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**Overview of Knowledge About Gastritis Disease in Adolescents at SMAN 3 Tuban**

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**ABSTRACT**

Gastritis is a stomach disease that can attack at any age in developing countries and in developed countries it is mostly found in teenagers. The number of gastritis sufferers is between men and women, it turns out that gastritis occurs more often in women than men. Gastritis worldwide affects more than 1.7 billion. The aim of this research was to determine the description of knowledge about gastritis in adolescents at SMAN 3 Tuban. Descriptive research design with a cross-sectional approach. The research population was all 11th grade teenagers at SMAN 3 Tuban, totaling 252 teenagers, with a sample size of 155 teenagers. The sampling technique used is Simple Random Sampling. The research variable is a description of knowledge about gastritis in adolescents. The method for collecting data is by distributing questionnaires using Google Form and then processing the data using the SPSS application to see the percentage of research data. The results showed that most (59%) teenagers were 17 years old, while the majority (62%) were female. Almost all of the teenagers at SMAN 3 Tuban had good knowledge, 118 people (76%) about gastritis. Almost all of those with good knowledge (85%) are 18 years old, and almost all of those with good knowledge (83%) are male. This shows that students' knowledge about gastritis at SMAN 3 Tuban shows that they have a good understanding of gastritis. With proper knowledge about gastritis, teenagers can be more aware of the causes and risk factors for this disease, such as consumption of spicy and sour foods, irregular eating habits, stress, and use of certain medications. This helps them take effective preventive measures. It is hoped that teenagers can apply the knowledge they have by living a healthy lifestyle and seeking information about gastritis through good and correct media to prevent and increase information about gastritis.

**Keywords:** Gastritis, Knowledge, Teenagers

**INTRODUCTION**

Gastritis is a gastric disease that can attack at any age in developing countries and in developed countries it is mostly found in adolescence. The total number of gastritis sufferers between men and women, it turns out that gastritis occurs more in women than men. Gastritis worldwide affects more than 1.7 billion people. In developing countries the infection (Riyanto, 2012). Gastritis can result from an imbalance of stomach acid as a trigger for aggressive factors and the gastric mucosa as a protective factor. Aggressive factors cause more irritation of the mucosa on the stomach wall. In

addition to protein consumption, the habit of consuming spicy food and the habit of drinking coffee can be a trigger for gastritis. This is because spicy foods are able to stimulate and cause irritation to the gastric mucosa, while caffeine in coffee can increase the work activity of stomach acid (Arikah, 2015).

People in general know gastritis as an ulcer disease or a disease that they think is not a severe problem, gastritis also does not look at various ages ranging from children, adolescents, adults to the elderly. (Jannah, 2020). What is happening now is that many teenagers consider this gastritis disease not serious or easy, so they do not

care about what things can cause gastritis. According to the Indonesian Ministry of Health, although the condition seems to be a non-serious or not severe disease for the body, the number of occurrences is quite large (Gustin, 2011; Febriani et al, 2020).

Gastritis is a health problem in the community with a fairly high prevalence. This is due to the lack of knowledge about gastritis in adolescents up to 50%. (Nirmalarumsari & Tanpair, 2020). Too often teenagers are trapped in unhealthy and irregular diets, even to the point of experiencing eating disorders. This is because their daily life activities are busy with school assignments and other life burdens, so they tend to pay less attention to the food they eat, both the type of food and the time of day which makes them more likely to experience stomach problems, namely ulcers or gastritis. (Tussakinah et al. 2018; Angkow et al. 2014). Sometimes the symptoms of gastritis are initially ignored, in fact if the disease is left untreated, then quite severe complications can occur. (Danu et al., 2019; Sepdianto et al., 2022).

Gastritis cases in the world based on data according to the World Health Organization (WHO) in 2020 recorded several countries in the world that obtained the percentage of gastritis cases in the world, namely the United Kingdom 22.0%, China 31.0%, Japan 14.5%, Canada 35.0%, and France 29.5%. According to data from the Indonesian Ministry of Health, gastritis is ranked sixth with a total incidence of 33,580, hospitalized patients 60.86% of cases. Gastritis in outpatients with 201,083 cases and ranked seventh (Ministry of Health, 2018). The percentage of patients diagnosed with gastritis in Indonesia is 40.8% (Mustakim & Rimbawati, 2021). Cases of gastritis in several regions in Indonesia are quite high with a total of 274,396 cases from 238,452,952 people (Handayani & Thomy, 2018). The total gastritis in East Java is up to 31.2%, with a total of 30,154 incidents (Mustakim & Rimbawati, 2021). Based on data from the

Tuban Regency Health Office, the target of gastritis incidence in Tuban Regency is 0 cases (0%) while the fact is that the incidence of gastritis in 2021 ranks second with 21,799 cases (13.16%). The incidence of gastritis in adolescents in Tuban Regency has reached (11,18%).

An initial survey conducted by researchers in October 2023 with a questionnaire of 10 students of SMAN 3 Tuban there were 7 students who did not know about gastritis, from the initial survey data showed that adolescents did not understand that one of the causes of gastritis was irregular eating, spicy, acidic and alcoholic foods could cause gastritis symptoms, stress could trigger gastritis events. As a result, adolescents do not know the attitude of gastritis prevention, preferring activities such as learning and other activities.

Education is generally related to knowledge, as well as influencing the choice of food types and the fulfillment of nutritional needs. One of the principles often held by individuals with low levels of education is that the most important thing is that the food consumed can be filling, so they tend to consume more carbohydrate source foods compared to other food groups. In contrast, people with higher education tend to prefer foods rich in protein and strive to balance their nutritional intake with other needs. Therefore, a person's education level has a significant influence on the risk of developing gastritis. (Pratiwi, 2013). Knowledge has a significant relationship with the symptoms of gastritis. By understanding the process of gastritis, its causative factors, and appropriate treatment measures, individuals can more effectively overcome the problems of gastritis symptoms they experience. Knowledge is an important aspect in shaping a person's actions, where knowledge is the result of understanding obtained after a person senses or observes an object or phenomenon.

Gastritis caused by an unhealthy

lifestyle requires intervention through health promotion. As stated in Law No. 36 of 2009, health counseling is carried out to increase the knowledge, awareness, willingness, and ability of individuals or communities to live a healthy lifestyle and encourage their active participation in efforts to improve health. (Tindaon, 2018). One effective way to prevent gastritis is to get used to a regular diet. Be sure to chew food well, avoid eating in excessive portions, and don't lie down immediately after eating. In addition, it is important to reduce the consumption of spicy and sour foods, avoid foods that can cause gas, and stay away from foods that are too cold or hot. Reducing the intake of fried foods and chocolate is also recommended. In addition, managing stress well and avoiding foods that can trigger gastritis symptoms are important steps in the prevention of this disease. (Ratu & Adwan, 2013; FF Hernanto, 2018). Therefore, it is necessary to hold a gastritis counseling event unit at the research site.

## RESEARCH METHOD

This study uses a descriptive design with a cross-sectional approach. The population of this study includes all grade 11 students at SMAN 3 Tuban, which totals 252 adolescents, with a sample of 155 adolescents. The sampling technique used is Simple Random Sampling. The variable of this study is an overview of adolescents' knowledge about gastritis. Data collection was carried out by distributing questionnaires through Google Forms, then the data was processed using the SPSS application to analyze the percentage of research results.

## RESULT AND DISCUSSION

**Table 1.** Distribution of Gastritis Incidence Rates in Adolescents at SMAN 3 Tuban in May 2024

<i>occurrence of gastritis</i>	<i>Frequency (n)</i>	<i>Presentase (%)</i>
<i>Yes</i>	<i>52</i>	<i>34%</i>
<i>No</i>	<i>103</i>	<i>66%</i>

<i>Total</i>	<i>155</i>	<i>100%</i>
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Based on table 1, it shows that most of the adolescents in SMAN 3 Tuban 103 (66%) do not experience gastritis.

**Table 2.** Distribution of Adolescent Characteristics at SMAN 3 Tuban in May 2024

<b>Characteristics</b>	<b>Frequency (n)</b>	<b>Presentase (%)</b>
<b>Age</b>		
16	9	6%
17	92	59%
18	54	35%
<b>Total</b>	<b>155</b>	<b>100%</b>
<b>Gender</b>		
Man	59	38%
Woman	96	62%
<b>Total</b>	<b>155</b>	<b>100%</b>

Based on table 2, it shows that most of the 92 (59%) are 17 years old, while the gender is mostly 96 (62%) female.

**Table 3.** Distribution of Knowledge of Adolescents at SMAN 3 Tuban About Gastritis in May 2024.

<b>Knowledge</b>	<b>Frequency (n)</b>	<b>Presentase (%)</b>
Good	118	76%
Enough	32	21%
Not Enough	5	3%
<b>Total</b>	<b>155</b>	<b>100%</b>

Table 3 shows that almost all of the adolescents in SMAN 3 Tuban have good knowledge of gastritis as many as 118 people (76%).

**Table 4.** Cross Tabulation of Knowledge about Gastritis Based on Adolescent Characteristics in May 2024

<b>Age</b>	<b>Knowledge</b>						<b>Total</b>	
	<b>Good</b>		<b>Enough</b>		<b>Not Enough</b>			
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>		
Age 16	5	66%	3	28%	1	6%	9	100,0%
Age 17	6	84%	2	14%	3	2%	9	100,0%

Age	4	85	9	12	1	3	5	100,0
18	4	%		%		%	4	%

Based on table 4.4, it can be seen that almost all of them are well-educated, as many as 44 (85%) are 18 years old, and almost all of them are male, as many as 40 (83%).

In the results of this study, most of them were 17 years old. Teenagers are also more likely to be affected by stress because teenagers are easier to think about things, especially teenagers also still have unstable emotions. In the results of this study, most of the genders were mostly women. In this study, it was shown that most women were more at risk of developing gastritis because women often snacked carelessly and did not attach importance to the nutritional value contained in the food. Women are also more likely to be stressed because women are easier to think about. The results of this study show that the knowledge of adolescents in SMAN 3 Tuban is almost entirely good, but a small number of adolescents in SMAN 3 Tuban have sufficient knowledge about gastritis. Student knowledge about gastritis at SMAN 3 Tuban shows that adolescents already have a good understanding of gastritis, Therefore, the higher the level of gastritis knowledge has no meaning in showing that fewer people are affected by gastritis at SMAN 3 Tuban. Students who are not affected by gastritis do not necessarily apply a good diet, stress, sleep patterns and also regular exercise so that they do not have the risk of developing gastritis. However, most students already understand gastritis. In the results of this study, it was found that almost all of them were both 18 years old, and male. This cross-tabulation shows that well-informed adolescents are almost entirely 18 years old, but it is possible for well-informed adolescents not to develop gastritis. Those who have enough or less knowledge are also not necessarily affected by gastritis. Therefore, in adolescence, they are very at risk of developing gastritis even though

their knowledge is good due to adolescent diet and activities. For the sex, almost all men are well-informed.

Ministry of Health of the Republic of Indonesia (2009) Productive age is identified as a range between 15 to 54 years, which is a period in which individuals are still in productive working age. The age factor plays an important role in responding to potentially stressful situations. Age is also one of the factors that can influence the appearance of gastritis complaints, as the body's response to stress and other risk factors can vary depending on a person's age. Based on (Schobach et al., 2019) It shows that adolescents who are more than 16 years old have a 0.737 times greater chance of developing gastritis compared to adolescents who are less than 16 years old. According to Prio (2009) female hormones are considered more reactive compared to men, in accordance with the theory that states that gastric secretion is regulated by neurological and hormonal mechanisms. This hormonal regulation involves the hormone gastrin, which affects the gastric glands and stimulates the additional production of highly acidic gastric sap. According to Herlina (2018), women are more at risk of developing gastritis because often they are more focused on maintaining their ideal body shape, which can lead to a reduction in the amount of food without paying attention to a healthy diet. Sex, as a biological difference between men and women regarding reproductive organs and functions, also plays a role in this risk. The socially and culturally constructed differences between men and women are related to roles, behaviors, and traits that are considered appropriate for each gender. These aspects include social norms and expectations that determine how men and women should act, behave, and present themselves in society. These differences can affect various aspects of life, including health and diet. (Azisah Siti, & et al. 2016). Knowledge is the result of "knowing" that occurs after a person senses a certain object. This sensing involves the five human

senses, namely sight, hearing, smell, taste, and touch. Most of human knowledge is acquired through the senses of sight and hearing. Natoadjmojo (2010). According to Natoadjmojo (2010) individual knowledge is influenced by several The factors are divided into two, namely internal factors such as education, employment, and age. External factors such as environmental factors, and Socio-cultural factors. Based on research (Arikah, 2015) Women have a 6,667 times greater chance of developing gastritis than men, indicating that they are more at risk of developing this condition. One reason is that women tend to experience higher levels of stress than men, as shown by psychological studies that say that women experience depression twice as often as men. In addition, women are often more concerned about weight and appearance, so they may strictly regulate their diet to lose weight. These settings include the frequency, amount, and type of food consumed, which can contribute to the risk of gastritis. (Riyanto, 2019).

The weakness of this research is the limited generalization of the findings. This research only includes samples from SMAN 3 Tuban, so it can limit the representativeness of the data. Apart from that, the number of respondents which was only 252 students is certainly not enough to describe the actual situation.

This research can be a basis for developing knowledge about gastritis such as disease prevention, healthier lifestyle changes, early treatment, effectiveness of treatment, reducing anxiety and stress levels, as well as the influence on academic performance to overcome and reduce the risk of gastritis and improve achievement in academic learning.

## CONCLUSION

This study aims to determine knowledge about gastritis in adolescents at SMAN 3 Tuban. Research findings show that most teenagers are 17 years old and female. Research findings show that almost all class XI teenagers at SMAN 3 Tuban

have good knowledge about stomach ulcers. Research findings show that almost all teenagers who have good knowledge about ulcers are 18 years old and male. Teenagers can apply the knowledge they have by adopting healthy lifestyle habits to prevent gastritis in teenagers Teenagers at SMAN 3 Tuban can search for information about gastritis through several good and correct media in order to increase information about gastritis. Teenagers at SMAN 3 Tuban should exercise more regularly and have health checks to reduce the risk of gastritis.

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