of Health, the success rate for Tuberculosis treatment has been decreasing since 2016 (Ministry of Health, 2022). Compliance with Tuberculosis sufferers in treatment means that the patient will undergo Tuberculosis treatment and take Tuberculosis medication in accordance with the recommendations of the treating Doctor, including appropriate dosage and punctuality repeatedly until the results of the examination state that the patient has completely recovered and the risk of transmission to other people is negative (0).

In line with the results of research conducted by Gunawan, Simbolon & Fauzia (2017), the results of pulmonary TB patient compliance with pulmonary TB treatment in this study showed that there were compliant patients (90.7%) and non-compliant patients (9.3%). This is because of the patient Tuberculosis at the Margajaya Community Health Center often receive instructions from officers to always be obedient in undergoing treatment and always obey the instructions of the officers in charge. Another source of compliance that can be closely related to patient compliance is pressure. In this case, the patient experiences a lot of pressure both from within himself, from those closest to him, and from society who sometimes stay away because they don't want to catch the disease. This factor also influences patients so they don't want to take medication so they don't look sick and made him disobedient to his treatment.

#### 2. Knowledge Overview

The picture shown in this study is that the majority of patients with the highest level of knowledge are in the good category, namely 17 patients (48, 6%). Meanwhile, for Knowledge, the frequency of the sufficient category is 10 patients (28, 6%) and for Knowledge the frequency of the poor category was 8 patients (22, 8%). Knowledge is information or information that a person knows or is aware of. Another definition of knowledge is information, facts and concepts that a person has learned and understood through experience, observation and study. Knowledge can also include an understanding of the abstract concepts and principles underlying phenomena and events in the world. In modern society, knowledge is considered an important source of power in making decisions and achieving goals in various areas of life.

In line with research conducted by Retno TW 2017 with the title The Relationship between Knowledge and Motivation and the level of Compliance with Taking Medicine in TB Patients, the results showed that the majority of respondents' knowledge was good, namely 55 respondents (55%). Meanwhile, the number of respondents with sufficient knowledge was 37 respondents (37%) and those with insufficient knowledge were 8 respondents (8%). This is because patients often receive and follow socialization about the dangers and methods of treating Tuberculosis both from officers and from accessed social media . So that the patient knows what the disease is and how to treat Tuberculosis and also knows what to do when undergoing Tuberculosis treatment and how to prevent Tuberculosis .

#### 3. Connection Knowledge with Compliance

From the results of this research with a significance value of 0.003, there is a significant influence between Knowledge to compliance of Tuberculosis patients in treatment at the Margajaya Health Center. This shows that both variables have an influence Positive, meaning getting better Knowledge means the patient will be more compliant with treatment and vice versa.

This research is in line with Joyce B (20 22) who focuses on testing how knowledge influences the compliance of Tuberculosis sufferers in treatment at the Special Lung Hospital in Medan City. Results from research proves that the researcher's hypothesis shows positive results, with a value (p) of 0.000 which means <0.004, which means that there is a significant influence between the two variables, namely knowledge on compliance with taking medication for tuberculosis patients .

The level of knowledge can influence a person's level of compliance, and the level of compliance can also influence a person 's level of knowledge. In a cause and effect relationship, knowledge can be the cause or main cause in reducing the level of Compliance somebody. Good knowledge will influence Tuberculosis sufferers to be able to do things regularly so that it can influence their behavior. Another factor that influenced the results in this study was that the researchers reached all parts of the population, namely all Tuberculosis patients at the Margajaya Health Center. In the process, patients have different levels of knowledge . Even though the majority of patients' knowledge is good, there are still patients whose knowledge is not good and this does not rule out the possibility of factors causing patients not complying , namely the factor of looking for references that are difficult to find because there are patients who are elderly and still IT literate so that patients do not receive information about their disease. Moreover, if when taking medicine at the Community Health Center, the patient is represented by someone else , then it is certain that the patient does not know information about the disease he is suffering from and how to treat it and there are also family and relatives who do not provide complete knowledge because they both do not know about it. Tuberculosis disease and how to treat it , especially the people in their environment only know that Tuberculosis is an infectious and dangerous disease and they don't know that this disease can be prevented and can be treated if the patient adheres to treatment.

This is because family support as a PMO, friends and other social support influence attitudes toward treatment in Tuberculosis sufferers. Another factor that influences the results in this research is the researcher reaching all parts of the population, namely all Tuberculosis patients at the Margajaya Health Center. In the process, patients have different levels of attitude. Even though the attitude of the majority of patients is good, there are still patients who are disobedient and it does not rule out the possibility of factors causing patient disobedience This is a factor in the patient's indifference to his illness and the patient thinking that his illness will heal by itself even though he does not comply with the doctor's recommendations. Moreover, there are also some patients who do not receive support from their family and closest relatives because they are afraid of contracting the disease the patient is suffering from, which influences the patient's attitude of being indifferent and ignoring their illness. This condition also often makes the patient mentally down and causes the patient to be reluctant to seek treatment. to the puskesmas and are even lazy to comply with taking the medicine even though a home visit has been made and the puskesmas doctor or officer has given the medicine to the patient. This attitude influences patients' non-compliance with their treatment so that often there are still patients who do not complete treatment and whose disease gets worse and even enters the MDR (Multidrug Resistance Tuberculosis) category..

#### 4. CONCLUSION

- 1. Description Patients with the highest knowledge and frequency were 17 in the good category patients (48.6 %).
- 2. Description Patients with the highest level of compliance with the highest frequency were 22 in the adherent category patients (62, 9%).
- 3. There is a relationship knowledge with compliance in Tuberculosis sufferers in treatment at the Margajaya Community Health Center with a PV alue value of 0.003.

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## RELATIONSHIP BETWEEN KNOWLEDGE LEVELS CONCERNING WASTE MANAGEMENT WITH WASTE MANAGEMENT BEHAVIOR AMONG TRADERS AT DARMARAJA MARKET YEAR 2023

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#### ABSTRACT

Based on data from the national waste management information system in 2022, waste generation in Indonesia is 18.30 million tons per year, which is dominated by household waste with a figure reaching 37.6%. Therefore, currently domestic waste, especially food waste, is a major problem in Indonesia. The aim of this research is to determine the relationship between knowledge about waste management and waste management behavior among traders at Darmaraja Market. This research method uses a quantitative type with a cross sectional approach. The sampling technique was carried out using a simple random sampling technique . The sample in this research was 66 traders at Darmaraja Market. The results of this research indicate that there is a relationship between knowledge and waste management among traders at Darmaraja Market (p - value = 0.002). There is no relationship between education and waste management for traders at Darmaraja Market, there is a relationship between knowledge and waste management for traders at Darmaraja Market, and there is a relationship between facilities/facilities and infrastructure and waste management for traders at Darmaraja Market. The author suggests that market management should make regulations regarding market cleanliness so that traders do not litter and give sanctions to traders if they violate them.



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## 1. INTRODUCTION

Knowledge is the result of the process of finding out, from not knowing to knowing, from not being able to becoming able. Knowledge begins with the curiosity that exists within humans (Swarjana, 2022). Knowledge greatly influences a person's behavior. Basically, knowledge needs to be increased, not just understood but applied, analyzed and synthesized material or knowledge regarding proper and correct waste disposal (Patras et. al, 2018).

According to the World Health Organization (WHO) waste is something that is not used, is not worn, is not liked or is something that is thrown away that comes from human activities and does not occur by itself. Every day human activities, whether we realize it or not, will always produce waste. The more people and activities carried out, the more waste is generated. Waste is closely related to public health, because from this waste various disease-causing bacteria (pathogenic bacteria) live, as well as animals or insects that spread disease (vectors) (Notoatmodjo, 2011).

The problem of waste is a problem that cities in Indonesia have not yet resolved. The increasing volume of waste generation has a tendency to be related to population growth (Nurmayadi et al . , 2020). Another

waste problem lies in poor waste management. Waste management is a systematic and sustainable activity that includes reducing and handling waste. Waste management has so far used a system of collection, transportation and final disposal so that it has not been effective and efficient in solving the problem of increasing volumes of waste.

Garbage in markets is quite a big problem, because most of the market waste, especially traditional markets, consists of wet waste, so that during collection, these piles become nests for flies, rats and insects, becoming a source of soil, water and air pollution, from an aesthetic perspective. This will cause an unpleasant smell and sight. Waste in the market is sometimes still not managed well. Mountainous piles of rubbish can still be seen in the market that have not been removed by cleaning crews. This happened at a time when community activity was busy.

Data on waste generation in Sumedang Regency is 161,592.02 tons per year. On the other hand, the reduction in waste from existing generation is only 8,428.37 tons per year or the equivalent of 5.22%, with a waste handling percentage of 48,362.50 tons per year or the equivalent of 29.93%. The waste management flow includes: sorting waste according to type, quantity and nature; waste collection to temporary shelters (TPS); transporting waste from temporary storage sites (TPS) to final waste processing sites (TPAS) (DLHK, 2022).

The main problems are low waste management capacity, lack of public awareness of waste management, waste management regulations that are not yet optimal, and still little involvement of industry responsibility. Therefore, it is very necessary to make various efforts involving the community, so that the impact on better waste management is faster and wider.

Darmaraja Market in Sumedang Regency is one of the markets that contributes as a waste collector. In this market there are rubbish bins, but you can still see piles of rubbish on the road, which is not a good sight for passing motorists or buyers who are shopping. A preliminary study was conducted on March 23 2023 at Darmaraja Market with a sample of 10 traders. The results of interviews with 10 traders found that 6 people (60%) did not respond well, according to them it was okay to throw rubbish carelessly and leave the rubbish scattered around. everywhere, because later there will be officers to clean it. Apart from that, they also stated that they did not know about the management and facilities for waste disposal due to the problem of inadequate availability of waste bins. Meanwhile, 4 other traders (40%) responded well, namely they cleaned up the rubbish and warned other traders not to throw rubbish carelessly . Based on the description of the background to the problem above, the author is interested in conducting research with the title " The relationship between knowledge about waste management and waste management behavior among traders at Darmaraja Market in 2023 ".

## 2. METHOD

The research method used is quantitative research with a cross sectional approach. The population in this study were traders at Darmaraja Market, totaling 197 people. The sampling used in this research was simple random sampling , with a total sample of 66 traders. The instrument used was a questionnaire. Data analysis includes univariate and bivariate analysis using the Spearman Rank test .

#### 3. RESULTS AND DISCUSSION

#### 3.1. Results

- A. Univariate Analysis
  - 1) Knowledge Overview

Not good

Total

Table 1. Frequency Distribution of Trader's Knowledge at Darmaraja Market in 2025							
Knowledge	Frequency	Percentage (%)					
Good	37	48 5					

34

66

51.5 100

## Table 1 . Frequency Distribution of Traders' Knowledge at Darmaraja Market in 2023

Table 1 shows that the knowledge of traders at Darmaraja Market in 2023 shows that of the 66 traders, most of their knowledge in the bad category has the highest frequency, namely 34 traders (51.5%).

2) Market Waste Management Behavior

Table 2 Frequency Distribution of Waste Management Behavior at Darmaraja Market in 2023

Market Waste Management	Frequency	Percentage (%)
Good	44	66.6
Not good	22	33.3
Total	66	100

Table 2 shows that waste management at Darmaraja Market in 2023 shows that of the 66 traders, the majority of traders think that market waste management in the good category has the highest frequency, namely 44 traders (66.6%).

#### B. Bivariate Analysis

1) The Relationship between Knowledge and Waste Management among Traders at Darmaraja Market in 2023.

ut Durmaraja Market in 2020								
Knowledge		P Value*						
	Go	od	Not	good	good Total			
	F	%	F	%	F	%		
Good	29	43.94	5	7.57	34	48.48	0.002	
Not good	16	24.24	16	24.24	32	51.52		
Total	45	68.18	21	31.82	66	100		

 Table 3 . The Relationship between Knowledge and Waste Management among Traders

 at Darmaraja Market in 2023

Based on table 6 above, it can be seen that the small number of traders whose waste management is not good, amounting to 7.57%, have good knowledge, while those whose knowledge is not good is 24.24%. The results of the test analysis of the relationship between knowledge and waste management among traders at Darmaraja Market in 2023 using Chi-square analysis, obtained a significance value of p value = 0.002 (p < 0.05). This shows that H<sub>0</sub> is rejected and H<sub>a</sub> is accepted, meaning that there is a relationship between knowledge and waste management among Darmaraja Market traders in 2023.

#### 3.2. Discussion

#### A. Knowledge Overview

The picture shown in this research is that most of the knowledge in the bad category has the highest frequency, namely 34 traders (51.5%) and for the good category, the frequency is 32 traders (48.5%). This is because even though traders' knowledge of waste management in the market is quite good, other factors such as limited facilities and cultural barriers may be the cause of the lack of implementation of effective waste management.

According to Notoatmodjo (2011), knowledge is the result of knowing and occurs after someone senses a particular object. Knowledge will give rise to awareness and will ultimately cause people to behave in accordance with the knowledge they have, and the addition of knowledge cannot only be done in a short time, but must be continuous and sustainable. It also provides new information so that knowledge continues to increase and deepen (Notoatmodjo, 2011). Meanwhile, the results of research conducted by Wardhani (2022) show that the majority of knowledge is in the high level of knowledge category, as many as 109 traders (94.8 %), and in the low level of knowledge category , there are 6. traders (5.2 %).

### **B.** Overview of Waste Management

The picture shown in this research is that the majority think that market waste management in the good category has the highest frequency, namely 44 traders (66.6%) and for the bad category, the frequency is 22 traders (33.3%). This is due to a lack of awareness and understanding of traders about the importance of good waste management.

According to Notoatmodjo (2007), waste management includes collection, transportation, and destruction or management of waste in such a way that waste does not become a disturbance to public health and the environment (Notoatmodjo, 2007).

Meanwhile, the results of research conducted by Wardhani (2022), show that the majority of waste management is in the good category, namely 106 traders (92.2%), and in the bad category, there are 9 traders (7.8%).

# C. The Relationship between Knowledge and Waste Management among Traders at Darmaraja Market in 2023.

Based on the results of the analysis using the Chi-square analysis test with the degree of confidence used is 95% and  $\alpha = 0.05$  is obtained p value = 0.002 and 0.002 where < 0.05. This shows that H<sub>0</sub> is rejected and H<sub>a</sub> is accepted. This means that there is a relationship between knowledge and waste management among traders at Darmaraja Market in 2023.

's theory (1980), behavior is influenced by several factors, one of which is predisposing factors such as values, knowledge and attitudes which relate to a person's motivation to act. Behavior that is based on

knowledge will last longer than that which is not. It is hoped that a high level of knowledge will lead to positive behavior or the better the knowledge, the better the behavior, in this case is waste management behavior. Carrying out outreach and providing an interpretation regarding waste management is something that can be started to empower the community to manage waste (Green, 1980).

The research results show that market traders' knowledge is good, however, judging from the behavior of market traders, they still lack attention to market waste management, such as in terms of providing rubbish bins and separating waste. As many as 7.51 % of traders have poor waste management but their knowledge is good, traders already know about how to manage waste from container to final processing, but due to the lack of waste management in the market and low awareness of traders regarding the provision of waste bins, traders keep throwing rubbish anywhere.

In this research, 24.24 % of traders' knowledge regarding waste management stated that they did not understand or understand waste management, especially at the separation stage. All the waste produced by traders is put together in a corner of the room without any waste being separated between organic and inorganic. Because according to them, organic and inorganic waste are the same. This will result in the breeding of disease-carrying vectors and will reduce the economic value of used goods that can be reprocessed such as cardboard, used bottles and plastic.

The results of this research are in line with the research results of Rahmadani (2017) with a p value = 0.001 which states that there is a significant relationship between knowledge and waste management at Pasar Raya Solok. This also shows that traders have low knowledge because the socialization and education process carried out by the government regarding the ongoing waste management program is still not optimal.

In contrast to the research results of Rahmadani (2017), the results of this research are inversely proportional to research conducted by Ahmad, A. (2022) with a p value = 0.696 which states that there is no significant relationship between knowledge and waste management in Jaro District, Regency. Tabalong. Thus, knowledge needs to be increased further so that waste disposal and management is in accordance with what is expected, namely meeting health requirements, increasing education and information related to waste management.

#### 4. CONCLUSION

Based on the results of the research, the following conclusions can be drawn :

- 1. Most of the traders' knowledge at Darmaraja Market is having the highest percentage is the bad category with a percentage of 51.5 %.
- 2. Most of the waste management at Darmaraja Market is having the highest percentage is the good category with a percentage of 66.6 %.
- 3. There is a relationship between knowledge and waste management among traders at Darmaraja Market with p value = 0.002 (p value < 0.05).

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# THE EFFECT OF REPRODUCTIVE HEALTH EDUCATION ON KNOWLEDGE IMPROVEMENT AMONG ADOLESCENTS IN EARLY AGE MARRIAGE PREVENTION EFFORTS

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# ABSTRACT

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In the modern era like today, early marriages occur a lot especially among teenagers. One of the factors that influences the incidence of early marriage is knowledge. Based on 2021 data, in Sumedang Regency there were 9,905 marriages recorded and 13% of them were early marriages which were dominated by women. In 2022, in Cimanggung District there will be 327 marriages recorded. Of the 327 marriages, 89 of them were married at the age of less than 21 years. This research aims to determine the effect of health education on increasing students' knowledge about reproductive health and early marriage. This research was carried out at PGRI 314 Parakanmuncang Middle School with a population of 518 people. The sample in this study was 84 people. The method used is Pre experimental design with one group pretest post-test design . Data collection uses research instruments in the form of questionnaires. The data analysis technique used is the Wilcoxon test . The research results showed that the average knowledge of students before being given health education was 83%, and after being given health education it was 90.1%. The Wilcoxon test results obtained Asymp.Sig value. 0.000, this value is smaller than the alpha value of 0.05. It can be concluded that there is an influence of health education on increasing students' knowledge. Researchers suggest that schools collaborate with local health centers to hold adolescent reproductive health counseling programs.



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## 1. INTRODUCTION

Adolescence is a transition period from childhood to adulthood. Adolescents will experience rapid physical changes when they enter puberty, one of the changes is the ability to carry out the reproductive process (Ernawati in Cahyani, et al, 2019). According to the World Health Organization (WHO), adolescence occurs between the ages of 10-19 years. According to the Regulation of the Minister of Health of the Republic of Indonesia Number 25 of 2014, teenagers are residents in the age range 10-18 years and according to the Population and Family Planning Agency (BKKBN), the age range for teenagers is 10-24 years and unmarried (Diananda, 2018)

The stage of growth and development of a teenager towards adulthood consists of three stages, including the early adolescence stage which occurs between the ages of 12-15 years. At this age, teenagers experience the early stages of puberty. Teenagers begin to notice hair growth in certain areas, wet dreams of breast growth in teenage girls and menstruation begins. The next stage of adolescence is the middle adolescence

phase which occurs at the age of 15-18 years. The growth of teenage boys begins to progress rapidly, starting from their bodies getting taller and heavier, their muscles getting bigger, their voices becoming deeper. The final adolescent stage which occurs between the ages of 18-21 years, the adolescent's physique has fully developed. Many changes occur, from thought patterns to emotional control.

In general, the early stages of adolescence are students at Junior High School (SMP) with an age range of 13-15 years. Early stage teenagers who are at the beginning of secondary school are very vulnerable to having pre-marital sexual relations. The early teenage stage is a golden period in building a strong foundation regarding reproductive health, so that it can prepare a teenager in responding to reproductive health problems, especially sexual problems in his life.

Global data shows that there are 115 million teenagers in the world who are married under age (UNICEF, 2021). In fact, in the UN's global development goals, it is emphasized that every country must end cases of early marriage by 2030. Indonesia ranks 7th as the country with the most cases of early marriage. Throughout 2021, in Indonesia there were 59,709 cases of early marriage, 2% of which were married under the age of 18 (BPS, 2021). According to the Central Statistics Agency (BPS), 48% of women aged 20-24 years have dropped out of school due to marrying under the age of 18. Factors that cause high cases of early marriage in Indonesia include low levels of education, low socio-economic status and lack of information regarding the risks of marrying at a young age. West Java is the province with the second highest number of cases of early marriage in Indonesia.

West Java Women's Empowerment, Child Protection and Family Planning (DP3AKB) Service recorded 8,607 applications for early marriage dispensation in West Java. The factor in increasing applications for this dispensation is unwanted pregnancy (KTD). Of the 8,607 marriage dispensation applications issued by the West Java religious court, 4,297 were submitted by women and 4,310 were submitted by men. Based on 2021 data, in Sumedang Regency there were 9,905 marriages recorded and 13% of them were early marriages which were dominated by women (DP3AKB Sumedang Regency, 2021). In 2022, in Cimanggung District there will be 327 marriages recorded. Of the 327 marriages, 89 of them were married at the age of less than 21 years.

Early marriage is the legal marriage of a man and a woman who are not yet ready and mature so it is feared that they will experience great risks. This risk can even affect health during childbirth. Lack of knowledge among teenagers about reproductive health is the main cause of problems among teenagers such as free sex, unwanted pregnancies, sexually transmitted diseases, abortion and sexual violence. Limited access to information for Indonesian teenagers regarding reproductive health and sexuality is due to the conflict between Indonesian traditional values and westernized globalization which is considered to have arisen with the existence of reproductive health education.

Based on the explanation above, reproductive health education is very important in efforts to prevent reproductive health problems and indirectly prevent early marriage. In Indonesia, reproductive health education for early adolescents is relatively lacking, even though the participation rate for junior high school (SMP) students in Indonesia is very high. Adolescents who are at the beginning of secondary school are at risk of having pre-marital sexual relations, whether intentionally or not. Therefore, the most appropriate time to provide reproductive health education is at the early secondary school level.

Based on a preliminary study conducted by researchers on March 18 2023 at PGRI 314 Parakanmuncang Middle School, interviews were conducted with PGRI 314 Parakanmuncang Middle School (BK) teachers, in 2015 there were 3 students who dropped out of school at PGRI 314 Parakanmuncang Middle School, one of which was due to early marriage or young marriage. Apart from that, of the 10 students who were respondents, only 2 students (20%) knew about reproductive health and the impact of early marriage. There are no subjects that fully discuss adolescent reproductive health, it is only touched on in science subjects. There has never been a health education activity held specifically about reproduction at this school. Based on the results of the preliminary study above, this research was conducted to determine the effect of reproductive health education on increasing knowledge in efforts to prevent early marriage among students at PGRI 314 Parakanmuncang Junior High School (SMP).

# 2. METHOD

The research method used is quantitative research with an analytical design approach using the preexperimental design method with one group pre-test post-test design. The population in this research was 518 students of PGRI 314 Parakanmuncang Middle School. The sampling used in this research was random sampling with a sample size of 84 students. The instrument used is a questionnaire. Data analysis includes univariate and bivariate analysis using the Wilcoxon test.

## 3. RESULTS AND DISCUSSION

#### 3.1. Results

- A. Univariate Analysis
  - 1) Description of Students' Knowledge Before and After Being Given Health Education

Criteria	Frequency	Percent (%)						
Pretest								
Good	63	74						
Enough	21	26						
Not enough	0	0						
Total	84	100						
	Posttest							
Good	68	81						
Enough	16	19						
Not enough	0	0						
Total	84	100						

#### Table 1 . Description of students' knowledge before and after being given education Health

From the table above, it can be seen that students' knowledge before being given health education was that 62 people (74%) had good knowledge. Meanwhile, students' knowledge about reproductive health and the impact of early marriage increased after being given health education, namely, 68 people (81%) had good knowledge.

2) Differences in Students' Knowledge Levels Before and After Being Given Health Education

# Table 2 . Descriptive Statistics Distribution of Students' Knowledge Before and After Being Given Health Education

	N	Min	Mean	Max	elementary school	Median	Mode
Pretest	84	24	33.19	39	3,250	33.00	35
Posttest	84	29	36.33	40	3,642	37.50	37

From table 2, the average score for students' knowledge before being given education about reproductive health and the impact of early marriage was 33.19, the lowest score was 24 and the highest score was 39. The median score was 33.00 with a standard deviation of 3,250. Then, after being given intervention in the form of health education about reproductive health and the impact of early marriage, the results of the analysis of the average value obtained were 36.33 with the lowest value being 29 and the highest value being 40. The median value was 37.50 with a standard deviation of 3,642. Standard deviation describes the distribution of sample values, the smaller the standard deviation value , the closer it is to the average value. These data illustrate that there was an increase in the average knowledge of students after being given health education about reproductive health.

### B. Bivariate Analysis

1) Differences in Students' Knowledge Levels Before and After Being Given Health Education

# Table 3 . Distribution of differences in levels of knowledge about reproductive health before and after being given health education

	Health Education Posttest - Health Education Pretest
Ζ	-7,349 <sup>b</sup>
Asymp. Sig. (2-tailed)	,000

From the table data above, it shows the Asymp value. Sig  $0.000 < \alpha 0.05$ , it can be concluded that there are differences in the level of knowledge about reproductive health and the impact of early marriage before and after being given health education.

# 3.2. Discussion

## A. Description of Knowledge Before Being Given Health Education

The results of the analysis of the average value of students' knowledge about reproductive health before being given health education was 33.19 (83%) of the total highest score. This initial average score shows that students have good knowledge about reproductive health and the impact of early marriage before being given health education.

Knowledge is a continuous formation by someone who at any time experiences reorganization with new understandings. Knowledge is the result of a person's knowledge of objects through their senses. This sensing occurs through human senses, namely the senses of sight, hearing, smell, taste and touch. Most of this knowledge is obtained through the eyes and ears (Notoatmodjo, 2014). Individuals' knowledge and perceptions about early marriage are influenced by their perceptions of the risks and benefits. Individuals' knowledge about the consequences of early marriage, both positive and negative, can influence their decisions in this regard (Santhya, 2017).

In Benita's (2017) research entitled The Effect of Counseling on the Level of Adolescent Health Knowledge in Adolescents of Gergaji Christian Middle School Students, it shows that the level of knowledge of respondents before being given health education was 36.4% in the category of lacking and having never received information about reproductive health before, 42.7% were in the moderate category had received information from mass media only or from counseling with teachers only, and 21% in the good category had received information from either mass media, the internet, or counseling with teachers. This is because some respondents already know about reproductive health from mass media such as television and the internet, from health workers, teachers, siblings and parents.

This research is not in line with research by Ika (2022) entitled The Influence of Reproductive Health Education on Adolescents' Knowledge in Preventing Early Marriage in Class 53.8%), while the least knowledge level category was in the good category, namely 2 people (2.5%). This is because respondents admitted that they had never disclosed information from social media regarding the impact of early marriage and respondents admitted that they were embarrassed to talk about early marriage which has an impact on the health of parents, because it is related to taboo matters that are not appropriate to discuss with parents.

According to researchers, many factors influence a person's knowledge. Knowledge is not only obtained from school. Knowledge can be obtained from various sources, including social media, the internet, leaflets and brochures. Education is one of the factors that influences knowledge, for example health education. Health education is a process that bridges the gap between health information and health practices, which motivates a person to obtain information and keep themselves healthier by avoiding bad habits and forming habits that benefit health.

#### B. Description of Adolescents' Knowledge After Being Given Health Education

Students' knowledge about reproductive health after being given health education has an average score of 36.33 or 90.1% of the total number of highest scores. The value obtained after providing health education is greater than the value before providing health education intervention. This shows that there is an increase in knowledge between before and after the intervention. However, the results obtained do not provide too significant a difference in value.

Knowledge has a strong contribution to the attitude or decision a person will take. Therefore, it is important to provide reproductive and sexual health education for adolescents both formally and non-formally, as stated by Suryoputro and Widjanarko (2016), it is important to hold an appropriate and comprehensive educational program regarding sexual and reproductive health which can be introduced through schools.

Prahesti (2018) in his research entitled The Effect of Reproductive Health Education on Knowledge of Early Marriage in Class 7 respondents (21.2%) had constant knowledge, 5 respondents (15.1%) had less knowledge. This is because health education increases respondents' knowledge, attitudes and behavior in maintaining and improving their own health.

This research is not in line with research by Susanti (2014) entitled The Effect of Health Education about HIV/AIDS on the Level of Knowledge in Preventing HIV/Aids in Class decreased by 7 teenagers (18%). This is because in delivering the material the researchers did not master the material and their appearance was less attractive so they did not achieve maximum marks.

According to researchers, providing health education is one of the right efforts to overcome the dangers of early marriage and enrich teenagers' knowledge about reproductive health. The goal of health education is

to change behavior from those that are detrimental to health towards behavior that benefits health or norms that are consistent with health. Apart from that, mass media is a means of communication in various forms such as television, newspapers, magazines and others which have an influence in increasing knowledge.

# C. The Influence of Reproductive Health Education on Increasing Adolescents' Knowledge in Efforts to Prevent Early Marriage

Based on the results obtained in this study, the average student knowledge about reproductive health at the pretest was 33.19 with a standard deviation of 3,250, at the posttest the average student knowledge was 36.33 with a standard deviation of 3,642. From this description we can get information that the difference in the average score between the pretest and posttest is 3.2. The Wilcoxon test results obtained Asymp.Sig value. 0.000, this value is smaller than the alpha value of 0.05. Thus, it can be concluded that there is a significant difference in students' knowledge between before and after being given the intervention.

In accordance with Syafrudin's theory (2009), health education is a learning process to develop the correct understanding and positive attitude of individuals or groups towards health who have their way of life based on their own awareness and will. The aim of counseling is to bring about changes in behavior in terms of knowledge, attitudes and practices. Through reproductive health education, it will make it easier to understand material about early marriage which can influence respondents' preventative attitudes.

The results of this research are in line with Buzarudina's (2018) research entitled the effectiveness of adolescent reproductive health counseling on the level of knowledge of students at SMAN 6, East Pontianak District. The results of the research using the Wilcoxon test obtained a Sig value. of 0.000 (p<0.05) which indicates that there is a significant difference between the score before counseling and the score after counseling. This is because there are several factors that influence knowledge, including education, mass media/information, socio-cultural and economic, environment, experience and age.

This research is not in line with research by Septiana (2014), entitled The Influence of Health Education on the Level of Knowledge of Adolescents About Reproductive Health at Ruhama Ciputat Islamic Middle School. The results of hypothesis testing with an alpha error level of 0.05 obtained a p value of >0.05, which means there is no significant difference in teenagers' knowledge before and after being given health education. This is because the level of ability of instructors is still low. The instructor's knowledge and skills in providing information and the unattractive condition of the tools can influence the decrease in the value obtained from the questionnaire questions.

According to researchers, one of the factors that influences students' good knowledge about reproductive health and early marriage is educational factors. The factors that influence this research are perception, motivation and experience which according to Notoatmodjo (2010) are factors that influence a person's knowledge. Providing health education is one of the appropriate efforts to overcome the dangers of early marriage and adolescent reproductive health problems (Rosamali and Arisjulyanto, 2020). The factor that caused the difference in respondents' scores between the pretest and posttest was not that big because some respondents had previously received information about reproduction from teachers during science lessons, 43% of the respondents admitted that they had received information about reproductive health from various sources.

#### 4. CONCLUSION

Based on the results of research on the Influence of Reproductive Health Education on Increasing Adolescents' Knowledge in Efforts to Prevent Early Marriage in Class VII and VIII Students at PGRI 314 Parakanmuncang Middle School, Sumedang Regency in 2023, the following conclusions can be drawn:

- a. Students' knowledge about reproductive health before being given health education had the lowest score of 24 and the highest score of 39 with an average score of 33.19, respondents had good knowledge.
- b. Students' knowledge about reproductive health after being given health education had the lowest score of 29 and the highest score of 40 with an average score of 36.33.
- c. The statistical test results obtained the Asymp value. Sig 0.000 < 0.05 then Ha is accepted, and it can be concluded that there is a significant influence from providing health education on increasing teenagers' knowledge about reproductive health and the impact of early marriage due to an increase in the average value between before and after the intervention.

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# THE EFFECT OF HEALTH EDUCATION ON INCREASING KNOWLEDGE ABOUT HIV/AIDS AMONG ADOLESCENT

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# ABSTRACT

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Health education in the form of counseling about HIV/AIDS for students is very important because the incidence of HIV/AIDS in parts of the world is increasing every year. This research aims to determine the effect of health education on teenagers' knowledge about HIV/AIDS at SMP Negeri 7 Sumedang. The research method used is a quantitative approach with a preexperimental design with a one group pretest posttest design, namely experimental research carried out on only one group that is selected at random and no stability and clarity tests are carried out on the group's condition before being given treatment. This one group pretest posttest research design was measured using a pretest carried out before giving treatment and a posttest carried out after being given treatment. The population in this study were 120 class VIII students with a research sample of 100 respondents. This sampling technique was carried out using a purposive sampling technique. Bivariate analysis used the data normality test and then tested again using the Wilcoxon test. The results of the research are that there is an influence of health education on knowledge teenagers about HIV/AIDS at SMPN 7 Sumedang because there was an increase in knowledge and attitudes between before being given health education and after being given health education .



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# 1. INTRODUCTION

HIV infection is a viral infection that progressively destroys white blood cells. Infection with HIV usually results in progressive damage to the immune system, causing opportunistic infections and certain cancers (especially in adults) (Ardhiyanti, et al, 2015). Acquired Immunodeficiency Syndrome (AIDS) is one of the most well-known diseases and is caused by progressive failure of the body's immune system, although it is characterized by the gradual destruction of cell-mediated immunity (T-cells), AIDS also attacks humoral immunity and CD4+T autoimmunity in the body.

The World Health Organization (WHO) noted that there were around 38.4 million people living with HIV throughout the world in 2021. If we look at it based on gender, in 2021 the majority of women living with HIV will reach 19.7 million people compared to men . 16.9 million men. Meanwhile, based on age groups, global HIV cases in the age group 15 years and over were 36.7 million cases. Meanwhile, in the age group of children 15 years and under, there were only 1.7 million cases (databoks.katadata.co.id).

The Indonesian Ministry of Health released the latest data on people affected by HIV or PLWHA in Indonesia, reaching 519,158 people as of June 2022. What's worse, according to the Indonesian Pediatrician

Association (IDAI) report, around 1,188 children in Indonesia are HIV positive. This data was obtained during January-June 2022. The Indonesian Ministry of Health noted that more men than women suffer from HIV. Data for 2021, 75% men and 25% women. The majority of sufferers are those of productive age (Kemenkes.go.id, 2022). The West Java Provincial Health Service stated that the number of HIV cases in West Java as of October 2022 was 57,914 cases and the cumulative number of AIDS cases as of October 2022 was 12,353 cases (dinkes.jabarprov.co.id). From the records of the Sumedang District Health Service in 2020, 2021 and 2022, PLWHA always experience an increase of up to dozens of people. As of October 2022, there are 133 people with HIV, 10 of whom have reached AIDS and the trend continues to increase. The number of HIV sufferers in Sumedang is dominated by those of productive age, namely those aged between 25-49 years with a percentage reaching 70.7%. Followed by ages 20-24 as much as 18.5%, 0-14 years 6.4%, and ages 15-19 years 3.6%.

Research by Asfar and Asnainar (2018) states that health education in the form of counseling about HIV/AIDS for teenagers is very important because the incidence of HIV/AIDS in parts of the world is increasing every year. The problem of HIV/AIDS is a public health problem that requires serious attention, this can be seen from its spread a very fast disease without respecting the borders of countries and communities in the world. Therefore, this research aims to determine the effect of health education on adolescents' knowledge about HIV/AIDS. Through school students can learn and gain knowledge. It is time for students to learn about sexual knowledge in their teens. Thus, there is a need for health education to increase students' knowledge about sexual matters.

Understanding sexual behavior in adolescents is a transition period from childhood sexual behavior to adult sexual behavior. Lack of understanding about sexual behavior in teenagers is very detrimental to teenagers themselves, including their families, because at this time teenagers experience emotional, social and sexual experiences. Therefore, the research wants to provide health education about the sexually transmitted disease HIV/AIDS in adolescents. Based on the research results of Bakara, et al (2014), it is said that the difference in the average value of students' knowledge about HIV/AIDS before and after being given health education is p value 0.000. This means that counseling about HIV/AIDS affects students' level of knowledge. Health education about HIV/AIDS can increase teenagers' knowledge about HIV/AIDS, with the results of research before health education showing that a small number of respondents got the lowest score of 13 (1.2%), and the highest score was 93 (6%), the largest number of respondents got a score of 80 (27.5%). After counseling, a small number of respondents got the lowest score of 33 (0.6%), and 7.2% got the highest score (100), and the majority of respondents got a score of 93 (35.3%).

Based on a preliminary study at SMPN 7 Sumedang, which was conducted with the principal by means of question and answer, 100% of students had been given information about HIV/AIDS. Students of SMPN 7 Sumedang have never received counseling from the Community Health Center regarding HIV/AIDS. Therefore, there is a relationship between information and students' knowledge about HIV/AIDS. SMPN 7 Sumedang is located on Jl. Pangeran Kornel Km 3.6, Pasanggrahan Baru, South Sumedang District. Currently, the wrong social patterns are clearly visible, after school the students ride together with boys and girls with an impolite attitude. Based on the background above, the author is interested in conducting research in the form of a thesis with the title "The Influence of Health Education on Adolescents' Knowledge about HIV/AIDS at SMPN 7 Sumedang".

### 2. METHOD

The research method used is quantitative research with an analytical design approach using the preexperimental design method with one group pre-test post-test design. The population in this research is 120 students at SMP Negeri 7 Sumedang. The sampling used in this research was sampling with a sample size of 100 students. The instrument used is a questionnaire. Data analysis includes univariate and bivariate analysis using the Wilcoxon test.

#### 3. RESULTS AND DISCUSSION

#### 3.1. Results

- A. Univariate Analysis
  - 1) Knowledge Overview
    - a. Before being given health education

Knowledge Before Treatment	Frequency (F)	Percentage (%)		
Not enough	16	16%		
Enough	58	58%		
Good	26	26%		
Total	100	100%		

 Table 1

 Adolescents' Knowledge Before Being Given Health Education

Based on table 1, it appears that before being given health education, there were 26 respondents (26%) with good knowledge, 58 respondents (58%) with sufficient knowledge, and 16 respondents with poor knowledge (16%).

b. After being given health education

Knowledge After Treatment	Frequency (F)	Percentage (%)
Not enough	0	0%
Enough	6	6%
Good	94	94%
Total	100	100%

# Table 2 Description of Knowledge of Adolescents Who Have Been Given Health Education

Based on T ab le 2 shows that after being given health education, respondents' knowledge increased with good knowledge of 100 respondents (100%).

## B. Bivariate Analysis

1) Testing the Effect of Health Education on Adolescents' Knowledge About HIV/AIDS

# Table 3 Statistical Test of the Effect of Health Education on Adolescents' Knowledge About HIV/AIDS

	Kolm	ogrov-Smirnov	Knowledge Pretest - Knowledge Posttest		
Knowledge	Statistics	Df	Sig.	Ζ	-7,671
Pretest	,302	100	,000	Agumn Sig	0,000
Posttest	,539	100	,000	Asymp. Sig.	

Based on T ab le 3. The results of the data normality test using the Kolmogorov Smirnov test above show that the data is not normally distributed because the sig is 0.000 and 0.000 < 0.05. Based on the results of the Wilcoxon knowledge test, it shows a sig of 0.000 and a value <0.05 which means that there is an influence of health education on teenagers' knowledge about HIV/AIDS at SMPN 7 Sumedang.

# 3.2. Discussion

# A. Knowledge About HIV/AIDS

The research results showed that before being given health education about HIV/AIDS, there were 16 respondents with good knowledge (16%), 58 respondents with sufficient knowledge (58%), and 26 respondents with poor knowledge (26%). A person's knowledge before being given health education can be greatly influenced by education, information/mass media, social, cultural and economic, environment, experience and age (Budiman and Riyanto, 2013).

A person has their own level of knowledge, including knowing, understanding, application, analysis, synthesis and evaluation (Efendi and Makhfudi, 2009). The research results showed that after being given health education about HIV/AIDS, 94 respondents (94%) had good knowledge, six respondents (6%) had sufficient knowledge and zero respondents (0%) had poor knowledge. The research results illustrate that after

being given health education, it has the effect of increasing students' knowledge, from initially having sufficient knowledge to good knowledge. Knowledge is the most important determining factor for changing health behavior. A person's knowledge can be obtained through various methods, namely the method of trial and error, the method of chance, the method of power or authority, based on personal experience, the method of common sense, truth through revelation, intuitive truth, through thought, induction and through deduction (Notoatmodjo, 2018).

# B. The influence of health education on teenagers' knowledge and attitudes about HIV/AIDS at SMPN 7 Sumedang

Based on data analysis from questionnaires that researchers distributed to 100 respondents in June, the results of statistical tests of knowledge and attitudes using the Wilcoxon signed rank test were obtained. P-Value (0.000) was obtained, meaning P-Value < 0.05. So H0 was accepted , which means there is an influence between health education and teenagers' knowledge and attitudes about HIV/AIDS at SMPN 7 Sumedang. This means that health education through leaflets and posters can effectively increase knowledge and attitudes about HIV/AIDS at SMPN 7 Sumedang.

It is proven that health education in the form of counseling through leaflets and posters about HIV/AIDS is quite effective and efficient and has an influence on increasing teenagers' knowledge in a short period of time and in accordance with existing theories. Apart from that, the appearance of the material is attractive, the way the material is delivered and the language in which the material is delivered is adjusted to the level of education and age which have an influence on increasing knowledge and attitudes. The older you are, the more mature a person's level of maturity and strength will be in thinking, increasing age will have an effect on increasing a person's knowledge and attitudes. This increase in knowledge and attitudes is due to the provision of information, in which there is a learning process with guidance through health education, because it can improve knowledge and attitudes so that attitudes can respond in a better direction.

This was also stated by Bakara (2014) in the results of his research that, the research conducted showed a difference in the average value of students' knowledge about HIV/AIDS before and after being given health education with a p value of 0.000. This means that health education about HIV/AIDS affects knowledge and attitudes. Health education about HIV/AIDS increases knowledge and changes attitudes of teenagers.

# 4. CONCLUSION

Based on the discussion carried out in CHAPTER IV regarding the influence of health education on teenagers' knowledge and attitudes about HIV/AIDS at SMPN 7 Sumedang, the following conclusions can be drawn:

- a. The average level of knowledge of respondents before being given health education was 58 respondents (58%).
- b. Respondents' knowledge after health education was carried out, the average respondent with good knowledge was 94 respondents (94%), with this there was an increase in knowledge before and after being given health education.
- c. There is an influence of health education on teenagers' knowledge about HIV/AIDS at SMPN 7 Sumedang (p value 0.000).

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# RELATIONSHIP BETWEEN KNOWLEDGE WITH HEALTHY SNACK CHOICE BEHAVIOR AMONG STUDENTS AT CIMUNCANG ELEMENTARY SCHOOL

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# **Article Info**

# ABSTRACT

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Snack food is food or drink served in containers or sales facilities on the side of the road in public places or other places, which has previously been prepared or cooked at the production place or at home or at the place of sale. Factors that influence the choice of snack foods include internal and external factors. This research aims to determine relationship between knowledge and the choice of snack foods among students at Cimuncang Elementary School in 2023. The method used in this research is a cross-sectional research method . The sampling technique was the total population with a sample size of 60 students at Cimuncang Elementary School. Data analysis using univariate analysis and bivariate analysis was carried out using the chi-square test . From the results of this study using the chi-square test, it shows that there is a relationship significant relationship between respondents' knowledge (p=0.043), with the choice of snack foods. The conclusion of this research is that there is a relationship between knowledge with the choice of healthy snacks among students at SDN Cimuncang in 2023. It is hoped that the school can provide information for the school in educating students to behave in choosing healthy snacks through a healthy canteen.

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#### 1. INTRODUCTION

According to the Food and Agriculture Organization (FAO), street food is food or drink served in containers or sales facilities on the roadside, public places or other places, which has previously been prepared or cooked at the production place or at home or at the place of sale. These foods are eaten or consumed directly without further processing or preparation. The development of street food in Indonesia based on the housing industry has become increasingly advanced, including those sold in schools. This can be seen from the increasing variety of snacks offered in each school. This development can encourage the habit of consuming snacks among school children, especially during recess (Herman, 2018).

Data from the World Health Organization (WHO) in 2015 shows that 20,098 people were confirmed to have been affected by food poisoning, as well as 4598 people were sick/treated and 77 (43.21%) people experienced death related to food poisoning. Number of poisonings and incidence rate per 100,000 different people caused by pathogens. Food poisoning can also be caused by the type of food consumed. The Sari Laut food stall sells mostly food sourced from the sea, for example squid. This type of food can cause poisoning in some people, and is made worse if it is not handled hygienically.

Food poisoning incidents occur quite often in several areas of West Java with quite high incidence rates. In 2017, the Indonesian POM Agency recorded that the number of people exposed to food poisoning was 5293 people. Cases of Extraordinary Events (KLB) of food poisoning reported in 2017 were 2041 people sick, 3 people died with an Attack Rate (AR) of 38.56% and a Case Fatality Rate (CFR) of 0.15%. Food poisoning outbreaks still often occur on the island of Java, the 5 provinces with the highest food poisoning outbreaks in 2017 are West Java with 25 incidents, Central Java with 17 incidents, East Java with 14 incidents, Bali with 13 incidents and NTB with 12 incidents. This shows that food poisoning outbreaks are still a public health problem that needs to be prioritized for handling (Mustika, 2019).

Based on the results of an initial survey conducted at SDN Cimuncang by making observations, it was found that almost all students consumed snacks, these students had snacks at school during break time, and came home from school. This is also supported by the existence of a school canteen and food vendors outside the school. Based on the results of interviews conducted with 15 Cimuncang Elementary School students, there were 5 students who had poor knowledge, 6 students had sufficient knowledge, and 4 students had good knowledge about safe snack foods. A total of 8 students had a supportive attitude regarding safe snacks. Students at SDN Cimuncang bring pocket money for most students, amounting to Rp. 5,000.

# 2. METHOD

The research method used is cross-sectional quantitative research. population in this study are classes 3,4 and 5 at SDN Cimuncang in 2023, totaling 153 people. The sampling used in this research was random sampling with a sample size of 60 people. The instrument used was directly distributing research questionnaires to students at SDN Cimuncang. Data analysis includes univariate and bivariate analysis using chi-square.

# 3. RESULTS AND DISCUSSION

#### 3.1 Results

A. Univariate Analysis

#### 1. Knowledge

Table 1 Description Based on Knowledge and Healthy Snacks for Female Students						
Knowledge	Frequency	Percent (%)				
Good	2	3.3				
Enough _	8	13.3				
Not enough	50	83.3				
Total	60	100.0				

Based on table 1 regarding the frequency distribution of respondents' knowledge regarding choosing healthy snacks among students in grades 3, 4 and 5 at SDN Cimuncang in 2023, it can be seen that of the 60 total students, the majority of respondents had less knowledge regarding choosing healthy snacks, with 50

# respondents (83.3 %).

#### 2. Behavioral Description of Choosing Healthy Snacks Table 2 Description of Behavior Based on Choosing Healthy Snacks

Tuble 2 Description of Denavior Dused on Choosing Hearing Shacks								
Choosing healthy snacks	Frequency	Percent (%)						
Good	4	6,7						
Moderate	14	23.3						
Unhealthy	42	70.0						
Total	60	100.0						

Based on table 2 regarding the frequency distribution of respondents' choice of healthy snacks and the choice of healthy snacks among students in grades 3, 4 and 5 at SDN Cimuncang in 2023, it can be seen that of the 60 total students, the majority of respondents had less choice of healthy snacks. healthy snacks as many as 23 respondents  $(20.2 \times 10^{-10})$ 

(38.3 %).

#### **B.** Bivariate Analysis

1. The Relationship between Knowledge and Choosing Healthy Snacks at Cimuncang Elementary School in 2023

 Table 3 Correlation Test Results Between Knowledge and Choice of Healthy Snacks for Students at S

 DN Cimuncang in 2023

IZ 1 1		Ch	oosing	healthy	snacks		- 4 - 1	P Value*	
Knowledge	0	bood	En	ough	Not e	enough	Total		
	F	%	F	%	F	%	F	%	
Good	1	1.6	0	0.0	1	1,6	2	3.3	
Enough	1	1.6	0	0.0	7	11.6	8	13.3	0.0 43
Not enough	2	3.3	14	23.3	17	28.3	50	83.4	
Total	4	6.6	14	23.3	42	70.0	60	100	

Based on table 3, the results show a significance of 0.000 > 0.043, so there is a significant relationship between knowledge and the choice of healthy snacks among Cimuncang Elementary School students in 2023. This shows that the two variables have a negative relationship, meaning that the higher the ease of the procedure, the lower it is . Because the results show a significant relationship (Ho is rejected), the two variables have a fairly close level of correlation.

#### **3.2 Discussion**

#### 1. Knowledge

The picture shown in this research is that the knowledge of choosing healthy snacks in S DN Cimuncang in 2023 is highest in the poor category, namely 50 respondents (83.3%), while in the sufficient category there are 8 respondents (13.3%). And for knowledge with good frequency, there were 2 respondents (3.3%). This is due to having insufficient knowledge about choosing healthy snacks. Knowledge is the result of "knowing" and this occurs after people sense a particular object. Sensing occurs through the five senses, namely: the senses of sight, hearing, smell, taste and touch (Notoatmodjo , 2014 ).

The results of research conducted by Febrianto (2016) with the title "The Relationship Between Knowledge and Attitude and Snack Consumption Behavior at Mi Sulaimaniyah Jombang in 2016". This research uses quantitative methods. This type of research is observational with a cross sectional approach with a sample size of 50 respondents. Based on the results of this research, the majority of students understand the types and nutritional content of snacks consumed, namely 16 respondents (64%) and only 18 respondents (36%) do not understand the types and nutritional content of snacks consumed. Based on attitudes, the majority of respondents have good consuming behavior towards choosing healthy snacks at school, namely 64% of students. Based on the selection of safe and healthy snacks, the majority of respondents had snack consumption behavior in the positive category, namely 58%.

This is in line with research by Safrina (2012). Based on the results of statistical tests, the value P = 0.000 was obtained, so it can be concluded that there is a relationship between students' attitudes in choosing food and students' behavior in choosing snacks at SDN Garot, Darul Imarah District, Kab. Aceh Besar. According to the researcher's assumptions, the results of this study show that the majority of respondents already know the definition of safe snacks, but the majority of respondents still do not know about foods or drinks that contain dyes that are dangerous to health. This shows that knowledge about choosing snacks at school is still lacking, knowledge is closely related to patterns. students think whether choosing snacks is safe or unsafe, so if students' health. To increase a person's knowledge, certain efforts need to be made by health workers and schools. A person's knowledge can be changed with persuasion strategies, namely providing information to other people with health education carried out using various methods. The knowledge they gain does not remain in their brains but is often forgotten because they have to think about many things in their daily activities.

# 2. The relationship between knowledge and the choice of healthy snacks among students at SDN Cimuncang in 2023

Statistical research results show p=0.043 or <0.05. This means that there is a relationship between knowledge and the choice of healthy snacks among students at Sdn Cimuncang in 2023, of the 60 respondents studied, 2 people had good knowledge (3.3%), 8 people had good knowledge (13.3%) and less knowledgeable as many as 50 people (83.3%). These results are in line with research conducted by Herman entitled "Snack Food Selection Behavior among School Age Children in Aceh Besar in 2016". The results of

data analysis show that there is a significant relationship between the knowledge of school-age children and their behavior in choosing food snacks (p=0.015).

Knowledge is the result of knowing, and this occurs after people sense certain objects. Sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste and touch. The knowledge examined in this research is that students know things about safe snacks. These things are the definition of safe snacks, cleanliness and integrity of snacks, dangerous BTP and its characteristics, the consequences of unsafe snacks, as well as efforts to maintain personal hygiene to prevent unsafe snacks.

The results of research conducted by Febrianto (2016) with the title "The Relationship Between Knowledge and Attitude and Snack Consumption Behavior at Mi Sulaimaniyah Jombang in 2016". This research uses quantitative methods. This type of research is observational with a cross sectional approach with a sample size of 50 respondents. Based on the results of this research, the majority of students understand the type and nutritional content of the snacks they consume. Based on attitudes, the majority of respondents have good consuming behavior towards choosing healthy snacks at school, namely 64% of students. Based on the selection of safe and healthy snacks, the majority of respondents had snack consumption behavior in the positive category, namely 58%.

According to the researcher's assumptions, the results of this study show that the majority of respondents already know the definition of safe snacks, but the majority of respondents still do not know about foods or drinks that contain dyes that are dangerous to health. This shows that knowledge about choosing snacks at school is still lacking, knowledge is closely related to patterns. students think whether choosing snacks is safe or unsafe, so if students' knowledge is poor it will have an impact on the choice of snacks at school which has an influence on the student's health. To increase a person's knowledge, certain efforts need to be made by health workers and schools. A person's knowledge can be changed with persuasion strategies, namely providing information to other people with health education carried out using various methods. The knowledge they gain does not remain in their brains but is often forgotten because they have to think about many things in their daily activities.

#### 4. CONCLUSION

- a. The description of students' knowledge about healthy snacks at SDN Cimuncang is mostly in the poor category at 83.3%
- b. The description of students' food choices regarding healthy snacks at SDN Cimuncang is mostly in the less than 70% category.
- c. There is a significant relationship between knowledge and the choice of healthy snacks among students at S DN Cimuncang in 2023, with a value of (p=0.043).

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