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The Effect of Health Education Using Video Media on Stunting Prevention Among Mothers of Children Under Five Years of Age at Situ Community Health Center in 2023

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ABSTRACT

Stunting is one of the manifestations of chronic malnutrition that has become a national nutrition problem. Stunting prevention is a national program based on the issuance of Presidential Regulation of the Republic of Indonesia No. 42 of 2013 concerning the National Movement for the Acceleration of Nutrition Improvement. The purpose of this study was to determine the effect of health education using video media on the prevention of stunting in mothers of toddlers at the Situ Health Center, Sumedang Regency in 2023. This type of research uses pre-experimental research methods in the form of one group pretest posttest. The population in this study were all toddlers in the work area of the UPTD Puskesmas Situ Sumedang Regency in 2023 as many as 1227 mothers of toddlers, with a sample size of 93 people. The sampling technique in this study used purposive sampling. The research instrument used a questionnaire that was valid and reliable. Data analysis techniques using univariate analysis and bivariate analysis. The results showed that. The average score of stunting prevention in mothers of toddlers before health education using video media was 56.85 (95%CI: 53.14 - 60.56). The average score of stunting prevention in mothers of toddlers after health education using video media is 83.4 (95%CI: 81.6 - 85.1). There is an effect of health education in using video media on the prevention of stunting in mothers of toddlers, p value of 0.000 (<0.05). Therefore, it is necessary to carry out health education methods using videos about stunting prevention routinely to mothers of toddlers in an effort to reduce the incidence of stunting.



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1. INTRODUCTION

Stunting is one of the manifestations of chronic malnutrition from the past which is a nutritional problem defined as a value of height or length for age that is less than 2 standard deviations from the median child growth standard. Stunting is one of the nutritional problems in the world, especially in children under five stunting is one of the factors that can inhibit growth. According to WHO in 2018 there were 165 million toddlers in the world who experienced short or stunting conditions. There are around 80% of stunted toddlers in 14 countries in the world, and Indonesia is also included (Ministry of Health of the Republic of Indonesia, 2021).

According to the Ministry of Health's Indonesian Nutrition Status Survey (SSGI), the prevalence of stunting in Indonesia will reach 21.6% by 2022. This figure is down 2.8 points from the previous year. East Nusa Tenggara (NTT) again occupies the top position with a stunting rate of 35.3%. Although it is still perched at the top, the prevalence of stunted toddlers in NTT has decreased from 2021 which amounted to 37.8%. Furthermore, West Sulawesi is in second place with a prevalence of stunting of 35%. Then, West Papua and West Nusa Tenggara have a prevalence of stunting of 34.6% and 32.7%, respectively. Nationally, the prevalence of stunting this year has decreased from 24.4 percent in 2021 to 21.6 percent in 2022 (Indonesian Ministry of Health, 2022).

According to the West Java Health Office in 2022, the results of the Ministry of Health's Indonesian Nutrition Status Survey (SSGI), the prevalence of stunting in West Java reached 20.2 percent in 2022. This figure decreased by 4.3 points from the previous year, where in 2021 the prevalence of stunted toddlers was

24.5 percent. Sumedang Regency was recorded as the region with the highest prevalence of stunting in West Java, reaching 27.6% in SSGI 2022. The number of stunted toddlers in this district jumped dramatically from the previous year of 22%. The regions with the next highest prevalence of stunting are Sukabumi District at 27.5% and West Bandung District at 27.3%.

Monitoring the status of stunting toddlers in each Puskesmas in Sumedang Regency in 2022 by the Sumedang Regency Health Office shows that the prevalence of stunting in each sub-district varies, the highest prevalence of stunting is at Puskesmas Situ, North Sumedang District with a percentage of stunting of 17.6% or as many as 217 toddlers with a total of 1227 toddlers weighed. The number of short toddlers is 139 toddlers and very short 78 toddlers. The results of interviews with 10 mothers of toddlers in the UPTD Puskesmas Situ work area showed that as many as 7 people had poor behavior about preventing stunting and as many as 3 people had good behavior about preventing stunting.

Stunting prevention is a national program based on the issuance of Presidential Regulation of the Republic of Indonesia No. 42 of 2013 concerning the National Movement for the Acceleration of Nutrition Improvement. This regulation is then translated by each relevant agency as a further elaboration of the relevant regulations. In connection with this, the government launched an integrated stunting prevention intervention program involving cross-ministries and institutions. In 2018, 100 districts in 34 provinces were designated as priority locations for stunting reduction. This number will increase by 60 districts in the following year. This cross-sectoral collaboration is expected to reduce the stunting rate in Indonesia so that the Sustainable Development Goals (SDGs) target in 2025 can be achieved, namely a 40% reduction in stunting rates. According to the Indonesian Ministry of Health (2021), efforts to prevent stunting in children are as follows, meet nutritional needs since pregnancy, give exclusive breastfeeding until the baby is 6 months old, accompany exclusive breastfeeding with healthy complementary foods, continue to monitor child growth and always keep the environment clean.

Efforts to prevent and overcome the problem of stunting, the community needs to be educated to understand the importance of preventing stunting in children. Parents, especially mothers, have a very important role in preventing stunting in children, because children need parental attention and support in facing rapid growth and development. Increasing stunting prevention behavior in children can be done with health education. Health education can be done one of them through health counseling. Counseling is an educational approach to produce individual or community behavior needed to improve health, improve food and nutritional status. The hope of health education efforts is that someone can understand the importance of health and knowledge about nutrition so that they can behave and act following health norms (Nursalam, 2019).

The effectiveness of health education is supported by health education media that is in accordance with the targets of health education conducted. Media plays an important role in the delivery of information. Health education cannot be separated from the media, because through the media the messages conveyed can be more interesting and easy to understand, so that the target can learn the message until deciding to adopt positive behavior (Notoatmodjo, 2016). According to Smaldino et al (2018), videos can also be utilized for almost all topics, types of learners, and every domain: cognitive, affective, psychomotor, and interpersonal. In the cognitive domain, learners can recreate dramatically from past historical events and actual footage of current events, as the elements of color, sound and motion here can make characters feel more alive. In addition, watching videos, after or before reading, can strengthen understanding of the teaching material.

The use of videos involves all five senses and is easier to understand because of the sound and moving images. The use of video is also the right choice for residents who are not too fond of reading. Puskesmas Situ has the facilities and infrastructure of LCD equipment so that there is continuity in the selection of audio visual media (video). Videos can be packaged in the form of VCDs and DVD so that it is easy to carry everywhere, easy to use, can reach a wide audience and is interesting to show. According to research by Permata (2019), the results showed that there was an effect of health education with video and leaflet media on knowledge with (p value 0.000) and attitudes with (p value = 0.001). Health education with video and leaflet media is effective for increasing parents' knowledge and attitudes about stunting. Yanti's research (2022) the results of the Wilcoxon test, obtained a value of $p = 0.004$ (< 0.05), which means that there is a significant effect of providing

health education with poster and video media via WhatsApp on the prevention of stunting by mothers of toddlers in Pupuan Village. Based on this background, it is important to study "The Effect of Health Education in Using Video Media on Stunting Preventing among Mother of Children Under Five Years of Age at Situ Community Health Center Sumedang Regency in 2023".

2. METHOD

The research method used is a pre-experimental research design in the form of one group pretest posttest. The population in this study were all toddlers in the work area of UPTD Puskesmas Situ Sumedang Regency in 2023 as many as 1227 mothers of toddlers. The sampling used in this study was purposive sampling, with a sample size of 93 mothers of toddlers. The instrument used was a questionnaire. Data analysis included univariate and bivariate analysis using paired t-test.

3. RESULTS AND DISCUSSION

3.1. Results

A. Univariate Analysis

- 1) Overview of Stunting Prevention in Toddler Mothers of Children Under Five Years Of at Situ Community Health Center in 2023 before Health Education Using Video Media

Table 1
Overview of Stunting Prevention among Mothers of Toddlers in the Working Area of Situ Health Center in 2023 before Health Education Using Video Media

Pre Test	Frequency	Percent (%)
Good	10	10.8
Moderate	51	54.8
Poor	32	34.4
Total	93	100.0

Source: Primary Data 2023

Based on Table 1, it was found that mothers of toddlers who prevented stunting in good level were 10 people (10.8%), mothers of toddlers who prevented stunting in moderate level is 51 people (54.8%) and mothers of toddlers who prevented stunting in poor level were 32 people (34.4%). These results indicate that less than half of mothers of toddlers prevent stunting.

- 2) Overview of Stunting Prevention in Toddler Mothers of Children Under Five Years Of at Situ Community Health Center Working Area, Sumedang Regency in 2023 after Health Education Using Video Media

Table 2
Overview of Stunting Prevention in Toddler Mothers of Children Under Five Years Of at Situ Community Health Center Working Area, Sumedang Regency in 2023 after Health Education Using Video Media

Post Test	Frequency	Percent (%)
Good	66	71.0
Moderate	27	29.0
Total	93	100.0

Source: Primary Data 2023

Based on Table 2, it was found that mothers of toddlers who prevented stunting in good level were 66 people (71.0%), and mothers of toddlers who prevented stunting were 27 people (29.0%). These results indicate that more than half of mothers of toddlers prevent stunting.

- 3) Overview of the Average Prevention of Stunting in Mothers of Children Under Five Years Of at Situ Community Health Center in 2023 before Health Education Using Video Media

Table 3

Overview of the Average Prevention of Stunting in Mothers of Children Under Five Years of Age at Situ Community Health Center in 2023 before Health Education Using Video Media

Variable	Mean Median	elementar y school	Min- Max	95%CI
Stunting Prevention	56.85 56.25	18.01	6.25 – 81.25	53.14 – 60.56

Source: Primary Data 2023

Based on Table 3, the average stunting prevention score for mothers children under five years of age in the Situ Health Center Working Area, Sumedang Regency in 2023 before health education using video media was 56.85 (95%CI: 53.14 - 60.56), median 56.25 with a standard deviation of 53.14. The lowest stunting prevention score was 6.25 and the highest was 81.25. Thus it can be concluded that the average prevention of stunting in mothers of toddlers is 56.85 and with a 95% confidence level it is believed that the average prevention of stunting in mothers of toddlers at the Situ Health Center, Sumedang Regency in 2023 is between 47.3 and 60.56.

- 4) Overview of the Average of Stunting Prevention among Mothers of Children Under Five Years Of at Situ Community Health Center in 2023 after Health Education Using Video Media

Table 4

Overview of the Average of Stunting Prevention among Mothers of Children Under Five Years Of at Situ Community Health Center in 2023 after Health Education Using Video Media

Variable	Mean Median	elementar y school	Min- Max	95%CI
Stunting Prevention	83.4 87.5	8.6	62.50 – 100	81.6 – 85.1

Source: Primary Data 2023

Based on Table 4, the average score of Prevention of Stunting in Mothers children under five years of age in the Situ Health Center Working Area, Sumedang Regency in 2023 after Health Education using Video Media was 83.4 (95%CI: 81.6 - 85.1), median 87.5 with a standard deviation of 8.6. Most Stunting Prevention the lowest is 62.50 and the highest is 100. Thus it can be concluded that the average prevention of stunting in mothers of toddlers is 83.4 and with a 95% confidence level it is believed that the average prevention of stunting in mothers children under five years of age children under five years of age at the Situ Health Center in Sumedang Regency in 2023 is between 81.6 and 85.1.

B. Analysis Bivariate

- 1) Data Normality test results

Table 5

Data Normality Test Results

Variable	Statistics	Sig	Distribution
Pre test	0.169	0.065	Normal
Post test	0.198	0.087	Normal

Source: Primary Data, 2023

Based on Table 5 above, it can be seen that in the significant column (Sig) the pres test data for stunting prevention is 0.065 or the probability is more than 0.05, so H_0 is rejected, which means that the data population is normally distributed and in the significant column (Sig) the post test data for stunting prevention is 0.087 or the probability is more than 0.05, so H_0 is rejected, which means that the population is normally distributed.

- 2) The Effect of Health Education in Using Video Media on Preventing Stunting in Mothers children under five years of age at Situ Community Health Center in 2023

Table 6

The Effect of Health Education in Using Video Media on Preventing Stunting in Mothers children under five years of age at Situ Community Health Center in 2023

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pre Test Pencegahan - Post Test Pencegahan	26,54	17,132	1,7765	30,0741	23,0172	14,942	92	,000

Sumber: Data Primer, 2023

Based on Table 6 above, it can be seen that the average pre-test stunting prevention is 56.85 and the average post-test stunting prevention is 83.4. The average difference between pre-test and post-test stunting prevention is 26.54. These results indicate that there is a significant difference in the average prevention of stunting before and after health education using video media.

This can be seen from the results of the t test obtained a t value of 14.942 and a p value of 0.000 (<0.05) which means that the null hypothesis is rejected. Thus, there is an effect of health education in using video media on the prevention of stunting in mothers of toddlers in the Situ Health Center Working Area, Sumedang Regency in 2023.

3.2. Discussion

A. Overview of the Average Prevention of Stunting in Mothers of children under five years of age at Situ Community Health Center in 2023 Before Health Education Using Video Media

Based on the results of the study, it is known that the prevention of stunting in mothers of toddlers in the Situ Health Center Working Area of Sumedang Regency in 2023 before health education using video media with an average of 56.85%. Prevention of stunting before being given health education in using video media is still found to be below average, this is because there has been no socialization about preventing stunting in mothers of toddlers from health workers and lack of information about preventing stunting in toddlers.

These results are in line with Harizal's research (2021) that before health education using video media was carried out, it was found that an average of 51.3% of mothers of toddlers were not good at preventing stunting and the post-test value was found to be an average of 75.5% at the Pagaden Health Center, Subang Regency. The results of statistical tests using the Wilcoxon test found the effect of health education on the prevention of stunting in toddlers. The pre-test and post-test values of the respondents obtained a significance value of p value $0.000 < 0.05$, so the hypothesis H1 is accepted, meaning that there is a difference in knowledge before and after being given health education.

The results of this study are not in line with research by Masruroh et al (2021) in the Pesaggrahan South Jakarta Puskesmas work area, which states that there is no effect of health education using video media on the incidence of stunting in children under five (p value = $0.087 > 0.05$). Nutritional problems, especially stunting in toddlers, can hinder the development of children, which will take place in later life such as intellectual decline, vulnerability to non-communicable diseases, decreased productivity to cause poverty and the risk of giving birth to babies with low birth weight (National Team for the Acceleration of Poverty Reduction, 2017: 05). To reduce the incidence of stunting, health workers need to make promotive efforts, namely providing health education about stunting to mothers, so that with health education, mothers can take an attitude in order to prevent stunting.

According to Nursalam, (2019) states that to prevent and overcome the problem of stunting, the community needs to be educated to understand the importance of preventing stunting in children. Parents, especially mothers, have a very important role in preventing stunting in children, because children need parental attention and support in facing rapid growth and development. Increasing stunting prevention behavior in children can be done with health education. Health education can be done one of them through health counseling. Counseling is an educational approach to produce individual or community behavior needed to improve health, improve food and nutritional status. The hope of health education efforts is that someone can understand the importance of health and knowledge about nutrition so that they can behave and act following health norms.

Another impact of stunting is the disruption of brain development, and the occurrence of degenerative diseases in the future (Rahayu et al., 2018). This causes the need for an effort to improve maternal actions in preventing stunting in children. Mothers have an important role in caring for and maintaining the health of their children, so providing health education to mothers is important to do to increase mothers' understanding of stunting. Providing health education is a way to improve health status and healthy behavior by influencing or inviting others (Widodo, 2019).

Health workers' efforts in preventing stunting in mothers of toddlers by conducting health education using video media such as video media that shows directly the steps to prevent stunting. Mothers of toddlers should be able to follow the recommendations of health workers to be active in counseling and counseling activities regarding the prevention of stunting in toddlers.

B. Overview of the Average Prevention of Stunting in Mothers of Children Under Five Years of Age in the Working Area at Situ Community Health Center in 2023 After Health Education Using Video Media

Based on the results of the study, it is known that the prevention of stunting in mothers of toddlers in the Situ Health Center Working Area, Sumedang Regency in 2023 after health education using video media with an average of 83.4. Stunting prevention is included in the good category. Based on these results, there was an increase in the average stunting prevention action after health education using video media. These results are in line with the research of Firdawsi Nuzula (2020) that there are significant differences in the behavior of mothers of toddlers after receiving health education about specific nutritional interventions in preventing stunting with a value of 0.039, and there are differences in the practice of mothers of toddlers on specific nutritional interventions in preventing stunting after receiving health education using video media with a value of 0.002.

However, Fadhilah's research (2017) shows different results, namely the absence of the effect of health education using video media on the prevention of stunting in toddlers. In this study, the WA group feature was utilized as a forum in delivering health education material, this is because through the WA Group participants or respondents can obtain information about stunting.

The effectiveness of health education is supported by health education media that is in accordance with the targets of health education conducted. Media plays an important role in the delivery of information. Health education cannot be separated from the media, because through the media the messages conveyed can be more interesting and easy to understand, so that the target can learn the message until deciding to adopt positive behavior (Notoatmodjo, 2016).

According to Smaldino et al (2018), videos can also be utilized for almost any topic, type of learner and every domain: cognitive, affective, psychomotor and interpersonal. In the cognitive domain, learners can have dramatic recreations of past historical events and actual footage of current events, as the color, sound and motion elements here can bring characters to life. In addition, watching videos, after or before reading, can strengthen understanding of the teaching material. The use of video involves all five senses and is easier to understand because of the sound and moving images. The use of videos is also the right choice for residents who are not too fond of reading. Puskesmas Situ has the facilities and infrastructure for LCD equipment so that there is continuity in the selection of audio-visual media (video). Videos can be packaged in the form of VCDs and DVDs so that they are easy to carry around, easy to use, can reach a wide audience and are interesting to watch.

Based on the above results, health education efforts in using video media are one of the efforts that can be made to increase the prevention of stunting in mothers of toddlers, who should be able to follow the recommendations of health workers to be active in counseling and counseling activities on stunting prevention.

C. The Effect of Health Education in Using Video Media on Preventing Stunting in Mothers of children under five years of age at Situ Community Health Center in 2023

Based on the results of the study, it is known that there is an effect of health education in using video media on the prevention of stunting in mothers of toddlers at the Situ Health Center, Sumedang Regency in 2023, with a p value of 0.000. This is understandable because mothers of toddlers who are given video media treatment get material, input and knowledge about preventing stunting in toddlers.

These results are in accordance with Permata's research (2019), which found that there was an effect of health education with video and leaflet media on knowledge with (p value 0.000) and attitudes with (p value = 0.001). Health education with video and leaflet media is effective for increasing parents' knowledge and attitudes about stunting. Yanti's research (2022) the results of the Wilcoxon test, obtained a value of $p = 0.004$ (<0.05), which means that there is a significant effect of providing health education with poster and video media via WhatsApp on the prevention of stunting by mothers of toddlers in Pupuan Village.

These results are in line with the research of Firdawsi Nuzula (2020) that there are significant differences in the behavior of mothers of toddlers after receiving health education about specific nutritional interventions in preventing stunting with a value of 0.039, and there are differences in the practice of mothers of toddlers on specific nutritional interventions in preventing stunting after receiving health education using video media with a value of 0.002. According to Notoatmodjo (2016) explains that the effectiveness of health education is supported by health education media that is in accordance with the targets of health education conducted. Media plays an important role in the delivery of information. Health education cannot be separated from the media, because through the media the messages conveyed can be more interesting and easy to understand, so that the target can learn the message until deciding to adopt positive behavior.

According to Ifika (2017), it states that health education has a strong enough influence on positive behavior. behavior is an evaluative action towards objects, people, or events. Behavior is also a learned predisposition to respond positively or negatively to an object situation, concept, or person. Factors that influence behavior are personal experiences. Personal experience is the basis for the formation of behavior, personal experience must leave a strong impression.

According to Widodo (2018) in the current era of technological and communication advances, the use of social media such as WA can be utilized as a medium for health education. The advantage of using WA social media is that it can cover all types of media such as the ease of sending text messages, images in the form of posters, videos, files, and others in unlimited quantities, besides that the group feature can also facilitate the process of delivering and receiving information at one time, so that it can collect a large number of respondents. The many conveniences obtained make WA social media effective as a medium for delivering health education information.

Based on these results, it shows that there is no gap between theory and the results of field research that the assumption of the influence of health education in using video media on increasing stunting prevention in mothers of toddlers at the Situ Health Center, Sumedang Regency in 2023, is hypothetically proven. Based on the results of this study, to improve stunting prevention, health workers should apply innovative video media in health education activities. Implementation of health education in using video media to be more interesting with a variety of video models by adding audio-visual media and media images of endorsed artists for stunting prevention video making programs. For mothers of toddlers to actively participate in singing method activities carried out by health workers to improve stunting prevention measures and also diligently seek information about stunting prevention from various media that can broaden the horizons of mothers of toddlers.

4. CONCLUSION

Based on the results of research and discussion of the Effect of Health Education in Using Video Media on Preventing Stunting in Toddler Mothers in the Situ Health Center Working Area, Sumedang Regency in 2023, it can be concluded that:

1. The picture of stunting prevention in mothers of toddlers in the Situ Health Center Working Area, Sumedang Regency in 2023 before health education using video media was 56.85 (95%CI: 53.14 - 60.56).
2. The picture of stunting prevention in mothers of toddlers in the Situ Health Center Working Area, Sumedang Regency in 2023 after Health Education using Video Media was 83.4 (95%CI: 81.6 - 85.1).
3. There is an effect of health education using video media on the prevention of stunting in mothers of toddlers in the Situ Health Center Working Area, Sumedang Regency in 2023, p value of 0.000 (<0.05).

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Factors Affecting the Incidence of Dysmenorrhea in Adolescent Girls at SMA Negeri Situraja in 2023

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ABSTRACT

Dysmenorrhea is among the most common menstrual disorder syndromes and is one of the most common gynecological problems in women of all ages. The menstrual cycle can also involve many psychological aspects, such as irritability, mood swings, depression and anxiety. Another problem that can cause dysmenorrhea is nutritional status. Preliminary study of SMA Negeri Situraja students on March 29, 2023 found that 7 people (70%) of female students experienced dysmenorrhea and 3 people (30%) of female students did not experience dysmenorrhea. The purpose of this study was to determine the factors that influence the incidence of dysmenorrhea in adolescent girls at SMA Negeri Situraja in 2023. The type of research used is quantitative which is descriptive cross sectional. The population in this study were female students at SMA Negeri Situraja totaling 786 students, with a sample size of 100 students determined by the Slovin formula. Based on data analysis, the results showed that the variable that was not associated with the incidence of dysmenorrhea was knowledge ($P=0.219$), while the variables associated were menstrual cycle variables ($P=0.003$), and nutritional status variables ($P=0.000$). Therefore, it is recommended to increase awareness of reproductive health, especially those related to dysmenorrhea management. By providing individual and group counseling activities in collaboration with local health agency personnel.



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1. INTRODUCTION

Adolescence is one of the periods of human development, this period is a period of change or transition from childhood to adulthood which includes biological, psychological, and social changes. Adolescence usually begins at the age of 10-13 years and ends at the age of 18-22 years. Adolescence begins with rapid growth and is usually called puberty. With these rapid changes come observable physical changes such as height and weight gain commonly referred to as growth, and sexual maturity as a result of hormonal changes (Ministry of Health, 2022).

Dysmenorrhea is the most common menstrual disorder syndrome and is one of the most common gynecological problems in women of all ages. Dysmenorrhea can affect aspects of daily life including physical well-being, academic performance mood, interpersonal relationships, diet, exercise, and sleep patterns. The menstrual cycle can also involve many psychological aspects, such as irritability, mood swings, depression, and anxiety (Parveen, et al., 2020).

Based on data from the World Health Organization (WHO), the incidence of dysmenorrhea is 1,769,425 people (90%) of women who experience dysmenorrhea, 10-15% of whom experience severe dysmenorrhea. This is supported by research that has been conducted in various countries with astonishing results, where the incidence of primary dysmenorrhea in each country is reported to be more than 50% (Aksari, 2022).

In Indonesia, the incidence of dysmenorrhea is 107,673 people (64.25%) consisting of 59,671 people (54.89%) experiencing primary dysmenorrhea and 9,496 people (9.36%) experiencing secondary dysmenorrhea. Regarding this, the understanding of adolescent girls about dysmenorrhea is still not good, so many adolescent girls do not know how to deal with dysmenorrhea properly (Elsera, et al, 2022).

In West Java in 2018, it was reported that the number of reproductive adolescent girls aged 10-24 years was 56,598. While those who experienced dysmenorrhea and came to health facilities were 11,565 people or 1.31% (Ministry of Health, 2020). Dysmenorrhea greatly affects school-age adolescents because it causes disruption to daily activities. If a student experiences dysmenorrhea, their learning activities at school are disrupted and often this makes them miss school and the quality of life of adolescents decreases (Sari, 2022).

According to the results of a preliminary study conducted at SMA Negeri Situraja on March 29, 2023, 10 adolescent girls were obtained. When interviews were conducted with 10 young women, the results showed that 7 students (70%) experienced dysmenorrhea during menstruation and 3 students (30%) did not experience dysmenorrhea during menstruation. Because during menstruation some respondents experience irregular menstrual cycles and often consume fast food or junk food, such as instant noodles, meatballs, fried rice, batagor, and seblak. So that they often have difficulty doing daily activities during menstruation, such as headaches, nausea, abdominal pain and fainting. This causes the student to be silent in the UKS room and unable to participate in learning activities at the first time of menstruation. Based on the above background, researchers are interested in conducting research on the factors that influence the incidence of dysmenorrhea in adolescent girls at SMA Negeri Situraja.

2. METHOD

The type of research used is quantitative which is descriptive cross sectional. The population in this study were female students in Situraja State High School totaling 786 students, with a sample size of 100 students determined by the Slovin formula. In this study researchers used stratified random sampling techniques. the instrument used was a questionnaire using google form. Data analysis includes univariate and bivariate analysis using the Chi-Square test.

3. RESULTS AND DISCUSSION

3.1. Results

A. Univariate Analysis

1) Overview of Dysmenorrhea Incidence

Table 1 Overview of Dysmenorrhea Incidence

Dysmenorrhea	Frequency	Percent (%)
Yes	81	81,0
No	19	19,0
Total	100	100,0

Source : Primary Data 2023

According to table 1, it can be seen that there are more respondents who experience dysmenorrhea, 81 female students (81,0%).

2) Knowledge Overview

Table 2 Overview Based on Knowledge

Level of Knowledge	Frequency	Percent (%)
Good	46	46,0
Moderate	37	37,0
Poor	17	17,0
Total	100	100,0

Based on table 2, it can be seen that the majority of respondents have a good level of knowledge and the highest frequency is in the good category, namely 46 female students (46.0%)

3) Menstrual Cycle Overview

Table 3 Overview Based on Menstrual Cycle

Menstrual Cycle	Frequency	Percent (%)
Normal	66	66,0
Abnormal	34	34,0
Total	100	100,0

Source: Primary Data 2023

Based on table 3, it can be seen that the majority of respondents have a menstrual cycle and the highest frequency is in the normal category, namely 66 female students (66.0%).

4) Overview of Nutritional Status

Table 4 Overview Based on Nutritional Status

Nutritional Status	Frequency	Percent (%)
Good	36	36,0
Poor	64	64,0
Total	100	100,0

Source: Primary Data 2023

Based on table 4, it can be seen that the majority of respondents have nutritional status and the highest frequency is in the unfavorable category, as many as 64 students (64.0%).

B. Bivariate Analysis

1) Relationship between Knowledge and Incidence of Dysmnorrhea

Table 5 Results of Correlation Test between Knowledge and the incidence of Dysmenorrhea in Adolescent Girls at SMA Negeri Situraja

Knowledge Level	Dysmenorrhea				Total		P Value*
	Yes		No		F	%	
	F	%	F	%	F	%	
Good	36	36.0	10	10.0	46	46.0	0.219
Moderate	33	33.0	4	4.0	37	37.0	
Poor	12	12.0	5	5.0	17	17.0	
Total	81	81.0	19	19.0	100	100.0	

Source: Primary Data 2023

The table above explains the relationship between knowledge and the incidence of dysmenorrhea in adolescent girls at SMA Negeri Situraja in 2023, where 46 people have good knowledge (46.0%), 37 people have sufficient knowledge (37.0%), and 17 people have less knowledge (17.0%), with a total of 100 respondents (100.0%). From statistical calculations, it was found that the p value was 0.219 with a value of $\alpha = 0.05$, meaning that the p value had no relationship between knowledge and the incidence of dysmenorrhea in adolescent girls at SMA Negeri Situraja in 2023.

2) Relationship between Menstrual Cycle and Incidence of Dysmenorrhea

Table 6 Results of Correlation Test between Knowledge and the incidence of Dysmenorrhea in Adolescent Girls at SMA Negeri Situraja

Menstrual Cycle	Dysmenorrhea				Total		P Value*
	Yes		No		F	%	
	F	%	F	%			
Normal	48	48.0	18	18.0	66	66.0	0.003
Abnormal	33	33.0	1	1.0	34	34.0	
Total	81	81.0	19	19.0	100	100.0	

Source: Primary Data 2023

The table above explains the relationship between the menstrual cycle and the incidence of dysmenorrhea in adolescent girls at SMA Negeri Situraja in 2023, where 66 people had normal menstrual cycles (66.0%) and 34 people had abnormal menstrual cycles (34.0%), with a total of 100 respondents (100.0%). From statistical calculations, it was found that the p value was 0.003 with a value of $\alpha = 0.05$, meaning that the p value had a relationship between the menstrual cycle and the incidence of dysmenorrhea in adolescent girls at SMA Negeri Situraja in 2023.

3) Relationship between Nutritional Status and the Incidence of Dysmenorrhea

Table 7 Results of Correlation Test between Knowledge and the incidence of Dysmenorrhea in Adolescent Girls at SMA Negeri Situraja

Nutritional Status	Dysmenorrhea				Total		P Value*
	Ya		Tidak		F	%	
	F	%	F	%			
Good	18	18.0	18	18.0	36	36.0	0.000
Poor	63	63.0	1	1.0	64	64.0	
Total	81	81.0	19	19.0	100	100.0	

Source: Primary Data 2023

The table above explains the relationship between nutritional status and the incidence of dysmenorrhea in adolescent girls at SMA Negeri Situraja in 2023, where 36 people had good nutritional status (36.0%), and 64 people had poor nutritional status (64.0%), with a total of 100 respondents (100.0%). From statistical calculations, it was found that the p value was 0.000 with $\alpha = 0.05$, meaning that there was a relationship between nutritional status and the incidence of dysmenorrhea in adolescent girls at SMA Negeri Situraja in 2023.

3.2. Discussion

A. Overview of the Incidence of Dysmenorrhea

Based on the results of the statistical test of the incidence of dysmenorrhea, it can be seen that the percentage of respondents in adolescent girls at SMA Negeri Situraja in 2023, most of them have experienced the incidence of dysmenorrhea during menstruation, namely 81 students (81.0%), and respondents who have never experienced dysmenorrhea during menstruation as many as 19 students (19.0%). Dysmenorrhea or better known as menstrual pain is a complaint that is often experienced by adolescent girls right in the lower abdomen. Dysmenorrhea is a disease that has been known for along time, the pain can be accompanied by nausea, vomiting, diarrhea, cold sweats and dizziness. But lately it is known that menstrual pain is not only felt in the lower abdomen. Some teenagers sometimes feel in the lower back, waist, pelvis, thigh muscles to calves (Mouliza, 2020). This is in line with research entitled The Relationship between Depression and Dysmenorrhea in Patients conducted by Gagah, et al., (2021) on 60 respondents, it was found that 34 (56.7%) respondents experienced dysmenorrhea and 26 (43.3%) respondents did not experience dysmenorrhea.

Researchers assume that the incidence of dysmenorrhea has a negative impact on adolescent girls, namely at the first time of menstruation, students are silent in the UKS room and do not participate in learning activities, causing interference in teaching and learning activities. This affects achievement in the academic and non-academic fields. And also many female students complain and even do not go to school at the first time of menstruation.

B. Overview of Knowledge

Based on the results of the statistical test of knowledge level, it can be seen that the percentage of respondents in adolescent girls at SMA Negeri Situraja in 2023, most of them with good knowledge, namely 46 students (46.0%), sufficient knowledge, namely 37 students (37.0%), and lack of knowledge, namely 17 students (17.0%). In accordance with the theory according to Notoatmodjo (2017), that knowledge is the result of knowing, and this occurs after people perceive a certain object. Sensing occurs through the human five senses, namely the senses of sight, hearing, smell, taste, and touch. Although here the student's source of information is quite good, namely most of the electronic media (internet), but few get information about dysmenorrhea and how to handle it from friends, books, or health workers.

The results of research conducted by Kristin Febriani Br Gtg (2021) entitled Overview of Knowledge and Attitudes of Adolescent Girls in Handling Dysmenorrhea at Airlangga Namu Ukur High School in 2021, show that the knowledge of adolescent girls regarding dysmenorrhea who have good knowledge is 40 people (90.9%) and sufficient knowledge is 4 people (9.1%). Because it is seen from the answers they gave when filling out the questionnaire and the high desire to find out information about dysmenorrhea through the internet, health workers, parents, friends, teachers.

The researcher assumed that the level of knowledge of adolescent girls at SMAN Situraja was good, because the knowledge of adolescent girls was based on the amount of information obtained through social media or from people around them, especially parents. Although not all have good knowledge, there are also those who have sufficient knowledge, this is due to the lack of awareness or lack of care about dysmenorrhea. In addition, the lack of health education or counseling related to adolescent health and reproductive health issues, especially about dysmenorrhea.

C. Overview of Menstrual Cycle

Based on the results of statistical tests, it can be seen that respondents with abnormal menstrual cycles were 66 female students (66.0%), while for normal menstrual cycles were 34 female students (34.0%). The menstrual cycle is calculated from the first day of menstruation until the next period of menstruation comes, while the length of menstruation is the distance between the start date of menstruation until menstruation stops. The menstrual cycle is said to be normal if it is not less than 21 days and not more than 35 days, while the length of menstruation is said to be normal if it is not less than 3 days and not more than 7 days (Qoriaty et al, 2015).

The results of this study are in accordance with research conducted by Indah et al (2019) entitled The Relationship Between Dysmenorrhea and Menstrual Cycle Disorders in Adolescents at Sma N 1 showed that of the 92 respondents, 35 experienced a normal menstrual cycle with a percentage of 38.0%. that is, 35 respondents had menstrual cycles ranging from 21-35 days. This figure is in the minority category considering that of the total number of respondents, only 35 people experienced a normal menstrual cycle, this shows that the majority of respondents studied experienced menstrual cycle disorders, namely 57 people (62.0%) who were divided into both polymenorrhea and oligomenorrhea menstrual cycles.

Researchers assume that irregular menstrual cycles if not treated quickly and appropriately can cause fertility disorders. Irregular menstruation also causes disturbances in the reproductive system that are at risk of increasing the risk of various diseases such as uterine cancer and infertility. So that changes that occur in the menstrual cycle are feared to affect the quality of life of adolescents in the future.

D. Overview of Nutritional Status

Based on the results of statistical tests, it can be seen that respondents whose nutritional status is not good are 64 students (64.0%) with a frequency of undernutrition as many as 39 students and overnutrition as many as 24 students, while for good nutritional status as many as 36 students (36.0%).

Adolescent girls with good nutritional status and maintaining ideal weight will reach puberty normally, experience menstruation normally and without interruption. The existence of such conditions will support adolescent girls in relation to reproduction in the future. The function of the reproductive system can be improved by maintaining nutritional status. Improving nutritional status can be done by improving the quality of food consumed. Types of foods that affect reproductive function include foods

containing folic acid, iron, vitamin C, vitamin E, vitamin B6, zinc, aluminum and calcium. These nutrients are widely contained in nuts, green vegetables, fruits, meat and also sea fish (Fitriani, 2020).

In the research of Rosmauli Jerimia Fitriani (2020) entitled *The Relationship between Nutritional Status and Menarche with Adolescent Dysmenorrhea in Magelang City* conducted on 40 respondents, it can be seen that as many as 23 respondents (57.5%) have normal nutritional status, and 17 respondents (42.5%) have abnormal status (thin and fat).

The researcher assumes that poor nutritional status will affect growth, organ function, and will also cause disruption of reproductive function. This will have an impact on menstrual disorders. Adolescent girls really need good nutritional intake so that their nutritional status is also good, because women experience menstruation every month. During menstruation there is a luteal phase which will increase nutritional needs, so it requires good nutritional intake. So if the nutritional status is not good then during menstruation there will be complaints that cause discomfort, such as dysmenorrhea.

E. Relationship between Knowledge and Incidence of Dysmenorrhea

From the results of statistical tests obtained a value of $p = 0.219$ ($p < 0.05$), it can be concluded that there is no relationship between knowledge and the incidence of dysmenorrhea in adolescent girls at SMA Negeri Situraja in 2023. This shows that both variables have a negative relationship, meaning that the higher the knowledge, the lower the possibility of experiencing dysmenorrhea.

Similar research was conducted by Riyanti, et al., (2020) entitled *The Relationship between Adolescent Girls' Knowledge About Dysmenorrhea Management With the Incidence of Dysmenorrhea* found that of the 16 respondents with good knowledge who experienced dysmenorrhea were 15 (93.8%) and did not experience dysmenorrhea as much as 1 (6.3%) while of the 44 respondents with poor knowledge who experienced dysmenorrhea were 37 (84.1%) and did not experience dysmenorrhea as much as 7 (15.9%). Based on the results of this study, more adolescent girls have good knowledge. The results of statistical tests using chi-square obtained a p -value of 0.669 because the p -value is greater than α (0.05) so the statistics can be stated that there is no relationship between knowledge and the incidence of dysmenorrhea at SMK 'Aisyiyah Palembang 2019.

The results of the study were not in line with those conducted by Lamdayani, et al, (2022) entitled *The Relationship Between Knowledge and Level of Anxiety with the Incidence of Primary Dysmenorrhea in Junior High School students*, it is known that of the 74 respondents, the level of knowledge who had good knowledge was 12 respondents with a percentage (16.2%) smaller than the level of knowledge with sufficient knowledge as many as 55 respondents with a percentage (74, 3%) this shows that the majority of female students' knowledge about dysmenorrhea is sufficient this is also in line with the pain scale data which shows that the majority of female students at SMP Negeri 19 Palembang experience dysmenorrhea due to lack of knowledge about dysmenorrhea, factors and also how to handle it and as many as 7 respondents with a percentage (9.5%) have less knowledge about dysmenorrhea. The statistical results showed that the p value of $0.016 < 0.05$ indicated that H_1 was accepted that there was a relationship between the level of knowledge and the incidence of primary dysmenorrhea in female students of SMP Negeri 19 Palembang in 2022.

Researchers assume that good knowledge of respondents does not fully affect significantly on dysmenorrhea, because there are still many students who experience dysmenorrhea. This means that the handling of dysmenorrhea owned by respondents is still lacking.

The lack of action in handling dysmenorrhea during menstruation occurs due to the lack of awareness of students to know the causes, symptoms, and treatments, so that students never check with health workers.

The role of health workers is also needed to reduce the risk of dysmenorrhea in adolescents. Health workers play a role in carrying out health education or counseling, education to clients, families, communities related to reproductive health, especially those related to adolescent dysmenorrhea. The existence of health education has a long-term effect starting from changes in knowledge and awareness on reproductive health, especially regarding dysmenorrhea so as to achieve an optimal level of reproductive health.

F. Relationship between the Menstrual Cycle and the Incidence of Dysmenorrhea

From the results of statistical tests, a value of $p = 0.003$ ($p < 0.05$) was obtained, it can be concluded that there is a relationship between the menstrual cycle and the incidence of dysmenorrhea in adolescent girls at SMA Negeri Situraja in 2023.

A parallel study conducted by Wardani et al (2021) entitled *The Relationship between Menstrual Cycle and Menarche Age with Primary Dysmenorrhea in Class X Girls* showed that of the 72 respondents whose menstruation was irregular, 62 respondents (86.1%) experienced primary dysmenorrhea and 10 respondents (13.9%) did not experience primary dysmenorrhea. Meanwhile, of

the 34 respondents whose periods were regular, 24 respondents (70.6%) did not experience primary dysmenorrhea and 10 respondents (29.4%) experienced primary dysmenorrhea. The results of the chi square statistical test obtained a p-value value $< \alpha$ ($0.000 < 0.05$) which means H_0 is rejected, so it is concluded that there is a meaningful (significant) relationship between the Menstrual Cycle and the Incidence of Primary Dysmenorrhea in female students at SMA Negeri 15 Bandar Lampung in 2020.

The results of the study are not in line with those conducted by Wulandari et al., (2019) entitled Factors Associated with the Incidence of Dysmenorrhea in Adolescent Girls in Prodi Ners Stikes Widya Husada Semarang that adolescent girls with regular menstrual cycles experience more dysmenorrhea as many as 80 adolescent girls (53.4%) compared to adolescent girls who have irregular menstrual cycles as many as 23 adolescent girls (15.3%). Based on the results of statistical tests using chi-square for the relationship between the menstrual cycle and the incidence of dysmenorrhea in adolescent girls in the Ners Study Program of Widya Husada STIKES Semarang, the χ^2 value = 1.115 and the p value = $0.291 > H_0$ is accepted while H_a is rejected, thus it can be concluded that there is no relationship between the menstrual cycle and the incidence of dysmenorrhea in adolescent girls in the Ners Study Program of Widya Husada STIKES Semarang.

Researchers assume that an irregular menstrual cycle with the incidence of dysmenorrhea can have adverse effects on the life of a teenager. For example, when a teenager experiences dysmenorrhea with a severe pain scale, it will hinder daily activities including learning activities and will ultimately affect teenage learning achievement. In fact, some adolescents who experience menstrual cycle disorders are anxious about future reproductive problems.

G. Relationship between Nutritional Status and the Incidence of Dysmenorrhea

From the results of statistical tests obtained a value of $p = 0.000$ ($p < 0.05$), it can be concluded that there is a relationship between nutritional status and the incidence of dysmenorrhea in adolescent girls at SMA Negeri Situraja in 2023. Respondents whose nutritional status is not good, on average, respondents experience a lack of weight or excess weight due to the respondent's irregular diet.

In line with research conducted by Syafriani, et al., (2021) The Relationship between Nutritional Status and Age of Menarche with the Incidence of Dysmenorrhea in Adolescent Girls at Sman 2 Bangkinang Kota that of 52 students (65%) with abnormal nutritional status, 14 students (42.4%) did not experience dysmenorrhea while 28 students (35%) had normal nutritional status, then 9 students (19.1) with dysmenorrhea. Based on statistical tests, the value of $p = 0.001$ was obtained. This means that there is a relationship between nutritional status and the incidence of dysmenorrhea at SMAN 2 Bangkinang Kota in 2021.

The results of inconsistent research conducted by Jayanti (2021) entitled The relationship between nutritional status and age of menarche with the incidence of dysmenorrhea in Level 1 Semester 2 Akbid RSPAD Gatot Soebroto students, it is known that those who have normal nutritional status with frequent dysmenorrhea are 17 respondents. From the results of the chi-square statistical test, the p value = $0.202 > 0.05$ indicates that there is no significant relationship between knowledge of nutritional status of weight or height with the occurrence of dysmenorrhea in Level I Semester II students.

Researchers assume that nutritional status that is less or more is related to changes in food variations that can affect eating patterns so that it can affect the growth and development of adolescents. Nutritional status refers to the nutritional intake that the body has received. Nutritional deficiencies in adolescent girls can cause hormonal disorders in the form of ovulation cycle disorders, this can interfere with the occurrence of fertility disorders. In addition, lack of nutrition can also affect sexual maturation, growth, organ function and will cause disruption of reproductive function. Disruption of reproductive function will be evident in the presence of menstrual disorders that occur. Inadequate or excessive nutritional intake will lead to poor nutritional adequacy that can cause disturbances during the menstrual cycle.

4. CONCLUSION

Based on this study, a conclusion was obtained regarding the factors that influence the incidence of dysmenorrhea in adolescent girls at SMA Negeri Situraja in 2023, namely :

1. Overview of the incidence of dysmenorrhea in adolescent girls at SMA Negeri Situraja in 2022. From the results of the study that the percentage of respondents most of whom had experienced dysmenorrhea was 81 respondents (81%).
2. Overview of knowledge in adolescent girls at SMA Negeri Situraja in 2022. From the results of the study that the percentage of respondents mostly had good knowledge, namely 46

respondents(46%).

3. Overview of the menstrual cycle in adolescent girls at SMA Negeri Situraja in 2022. From the results of the study, the percentage of respondents mostly in the normal menstrual cycle category was 66 respondents (66%).
4. An overview of nutritional status in adolescent girls at SMA Negeri Situraja in 2022. From the results of the study that the percentage of respondents mostly in the unfavorable category was 64 respondents (64%).
5. The relationship between knowledge and the incidence of dysmenorrhea. From the results of statistical tests obtained a value of $p = 0.219$ ($p < 0.05$), it can be concluded that there is no significant relationship between knowledge and the incidence of dysmenorrhea in adolescent girls at SMA Negeri Situraja in 2023.
6. The relationship between menstrual cycle and the incidence of dysmenorrhea. From the results of statistical tests obtained a value of $p = 0.003$ ($p < 0.05$), it can be concluded that there is a significant relationship between the menstrual cycle and the incidence of dysmenorrhea in adolescent girls at SMA Negeri Situraja in 2023.
7. The relationship between nutritional status and the incidence of dysmenorrhea. From the results of statistical tests obtained a value of $p = 0.000$ ($p < 0.05$), it can be concluded that there is a significant relationship between nutritional status and the incidence of dysmenorrhea in adolescent girls at SMA Negeri Situraja in 2023.

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The Relationship of Dietary Habits with the Incidence of Diabetes Mellitus Disease at the Cimalaka Community Health Centers in 2023

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ABSTRACT

Diabetes Mellitus (DM) is a chronic metabolic disorder with multiple etiologies characterized by high blood sugar levels accompanied by metabolic disorders of carbohydrates, lipids and proteins as a result of insulin function insufficiency. The incidence of Diabetes Mellitus is influenced by several risk factors for Diabetes consisting of modifiable factors and non-modifiable factors of age and heredity. This study aims to influence the factors associated with the incidence of Diabetes Mellitus at the Cimalaka Health Center in 2023. The method used in this study is the Cross-Sectional research method. The sampling technique is the total population with a total of 75 respondents. Data analysis using Univariate and Bivariate analysis was performed using the chi-square test. From the results of this study that there is a significant relationship of diet (p value = 0.000) with the incidence of Diabetes Mellitus at the Cimalaka Health Center. the conclusion of this study is that there is a relationship between descent, diet, and there is no relationship between age and the incidence of Diabetes Mellitus. It is recommended that the Cimalaka Health Center conduct counseling about Diabetes Mellitus and increase counseling or guidance to the community about risk factors for Diabetes Mellitus.



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1. INTRODUCTION

Diabetes Mellitus (DM) is a chronic metabolic disorder with multiple etiologies characterized by high sugar levels accompanied by metabolic disorders of carbohydrates, lipids and proteins as a result of insufficient insulin function. in people with diabetes, the pancreas is unable to produce insulin according to the body's needs. Meanwhile, without insulin, body cells cannot absorb and process glucose into energy (WHO, 2016).

The cause of the increase in blood sugar levels is the basis for classifying types of diabetes mellitus, namely type 1 diabetes, type 2 diabetes and gestational type diabetes. Type 1 diabetes mellitus is caused by an autoimmune reaction that causes the immune system to attack beta cells in the pancreas so that it cannot produce insulin at all. Meanwhile, type 2 diabetes mellitus occurs due to insulin resistance where cells in the body are unable to fully respond to insulin. Gestational diabetes is caused by the increase in various hormone levels during pregnancy that can inhibit the work of insulin.

The incidence of diabetes mellitus is influenced by several diabetes risk factors consisting of modifiable factors and non-modifiable factors. Non-modifiable risk factors are race, ethnicity, age, gender, family history of diabetes mellitus, history of labor > 4000 grams, history of birth with low birth weight (LBW or < 2500 grams) (Fatria, 2022). Modifiable risk factors are overweight, abdominal/central obesity, physical inactivity, stress, hypertension, dyslipidemia, unhealthy and unbalanced diet (high calorie), prediabetes condition

characterized by impaired glucose tolerance (IGT 140-199 mg/dl.) or impaired fasting glucose (IFG < 140 mg/dl), and smoking (Ministry of Health, 2014).

The International Diabetes Federation (IDF) notes that 537 million adults (aged 20-79 years) or 1 in 10 people live with diabetes worldwide. Diabetes also causes 6.7 million deaths or 1 every 5 seconds. China has the largest number of adults with diabetes in the world. 140.80 million Chinese people lived with diabetes in 2021, followed by India with 49.19 million people with diabetes, Pakistan with 32.96 million and the United States with 32.22 million. Indonesia is in 5th place with 1947 million people with diabetes with a population of 179.72 million, this means that the prevalence of diabetes in Indonesia is 10.6%. IDF estimates that there are still 44% of adults with undiagnosed diabetes (International Diabetes Federation, 2021).

The number of people with diabetes mellitus in West Java is 1,078,857, an increase of 21.36% in 2020 from the average number of people with Diabetes Mellitus per year is 963,656 in the last 2 years. Data from the Cimalaka Puskesmas profile obtained data on diabetes mellitus disease for the last 3 years, in 2020 there were 1,112 people who came for treatment to the Cimalaka Puskesmas, in 2021 there were 1,108 people who came for treatment to the Cimalaka Puskesmas, and in 2022 there were 1,292 people who came for treatment to the Cimalaka Puskesmas. This shows that diabetes mellitus disease that occurs at the Cimalaka Health Center has increased in 2022 (Cimalaka Health Center Profile, 2022). There have been many studies conducted on risk factors associated with the incidence of Diabetes Mellitus. However, the risk factors associated with the incidence of Diabetes Mellitus in each region will be different. So it is important to conduct research to find out the risk factors for the incidence of Diabetes Mellitus in certain areas that are not yet known.

Based on preliminary studies at the Cimalaka Health Center on April 14, 2023, the results of an interview with one of the health workers at the Cimalaka Health Center stated that the number of people who came to the Cimalaka Health Center with a history of diabetes mellitus, as well as to patients suffering from diabetes mellitus mostly occurred due to variables including age, heredity, diet. The data that I got from the PTM surveillance officer of the Cimalaka Health Center, obtained data on diabetes mellitus in January-March 2023 as many as 293 people who came for treatment to the Cimalaka Health Center. So based on the description above, the researcher is interested in conducting research on relationship of dietary habit with the incidence of Diabetes Mellitus disease at the Cimalaka Health Center in 2023.

2. METHOD

In this study, the type of research used was quantitative using a Cross Sectional approach. The population in this study were Diabetes Mellitus patients who sought treatment in January-March 2023, namely 293 people at the Cimalaka Health Center. The sampling technique in this study was carried out using the Accidental Sampling technique. While Accidental Sampling is a sampling technique based on chance. The instrument used was to distribute research questionnaires directly to respondents. Data analysis includes univariate and bivariate analysis using chi-square tests.

3. RESULTS AND DISCUSSION

3.1. Results

A. Incidence of Dietary Patterns at Cimalaka Health Center in 2023

Table 1
Distribution Frequency based on Dietary Patterns at Cimalaka Health Center in 2023

Dietary habit	Frequency	Percent (%)
Poor	41	54.7
Good	34	45.3
Total	75	100.0

Source : Primary Data (2023)

Based on table 1, it can be seen that the study at the Cimakaka Health Center shows that 41 (54.7%) respondents with poor diet.

B. Incidence of Diabetes Mellitus Disease at Cimalaka Community Health Centers in 2023

Table 2 Distribution Frequency based on incident Diabetes Mellitus in Community Health Centers Cimalaka in 2023

Diabetes mellitus	Frequency	Percent (%)
Yes	48	64.0
Total	75	100.0

Source : Primary Data (2023)

Based on table 2, it can be seen that of the 75 respondents studied 48 (61.5%) had a history of Diabetes Mellitus.

C. Relationship between diet and incidence of diabetes mellitus

Table 3 Relationships between eating patterns with Incident Diabetes Mellitus Disease at the Community Health Center Cimalaka

Dietary habit	Incidence of Diabetes Mellitus						P Value
	Yes		No		Total		
	F	%	F	%	F	%	
Poor	35	46	6	8	41	54.6	0,000
Good	13	17	21	28	34	45.3	
Total	48	73	27	35.9	75	100.0	

Source : Primary Data (2023)

Based on table 3 statistic results using chi-square, the p-value = 0.000 < α = 0.05, so H₀ is rejected, which means that there is a relationship between diet and the incidence of Diabetes Mellitus at the Cimalaka Health Center in 2023.

3.2 Discussion**A. Incident Diabetes Mellitus in Community Health Centers Cimalaka Year 2023**

From the results research that has been done can concluded that more respondents suffering from Diabetes Mellitus that is as many as 48 (64.0%). Diabetes mellitus is circumstances Where body cannot produce appropriate insulin needs or body can't utilise in a good way the hormone insulin is produced, so happen enhancement rate sugar above normal Diabetes mellitus can also occur give rise to various complications almost all over system body man start from skin until heart.

B. Distribution Results Eating Pattern Frequency with Incidence of Diabetes Mellitus in Community Health Centers Cimalaka

From the results of the research that has been done, it can be seen that most respondents have a poor diet of 41 (54.7%). Diet is a way or effort in regulating the amount and type of food with certain intentions such as maintaining health, nutritional status, preventing or helping cure disease. Theory explains that a poor diet, namely a diet that is high in carbohydrates with a high glycemic index repeatedly or over a long period of time and in large quantities, can affect insulin resistance which results in impaired blood sugar levels (Sutanto, 2010). Respondents in this study who suffer from diabetes mellitus who come for treatment on average have an unhealthy diet because respondents still like to consume sweet foods and drinks, high-fat foods, and high carbohydrates which cause diabetes mellitus.

C. Dietary Relationships with Incidence of Diabetes Mellitus in Community Health Centers Cimalaka Year 2023

Based on table 7 shows that respondents who suffer from diabetes mellitus are more likely to be caused by a poor diet of 35 respondents (46.6%) compared to patients who have a good diet of 13 respondents (17.3%). The results of the statistical test analysis conducted using the chi square test obtained a significant value of p-value = 0.000 < α = 0.05 where H₀ is rejected, which means that there is a relationship between diet and the incidence of diabetes mellitus at the Cimalaka Health Center.

The results of this study are in line with research conducted by Yessica et al (2022) at the Namorambe Health Center, Deli Serdang Regency which shows that a bad diet will increase glucose in the blood excessively so that it will affect glucose control in the blood so that the diet should be regulated so that it will normalize insulin levels in the blood. Showing the results of the chi square statistical test obtained ρ value = $0.001 < \alpha = 0.05$ which means there is a relationship between diet and the incidence of Diabetes Mellitus.

Diet is a description of the type, amount and composition of food consumed by a person on a daily basis in a way or effort to regulate the amount and type of food for certain purposes such as maintaining health, nutritional status preventing or helping cure disease. Daily diet is a person's diet related to his eating habits every day (Nova Rita, 2015 in Fatria, Maidar, Arifin, 2022). Diet plays an important role in regulating diet to avoid diabetes complications and energy balance is altered by eating foods high in carbohydrates and fats and by reducing physical activity. The importance of a healthy diet, especially one with enough fiber, carbohydrates, fat, and exercise, is especially important for older people, as physiological changes occur and reduced physical activity can lead to diabetes complications (Marianda et al., 2023).

The results of this study are not in line with those conducted by Ningrum et al (2023), entitled the relationship of dietary behavior and physical activity to the incidence of Diabetes Mellitus shows the results of the chi square test obtained a p value = 1,000 ($P \geq 0.05$). This indicates that diet does not have a significant effect on the risk of diabetes mellitus.

According to the researcher's assumption, there is a relationship between diet and the incidence of Diabetes Mellitus when conducting research, most respondents, especially those with Diabetes Mellitus, still have poor dietary habits, including frequent consumption of foods and drinks high in sugar, high in fat and high in carbohydrates. Moreover, most of those who suffer from diabetes are found to consume sweet drinks more often in a day such as drinking tea, coffee, and syrup.

D. CONCLUSION

Based on research that has been conducted on 75 respondents at the Cimalaka Health Center, it can be concluded as follows:

1. An overview of dietary factors at the Cimalaka Health Center in 2023, which has a poor diet as many as 35 respondents (46.6%).
2. An overview of the incidence of Diabetes Mellitus in the Cimalaka Health Center Working Area in 2023, as many as 48 respondents (61.5%).
3. There is a relationship between diet and the incidence of Diabetes Mellitus at the Cimalaka Health Center in 2023 with a p-value of $- 0.000 < \alpha = 0.05$ so H_0 is rejected.

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The Relationship of Hand Washing Behavior with the Incidence of Diarrhea among School-Age Children at SDN Citimun 1 Sumedang Regency in 2023

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ABSTRACT

Clean and healthy living behavior is an approach that promotes healthy behaviors and preventive measures in maintaining children's health. One important aspect of clean and healthy living behavior is maintaining sanitary hygiene, including practices that can prevent diarrheal diseases. Diarrhea is a condition characterized by loose and frequent stools, which is usually caused by a digestive tract infection. The purpose of this study was to determine the relationship between clean and healthy living behavior of washing hands with the incidence of diarrhea in students at SDN Citimun 1 Sumedang Regency in 2023. The research method used is quantitative observational with a cross-sectional approach, which is an approach that is momentary at a time and not followed continuously over a period of time. The population in this study were third, fourth and fifth grade students of SDN Citimun 1, Cimalaka District, Sumedang Regency, totaling 91 students. The results showed a value of $p=0.001$, so there is a significant relationship between hand washing and the incidence of diarrhea. It is expected that students and other communities continue to maintain the health of the surrounding environment in preventing the incidence of diarrhea through good clean and healthy living behavior practices. And can educate and encourage people to follow steps that can help reduce the risk of diarrhea and other related diseases.



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1. INTRODUCTION

Diarrhea is a symptom of infection of the intestinal tract, which can be caused by a variety of organisms such as bacteria, viruses and parasites. Infections can be spread through contaminated food or drinking water, or from person to person as a result of poor hygiene. Diarrhea is ranked second as a cause of death in children and toddlers (under five years of age), there are 1.7 billion cases of diarrhea that occur in the world each year and diarrhea has killed about 525,000 children each year, most diarrhea patients who die due to dehydration or loss of large amounts of fluid. Diarrhea is a symptom of infection in the intestinal tract, which can be caused by various organisms such as bacteria, viruses and parasites. Infection can spread through contaminated food or drinking water, or from person to person as a result of poor hygiene (WHO, 2017).

Diarrhea is a condition where a person defecates three or more times in one day and the stool or feces that come out can be in the form of watery or slightly sandy liquid, sometimes it can also be accompanied by blood or mucus depending on the cause (Nurhayati, 2020). Diarrhea is still a public health problem in developing countries such as Indonesia. Diarrhea is a disease that can affect all age groups, especially children and toddlers (Kemenkes RI, 2014).

In Indonesia, the prevalence of diarrhea is a public health problem with high cases. Based on data from the Ministry of Health of the Republic of Indonesia, the prevalence of diarrhea in 2018 was 37.88% or around 1,516,438 cases in toddlers. The prevalence increased in 2019 to 40% or around 1,591,944 cases in toddlers, most of the diarrhea is caused by viral or bacterial infections in the large intestine that come from food or drinks consumed as a result of the lack of implementation of Clean and Healthy Living Behavior (Ditjen P2P, Kemenkes RI, 2020).

The Clean and Healthy Living Behavior program is carried out as an effort to make people aware, willing and able to get used to implementing clean and healthy living. Good Clean and Healthy Living Behavior in the community has directly improved health and prevented the risk of infectious diseases (Kemenkes RI, 2015). Clean and Healthy Living Behavior in the school environment includes 8 indicators, including washing hands with running water and using soap, consuming healthy snacks, using healthy latrines, regular and measured exercise, eradicating mosquito larvae, not smoking at school, weighing body weight and height every 6 months, disposing of garbage in its place (Kemenkes RI, 2012).

Washing hands with soap is one of the efforts in disease prevention. This is because hands are one of the carriers of germs that cause infectious diseases. The risk of disease transmission can be reduced by increasing Clean and Healthy Living Behavior such as washing hands with soap (Depkes RI, 2015). If hand washing behavior is rarely done, the transfer of viruses or bacteria will easily spread so that it can cause several diseases, one of which is diarrhea. Based on the results of previous research conducted by Ginting and Putriyaningsih (2020), it was found that, lack of knowledge was caused by not maximizing information about Clean and healthy living behavior at school.

In West Java, the number of diarrhea cases that occurred in 2021 was 480,959 cases, in 2021 was a year of decline in the number of cases of diarrhea disease in West Java where the previous year, namely 2020, the number of cases of diarrhea disease was at 1,305,102 cases, thus the number of diarrhea cases from 2020 to 2021 in West Java has decreased by 171.35% due to several regions in West Java that have a better understanding of the dangers of the disease. (West Java Data 2021). In Sumedang district, the number of diarrhea cases that occurred in 2021 was 17,429 cases. All cases of diarrhea are treated and receive services according to standards, the number of trends in diarrhea disease in the order of the Puskesmas with the highest number of cases is at the Cimalaka Puskesmas (1,337 cases), this is influenced by the large population and is also influenced by environmental factors and comorbidities (opportunistic infections) which support the increasing number of diarrhea in the region. Improvement of basic sanitation facilities that meet health requirements both from clean water facilities, family latrines, and sewerage is needed. Meanwhile, the smallest number was found in the Tanjungkerta Health Center working area (112 cases) (Sumedang District Health Office 2021).

From the results of preliminary studies conducted by researchers on 2 teachers and 10 students at SDN Citimun 1, Cimalaka District, Sumedang Regency, the results obtained, according to the teacher, every week there are always students who are absent from class due to illness, but when the researcher asked what illness the student suffered, the teacher answered that he did not know because when the student's parents made a letter, the information was only written "sick". Then the results that researchers got from 10 informants (students) were that 80% still did not know about Clean and Healthy Living Behavior and its indicators, and only 20% knew. One indicator that is still poorly known or understood by students is washing hands with soap, students more often wash their hands without using soap only rinsed and even then without doing good and correct hand washing movements, for waste disposal behavior, students still often mix organic and non-organic waste in the same trash can, even according to some students often see and even throw garbage under the drawer of their own study table.

Based on the data and description above, it can be concluded that the incidence of diarrheal disease can be minimized by knowing and applying the factors of clean and healthy living behavior. And from the results of preliminary studies conducted by researchers to some students at SDN Citimun 1, Cimalaka District, Sumedang Regency, researchers are interested in conducting research with the title "The Relationship between Clean and Healthy Living Behavior Hand Washing with the Incidence of Diarrhea in School Age Children at SDN Citimun 1, Cimalaka District, Sumedang Regency in 2023".

2. METHOD

The research method used was quantitative research with a cross sectional approach. The population in this study were students in grades III, IV and V at SDN Citimun 1, totaling 91 students. The sampling used in this study was Stratified Random Sampling, with a sample size of 48 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) Overview of the incidence of diarrhea in school-age children at SDN Citimun 1

Table 1

Overview of the incidence of diarrhea in school-age children at SDN Citimun 1

Incidence of Diarrhea	Frequency	Percent (%)
Yes	37	77,1
No	11	22,9
Total	48	100,0

Source: Primary Data, 2023

Based on Table 1, it can be concluded that the incidence of diarrhea were 77.1%.

- 2) Overview of Handwashing Behavior in School-Age Children at SDN Citimun 1

Table 2

Overview of Handwashing Behavior in School-Age Children at SDN Citimun 1

Handwashing	Frequency	Percent (%)
Good	40	83.3
Moderate	8	16,7
Total	48	100,0

Source: Primary Data, 2023

Based on Table 2, it can be concluded that the majority of students with hand washing were obtained in the good category as much as 40 students (83.3%).

B. Bivariate Analysis

- 1) Relationship between clean and healthy living behaviour of handwashing and the incidence of diarrhea

Table 6

Relationship of handwashing behavior and the Incidence of Diarrhea in School-Age Children at SDNCitimun 1

Handwashing	Incidence of Diarrhea						P Value*
	Yes		No		Total		
	F	%	F	%	F	%	
Good	35	72.9	5	10.5	40	83.3	0.001
Simply	2	4.1	6	12.5	8	16.7	
Total	37	77.0	11	23.0	48	100.0	

Source: Primary Data 2023

Based on Table 6, the significance result is 0.001, so there is a significant relationship between hand washing and the incidence of diarrhea in students at SDN Citimun 1 Cimalaka. The majority of students with hand washing in the good category with the incidence of diarrhea in the yes category were 35 students (72.9%).

3.2. Discussion

A. Overview of diarrhea incidence

The picture of the results shown by the researchers in this study is that that the incidence of diarrhea were 77.1%. According to WHO (2019) Diarrhea is a medical condition characterized by loose stools, frequent bowel movements, and sometimes accompanied by symptoms such as abdominal cramps, nausea, vomiting, and fever. Bacterial, viral, or parasitic infections are the most common causes of infectious diarrhea. Digestive disorders such as lactose intolerance or malabsorption of certain carbohydrates (as in irritable bowel syndrome) can cause diarrhea. Consumption of unhealthy foods, high-fat foods, or spicy foods can affect gut motility and

trigger diarrhea. Excessive stress and anxiety can affect the function of the digestive tract and speed up bowel movements, which can lead to diarrhea. The results of this study are in line with previous research conducted by Suherman (2019) with the title *Analysis of the Incidence of Diarrhea in Students at Pamulang 02 State Elementary School, Pamulang District in 2018* that the incidence of respondent diarrhea during the last month 39.8% of 118 Respondents Experienced diarrhea. This is because students can still maintain a healthy diet and habits in their activities.

According to researchers, the incidence of diarrhea in primary school students may vary depending on certain factors, such as geographical location, sanitary conditions and other living habits. For example, primary school students can be vulnerable to exposure to diarrheal diseases because they interact with many other individuals or people within the school environment. Direct contact between students, such as playing and sharing toys or food, as well as lack of hand hygiene habits, can facilitate the spread of pathogens that cause diarrhea. Consumption of contaminated food or unsafe drinking water in the school environment can cause infections leading to diarrhea. This condition can be caused by viral, bacterial or parasitic infections, as well as by non-infectious causes such as consumption of contaminated food or drink, food intolerance or indigestion. This is an important concern for the health of children in primary school, and signals the need for better preventive measures and education on hygiene and health to prevent the spread of diarrhea. This could include raising awareness about the importance of handwashing, providing adequate sanitation facilities in schools, and teaching healthy diet and hydration.

B. Overview of Handwashing Behavior

The description of the results shown by the researchers in this study is that the majority of students with hand washing were obtained in the Good category with the results of 41 students (85.4%), and in the sufficient category with the results of 7 students (14.6%). Hand washing with running water and using soap is a process of a person taking hygiene measures, considering that dirty hands are one of the sources of the spread of disease-causing bacteria or viruses, washing hands with running water and using soap is effective in breaking the chain of spreading disease, because running water can directly drain and remove dirt from hands, soap is very effective in killing germs because soap contains fat-like compounds called amphiphiles, which are similar to lipids and are found in viral membranes. When soap comes into contact with these fatty substances, it binds to them and makes them detach from the virus. If handwashing does not use soap, bacteria or viruses may still remain on the hands (WHO, 2022).

The results of this study are also in line with previous research conducted by Suherman (2019) with the title *Analysis of the Incidence of Diarrhea in Students at Pamulang 02 State Elementary School, Pamulang District in 2018* that for hand washing habits 58.5% of respondents have good hand washing habits. This is because students have received good education about the importance of hand washing and the correct technique. The availability of adequate handwashing facilities at school, such as a sink with clean water, soap, and tissue or paper towels, is an important factor in improving handwashing habits this also depends on student compliance in implementing handwashing practices.

According to the researcher, students at SDN Citimun 1 are not fully aware of the importance of washing their hands regularly by washing their hands properly even though the school has provided good facilities with the provision of hand washing stations (wastafel) in several places. the lack of maximum consistent supervision from teachers and school staff to students in carrying out hand washing practices. Some students are good at doing handwashing routines but not necessarily correct in the steps in good and correct handwashing, hence the importance of always evaluating and improving hygiene policies and practices in schools in order to maintain student health.

C. The Relationship between Handwashing and the Incidence of Diarrhea

From the results of this study obtained results with a significance value of 0.001, there is a significant relationship between hand washing and the incidence of diarrhea in students at SDN Citimun 1 Cimalaka. The majority of students with hand washing in the good category with the incidence of diarrhea in the yes category were 35 students (72.9%). The theory of contact transmission of disease links hand washing to the incidence of diarrhea in primary school children. Elementary school children tend to be active and often interact with the surrounding environment, including with their peers. They may also not fully understand the importance of

maintaining hygiene and washing hands properly after using a toilet, before eating, or after playing outside. When children do not wash their hands properly or at all, germs or pathogens that may be on their hands can easily spread to the food or drinks they consume. In some cases, these germs can cause infections in the child's digestive tract and eventually lead to diarrhea.

Proper handwashing is one of the most effective measures in preventing the spread of diseases, including diarrhea. Children need to be educated on the importance of washing their hands with soap and running water for at least 20 seconds. This helps to remove any germs or pathogens attached to the skin of their hands. It is also important to teach children clean and healthy living habits, such as keeping the environment clean, using a tissue or handkerchief when sneezing or coughing, and ensuring the food and drinks they consume are safe and hygienic (Ejemot, 2008).

This study is in line with research conducted previously by Purwandari (2013) with the title *The Relationship Between Hand Washing Behavior With The Incidence Of Diarrhea In School-Age Children In Jember Regency*. shows the results of the analysis of the relationship between hand washing behavior with the incidence of diarrhea using Spearman there is a relationship between hand washing with the incidence of diarrhea with a p value of 0.000 and r 0.792, the better the hand washing behavior, the lower the incidence of diarrhea. This is because the habit of washing hands with soap is part of healthy living behavior. Proper handwashing is not only influenced by the way it is washed, but also by the water used and the hand wipes used.

Research that is not in line was conducted by Asda & Sekarwati (2020) with the title *Hand Washing Behavior Using Soap (CTPS) and the Incidence of Infectious Diseases in the Family in the Donoharjo Village Area, Sleman Regency*. where the results of this study suggest that there is no relationship between hand washing behavior with soap and the incidence of diarrheal infectious diseases in the family. These results indicate that quite a lot of hand washing behavior still experiences diarrhea incidence by 46% and children who have good hand washing behavior still experience diarrhea incidence by 16%. So that in this study there was no relationship between variables in this study, possibly due to other factors that affect the incidence of diarrhea such as bad habits of consuming unhealthy food.

According to researchers, proper handwashing and hygiene are proven practices that are effective in preventing the spread of diseases, including diarrhea. There are many other factors that can contribute to the incidence of diarrhea in children, such as viral, bacterial or parasitic infections, unhealthy diet, poor sanitation, contaminated drinking water and a general lack of hygiene. One way to reduce diarrheal disease is by washing hands with soap. Washing hands with soap can eliminate the germs that cause diarrhea. These diarrhea germs are usually spread through contaminated food and drinks and direct contact with infected people (Pratiwi & Haqi, 2019). Proper handwashing with soap and running water is one of the most effective ways to reduce the spread of diseases, including diarrhea. Diarrhea is a common disease caused by bacterial, viral or parasitic infections that enter the digestive system through contaminated food or drink. In addition, diarrhea can also be transmitted through contact with an infected person or contaminated objects. So even though handwashing is done in the good category, it is important to continue to be aware of the importance of proper handwashing and maintaining personal hygiene as a preventive measure to reduce the risk of spreading infectious diseases, including diarrhea. It is always important to follow the guidance and recommendations of local health authorities or world health organizations regarding appropriate preventive measures.

4. CONCLUSION

Based on the results of research on the relationship between clean and healthy living behavior and the incidence of diarrhea in students in grades III, IV and V at SDN Citimun 1, it can be concluded as follows:

- a. The picture shown in this study is that the majority of students with diarrhea incidence were obtained in the yes category, namely 37 students (77.1%).
- b. The picture shown in this study that the majority of students with hand washing was obtained in the Goodcategory, namely 41 students (85.4%).
- c. There is a significant relationship between hand washing and the incidence of diarrhea in students at SDNCitimun 1 Cimalaka with a value of $p=0.001$.

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Factors Associated with the Incidence of Pulmonary Tuberculosis at Cimalaka Community Health Center in 2023

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ABSTRACT

Pulmonary TB is one of the top 10 leading causes of death globally. The Ministry of Health detected 717,941 cases of Lung TB in Indonesia in 2022, Lung TB is one of the health problems both in the world and in Indonesia with a high number of cases and deaths. The purpose of this study was to determine the relationship between the factors of Education, Occupation, Knowledge, with the incidence of Pulmonary TB at the Cimalaka Health Center in 2023. This study used a quantitative design with a cross sectional approach. The population in this study were patients who were recorded and data to the DOTS clinic at the Cimalaka Health Center from January to May 2023, namely 490 patients and the sampling technique was carried out by accidental sampling technique. The sample in this study amounted to 84 patients. Data analysis used is univariate and bivariate analysis using the chi-square test. The results of this study showed that patients with low education amounted to 42 patients (50%), who did not have a job amounted to 58 patients (69%), and who had insufficient knowledge amounted to 39 (46.4%). It is known that there is a relationship between education and the incidence of pulmonary TB with a value (p value 0.006), there is a relationship between employment and the incidence of pulmonary TB with a value (p value = 0.001), and there is a relationship between knowledge and the incidence of pulmonary TB with a value (p value = 0.000). The statement is interpreted based on the value of the correlation coefficient and the probability of the chi square method with alpha 0.05 means the p value <alpha then hypotheses alternative is accepted. From the results of this study, it is expected that health institutions and the community pay special attention by minimizing the causes of pulmonary TB disease.



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A. INTRODUCTION

Pulmonary TB is a potentially serious infectious disease that commonly affects the lungs. The cause of Pulmonary TB is an infection from the Mycobacterium Tuberculosis bacteria that can spread through the lymph nodes and bloodstream to human organs. Tuberculosis is transmitted through the air. Most people with TB never show symptoms, as the bacteria can live in a dormant form in the body and can become active when the immune system declines. A patient with TB, especially pulmonary TB, when he or she talks, coughs, and sneezes, may expel sputum containing M.tb. People around the TB patient can be exposed by inhaling the sputum droplets. Infection can occur when a susceptible person inhales microbial droplets containing TB germs through the mouth or nose, upper respiratory tract, bronchus until they reach the alveoli. Treatment of tuberculosis usually takes months with strict medication rules, to prevent the risk of antibiotic

resistance. If not treated immediately, TB disease can be fatal. However, TB is a curable and preventable disease (Kemenkes, 2022).

The World Health Organization (WHO) calls Pulmonary TB an epidemic. WHO reports that Pulmonary TB is one of the 10 leading causes of death globally and the leading cause of death from a single infectious agent. WHO estimates that in 2018 almost 10 million people worldwide had Pulmonary TB and 1.5 million people died from the disease including 251,000 people who also had HIV (WHO, 2021). The Ministry of Health (MOH) detected 717,941 cases of tuberculosis (TB) in Indonesia in 2022. This number jumped 61.98% compared to the previous year which amounted to 443,235 cases. Looking at the trend, TB cases had recorded a decline in 2020. However, the findings of the disease have increased again in the last two years. Furthermore, the Ministry of Health noted that as many as 608,947 TB cases in the country had been successfully treated in 2022. This number increased by 51.04% compared to 2021, which amounted to 403,168 cases. However, the success rate of treatment for TB cases recorded a decrease to 85% in 2022. A year earlier, the success rate of treatment for this disease reached 86%. On the other hand, there are four provinces in Indonesia that managed to meet the target of TB case notification because it was above 90% in 2022, namely West Java, Banten, Gorontalo, and Jakarta. Meanwhile, 30 other provinces did not meet this target last year (Ministry of Health, 2022).

Data from the Sumedang Regency Health Office in 2020 there were 1,389 patients infected with Lung TB in Sumedang, in 2021 the number of Lung TB patients decreased, totaling 1,367 patients with Lung TB in Sumedang, while in 2022 it increased, totaling 2,504 patients infected with Mycobacterium Tuberculosis bacteria or Lung TB in Sumedang district (Sumedang Regency Health Office, 2020-2022). From the data obtained at the Cimalaka Puskesmas, the Cimalaka Puskesmas is one of the Puskesmas that has a high number of pulmonary TB cases with the second place in Sumedang district. From January to December 2022, there were 144 patients with Pulmonary TB at the Cimalaka Health Center, divided into several villages, Cimalaka Village with fifteen patients, Galudra Village with nine patients, Cibereum Kulon Village with eight patients, Naluk Village with nine patients, Nyalindung Village with eleven patients, Trumanggala Village with thirteen patients, Cikole Village as many as nine patients, Cibereum Wetan Village as many as nine patients, Mandalaherang Village as many as eight patients, Licin Village as many as eighteen patients, Citimun Village as many as twelve patients, Serang Village as many as nine patients, Padasari Village as many as seven patients and Cimuja Village as many as seven patients (Data Puskesmas Cimalaka, 2022).

Pulmonary TB disease is one of the health problems both in the world and in Indonesia with a high number of cases and deaths. By 2022, Indonesia ranks third globally. The global Tuberculosis report in 2021 estimates that 824,000 new cases of Tuberculosis will recur per year in Indonesia. West Java is the first contributor to the highest number of pulmonary TB cases. In January - August 2022, there were 75,296 reported cases or 59% of the target until August 60% and the annual target of 90%. However, of the 90% target, West Java has successfully treated the largest number of patients with Pulmonary TB at 72%. (West Java Provincial Health Office, 2022). Based on preliminary studies conducted by researchers at Poli Dots Puskesmas Cimalaka Sumedang Regency to 10 patients with Pulmonary TB at the Cimalaka health center, the results showed that there were several factors that resulted in Pulmonary TB disease including educational factors, occupational factors, and knowledge factors. Seven Lung TB patients occurred due to low education, eight Lung TB patients did not work, and eight Lung TB patients had low knowledge.

Based on the data and description above, it can be concluded that the incidence of pulmonary tuberculosis can be minimized by knowing and applying factors that can cause the incidence of pulmonary tuberculosis. Researchers are interested in conducting research with the title "Factors Associated with the Incidence of Pulmonary Tuberculosis at the Cimalaka Health Center, Sumedang Regency in 2023".

B. METHOD

The type of research used is quantitative research with Cross Sectional approach used to determine whether or not there is a relationship between education, occupation and knowledge with the incidence of Pulmonary TB at the Cimalaka Health Center, Sumedang Regency in 2023. Data analysis with univariate and bivariate analysis using the chi-square test. The population in this study were 490 patients who were registered and came to the Dots poly at the Cimalaka Health Center from January to May 2023 and obtained a sample of 84 patients using the 2021 slovin formula. The sampling technique used was accidental sampling. Data collection tools in this study using a questionnaire. The data obtained was then analyzed using the chi-square statistical test.

C. RESULTS AND DISCUSSION

3.1. Results

A. Univariate Analysis

1. Education

Table 1 Overview of Education

Category	Frequency	Percentage %
Low	42	50%
Medium	37	44%
High	5	6%
Total	84	100%

Source: Primary Data, 2023

It can be seen with a total of 84 patients showing that patients with low education amounted to 42 patients (50%), patients with moderate education amounted to 37 patients (44%), and patients with higher education 5 patients (6%).

2. Occupation

Table 2 Overview of Occupation

Category	Frequency	Percentage (%)
Not working	58	69%
Work	26	31%
Total	84	100%

Source: Primary Data, 2023

It can be seen with a total of 84 patients showing that patients who do not work amounted to 58 patients (69%), and patients who worked amounted to 26 patients (31%).

3. Knowledge

Table 3 Overview of Knowledge

Category	Frequency	Percentage (%)
Less	39	46,4%
Simply	33	39,3%
Good	12	14,3%
Total	84	100%

Source: Primary Data, 2023

It can be seen with a total of 84 patients showing that patients with poor knowledge amounted to 39 patients (46.4%), patients with sufficient knowledge amounted to 33 patients (39.3%), and patients with good knowledge amounted to 12 patients (14.3%).

4. Incidence of Pulmonary TB

Category	Frequency	Percentage (%)
Yes, Pulmonary TB patients	73	86,9%
No, Not a Pulmonary TB patient	11	13,1%
Total	84	100%

Source: Primary Data, 2023

It can be seen with a total of 84 patients showing that Yes, pulmonary TB patients totaled 73 patients (86.9%), and No, not pulmonary TB patients totaled 11 patients (13.1%).

B. Analisis Bivariat**1. Relationship between Educational Status and the Incidence of Pulmonary TB**

Tabel 1
Relationship between Educational Status and the Incidence of Pulmonary TB

Educational Status	Incidence of Pulmonary TB						p-Value
	Yes, Pulmonary TB Patient		No, not a pulmonary TB patient		Total		
	F	%	F	%	F	%	
Low	38	36,5%	4	5,5%	42	42%	0,006
Medium	33	32,2%	4	4,8%	37	37%	
High	2	4,3%	3	7%	5	5%	
Total	73	73%	11	11%	84	84%	

Source: Primary Data, 2023

From the results of statistical calculations, the chi-square test value was obtained with a p-value = 0.006 with alpha (α) 0.05 $p\text{-value} < \alpha$ means H_a is accepted so it can be concluded that there is a significant relationship between education and the incidence of Pulmonary TB at the Cimalaka Health Center, Sumedang Regency in 2023.

2. Relationship between Occupational Status and the Incidence of Pulmonary TB

Table 2
Relationship between Occupational Status and the Incidence of Pulmonary TB

Occupational Status	Incidence of Pulmonary TB						P Value
	Yes, Pulmonary TB Patient		No, not a pulmonary TB patient		Total		
	F	%	F	%	F	%	
Not Working	55	50,4%	3	7,6%	58	58%	0,001
Work	18	22,6%	8	3,4%	26	26%	
Total	73	73%	11	11%	84	84%	

Source: Primary Data, 2023

From the results of statistical calculations, the chi-square test value was obtained with a p-value = 0.001 with alpha (α) 0.05 $p\text{-value} < \alpha$ means H_a is accepted so it can be concluded that there is a significant relationship between work and the incidence of Pulmonary TB at the Cimalaka Health Center, Sumedang Regency in 2023.

3. Relationship between Knowledge and the Incidence of Pulmonary TB

Tabel 3
Relationship between Knowledge and the Incidence of Pulmonary TB

Knowledge	Incidence of Pulmonary TB						P Value
	Yes, Pulmonary TB Patient		No, not a pulmonary TB patient		Total		
	F	%	F	%	F	%	
Less	38	33,9%	1	5,1%	39	39%	0,000
Simply	29	28,7%	4	4,3%	33	33%	
Good	6	10,4%	6	1,6%	12	12%	
Total	73	73%	11	11%	84	84%	

Source: Primary Data, 2023

From the day of statistical calculation, the chi-square test value was obtained with a p-value = 0.000 with alpha (α) 0.05 p-value < alpha means H_a is accepted so it can be concluded that there is a significant relationship between knowledge and the incidence of Pulmonary TB at the Cimalaka Health Center, Sumedang Regency in 2023.

3.2. Discussion

A. The relationship between education and the incidence of pulmonary TB at the Cimalaka Health Center, Sumedang Regency, 2023

It shows that there is a relationship between education and the incidence of pulmonary TB at the Cimalaka Health Center, Sumedang Regency in 2023 with a p-value of 0.006 (less than the alpha value = 0.05), which means that H_a is accepted so that there is a significant relationship between education and the incidence of pulmonary TB at the Cimalaka Health Center, Sumedang Regency in 2023. Research conducted by Ridwan, showed that there was a relationship between education level and the incidence of pulmonary tuberculosis at Palembang Lung Hospital in the January-December 2010 period, with a p-value of 0.005, (Ridwan, Yanti, & Sahfitri, 2012).

Another study conducted by Octavia showed a significant relationship between education and the incidence of pulmonary tuberculosis (p-value of 0.002). A low level of education has a risk of 3, 94 times of developing tuberculosis disease (OR = 3, 94). (Oktavia, Mutahar, & Destriatania, 2016). This study is not in line with the research of Prananda et al in 2017 which states that education level has no relationship with the incidence of pulmonary TB. The results of bivariate analysis obtained a p-value of 0.405 which means that there is no significant relationship between education and patients with BTA pulmonary TB, (Prananda et al, 2017). The level of education in this study was one of the characteristics tested for its association with the incidence of pulmonary TB at the Cimalaka Health Center. According to Notoatmodjo (2010), which states that behavior develops as a result of the previous education process through various stages until a behavior pattern is formed, supports the significance of this study. This shows how education indirectly affects a person's health.

In this study the majority of patients had a low education <MP, it can be interpreted that those with low education have less knowledge in the health sector, both directly and indirectly can affect and harm health and ultimately affect the high cases of Pulmonary TB. According to Ridwan et al, (2012), Patients who have low education are at risk of developing Pulmonary Tuberculosis disease 1.390 times greater than those with higher education. This proves that Pulmonary Tuberculosis does not only attack productive age groups, but can also attack people who have low education, and low socio-economic groups because the level of education itself can affect knowledge of Pulmonary tuberculosis.

B. The relationship between work and the incidence of pulmonary TB at the Cimalaka Health Center, Sumedang Regency in 2023

There is a relationship between work and the incidence of pulmonary TB at the Cimalaka Health Center, Sumedang Regency in 2023 with a p-value of 0.001 (less than the alpha value = 0.05), which means that H_a is accepted so that there is a significant relationship between work and the incidence of pulmonary TB at the Cimalaka Health Center, Sumedang Regency in 2023.

This study is in line with the results of research by Dwi Santy Damayanti (2018), that there is a relationship between not working and the incidence of pulmonary TB with a p-value of 0.39, the results showed that the majority of case respondents were not working, (Dwi Santy Damayanti, 2018).

This study is also in line with the research of Faris Muaz, 2014 that the relationship between pulmonary TB disease and not working. The results of multivariate analysis obtained a p-value of 0.000 which indicates that there is an association between not working with the incidence of pulmonary TB, (Faris Muaz, 2014).

This study is not in line with research conducted by Loihala in 2015 which states that there is no relationship between the patient's work and the incidence of pulmonary tuberculosis with a probability value of p-value 0.793 these results indicate that work has no significant relationship with the incidence of pulmonary tuberculosis, (Loihala, 2015).

In this study, the majority of people with Lung TB are not working, people with Lung TB who do not work will have a poor economy or their economy tends to be down and will have difficulty getting treatment compared to people who work and have a good economy will try to immediately seek treatment information and try to consume good nutritional intake. According to Faris Muaz (2014), people with Lung TB who do not work have a chance to increase the incidence of BTA + Lung TB disease by 3.2 times compared to people who work.

C. Relationship between Knowledge and the incidence of Pulmonary TB at the Cimalaka Health Center, Sumedang Regency in 2023

There is a relationship between knowledge and the incidence of Lung TB at the Cimalaka Health Center in 2023 with a p value of 0.000 (less than the alpha value = 0.05), which means that H_a is accepted so that there is a significant relationship between knowledge and the incidence of Lung TB at the Cimalaka Health Center, Sumedang Regency in 2023.

This study is in line with research conducted by Dwi Santy Damayanti (2018), which shows that there is a relationship between the level of knowledge and the incidence of pulmonary tuberculosis with a p-value of 0.026, which means that H_a is accepted so that there is a significant relationship between knowledge and the incidence of tuberculosis, (Dwi Santy Damayanti, 2018). This study is also in line with research conducted by Faris Muaz in 2014 which shows the results of bivariate analysis obtained a p-value of 0.022 there is a significant relationship between knowledge and patients with BTA + pulmonary TB, (Faris Muaz, 2014).

This study is not in line with research from Melisa Siregar, et al, (2012), on the relationship between knowledge and the incidence of Tuberculosis, the p-value of 0.617 means that there is no relationship between knowledge and the incidence of tuberculosis disease (Melisa Siregar, et al, 2012). This research is supported by Green's theory from Notoadmojo 2010 which states that knowledge can act as an initial motivator of behavior, behavior will last longer than behavior that is not based on one's knowledge.

The majority in this study were people with Lung TB who had low knowledge, which means that people with low levels of knowledge will increase the risk of developing Lung TB greater than people who have high levels of knowledge. The level of education of respondents is a determining factor of all health education processes. If the level of education is high, it will help patients to understand educational messages. Knowledge is the basic capital for a person to behave. According to Ade Heru Sutomo (2011), people with a low level of knowledge will increase the risk of developing TB by 1.857 times greater than people who have a high level of knowledge.

4. CONCLUSION

Based on the results of the research that has been carried out and has analyzed the data and discussed the factors associated with the incidence of Pulmonary TB at the Cimalaka Health Center, Sumedang Regency in 2023, the following conclusions can be drawn:

1. The results showed that educational factors in the incidence of pulmonary tuberculosis with a low education category were 50%.
2. The results showed that work factors in the incidence of pulmonary tuberculosis with the category not working 69%.
3. The results showed that the knowledge factor in the incidence of pulmonary tuberculosis with the category of less knowledge was 46.4%.
4. The results showed that the incidence of Pulmonary TB at the Cimalaka Health Center in 2023 was 86.9%.
5. There is a significant relationship between educational factors and the incidence of Pulmonary TB at the Cimalaka Health Center in 2023 with a p value of 0.006 ($p < 0.05$).
6. There is a significant relationship between work factors and the incidence of Pulmonary TB at the Cimalaka Health Center in 2023 with a p value of 0.001 ($p < 0.05$).
7. There is a significant relationship between knowledge factors and the incidence of Pulmonary TB at the Cimalaka Health Center in 2023 with a p value of 0.000 ($p < 0.05$).

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Analysis of Community Behavior Factors in Waste Disposal at Margamukti Village, North Sumedang District in 2023

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ABSTRACT

The problem of waste in various countries in the world is still an unresolved polemic, including in Indonesia. Waste can cause various problems both in terms of health and the environment. Moreover, the behavior of people or individuals who disposed waste on the side of the road, in addition to having an impact on health and polluting the environment, also causes a bad smell and spoils the view of motorists. This study aims to explore people's behavior of throwing garbage to the side of the Sukajadi Dam Road. This research uses descriptive research with a qualitative approach. Data collection techniques are interviews, observation and documentation with five research subjects. The results of the study were; 1) the community already has knowledge about the impact of the environment; 2) the community's concern for the environment is quite good; 3) as for the actions taken by the community and the Village government in minimizing pollution from waste by working together to hold cleaning activity day on Friday; 4) in Margamukti Village, facilities such as TPS have not been provided, due to space permits, funding, as well as the effects of holding temporary dump; 5) lack of public awareness and not yet provided cleaning facilities, so that the habit of littering continues; 6) the weak role of the village government in implementing regulations and providing socialization to the community related to environmental cleanliness.



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A. INTRODUCTION

The problem of waste in various countries in the world is still an unresolved polemic, including in Indonesia. Waste can cause various problems both in terms of health and the environment. Moreover, the increase in waste volume continues to occur every year, especially in Indonesia itself as a developing country. The waste problem is a problem that must receive more attention, as the population growth rate continues to increase every year and automatically has an impact on soil quality.

Limited landfills are not an excuse for residents not to keep the environment clean, at least by not littering. However, in fact there are points that are made illegal trash bins as seen on Jalan Dam, Sukajdi Hamlet, Margamukti Village, North Sumedang District. On this road, there were piles of garbage dumped by irresponsible people. The presence of garbage, in addition to emitting unpleasant odors, also disturbs the view.

The garbage on the side of the highway is dominated by plastic waste. Then, there are also various household waste and waste from food and beverage wrappers. Dam Road in North Sumedang Subdistrict is one of the alternative roads in Sukajadi Hamlet. This Dam Road can also be the main road of several rural transportation, one of which is public transportation 37. Disposing of garbage on the side of the road is considered an easy place to reach and has become a habit of the community without regard to its negative impact. People's irresponsible behavior towards waste can cause problems and damage. If people's behavior is

solely directed more towards their personal interests, and less or not considering the public or common interests, it can be predicted that the carrying capacity of the natural environment will be increasingly depleted and as a result environmental losses and damage are inevitable. Currently, the roadside has become a dumping ground for garbage even though a sign is posted prohibiting dumping, and if it continues to be left unchecked, it could become a serious problem.

Based on the problem, the focus of this research is to analyze the behavior of the community around the edge of the Dam Road in disposing of garbage. Through this research, it is hoped that the community will better understand the problems that arise due to littering on the side of the Sumedang Regency Dam Road. From this description, the researcher is interested in finding out more about "Analysis of Factors of Community Behavior in Disposing of Garbage Around Dam Road, Margamukti Village, North Sumedang District in 2023".

B. METHOD

In this research, the method used is descriptive qualitative method. Qualitative descriptive research methods, according to Moleong (2021), are procedures in researchers that produce descriptive data in the form of written or spoken words from the behavior of people who can be observed. This type of research uses a Qualitative approach with the type of research Case study is one type of research in social science that is used to study a particular case in depth and detail. In case study research, researchers choose one case or several cases that are considered important to study and analyze carefully. A single case study refers to research conducted on one case only, such as an individual, family, organization, or specific event (Hasan et al., 2022). Researchers will study the case in depth and detail to understand the phenomena that occur. The in-depth interview used in this research is an unstructured method that involves the use of a list of questions that are predetermined but not followed in the same order in each interview. The researcher will develop a list of questions based on the research topic and then ask questions freely in each interview. This allows the researcher to adapt the questions to the respondent's background, experience, and views with open-ended questions in the unstructured question method, the researcher has the freedom to add additional questions to deepen the answers that have been given by the respondent, thus allowing the researcher to obtain richer and more complex information on the Analysis of Community Behavior Factors in Disposing of Waste Around Dam Road, Margamukti Village, North Sumedang District in 2023 (Seidman, I. 2013).

C. RESULTS AND DISCUSSION

3.1. Results

The results of the study, namely; 1) the community already has knowledge about the impact of the environment but there are still piles of garbage on the side of the road; 2) public concern for the environment is quite good, as evidenced when the community provides their own trash cans and is also seen from the management of waste in their homes; 3) as for the actions taken by the community and the village government in minimizing pollution from waste by working together to hold cleaning activity day; 4) in Margamukti Village, facilities such as TPS have not been provided, due to space permits, funding, as well as the effects of holding TPS; 5) lack of public awareness and not yet provided cleaning facilities, so that the habit of littering continues; 6) the weak role of the village government in implementing regulations and providing socialization to the community related to environmental cleanliness.

3.2. Discussion

Each individual has a behavior that is different from the others, this behavior can be influenced by the environment that the individual lives in (Hardiana, 2018). Behavior is an action or action that can be directly observed, described, and recorded by others or the person doing it. Behavior is a form of response and reaction from individuals to stimuli / stimuli from within and outside themselves. It is concluded that behavior is an action that starts from a stimulus from inside or outside of an individual, for example when parents tell their children to get an item (stimulus) from this will result in a positive action in the form of the child will help to get the item, the negative action is that the child will refuse the order for a certain reason. The following is a theory according to experts and also a discussion of the research results.

a) Community Knowledge

Knowledge is gained from one's own experience and the experience of others (Rusmiati, 2019). Knowledge is a process from not knowing to knowing or from not understanding to understanding. For example, in the world of education a child who does not understand about reading, writing and counting then parents send their children to school so that children have the knowledge to read, write and count. Many factors

cause a decline in the quality of the environment. The lack of public knowledge of the environment, so that their response in obtaining information that is useful for them is low. Knowledge is very important for every human being because environmental damage can be reduced if humans as processors can apply their knowledge to save the environment (Husin, 2012).

The knowledge of the people of Margamukti Village consists of environmental cleanliness, that a clean environment is an environment that is spared or free from things that are dirty, especially garbage. Furthermore, related to the types of waste, biodegradable waste is organic waste or waste that is easily destroyed and integrated with the soil, for example waste from food scraps or from plants. Meanwhile, non-degradable waste is inorganic waste or waste that is difficult to disintegrate even over a long period of time. Examples of this type of waste include plastic baby diapers, sacks, drink bottles and others. Furthermore, knowledge related to the environmental impact of throwing garbage, the impact is such as the environment becomes dirty so it is unpleasant to see, the emergence of unpleasant odors and will also damage the environmental ecosystem. During the rainy season, the impact will be more severe. Garbage that accumulates on the sides of the road will absorb into the soil, which will have an impact on polluted water and much more.

b) Margamukti Village Community concern for the environment

The environment has an influence on its environment, community participation determines the success in maintaining environmental cleanliness (Yazid, 2017). When people see or commit acts of littering, a caring attitude will arise in the form of guilt or a sense of responsibility for their actions. Concern states the quality of the environment which is manifested in self-willingness to show actions that can improve and maintain environmental quality in every behavior related to the environment. Joint awareness is needed to protect the environment, thus more serious efforts are needed in building and increasing human concern for the environment so that damage to the environment does not continue to occur.

Based on the theory above and the data obtained from the results of research in Margamukti Village. Research related to the concern of the people of Margamukti Village, basically the people of Margamukti Village already have concern for the environment, especially in the home environment where in every house the community has provided a trash can and also the community has an attitude of responsibility for the actions of others who throw garbage in places that have been prohibited by the village government, namely by giving reprimands and advice to that person. The community thinks that cleanliness is very important, considering that the impact caused by the garbage is very bad for the community itself. But for the final disposal process of the waste, the community is still confused.

c) Community and Village Government Actions

Action is an ongoing period of time or in other words, action is a series of experiences that are formed through the real awareness and individual awareness of the perpetrator. According to Notoatmodjo (2012) action is a real response from individuals to stimuli / stimuli from within and outside themselves. Action is a factor that influences behavior.

Based on the explanation above and the data obtained from the results of research conducted in Margamukti Village related to community and village government actions consisting of government and community efforts to overcome environmental problems. There is already a plan from the village government to make temporary trash bins on the side of the dam road, this can minimize the garbage on the side of the dam road, but the plan has not been implemented because it is hampered in the funding process. Efforts that can be made by the community to minimize environmental pollution can start from themselves, by not littering and also the village as much as possible working with the DLHK or with local health workers to conduct counseling about waste.

The forms of responsibility that have been carried out by the Margamukti Village government related to efforts to provide awareness to the community include giving directions and providing prohibitions to the community so as not to litter and carrying out environmental care movements that involve part of the community such as mutual cooperation to clean up garbage in certain places such as near the railroad track, the edge of the highway and also around public cemeteries. However, the various forms of responsibility carried out by the village government and also the community have not been able to maximize in overcoming or minimizing pollution caused by waste because the responsibilities carried out are not balanced with the habit of littering carried out by the community continuously.

d) Physical and Social Environment

Physical and social environment can be interpreted as what is around humans which includes places and conditions in the individual's environment. In line with Tamara's (2016) opinion, the physical and social environment is all the people and places that can affect us directly or indirectly. Individual behavior is obtained

from two possibilities, from heredity and also obtained from everything in the physical and social environment around the individual.

Based on the theory and data obtained from the results of research in Margamukti Village related to the availability of garbage bins, landfills and garbage trucks in Margamukti Village. The government and community of Margamukti Village think that it is important to provide proper trash bins, garbage trucks and landfills in Margamukti Village, with the hope that the provision of these facilities can support environmental cleanliness in Margamukti Village.

However, some people have taken the initiative to process their waste by selling it, burning it and also making it into handicrafts. However, for waste that cannot be processed by the community such as food waste, cans, plastic bags and others, it is usually disposed of in their respective private gardens. In this environmental problem, the village government should play a greater role in efforts to overcome environmental problems, especially on the roadside of the dam, significant efforts and strong commitment, in order to realize a clean and healthy environment.

e) **Community Habits**

Nurfirdaus (2019) explains that the meaning of habit comes from the word ordinary, which means repetition or often done even in different times and places. Furthermore, according to Syamaun (2019) habits or culture are defined as an art, customs and human civilization, the results of human habits will shape, strengthen and change human attitudes and behavior itself. Habit is something that is usually done, behavior that is often repeated so that over time it becomes a permanent trait.

Based on the theory above and the results of research conducted in Margamukti Village related to the causes of the ongoing habit of littering by the people of Margamukti Village. What causes people's habit of littering to continue to occur is due to the lack of awareness of each community in Margamukti Village and is also supported by the fact that no trash bins have been provided. Even if the previous village government had provided trash bins, these bins were not sufficient to accommodate all the waste produced by the community. This is because the number of bins is too small and the size of the bins is too small, and the location of the bins in question is located some distance from the residential areas of Margamukti Village. Due to these conditions, there was a sense of laziness from the community to maintain the cleanliness of the environment in Margamukti Village.

Some of the community members have made efforts to change the habit of littering by teaching their children from an early age to care about the environment. Giving warnings, prohibitions, and also suggesting to other communities to burn their garbage rather than dispose of it carelessly. The efforts that can be made by the government to change the habits of people who often litter are by implementing regulations, but this has not been done optimally because the government itself has not been able to provide solutions to the community.

D. CONCLUSION

Based on the results of the study, it can be concluded that the factors that influence the behavior of the people of Margamukti Village to throw garbage to the side of the Sukajadi Hamlet Dam road include:

1. The hygiene facility factor, the lack of adequate hygiene facilities such as TPS or garbage trucks in the Margamukti Village environment, has triggered the community to litter in the roadside area of the Dam.
2. The closest government factor, the lack of attention from the government, especially the lack of socialization or counseling programs from related government and health workers that discuss the prohibition of littering or the dangers posed by garbage, and the absence of solutions for people who throw garbage on the side of the road from the village.
3. Physical and social factors, have an influence on the environment, community participation determines the success in maintaining environmental cleanliness, when people see or commit acts of littering, a caring attitude will arise in the form of guilt or a sense of responsibility for their actions, and vice versa, if some people do litter and there is no firm action from the people who see or from the village, automatically other people will also feel like doing the same thing.
4. The community awareness factor, basically the people of Margamukti Village already have knowledge about the environmental impact of littering and the community also has concern for the environment. However, due to the lack of public awareness in environmental cleanliness, as well as the weak role of the Margamukti Village government in implementing regulations and providing socialization to the community related to environmental cleanliness, so that the habit of people littering continues.

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The Relationship of Health Status with Occupational Accidents among Online Taxibike Drivers in Sumedang Regency in 2023

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ABSTRACT

One of the problems in transportation is traffic accidents. This problem generally occurs when transportation facilities, both in terms of roads, vehicles, and other supporting facilities have not been able to keep up with developments in society. This study aims to determine the relationship of the health status of online taxibike drivers. This research method uses quantitative research using a cross sectional approach. The population in this study were online taxibike drivers totaling 1,082 drivers. So that a sample of 92 respondents of online taxibike drivers was obtained. The sampling technique used in this study was accidental sampling. Bivariate analysis using chi-square test. The results of the bivariate test showed a p-value of 0.019, meaning that there is a relationship between knowledge and the incidence of online taxibike driver accidents in Sumedang Regency in 2023. Based on the results of research and discussion as a whole, good health status is needed. That way it will reduce the occurrence of work accidents in online taxibike drivers in Sumedang Regency.



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1. INTRODUCTION

One of the problems in transportation is accidents. This problem generally occurs when transportation facilities, both in terms of roads, vehicles, and other supporting facilities have not been able to keep up with the developments that exist in society. "Economic growth and a large population lead to increased activities to fulfill needs, which of course also increase the need for transportation, both private and public (Hedaputri et al., 2021)".

Initially, the problem of traffic accidents was only a transportation issue. With the increasing number of deaths caused by traffic accidents, which according to WHO is the third leading cause of death in the world after heart disease and HIV AIDS, safety issues are part of health issues. Even traffic accidents are classified as non-communicable diseases. "Accidents not only cause trauma, injury, or disability, but also death (Hobbs, 1995)".

Deaths resulting from traffic accidents cause suffering for the families left behind. Victims of traffic accidents also suffer serious and even lifelong injuries, leaving them unable to carry out their activities properly. Therefore, the issue of traffic safety has been proposed as part of human rights. Traffic accidents are statistically rare events. In developed countries, accidents occur only once in every 80,000 kilometers traveled by the average driver. However, when viewed in terms of the aggregated numbers and the economic and humanitarian impact, addressing traffic safety incidents is seen as crucial.

Traffic accidents are influenced by the characteristics of motorcycle drivers. In addition, there are also factors that can cause traffic accidents, including: negligence, drowsiness, fatigue, drunkenness, disorderly,

unskilled and high-speed drivers. Vehicle factors, in this case motorcycles, are one of the factors that cause traffic accidents. Risky vehicle factors include: blong brakes, tires, skids and vehicle lights. Meanwhile, physical environmental factors are external factors that influence the occurrence of traffic accidents (Tuasikal, 2020).

Along with the development and progress in the era of technological modernization, the internet has changed the patterns and behavior of society. Technological advances in the field of transportation, for example, have made several companies use this opportunity to develop online-based transportation applications that can be accessed and used by various groups very easily and efficiently. There are many companies that organize online taxibike drivers or commonly called ojol, one of which is PT Go-jek.

Although online taxibike is considered safer because it is under the auspices of an agency / PT, it turns out that online taxibike transportation also has a high level of accident risk. Based on research conducted by Setyawan (2015), the number of work accidents on the road is greater than accidents in other workplaces, especially for online taxibike drivers who spend most of their working time on the road.

Based on data reported by the minister of transportation, 79% of online taxibike drivers experienced traffic accidents or a total of 58,715 cases in 2017 (Simamora, 2018). Based on the news reported, at least two online taxibike drivers die every day due to accidents. The desire to pursue targets that make drivers pay less attention to caution in driving (Fiandri, 2017).

Research conducted by Nurhafizhah (2017) says that the most influential factor in the ability to drive safely in online taxibike drivers is the fatigue factor of 62.85%. Fatigue that occurs in taxibike drivers is a result of the imbalance between age, working hours, and the total distance that has been traveled with rest time. In fact, the law number 13 of 2003 has set a time limit for working hours which is eight hours a day if working for five days a week.

In addition, another factor that causes high accidents in online taxibike is the activity of playing smartphones while driving by 54.5% (Bolbol, 2018). Smartphone for online taxibike drivers is the most important thing in carrying out their work. However, it is not a reason to allow playing smartphones while driving because it can interfere with concentration. This has also been regulated in Minister of Transportation Regulation Number PM 12 of 2019 which says that riding a motorcycle is done reasonably and with full concentration. Reasonable here means that the motorcycle driver does not do other activities that can break concentration.

Based on the results of a preliminary study with 10 online taxibike drivers in Sumedang Regency in 2023, it is known that all of them have experienced traffic accidents while working. Accidents are caused by many factors, including being hit, lack of concentration resulting in hitting the shoulder, traffic violations, fatigue, declining health conditions, not using appropriate driving equipment, pothole conditions, and bad weather conditions. Health problems are also experienced by online taxibike drivers who have working hours exceeding the limit (7-15 hours per day) including problems in the lower back of the driver as well as cramping problems in the buttocks and shoulders to the wrist.

Thus it can be said that online taxibike drivers have not paid attention to good driving aspects such as safety, security, comfort, affordability, and order. Factors that cause accidents are divided into human factors, vehicle factors, road factors, and environmental factors (Raharjo, 2014). Safety riding knowledge will familiarize a person to be more careful and aware of using the vehicle safely. Safety riding is one type of driving behavior. Where driving behavior is divided into 2 types, namely safe driving behavior (safety riding) and dangerous driving behavior (dangerous driving). Safety riding is a safe driving behavior that can help avoid accidents (Andi S, 2014). Dangerous driving is the behavior of drivers in driving that endangers or has the potential to endanger other drivers, passengers and also road crossers.

In attitude, there are components in it that enter into feelings of knowledge and when someone will take action. Attitudes can also be interpreted in evaluative biases on objects or subjects that can have consequences for an individual's attitude towards the object in front of him. Basically, the relationship between attitudes and behavior is indeed interrelated with each other, based on the results of research also reveal that attitudes and behavior have their own relationship, this can also be related to one of the psychological factors that exist from both, in order to create consistent harmony (Ismail, 2017).

Motorcyclists who often mobilize in urban areas today are online taxibike drivers. Based on the results of preliminary studies conducted there are still online taxibike drivers who are not balanced with supporting safety facilities such as not using masks, gloves, shoes, not buttoning helmet safety and some when driving they smoke and use headsets. Showing the attitude of online taxibike drivers is still lacking in complying with the rules to avoid work accidents.

There is also a health status that can affect the occurrence of work accidents in this online taxibike driver. Each driver must get adequate rest, limit driving time especially during the middle of the night and early morning as well as setting working hours and rest hours as stated in Traffic law no. 22 of 2009 article 90 paragraph 3 which says that every public motorized driver after driving a vehicle for 4 (four) consecutive hours

must rest for at least half an hour. Based on the description of the background of the problem above, the authors are interested in making research in the form of a thesis with the title "Relationship between Health Status and the Incidence of Work Accidents in Online Taxibike Drivers in Sumedang Regency in 2023."

2. METHOD

The type of research used in this study is a type of quantitative research with cross sectional research methods. The population in this research is online taxibike drivers in Sumedang Regency with a total of 1082 people. The sample used in this study was 92 people who were taken using the Slovin formula. The sampling technique used in this study used accidental sampling. Accidental sampling is a sampling technique based on chance, that is, anyone who happens to meet by chance is suitable as a data source (Sugiyono, 2011).

3. RESULTS AND DISCUSSION

3.1. Results

A. Univariate Analysis

1) Health status of online taxibike drivers in Sumedang Regency in 2023

Table 1
Frequency of health status of online taxibike drivers in Sumedang Regency in 2023

Health Status	Frequency	Percent (%)
Unhealthy	65	70,7
Healthy	27	29,3
Total	92	100,0

Based on table 3, it can be concluded that the majority of online taxibike drivers with health status levels are in the unhealthy category, namely 70.7%.

2) Accident of online taxibike driver in Sumedang Regency

Table. 2
Overview of the frequency of occupational accidents of online taxibike drivers in Sumedang Regency in 2023

Incidence of work accidents	Frequency	Percent (%)
Never had a work accident	62	67,4
Ever had a work accident	30	32,6
Total	92	100,0

Based on table 4, it can be concluded that the majority of online taxibike drivers in Sumedang Regency in 2023 have never experienced work accidents 67.4%.

B. Bivariate Analysis

1) The relationship between health status and the incidence of work accidents in online taxibike drivers in Sumedang Regency in 2023

Table. 3
Relationship between health status and the incidence of work accidents in online taxibike drivers in Sumedang Regency

Health Status	Incidence of Work Accidents in online taxibike drivers						value
	Ever been in an accident		Never had an accident		Total		
	F	%	F	%	F	%	
Unhealthy	26	21.2	39	43.8	65	65,0	0.019
Healthy	4	8.8	23	18.2	27	27,0	
Total	30	30.0	62	62.0	92	92,0	

Based on table 3, the significance result is $0.019 < \alpha = 0.05$, there is a significant relationship between health status and the incidence of work accidents in online taxibike drivers in Sumedang Regency in 2023. This shows that the two variables have a negative relationship, meaning that the higher the health status, the lower the incidence of work accidents in online taxibike drivers and vice versa. Due to the results there is a significant relationship then H_0 is rejected, both variables have a fairly close correlation level.

a. Discussion

1) The results of the frequency distribution of health status with the incidence of work accidents in online motorcycle taxi drivers in Sumedang Regency in 2023.

The results of the frequency distribution shown in this study that online ojek drivers in Sumedang Regency with unhealthy health status are 70.7%. This is because online ojek drivers do not all know the health status of work accidents, especially regarding traffic rules and regulations in driving on the road must be in good health and not in a sick condition. The results showed that poor health factors increase the risk of accidents. Poor health factors such as having a history of illness that can interfere with driving activities, fatigue and complaints about body conditions such as wrists, back and hips which are the result of driving too long because they have working hours that exceed normal limits. Law No. 13 of 2003 on labor regulates the limit of working hours, which is eight hours a day if working for five days a week. However, the average respondent works more than 8 hours a day to pursue the expected target.

2) The results of the frequency distribution of occupational accidents in online motorcycle taxi drivers in Sumedang Regency in 2023.

The results of the frequency distribution shown in this study that online motorcycle taxi drivers in Sumedang Regency in 2023 have never experienced an occupational accident 67.4%. Work accident (accident) is an undesirable event or event that causes harm to humans, loss to the process, or damage to property that occurs in an industrial work process. An accident is an unexpected and unexpected event. Unexpected, because there is no element of intent, let alone planning behind the event. Accidents are unexpected because they are accompanied by material loss or suffering, from the mildest to the most severe. Work-related accidents are accidents related to the workplace, in the sense that accidents occur due to work or while carrying out work as well as potential accidents that occur on the way to and from work (Suma'mur, 2014). Work accidents occur due to a series of previous events or factors, where if one part of the event or factors is eliminated, the work accident does not occur. In general, the causes of work accidents are classified into two, namely unsafe actions and unsafe conditions. Unsafe action is a human action or deed that does not comply with the principle of safety, for example not using a safety belt when doing work. Meanwhile, unsafe condition is an unsafe workplace environment.

3) The relationship between health status and the incidence of work accidents in online motorcycle taxi drivers in Sumedang Regency in 2023

Based on the results of table 7 of this study with the significance value of the chi-square statistical test p value $0.019 < 0.05$, meaning H_0 is rejected. The results showed that there is a significant relationship between health status and the incidence of work accidents in online motorcycle taxi drivers in Sumedang Regency in 2023. This shows that the two variables have a negative relationship, meaning that the lower the health status, the higher the incidence of work accidents in online motorcycle taxi drivers and vice versa. Health is a state of health, both physically, mentally, spiritually, and socially that allows everyone to live socially and economically productive (Health Law Number 36, 2009). Health history is information about a person's health. Some evidence suggests that health is related to accidents. Workers who have poor health or many health problems tend to have higher accidents. In addition, drug consumption can also increase the risk of accidents due to side effects such as drowsiness from the drug (Tarwaka, 2008).

Riding a motorcycle requires more stamina than driving a car. Fatigue will affect a person to make decisions quickly and make it difficult for the driver to concentrate, balance, and vision. Fatigue is caused by drivers riding motorcycles beyond working hours or drivers lacking sleep (Nurhafizhah, 2017). Health due to driving too long based on research conducted by Nurhafizhah (2017) there are health side effects on motorcycle taxi drivers, namely health complaints, especially those related to the lower back and soreness in the driver's wrist which can cause discomfort in driving which can cause accidents.

The results of this study are in line with research conducted by Suwandi N (2023) on driving safety health status showing the results of statistical tests obtained p value = $0.003 < 0.05$, meaning H_0 is rejected. The results

showed that there was a relationship between health status and the incidence of work accidents. Another study that is in line with this research conducted by Herry K, et al (2020) on safety health status shows the results of statistical tests obtained p value = $0.012 < 0.5$, meaning H_0 is rejected. The results showed that there was a relationship between health status and the incidence of work accidents. This researcher is different from previous studies because to the best of the author's knowledge there is still no other research that examines the relationship between knowledge, attitudes and health status with the incidence of work accidents in online motorcycle taxi drivers in Sumedang Regency in 2023 with quantitative methods.

2) CONCLUSION

Based on the results of research conducted on 92 respondents of online motorcycle taxi drivers, regarding the relationship between knowledge, attitude and health status with the incidence of work accidents in online motorcycle taxi drivers in Sumedang Regency in 2023, the following conclusions can be drawn as follow:

1. The health status of online motorcycle taxi drivers in Sumedang Regency in 2023 in the unhealthy category is 70.7%.
2. The incidence of occupational accidents of online motorcycle taxi drivers in Sumedang Regency in 2023 in the category of never having an accident is 67.4%.
3. There is a relationship between knowledge and the incidence of work accidents in online motorcycle taxi drivers in Sumedang Regency in 2023, with a p value of $0.007 < 0.05$.

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The Relationship of Dietary Habits with Dyspepsia Syndrome Disease among Community Residents in Cibubuan Village, Conggeang in 2023

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ABSTRACT

Dyspepsia syndrome is the second highest disease in Sumedang district with a percentage of 14%. This study aims to determine the relationship between diet and the incidence of dyspepsia syndrome in Cibubuan Village. This research was conducted in Cibubuan village, Conggeang sub-district. This type of research is correlational analytic with cross sectional design. The research sample used was 96 respondents of Cibubuan village community members who were taken with proportional random sampling technique. Data collection techniques using research instruments in the form of questionnaires. Data analysis used in the form of chi-square statistical test. The results of this study indicate that the results of the bivariate test show a P-value = 0.015 which means that there is a relationship between diet and the incidence of dyspepsia syndrome in Cibubuan village, Conggeang sub-district in 2023. From this study it is expected that community members should be given education about diet with the incidence of dyspeptic syndrome.



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1. INTRODUCTION

Dyspepsia is a collection of symptoms such as pain or discomfort in the upper abdomen, burning, nausea vomiting, fullness and bloating. There are various mechanisms that may underlie dyspeptic symptoms such as intestinal motility disorders, hypersensitivity, infection, or psychosocial factors. The prevalence of functional dyspepsia in the UK is 23.8%, while in the US it is 15%. In Indonesia, there is no overall prevalence of this disease. Based on (WHO) data, dyspepsia cases in the world reach 13-40% of the total population every year. (World Health Organization, 2021).

Holmes and Rate's 1975 psychosocial model states that stress is a stimulus or cause of response (Smeltzer et al., 2010). This model relates stress as a causative factor that increases individual sensitivity to disease, this means that the more individuals are exposed to stress, the more susceptible individuals are to disease. Stress can lead to various gastrointestinal disorders, one of which is dyspepsia syndrome which is a group of upper digestive system symptoms that occur due to various factors (Lee, Kim, & Cho, 2014).

Globally, the prevalence of dyspepsia is 7-41%, but only 10-20% seek medical attention. The prevalence of dyspepsia in Western countries is 1-8%. The prevalence of dyspepsia in Indonesia is 40-50%. At the age of 40 years, it is estimated to occur in about 10 million people or 6.5% of the total population. In 2022, it is estimated that the incidence of dyspepsia will increase from 10 million people to 28 people, equivalent to 11.3% of the total population in Indonesia (Kemenkes RI, 2022).

From the survey data of several health centers spread across West Java Province, the 20 largest diseases in 2022 ranked first in the largest diseases (new cases) in 2022 with the number of occurrences reaching 58,556

people, namely primary / essential hypertension (I10), followed by acute nasopharyngitis (J00) 51, 406 people, and dyspepsia (K30) 42,566 people. Dyspepsia is ranked third in West Java province (West Java Provincial Health Office, 2022).

Based on the graph, the ten highest diseases from the Sumedang district health office survey data recorded in the first rank are still hypertension with a percentage of 25%, followed by dyspepsia with a percentage of 14%, then common cold, contraception, respiratory disorders, myalgia, ARI, gastritis, dermatitis, from these data dyspepsia is in the second level of the highest level of the top 10 current diseases that occur in Sumedang district (Sumedang District Health Office, 2021). Meanwhile, data recorded at the UPTD Puskesmas Conggeang in 2020 showed that the first top 10 current diseases were Dyspepsia with a total of 1569 patients, while in 2021 dyspepsia decreased to third place with 799 people, and in 2022 there were 1085 new patients and 246 old patients who experienced Dyspepsia, with a total incidence in 2022 reaching 1,331 people (Data Puskesmas Conggeang, 2022).

Data in 2023 from January - March in several villages scattered in Conggeang kecamatan recorded Jambu Village as many as 11 patients consisting of 1 man and 10 women with an age range of 20 - 44 years, Cibubuan Village there were 8 patients including 3 women in the age range 20 - 44 years, 2 women in the age range 55- 59 years, 1 man in the age range 60 - 69 years, and 2 women in the age range > 70 years.

According to Reuters in Afifah (2018), adolescents often fail to prioritize their health after leaving home and living in another city for college. Daily life such as eating with a balanced diet is often not fulfilled. Most teenagers when entering student life often leave home and become boarders, where the life of boarders is identical to a less organized and less healthy lifestyle. Boarding school children often do not meet the needs of healthy food intake. Another factor affecting the incidence of dyspepsia syndrome is the age of respondents, some of whom are in the age range of 22-24 years (60.2%). The results of this study are in line with research by Khotimah and Ariani (2011) that adolescents aged 18 and above are prone to gastritis. The clinical picture determined in gastritis can be dyspepsia or indigestion. Based on the description above, the researcher is interested in conducting research on "The Relationship of Diet with the Incidence of Dyspepsia Syndrome in the Community in Cibubuan Village, Conggeang District in 2023".

2. METHOD

The research method used is quantitative research with a Cross Sectional approach. The population in this study were community members in Cibubuan Village as many as 2,111 people. The sampling used in this study was random sampling, with a total sample of 96 people. 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. Analisis Univariat

1) Overview of Dietary Habits

Table 1

Frequency Distribution of Community Diet in Cibubuan Village, Conggeang Subdistrict in 2023

Diet	Frequency	Percent (%)
Good	29	30,2
Poor	67	69,8
Total	96	100,0

Source: Primary Data 2023

Based on Table 1 on the frequency distribution of diet, it was found that most residents had a poor diet, namely 67 people (69.8%), and 29 people (30.2%) had a good diet.

2) Overview of Dyspepsia Syndrome

Tabel 2

Frequency Distribution of Dyspepsia Syndrome in Cibubuan Village, Conggeang District in 2023

Category	Frequency	Percent (%)
Positive	55	57,3
Negative	41	42,7
Total	96	100,0

Source: Primary Data 2023

Based on Table 3 about the distribution of dyspepsia syndrome, it was found that most residents as many as 55 people (57.3%) were positive, and 41 people (42.7%) were negative.

B) Bivariate Analysis

1) The relationship between diet and the incidence of dyspepsia syndrome in Cibubuan Village Conggeang District in 2023.

Table 3
Cross tabulation of association between diet and incidence of dyspepsia syndrome in Cibubuan Village, Conggeang District in 2023

Diet	Dyspepsia Syndrome				Total		P Value*
	Positive		Negative				
	F	%	F	%	F	%	
Healthy	15	51.7	14	48.3	29	100.0	0.015
Unhealthy	40	59.7	27	40.3	67	100.0	
Total	55	57.3	41	42.7	96	100.0	

Source: Primary Data 2023

Based on Table 3 about the relationship between diet and the incidence of dyspepsia syndrome in Cibubuan Village, Conggeang District in 2023, it was found that residents who had a poor diet were 67 people (69.8%) and positive dyspepsia syndrome were 55 people (57.3%). Based on the Chi Square statistical test with a confidence level of 95% assessed $\alpha = 0.05$, obtained P value = 0.015 where P value < 0.05 , so that H_0 is rejected or H_a is accepted, in other words, statistically proven to have a significant relationship between diet and the incidence of dyspepsia syndrome in Cibubuan Village, Conggeang District, 2023.

3.2 Discussion

1) Diet Overview

The results of the Frequency Distribution shown in this study with the most categories are in the poor category with a total of 67 people (69.8%), and a good category of 29 people (30.2%). This shows that many residents of Cibubuan village have a poor and irregular diet. Assumptions regarding diet in the poor category can refer to the belief that an unhealthy or unbalanced diet can contribute to the risk or occurrence of a particular condition or disease. poor diet often means a lack of intake of essential nutrients such as fiber, vitamins, and minerals. Lack of these nutrients can disrupt the balance of the digestive system and potentially trigger symptoms of dyspepsia syndrome. an unbalanced diet that leads to obesity or being overweight may increase the risk of dyspepsia syndrome. This condition may be associated with pressure on the digestive system.

2) Overview of Dyspepsia Syndrome

The results of the Frequency Distribution shown in this study that the majority of residents of Cibubuan village who were affected by dyspepsia syndrome either symptomatic or acute were declared positive as many as 55 people (57.3%), and 41 people (42.7%) were negative. This shows that many residents of Cibubuan village who experience dyspepsia syndrome both new symptoms with positive criteria and those that are acute or called GEA disease (Acute Gastroenteritis).

According to the researcher's assumptions, assumptions about dyspepsia syndrome in the positive category are usually based on the belief that research or interventions related to dyspepsia syndrome can provide benefits or useful solutions for individuals who experience the digestive disorder. with more information available about dyspepsia syndrome, individuals will have better knowledge about the symptoms, causes, and how to manage them. More research and resources on dyspepsia syndrome will lead to an increase in the health support available to individuals suffering from this disorder. This includes access to appropriate medical services and psychological support. As research continues to develop, we may identify interventions that are more effective in managing or overcoming dyspepsia syndrome. These interventions may include dietary changes, stress management, or improved medical therapy.

3) The relationship between diet and the incidence of dyspepsia syndrome in Cibubuan Village, Conggeang District in 2023.

According to the results of this study with a p value of 0.002 ($p < 0.05$), there is a tendency for residents who experience a poor diet. According to the Indonesian Ministry of Health (2014), dyspepsia syndrome is something related to digestion and stomach acid, which is very dependent on the diet received by the person. The worse the regular diet, the greater the chance of developing dyspepsia syndrome.

This is in line with research conducted by Rahmini Shabarlah and Thera Cahya Pradini (2020) on the relationship between diet and the incidence of dyspepsia syndrome in Cicurug Sukabumi which is statistically proven to have a relationship with a value of $P < 0.05$. Another study conducted by Sari Purwaningrum and Yuniar Wardani (2012) also showed that there was a relationship between diet and the incidence of dyspeptic syndrome in the Sewon I Health Center Working Area, Bantul with a value of $P < 0.05$. This study is based on the theory of Notoadmodjo (2013), which states that diet plays an important role in all health factors, a regular diet with a frequency that is not too long can maximize the digestive system and reduce stomach acid levels so that there is no contraction of increased stomach acid, causing nausea accompanied by vomiting which can indicate pain in the solar plexus. From the results of the author's research, it can be seen that there is a relationship between diet and the incidence of dyspepsia syndrome in Cibubuan Village, Conggeang District in 2023, with a p value of 0.002 or $p < 0.05$.

According to researchers' assumptions, fast eating and overeating can lead to excessive air consumption and increase the risk of dyspeptic syndrome symptoms such as flatulence and bloating. high-fat foods can increase the risk of acid reflux, which can cause abdominal pain and other symptoms associated with dyspeptic syndrome. spicy and acidic foods can stimulate the production of stomach acid, which can also increase the risk of dyspeptic symptoms. consuming heavy or large meals before bedtime can increase the risk of acid reflux and dyspeptic symptoms during sleep. Some individuals with dyspepsia syndrome may have intolerances to certain foods, such as lactose or gluten. Consumption of these foods may trigger dyspepsia symptoms.

4. CONCLUSION

Based on the results of research and discussion about the relationship between stress levels and diet with the incidence of dyspepsia syndrome in the community in Cibubuan Village, Conggeang District in 2023, it can be concluded that:

- 1) Most residents in Cibubuan Village, Conggeang Subdistrict in 2023 had a poor diet, namely 67 people (69.8%).
- 2) Most residents in Cibubuan Village, Conggeang District in 2023 with positive criteria for dyspepsia syndrome were 55 people (57.3%).
- 3) There is a significant relationship between diet and dyspepsia syndrome in Cibubuan Village, Conggeang District in 2023 with p value = 0.002 where P value < 0.05 .

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The Relationship of Occupational Safety and Health Implementation with The Incidence of Work Accidents in X Company Majalengka District 2023

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ABSTRAK

Work accidents are problems that often occur to workers and also to employers. The application of Occupational Safety and Health (K3) is very helpful in dealing with the problem of work accidents. Purpose of this study was to determine relationship of the implementation of Occupational Safety and Health (K3) and work accidents at Company X Majalengka in 2023. This type of research uses quantitative research methods with a Cross Sectional approach. The population in this study were all employees at Company X Majalengka in 2023 as many as 307 people, with a sample size of 76 people. The sampling technique in this study used accidental sampling. The research instrument used a questionnaire. Data analysis techniques using univariate analysis and bivariate analysis. The results showed that the majority applied aspects of occupational safety and health (K3) in the good category as much as (65.8%) and the majority experienced minor work accidents as much as (59.2%). The results of the chi square test with p value = 0.000 (<0.05) which there is a relationship between aspects of occupational safety and health (K3) with work accidents at Company X Majalengka in 2023. Therefore, it is necessary to increase supervision and maximize the function of supervisors to inspect workers who do not wear personal protective equipment and comply with regulations and implement occupational health and safety programs.



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1. PENDAHULUAN

Work accidents are one of the problems that often occur to workers and also to employers. These accidents usually occur due to factors from the workers themselves and the work environment, which in this case is from the employers in the informal and non-formal sectors. Occupational safety and health must be strived to remain conducive, even improve. This is very important because it can make employees feel safe and become eager to work. Furthermore, if employees who already feel their safety is guaranteed and are eager to work, it is hoped that with the implementation of conducive occupational safety and health, employees will be motivated to work harder and be more enthusiastic in improving their performance. Therefore, occupational safety and health needs to be considered (Gayatri, 2021).

According to data released by the International Labor Organization (ILO) that in 2019 the ILO confirmed that every year around 380,000 workers or 13.7% of the 2.78 million people die each year due to work accidents. According to the Data and Information Center of the Indonesian Ministry of Health, cases of work-related accidents in 2013 amounted to 9,891, in 2014 amounted to 21,735, in 2015 amounted to 35,917, in 2016

amounted to 24,910, in 2017 amounted to 110,285, in 2018 amounted to 123,041 and in 2019 there were 173,105 cases of work accidents in Indonesia. In Indonesia, the number of work accidents is still high, so in the efforts of the National Occupational Safety and Health month campaign, it is stated that the number of work accidents continues to increase throughout the year. BPJS Ketenagakerjaan also reported as many as 147,000 cases of work accidents throughout 2020, there are at least 40,273 cases of work accidents every day.

The Social Security Organizing Agency (BPJS) in West Java Province reports that there are statistical data on 11,094 cases, Sumedang Regency with 1,218 cases and Majalengka Regency with 1,484 cases with existing data, the number of work accidents that occur in Majalengka Regency is around 15 cases every day (BPJS, 2020).

There are dozens of large private companies in Majalengka, especially textile and garment companies that produce fabrics, apparel (clothes, pants, shirts etc.). Even the Nike, Puma and Soccer Ball shoe factories that have become world brands, namely PT Sinjarga Santika Sport Majalengka, which is located in Majalengka, a small town in West Java province, precisely on Jalan Liangjulung Number 104 Kadipaten Majalengka 45452. The company was founded on November 27, 1994 under the leadership of H.M Irwan Suryanto. The types of production produced in this company are soccer balls, volleyballs and basketballs.

The ball products produced by Company X are known as Triple's (Bola Majalengka). In its marketing, this company supplies 30% to be distributed to Indonesia and 70% is exported abroad such as: Korea, Japan, Singapore, USA, Middle East, Brazil, Europe, Venezuela, Nigeria, Argentina, Brunei Darussalam. The company is now the only industrial ball-making company that has obtained the ISO 9001 version 2000 certificate which it obtained in April 2003. In addition to the quality of ball products made by PT Sinjaraga Santika Sport Majalengka, it has also received recognition from the European community with the achievement of the 'CE Mark' (CE = Community Europe) from the Instituto Italiano Sicurezza Del Giocattoli (EC-Notified Body, 0376). The company now produces not only soccer balls but also volleyballs and basketballs.

According to Sedarmayanti (2011), basically the causes of accidents can be seen from three factors that cause accidents, namely environmental factors, human factors, and machine / tool factors. Environmental factors are unsafe conditions of the environment or workspace. Human factors are unsafe actions from humans such as deliberately violating occupational safety and health regulations required in work. Machine/tool factors are equipment and machines that are not maintained or technical damage, but the frequency of work accidents occurs more due to human factors, because humans play the most role in using equipment in a company. With the application of OSH, it is very helpful in dealing with these problems. Therefore, the existence of K3 seeks to ensure the safety and health of workers and the environment in order to realize a safe, healthy and safe working atmosphere and support work productivity for workers and consumers in the company.

A good company is a company that really takes care of the safety and health of its employees by making rules about occupational safety and health that are implemented by all employees and company leaders. Protection of labor from hazards and diseases due to work or as a result of the work environment is needed by employees so that employees feel safe and comfortable in completing their work. A healthy workforce will work productively, so it is expected that employee productivity will increase which can support the success of the company's business in building and growing its business.

Based on the results of the preliminary study at PT Sinjaraga Santika Sport Majalengka, it was found that work accidents that occurred in the workplace, especially in the industrial environment in 2021 experienced 28 workers (9.14%) consisting of 19 minor accidents, 7 moderate accidents and 2 severe accidents. In 2022 there were 39 workers (12.8%) consisting of 27 minor accidents, 9 moderate accidents and 3 severe accidents. The types of accidents that occurred were chemical poisoning, hands pinched by press machines and punctured by needles, and burns to limbs during the heating of ball raw materials. From the information of one of the Production Managers interviewed, several workers had experienced accidents at work such as cutting the material or ball skin experiencing cuts, when sewing balls which were carried out manually were often punctured by a large enough needle, and when operating the ball skin raw material press machine there had also been injuries to the hands so that they experienced disability. Based on this background, it is necessary to conduct research on "The Relationship between Occupational Safety and Health (K3) Application and Work Accidents at Company X Majalengka in 2023".

2. METHODS

The research method used is quantitative research with a Cross Sectional approach. The population in this study were employees at Company X Majalengka as many as 307 people. The sampling used in this study was random sampling, with a total sample of 76 people. The instrument used was a questionnaire. Data analysis includes univariate and bivariate analysis using the Chi square test.

3. RESULTS AND DISCUSSION

3.1. Result

A. Univariat Analysis

1) Overview of Occupational Safety and Health (OHS) Implementation

Tabel 1

Frequency Distribution of Occupational Safety and Health (OHS) Implementation in Company X Majalengka in 2023

Implementation of Occupational Safety and Health (OHS)	f	%
Good	50	65,8
Simply	14	18,4
Less	12	15,8
Total	76	100,0

Source: Primary Data 2023

Based on Table 1, it is found that the majority of employees apply aspects of occupational safety and health (K3) in the good category as much as (65.8%) at Company X Majalengka in 2023.

2) Overview of Occupational Accidents in Company X Majalengka

Tabel 2

Frequency Distribution of Occupational Accidents at Company X Majalengka in 2023

Occurrence of Work Accidents	f	%
Lightweight	45	59,2
Medium Weight	27	35,5
Weight	4	5,3
Total	76	100,0

Source: Primary Data 2023

Based on Table 2, it is found that the majority of employees experienced minor work accidents as much as (59.2%) at Company X Majalengka in 2023.

B. Bivariate Analysis

1) The Relationship between Occupational Accidents and Occupational Safety and Health (K3) Aspects in Company X Majalengka

Table 3

The Relationship of Work Accidents with Occupational Safety and Health (OHS) Implementation in Company X Majalengka in 2023

Occupational Safety and Health (OHS) Aspects	Work Accidents						Total		p value
	Lightweight		Medium		Weight		N	%	
	n	%	n	%	n	%			
Good	43	86,0	7	14,0	0	0,0	50	100	0,000
Simply	2	14,3	10	71,4	2	14,3	14	100	
Less	0	0,0	10	83,3	2	16,7	12	100	
Total	45	59,2	27	35,5	4	5,3	76	100	

Source: Primary Data 2023

Based on Table 3, it is found that employees who apply aspects of occupational safety and health well and experience minor work accidents amounted to 86.0%, employees who apply aspects of occupational safety and health fairly well and experience minor work accidents amounted to 14.4%. These results show that the proportion of employees who experience minor work accidents is higher in those who apply aspects of occupational safety and health in the good category compared to those who apply aspects of occupational safety and health in the sufficient category.

This difference in proportion shows meaningful results as seen from the chi square test with a p value = 0.000 (<0.05) which means that the null hypothesis is rejected or there is a relationship between aspects of occupational safety and health (K3) and work accidents at Company X Majalengka in 2023.

3.2. Discussion

A. Overview of Occupational Safety and Health (OHS) Aspects

Based on the results of the study, it shows that a small proportion of employees (15.8%) apply aspects of occupational safety and health (K3) in the less category at Company X Majalengka in 2023. Poor implementation of occupational safety and health aspects increases the risk of work accidents.

The results of this study are in line with the research of Ida Ayu Er (2017) that based on the results that 13.2% of respondents apply aspects of occupational safety and health at PT. UOB Indonesia Branch Bengkulu Branch, in line with research by Wibowo (2021) that a small portion of 16.4% of workers apply aspects of occupational safety and health (K3) at PT. PLN (Persero) ULP Batulicin Tanah Bumbu Regency. This is in accordance with the theory put forward by Gayatri (2021) that occupational safety and health must be strived to remain conducive, even improve. This is very important because it can make employees feel safe and become excited to work. Furthermore, if employees who already feel their safety is guaranteed and are eager to work, it is hoped that with the implementation of conducive occupational safety and health, employees will be motivated to work harder and be more enthusiastic in improving their performance. Therefore, occupational safety and health needs to be considered.

Occupational Safety and Health, hereinafter abbreviated as K3, is all activities to ensure and protect the safety and health of workers through efforts to prevent work accidents and occupational diseases. The company still reminds the OHS system according to procedures, but mechanics are factually ignorant about the occupational safety and health system in the workshop. The company continues to run the OHS system according to procedures, which has an important effect on work productivity and health or safety aspects. (Regulation of the Minister of Manpower, 2018).

Occupational safety and health is a form of effort to achieve a company situation, where employees who are in it always feel healthy and feel safe from a threat of danger or risk that arises. While the ultimate goal of an occupational safety and health program is the absence of work accidents even to the absence of injury or illness due to work in an effort to improve overall welfare (Tarwaka, 2015). According to Sucipto (2014) that occupational health and safety is an effort and effort to create protection and security from the risk of accidents and hazards both physical, mental and emotional to workers, companies, communities and the environment.

From the results of the occupational safety and health questionnaire, it can be concluded that the better the implementation of occupational safety and health, the lower the number of work accidents. Therefore, activities to check tools or what is often referred to as tool titles are very important to be carried out on a regularly scheduled basis every month in order to determine the physical condition and function of the equipment itself so that malfunctions do not occur (not functioning as it should) which can potentially result in work accidents. Because work accidents will have a bad impact on workers and companies, it is hoped that scheduled tool inspection activities can avoid work accidents for workers.

B. Overview of Occupational Accidents at Company X Majalengka

Based on the results of the study, it shows that a small proportion (5.3%) of employees experienced severe work accidents at Company X Majalengka in 2023. The occurrence of serious work accidents can be caused by less than optimal tool maintenance, workers not applying aspects of occupational safety and health, and errors from workers in operating work tools.

The results of this study are in line with those conducted by Faris Khamdani (2019) who had less than half of the workers who had an accident, namely 7.3%. According to Sedarmayanti (2011), basically the causes of accidents can be seen from three factors that cause accidents, namely environmental factors, human factors, and machine / tool factors. Environmental factors are unsafe conditions of the environment or workspace. Human factors are unsafe actions from humans such as deliberately violating occupational safety and health regulations required in work. Machine/tool factors are equipment and machines that are not maintained or technical damage, but the frequency of work accidents occurs more due to human factors, because humans

play the most role in using equipment in a company. With the application of OSH, it is very helpful in dealing with these problems. Therefore, the existence of K3 seeks to ensure the safety and health of workers and the environment in order to realize a safe, healthy and safe working atmosphere and support work productivity for workers and consumers in the company.

Notoatmodjo (2017) suggests that accidents can occur due to poor or dangerous conditions of tools or materials. Accidents can also be triggered by unsafe work environment conditions such as ventilation, lighting, noise or temperature that exceeds the threshold. In addition, accidents can also come from humans who commit accidents in the workplace and handle tools or materials that are not in accordance with the procedure.

To address this, it is necessary to increase supervision or supervisors who must always remain in place. Maximize the function of supervisors to guard workers who do not wear personal protective equipment to comply with regulations and implement occupational health and safety programs.

C. The Relationship of Work Accidents with Aspects of Occupational Safety and Health (K3) at Company X Majalengka in 2023

The results of the chi square test with p value = 0.000 (<0.05) which means that the null hypothesis is rejected or there is a relationship between aspects of occupational safety and health (K3) and work accidents at Company X Majalengka in 2023.

The results of this study are in line with the research of Ida Ayu Er (2017) that based on the results of the calculation of the Spearman rank correlation coefficient analysis of the number 0.89 or rho at 0.80-1.000 which is very strong, which means that the relationship between the Occupational Health and Safety (K3) variable and the performance of employees of PT UOB Indonesia Bengkulu Branch is very strong. Hypothesis testing results, t count of 14.863 and t table is 2.0003 or ($14.863 > 2.0003$), then H_0 is rejected and H_a is accepted, meaning that there is a significant relationship between occupational safety and health (K3) and employee performance at PT. UOB Indonesia Bengkulu Branch. In line with research by Wibowo (2021) that the results of the study show that there is a relationship between the Application of Occupational Safety and Health (K3) with Work Accidents, namely ($p = 0.002$), the Feasibility of Work Equipment with Work Accidents, namely ($p = 0.003$).

According to Wibowo (2021), the better the implementation of occupational safety and health (K3), the lower the number of work accidents. If a person is based on awareness in the application of occupational safety and health (K3), that person will understand how important it is to implement the program to maintain their safety when doing work. Because work accidents will have a bad impact on workers and companies, therefore the application of occupational safety and health (K3) is expected to avoid work accidents for workers.

According to Sedarmayanti (2011), basically the causes of accidents can be seen from three factors that cause accidents, namely environmental factors, human factors, and machine / tool factors. Environmental factors are unsafe conditions of the environment or workspace. Human factors are unsafe actions from humans such as deliberately violating occupational safety and health regulations required in work. Machine/tool factors are equipment and machines that are not maintained or technical damage, but the frequency of work accidents occurs more due to human factors, because humans play the most role in using equipment in a company. With the application of OSH, it is very helpful in dealing with these problems. Therefore, the existence of K3 seeks to ensure the safety and health of workers and the environment in order to realize a safe, healthy and safe working atmosphere and support work productivity for workers and consumers in the company.

According to Suraji (2019), worker actions that directly cause work accidents include the use of incorrect or damaged protective equipment, failure to comply with applicable instructions or regulations, lack of caution, overconfidence. Unsafe behavior is considered the result of mistakes made by both workers directly involved. From the results of the questionnaire on the application of occupational safety and health (K3), it can be concluded that the better the application of occupational safety and health (K3), the lower the number of work accidents. If a person is based on awareness in the application of occupational safety and health (K3), that person will understand how important it is to implement the program to maintain their safety when doing work. Because work accidents will have a bad impact on workers and companies, therefore the application of occupational safety and health (K3) is expected to avoid work accidents for workers.

4. KESIMPULAN

Based on the results of research and discussion regarding "The Relationship of Work Accidents with Occupational Safety and Health (K3) Aspects at Company X Majalengka in 2023" the following conclusions are obtained:

- a. The majority of employees apply aspects of occupational safety and health (K3) in the good category as much as (65.8%) in Company X Majalengka in 2023.
- b. The majority of employees experienced minor work accidents (59.2%) at Company X Majalengka in 2023.
- c. The results of the chi square test with p value = 0.000 (<0.05) which means that the null hypothesis is rejected or there is a relationship between aspects of occupational safety and health (K3) and work accidents at Company X Majalengka in 2023.

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Quality of Life among Pulmonary Tuberculosis Patients: Descriptive Study at Situ Community Health Center Sumedang Regency in 2023

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ABSTRACT

Tuberculosis (TB) is an infectious disease that remains a public health problem. Pulmonary tuberculosis disease not only affects the physical condition of the patient, but also their psychological condition which can cause anxiety and affect their quality of life. This study aims to determine the relationship between anxiety levels and the quality of life of pulmonary tuberculosis patients at the Situ health center in Sumedang Regency. The type of research used is quantitative and uses a cross sectional design, with a total sample of 44 people. Research instruments was using the The World Health Organization Quality of Life (WHOQOL-BREF) to measure quality of life. The results showed that most of the respondents, had a moderate level of quality of life as much as 65,9%. Tuberculosis patients often feel inferior due to the stigma that arises from society so that patients often isolate themselves because they are ashamed of their illness. As a result, pulmonary tuberculosis patients will feel that they are useless, hopeless, afraid, sad, angry, and other feelings arise coupled with the length of treatment making patients feel anxious and affecting their quality of life. The results of this study are expected to be used as input to improve and develop services to pulmonary tuberculosis patients in a comprehensive manner for the Situ Community Health Center.



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1. PENDAHULUAN

Tuberculosis (TB) is an infectious disease that is still a public health problem in the world, including in Indonesia. Pulmonary tuberculosis (TB) is an infectious disease that attacks the lung parenchyma caused by TB germs (*Mycobacterium tuberculosis*). The disease can spread to other parts of the body such as the kidneys, bones and lymph nodes. Tuberculosis is one of the highest causes of morbidity and mortality. The number of patients for Tuberculosis disease increases every year, the WHO Global TB Report in 2020, 10 million people in the world suffer from Tuberculosis (TB) and causes 1.2 million people to die each year. And Indonesia is one of the countries with the highest TB burden in the world with an estimated number of people falling ill from TB reaching 845,000 with a death rate of 98,000 or the equivalent of 11 deaths / hour. (Ministry of Health, 2022).

Pulmonary tuberculosis disease greatly affects the psychological condition of the patient (Tolilou, Terok & Podung, 2013). Not a few patients when diagnosed with pulmonary tuberculosis feel fear in themselves, in the form of fear of treatment, death, drug side effects, transmitting the disease to others, losing their jobs, being rejected and discriminated against, and others. There are also studies that found high levels of psychological distress among patients suffering from pulmonary tuberculosis disease can lead to the formation of a stressor that pressurizes and threatens the patient's life, causing anxiety (Nuraeni, 2015).

Anxiety factors are one of the aspects that affect quality of life. According to WHO, quality of life is a person's perception in the context of culture and norms according to where the person lives in relation to goals, expectations, standards and concerns during his life. WHO developed an instrument to measure a person's quality of life from 4 aspects, namely physical, psychological, social and environmental. Quality of life can also be defined as a term that refers to a person's emotional, social, and physical well-being and ability to carry out activities of daily living. Quality of life can be categorized into poor quality of life, moderately poor quality of life, good quality of life and moderately good quality of life.

Based on data from a preliminary study at the Situ Health Center, conducted on April 6, 2023, 50 people were identified as suffering from pulmonary tuberculosis who were undergoing intensive and advanced treatment. As for the results of interviews with 5 pulmonary tuberculosis patients regarding the level of anxiety with quality of life, a number of interviewees said they felt shocked when they first received a diagnosis of pulmonary tuberculosis, they also said that previously they did not know where this disease came from, they felt anxious because they did not know how they could be infected with the bacteria that cause pulmonary tuberculosis, worried that they would infect other family members, anxious because it turned out that the treatment was so long and had to be intensive. Some of them feel that they will be ostracized and can no longer socialize with neighbors or with other people, but there are also those who accept their situation accompanied by efforts. Based on the description above, the researcher is interested in examining the description of the quality of life in pulmonary tuberculosis patients at the Situ Health Center, Sumedang Regency in 2023.

2. METODE

The type of research used is quantitative with a descriptive survey design, this research was conducted at the Situ Health Center, Sumedang Regency in June 2023. The population in the study were tuberculosis patients who took intensive and continued treatment at the Situ Health Center, Sumedang Regency. The sample in this study was a total of 44 patients who took treatment. Data analysis in this study included univariate analysis. The instrument in this study used a questionnaire. The WHOQOL-BREF instrument is a summary of the World Health Organization Quality of Life (WHOQOL)-100 which consists of 26 questions. WHOQOL-BREF consists of two parts derived from overall quality of life and general health, and one part consisting of 24 questions derived from WHOQOL. The validity test conducted by WHO in the journal (Sari, 2019) is an item validity test by calculating the correlation of the score of each item with the score of each dimension of WHOQOL-BREF. The results obtained are that there is a significant relationship between the item score and the dimension score ($r = 0.409 - 0.850$), so it can be stated that the WHOQOL - BREF measuring instrument is a valid measuring instrument in measuring quality of life (Sari, 2019).

3. RESULT AND DISCUSSION

3.1 Results

A. Univariate Analysis

1) Frequency Distribution of Quality of Life of Pulmonary Tuberculosis Patients

Table 2.
Frequency Distribution of Quality of Life of Pulmonary Tuberculosis Patients at the Situ Health Center, Sumedang Regency in 2023

Quality of Life	Frequency (<i>f</i>)	Percentage (%)
Good	2	4,5
Moderate	29	65,9
Poor	13	29,5
Total	44	100

Source: Primary Data, 2023

Based on the analysis of table 1 above, it can be seen that the frequency distribution of the quality of life of pulmonary tuberculosis patients at the Situ Health Center in Sumedang Regency is mostly in the good enough category as many as 29 (65.9%).

3.2 Discussion

A. Overview of Quality of Life in Pulmonary Tuberculosis Patients at the Situ Health Center, Sumedang Regency in 2023

According to the WHO, quality of life is an individual's perception of their position in life, in the context of the values and culture to which they belong, and also in relation to their life goals, expectations, standards, and concerns. The issues encompassing quality of life are broad and complex, including physical health, psychological status, level of independence, social relationships and the environment in which they live.

In patients with pulmonary TB there is a decrease in several system functions, such as the respiratory system and digestive system. According to research (Ita, 2020) which states that pulmonary TB disease has an impact on a person's low quality of life, because pulmonary TB disease affects all parts of quality of life, which include: general health perceptions, physical conditions, psychological health, social roles and the environment.

Based on the results of the study, it was found that the quality of life of pulmonary tuberculosis patients at the Situ health center in Sumedang Regency was mostly in the good enough category as many as 29 (65.9%). The results of this study are in line with research (Putri, 2015) said that TB patients who undergo treatment, both compliant and non-compliant, experience a decrease in various physical, social, psychological, and environmental functions. So that a person suffering from TB disease will experience a decrease in quality of life. This should be a concern that in addition to the treatment aspects that are emphasized in TB management programs, social, psychological and environmental aspects must also be developed so that the quality of life of TB patients can be improved.

The researcher concluded that in this study it was found that most patients had a fairly good quality of life, this was because in the results of the questionnaire most had good social relationships, one of which was thanks to family support, because pulmonary tuberculosis patients had to take long treatment would experience psychological pressure and feel worthless to family and society, so this is where the importance of the role of family for patients, if the social support is positive, then the patient will have a high or good quality of life as well.

4. CONCLUSIONS

Based on the results of research and discussion regarding the overview of quality of life among pulmonary tuberculosis patients at the Situ Health Center, Sumedang Regency in 2023, the researchers can conclude that the quality of life of pulmonary tuberculosis patients at the Situ Health Center, Sumedang Regency in 2023 is mostly in the category of good quality of life as many as 29 (65.9%).

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Overview of Reproductive Health Knowledge among Adolescents at SMAN 2 Sumedang in 2023

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ABSTRACT

Adolescence is a phase or transition period from childhood to adulthood, during this period there is usually physical, psychological, and intellectual development. Besides that, there are problems that often arise among adolescents today, such as sexuality problems and pregnancy outside of marriage, making them vulnerable to infection with sexually transmitted diseases, HIV and AIDS. It is important for a teenager to know about reproductive health. This study aims to determine whether there is a relationship between reproductive health knowledge and adolescent dating behavior at SMAN 2 Sumedang with a total sample of 96. This study is a quantitative study with descriptive survey design. Reproductive health knowledge data were analyzed with univariate statistics. The results showed that the level of reproductive health knowledge is included in the good criteria as many as 96 (100%). Having good reproductive health knowledge can affect future health status and behavior.



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1. INTRODUCTION

Reproductive health is a state of overall health including physical, mental and social life related to the tools, functions and processes of reproduction. The thought of reproductive health is not a condition free from disease but how a person can have a safe and satisfying sexual life before and after marriage. According to the Indonesian Health Regulation Number 25 of 2014, adolescents are defined as the population in the age range of 10-18 years and according to the Population and Family Planning Agency (BKKBN) the age range of adolescents is 10-24 years old and unmarried. From the above definitions, it can be concluded that adolescence is a phase or transition period from childhood to adulthood, usually occurring in the age range of 10 to 18 years. During adolescence, there is usually physical, psychological, and intellectual development. It becomes part of the human development period. Human development from birth to death can be grouped into several categories. Humans can be categorized by age, namely infants, children, adolescents, and adults. According to the World Health Organization (WHO) in 2015, the number of adolescents reached 1.2 billion (Angrainy et al.2020), according to the 2015 Inter-Census Population Survey, Indonesian adolescents aged 15-24 years numbered 42 million (Rahma, 2018). Statistical data in 2018 that the population in West Java Province is 11,358,740 (Irnawati, 2016) while according to the Central Bureau of Statistics of West Java Province in 2017, And according to the Sumedang district statistical center, the number of adolescents in Sumedang Regency is 98,325 adolescents. These are people aged 14 to 19 years. of these females 47,740 and males as many as 50,585.

The results of SDKI 2012 KRR in Dewi, Sari, & Pratiwi (2021) show that adolescents' knowledge of reproductive health is inadequate, which can be seen with only 35.3% of female adolescents and 31.2% of male adolescents aged 15-19 years knowing that women can become pregnant with one sexual intercourse. Similarly, the symptoms of STDs are not well known by adolescents. Information about HIV was relatively more widely received by adolescents, although only 9.9% of adolescent girls and 10.6% of boys had

comprehensive knowledge about HIV-AIDS. Adolescent services were also not widely known by adolescents. Reproductive health information can be obtained by adolescents from various media. Sources of health information greatly influence reproductive health knowledge and self-confidence of adolescents (Oh, et al. 2005). Reproductive health education is very important in providing understanding and information about the mechanism of sexual intercourse, helping to decide the state of sexual feelings and fears experienced by adolescents (Neinstein, et al., (2008).

According to the researchers, the knowledge of SMA N 2 Sumedang students regarding reproductive health is good because the students answered the questionnaire given by the researchers correctly. Based on the preliminary study that researchers got at the time of initial data collection at SMAN 2 Sumedang, researchers took 30 students including 15 students and 15 female students and there were 20 of them who did not know about reproductive health and dating behavior and 10 people knew about reproductive health and dating behavior. Based on the above problems, researchers are interested in conducting research with the aim of knowing the description of knowledge of students and female students at SMAN 2 Sumedang on reproductive health.

2. METHODS

This type of research is quantitative research. This research design uses a descriptive survey design. In this study, a sample of 96 students out of 277 students was obtained. This sampling uses purposive sampling technique where the method of returning the sample is selected according to certain criteria. The data analysis of this study includes univariate analysis in the form of frequency distribution and percentage.

3. RESULT AND DISCUSSION

3.1 Results

A. Univariate Analysis

1) Reproductive health and opposite sex relationships

Table 1 Reproductive Health

Criteria	Frequency	Percentage (%)
Good	96	100%
Simply	0	0%
Less	0	0%
Total	96	100%

Source: Primary Data, 2023

From the table above, it can be seen that the level of reproductive health knowledge of SMA N 2 Sumedang students is classified as good as 96 (100%).

3.2 Discussion

A. Overview of reproductive health knowledge among adolescent

The level of reproductive health knowledge of SMA N 2 Sumedang students is classified as good as 96 (100%). These results are in line with research conducted by Dewi, Sari, & Pratiwi (2021) showing that most respondents' knowledge of adolescent reproductive health (63.8%) is in the good category.

Knowledge about reproductive health is basic knowledge that must be understood by adolescents. Adolescence is a transition period from childhood to adulthood. This means that physically adolescents can reproduce, but psychologically, socially, and economically they are not ready to have children and build a family. Therefore, knowledge about reproductive health is important for them.

Adolescents who are more aware of the importance of maintaining reproductive health are less likely to experience pregnancy at an early age. As we know, getting pregnant in adolescence is at risk of giving birth to premature babies and low birth weight (LBW) which is closely related to the risk of stunting. Unfortunately, in Indonesia, adolescents' knowledge about reproductive health is still low. Based on data from the National Population Family Planning Agency (BKKBN) (2018), only 17.1% of adolescent girls and 10.4% of adolescent boys know correctly about the fertile period and the risks of pregnancy. A 2017 report from the Indonesian Ministry of Health also noted that only 20% of adolescents aged 15-24 years knew information about HIV, or other sexually transmitted diseases, such as chlamydia, syphilis, trichomoniasis, herpes and others.

One of the reasons is that reproductive health is often considered a taboo, because it is only associated with sexual relations. In fact, reproductive health has a broad scope, such as the reproductive system, functions, and processes, including education about menstruation, education related to sexually transmitted diseases, and so on.

According to A. Wawan and Dewi M (2011), one of the internal factors that influence knowledge is age. Age is the age of the individual starting from birth to repeated years. Meanwhile, according to Hurclok (2017) the more age, the level of maturity and strength of a person will be more mature in thinking and working. One of the external factors that influence knowledge is that the data shows that adolescents' interest in knowing about reproductive health is very high, this can be caused because reproductive problems are a trending issue among adolescents, which is also supported by the availability of information facilities in the community. With the results shown in the table above, there is an increasing opportunity to achieve the goal expected in the International Conference on Population Development/ICDP held in Cairo in 1994, which is that by the end of 2015, 90% of all adolescents have received information about sexual and reproductive health.

4. CONCLUSIONS

Based on the research that has been conducted by researchers, it can be concluded that the level of reproductive health knowledge of high school students at SMAN 2 Sumedang is classified in good criteria as many as 96 (100%).

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