

THE RELATIONSHIP BETWEEN IRREGULAR DIET AND COFFEE CONSUMPTION ON GASTRITIS SYMPTOMS IN NURSING STUDENTS

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ABSTRACT

This study aims to analyze the relationship between irregular eating patterns and coffee consumption and gastritis symptoms among nursing students at Triatma Mulya Jemberana University. A quantitative method with a cross-sectional approach was employed. The results indicate a significant relationship between irregular eating patterns and gastritis symptoms, characterized by a very strong correlation. Additionally, a significant relationship was found between coffee consumption and gastritis symptoms, with a strong correlation. In conclusion, both irregular eating patterns and coffee consumption are significantly associated with gastritis symptoms, with irregular eating patterns showing a more dominant or stronger association than coffee consumption.

Keywords: Gastritis Symptoms, Coffee consumption, Students, Eating Patterns

INTRODUCTION

Adolescence is a developmental phase characterized by rapid physical, mental, and intellectual growth. Adolescents in the developmental stage have high curiosity, like to try new things, often make decisions without considering the symptoms carefully. Adolescents are also in a transition period from dependence to independence. Adolescents are divided into two stages, namely early adolescents aged 12-16 years and late adolescents at the age of 17-25 years (Putri et al., 2025). Teenagers with a fast-paced and practical lifestyle often lead to an unhealthy lifestyle in today's modern era. Adolescents tend to ignore meal schedules, choose instant food, and consume high-caffeine drinks to support activities. Irregular diet and excessive caffeine consumption can increase various health problems, one of which is the symptoms of gastritis. The adolescent age group, especially students aged 19-25 years, is the most vulnerable group to gastritis due to this habit (Safrudin et al., 2026).

College students as part of the productive age group generally have dense activities and lifestyles that tend to ignore health. Late meals or missed meals can increase excessive stomach acid production, thus irritating the stomach wall. The caffeine contained in coffee can also stimulate excessive stomach acid secretion and aggravate stomach irritation, in addition to eating disorders (Zahrah et al., 2025). Delayed eating and caffeine consumption can cause inflammation of the stomach lining known as gastritis, with symptoms such as heartburn, nausea, bloating, and decreased appetite (Sutrisno et al., 2025). Irregular eating habits and excessive coffee consumption are two important factors that contribute to the increase in cases of gastritis among college students. Research on the relationship between irregular diet and coffee consumption on gastritis symptoms is important to increase students' awareness of the importance of maintaining a diet and limiting coffee consumption as part of healthy living behaviors (Tatu et al., 2025).

Gastritis is a disorder of the stomach characterized by inflammation of the mucosal lining as a result of exposure to certain irritants and lifestyle habits that last for a certain period of time. Individuals with gastritis usually show a number of symptoms, such as pain in the abdominal area, nausea, body feeling weak, flatulence, tightness, chest pain, reduced appetite, and a pale and gloomy appearance. Cases of gastritis can also be accompanied by complaints of fever, cold sweats, headache, sneezing, and even bleeding in the digestive tract (Irawan et al., 2026). Gastritis or *Stomach* is a condition of inflammation or bleeding in the lining of the stomach that can be triggered by various factors such as irritation, infection, or irregular diet. Irregular diets include the habit of delaying meals, consuming too little or too much food, eating in a hurry, eating spicy or spicy foods, high protein intake, and the habit of consuming coffee excessively (Zalukhu, 2025).

Diet is the arrangement and amount of food that includes the frequency, type, and portion of food consumed by individuals or groups in a certain period of time. Irregular feeding time causes the stomach to have no digestible food, so this condition has the potential to cause irritation to the stomach wall. Teens tend to follow trends without considering their impact on health, including the habit of consuming caffeinated beverages such as coffee, which if consumed in excess can trigger gastric disorders (Agustiana & Nafisah, 2024). Coffee is a beverage that contains various chemical compounds such as carbohydrates, fats, amino acids, phenolic compounds, vitamins, and minerals. The caffeine content in coffee is stimulant to the digestive system, so excessive coffee consumption can increase stomach acid production and worsen stomach conditions, potentially eroding the mucosal layer. Damage to the gastric mucosa can trigger the occurrence of gastritis. Increased stomach acid levels can also cause bloating due to excessive gas production. The inflammatory process in the stomach will be repeated and risk causing the loss of the mucosal layer and the occurrence of atrophy of gastric mucosal cells, where damaged tissue is replaced by fibrin tissue in response to chronic inflammation, if exposure to irritants such as caffeine continues (Muliani et al., 2021).

Based on a WHO survey in 2019, the incidence of gastritis in the world is estimated to reach 1.8-2.1 million cases every year. A global survey shows that the prevalence of gastritis in several countries is 14.5%, the UK at 22%, France at 29.5%, China at 31%, and Canada at 35%. As a result of research and observations by the Ministry of Health of the Republic of Indonesia, the incidence of gastritis in several cities in Indonesia is fairly high. The prevalence of cases was recorded at 91.6% in Medan, 31.2% in Surabaya, 50% in Jakarta, 32.5% in Bandung, 35.3% in Palembang, 31.7% in Aceh, 31.2% in Pontianak, and 46% in Denpasar (Hardiani et al., 2025). Based on the 2016 Bali Provincial Health profile, gastritis is ranked 8th out of 10 most diseases in health center patients, with the highest number of cases of 34,087, the same number as in 2015 (Trisnayanti, 2019). Gastritis disease rose to 6th place with the number of cases recorded at 19,076 in the Bali Provincial Health Center in the 2019 report. Based on Jembrana Regency Sectoral Statistics data in 2018, acute gastritis is included in the top 10 outpatient diseases at Puskesmas for all ages, with a total of 4,234 cases out of a total of 89,700 outpatient visits. Gastritis is one of the health problems that is quite often found in the Jembrana area. The high number of cases of gastritis shows the need for prevention efforts through education and control of risk factors, including diet and coffee consumption.

Proper education about this disease, including the causes, complications, and how to maintain stomach health to avoid gastritis is needed, to reduce the prevalence of gastritis and the adverse effects that can be caused. Controlling gastritis cases can be done by increasing public awareness of prevention by providing information about the causes, risk of complications, and measures to avoid them (Pasangka et al., 2025). Previous research has

shown that lifestyle factors, especially diet and coffee consumption that contain caffeine, are closely related to the incidence of gastritis. An irregular diet can trigger increased stomach acid production, while excessive coffee consumption also plays a role in irritating the stomach. Several studies support the association between diet and coffee consumption and the risk of gastritis. The research was led by Sari et al., (2025) which examined S1 Nursing students at the Fakultas Psikologi dan Kesehatan, UIN Sunan Ampel Surabaya and showed that irregular diet, both in terms of frequency, portion, and type of food related to the incidence of gastritis. As many as 60.0% of students experience gastritis, especially those who often skip meals and consume spicy or acidic foods. Another study was conducted by Bili et al., (2023) also researched the community in Jombang and obtained results that high coffee consumption patterns are strongly related to gastritis symptoms. The results of the study were obtained that almost all respondents who consumed coffee were at high risk of suffering from gastritis (78.3%). Previous research Fitriani et al., (2025) conducted in the city of Samarinda examined the relationship between the frequency of eating, coffee consumption, and stress with the symptoms of gastritis. The results of the study were obtained by 195 respondents, 67.2% experienced symptoms of gastritis. Test results *chi-square* It shows that the frequency of irregular eating and coffee consumption is significantly related to the symptoms of gastritis. It was concluded that diet and coffee drinking habits are important risk factors that trigger gastritis.

The novelty of this study also lies in the context of a specific population. Previous research has highlighted gastritis in general or in large cities, while this study targets students in the Jembrana area that has not been widely studied. The novelty of this study is also in the combination of variables that are rarely studied at the same time, many studies only link diet with gastritis disease or only consuming caffeine with gastritis, while in this study it combines the two (irregular diet and coffee consumption) simultaneously to see the contribution to gastritis symptoms. Relevance to the lifestyle of teenagers, teenagers are known for their fast lifestyle, often skipping meals and consuming coffee or high-energy drinks. The study emphasizes how adolescent lifestyle characteristics play a role in triggering gastritis, something that is more contextual than research in the general population. A preliminary study conducted at the Triatma Mulya University campus in Jembrana showed that some students experienced complaints due to gastritis. From the results of interviews with 15 students, it is known that 8 of them have symptoms of gastritis. The results of the interview obtained information that most students often skip meals, especially breakfast, the habit of consuming spicy and oily foods is also often done by students. The results of interviews with several students also revealed that they experienced things like heartburn, bloating, and nausea, because they consumed coffee and had irregular diets. Efforts have been made to reduce these complaints by drinking water, resting, regulating diet, and some also taking medication from a doctor during control. Based on the explanation above, the researcher is interested in conducting a study entitled "The Relationship between Irregular Diet and Coffee Consumption to Gastritis Symptoms in Nursing Students of Triatma Mulya Jembrana University".

RESEARCH METHOD

This study describes the relationship between independent variables, namely irregular diet and coffee consumption, and dependent variables in the form of gastritis symptoms in nursing students at Triatma Mulya University Jembrana. The relationship is based on the assumption that the more irregular the diet and the higher the level of coffee consumption, the higher the symptoms of gastritis experienced by students. Based on this framework, two

research hypotheses were proposed, namely the existence of a significant relationship between irregular diet and gastritis symptoms, and a significant relationship between coffee consumption and gastritis symptoms in the target population. This study uses a quantitative approach with a correlational analytical design through H_a1H_a2a cross-sectional method, where data collection of independent and dependent variables is carried out simultaneously at the same time. The population in this study includes all active students of the Nursing Study Program of Triatma Mulya University Jembrana (semesters 2 to 8) which totals 111 people. Through the calculation of power analysis assisted by the GPower application and an additional reserve of 10% to anticipate drop-out, a sample of 91 respondents was obtained who were selected using purposive sampling techniques based on strict inclusion and exclusion criteria.

Data collection was carried out using ordinal-scale questionnaire instruments for the three variables that had been tested for validity using Pearson Product Moment correlation and reliability test using Cronbach's Alpha. The results of the instrument test on 54 respondents showed that all statement items were valid because the value was greater than (0.268), and very reliable with $r_{hitung} > r_{tabel}$ Cronbach's Alpha value above 0.90. The data that has been collected then goes through systematic data processing stages, including the process of editing, coding, scoring, entry into the SPSS application, to data cleaning.

The data analysis in this study was divided into univariate analysis to describe the characteristics of the respondents and the frequency distribution of each variable, and bivariate analysis using the non-parametric *Spearman Rank* correlation test because the data was ordinal scale and not normally distributed. In addition to technical analysis, this study applies the principles of research ethics strictly to protect the rights of respondents. These principles include the provision of *informed consent* sheets, *anonymity*, maintaining data confidentiality (confidentiality), commitment not to harm (*non-maleficence*), providing benefits (*beneficence*), scientific honesty, justice, and the management of official permits from the ethics committee of the relevant institutions.

This research activity was carried out at Triatma Mulya University Jembrana. Data collection was carried out from March to April 2026 with a total of 91 respondents who met the inclusion and exclusion criteria for research. The data was then analyzed using the *Spearman Rank* test to determine the relationship between irregular diet and coffee consumption and gastritis symptoms. This research was carried out in the S1 Nursing Study Program, Triatma Mulya University, Jembrana, which is located on Jalan Danau Batur, Lelateng Village, State District, Jembrana Regency, Bali Province. Triatma Mulya University is one of the private universities in Bali that provides education in various fields, one of which is the health sector through the S1 Nursing Science Study Program. The S1 Nursing Study Program has active students from various semester levels, starting from semester 2 to semester 8. Students undergo fairly dense academic activities such as lectures, practicums, assignment preparation, and other academic activities that can affect their daily lifestyle, especially the regularity of diet and coffee consumption habits. Irregular eating habits and excessive coffee consumption can increase the occurrence of gastritis symptoms. The S1 Nursing Study Program, Triatma Mulya University, PSDKU Jembrana was chosen as the research location because it was assessed in accordance with the research objectives to determine the relationship between irregular diet and coffee consumption with gastritis symptoms in students.

Respondents in this study are active students of Triatma Mulya University Jembrana with a total of 82 people. The determination of respondents was carried out using a *purposive sampling technique* based on the inclusion criteria that have been set by the researcher. The

criteria for respondents in this study are active students in semesters 2, 4, 6, and 8 with an age range of 17–25 years. Based on the results of the study, most of the respondents were 22 years old as many as 25 respondents (30.5%), while the respondents were at least 24 years old as 1 respondent (1.2%), the majority of respondents were in early adulthood. Based on gender, most of the respondents were female as many as 77 respondents (93.9%), while men were 5 respondents (6.1%). Based on semester, 23 respondents in semester 2 (28.0%), 23 respondents in semester 4 (28.0%), 13 respondents in semester 6 (15.9%), and 23 respondents in semester 8 (28.0%). Data collection was carried out through the distribution of questionnaires to respondents who met the research criteria and were willing to participate in the research. The data collection process is carried out in stages in each semester while still paying attention to research ethics, such as providing explanations about the purpose of the research and maintaining the confidentiality of the respondents' identities. The presentation of respondent characteristics aims to provide an overview of the condition of the respondents involved in the research so that it can help in understanding the results of the research obtained. Furthermore, respondent characteristic data will be presented in the form of frequency and percentage distribution tables.

RESULTS

Table. 1
Distribution of Respondent Frequency by Age in College Students

Age	Frequency (n)	Percentage (%)
18 years old	10	12,2 %
19 years old	13	15,9%
20 years	15	18,3%
21 years old	14	17,1%
22 years old	25	30,5%
23 years old	4	4,9%
24 years	1	1,2%
Total	82	100%

Based on the data in table 1 this study involved 82 nursing student respondents at Triatma Mulya University Jembrana. The age distribution of respondents showed that most of them were 18 years old as 10 people (12.2%), 19 years old as many as 13 people (15.9), 20 years old as many as 15 (18.3%), 21 years old as many as 14 people (17.1%), 22 years old as many as 25 people (30.5%), 23 years old as many as 4 people (4.9%), 24 years old as 1 person (1.2%).

Table. 2
Distribution of Respondent Frequencies by Gender in Nursing Students

Gender	Frequency (n)	Percentage (%)
Male	5	6,1%
Women	77	93,9%
Total	82	100%

Based on the data in table 2, this study involved 82 respondents of Nursing students at Triatma Mulya University Jembrana. The gender distribution of respondents showed that most of them were female as many as 77 people (93.9%), and male as many as 5 people (6.1%).

Table. 3
Distribution of Respondent Frequency by Semester in Nursing Students

Semester	Frequency (n)	Percentage (%)
2	23	28%
4	23	28%
6	13	15,9%
8	23	28%
Total	82	100%

Based on the data in table 3, this study involved 82 respondents of Nursing students at Triatma Mulya University Jembrana. The distribution of the respondents' semesters showed that most of the students in semesters 2, 4, 8 were 23 people (28%), in semester 6 as many as 13 people (15.9%).

Table. 1
Distribution of Respondent Frequency Based on Diet in Nursing Students

Diet	Frequency (n)	Percentage (%)
Teratur	1	1,2%
Quite regular	60	73,2%
Irregular	21	25,6%
Total	82	100%

Based on the data in table 4 this study involved 82 nursing student respondents at Triatma Mulya University Jembrana. The distribution of diet showed that most of them had a fairly regular diet, namely 60 people (73.2%), irregular diets as many as 21 people (25.6%), and regular diets as many as 1 person (1.2%).

Table. 5
Distribution of Respondent Frequency Based on Coffee Consumption in Nursing Students

Coffee consumption	Frequency (n)	Presentase (%)
Low	26	31,7 %
Medium	42	51,2%
Height	14	17,1%
Total	82	100%

Based on table 5 the study involved 82 nursing student respondents at Triatma Mulya University Jembrana. The distribution of coffee consumption showed that most of them had a moderate coffee consumption level of 42 people (51.2%), low as many as 26 people (31.7%), and high as many as 14 people (17.1%).

Table. 2
Distribution of Respondent Frequency Based on Gastritis Symptoms in Nursing Students

Symptoms of gastritis	Frequency (n)	Presentase (%)
Low	12	14,6%
Medium	46	56,1%
Height	24	29,3%
Total	82	100%

Based on table 6 the study involved 82 nursing student respondents at Triatma Mulya University Jembrana. The distribution of gastritis symptoms showed that most of them had high gastritis symptoms as many as 24 people (29.3%), medium as many as 46 people (56.1%), and low as many as 12 people (14.6%).

Table. 3
Results of the Spearman Rank Correlation Test on the Relationship between Diet and Coffee Consumption with Gastritis Symptoms in Nursing Students

Variabel	r	p-value	N
Diet with symptoms of gastritis	0,817	<0.001	82
Consumption of coffee with symptoms of gastritis	0,764	<0.001	82

Based on the results of the *Spearman Rank correlation test* in Table 7, the correlation coefficient (R) value between diet and gastritis symptoms was 0.817 with a P-value of <0.001, and between coffee consumption and gastritis symptoms of 0.764 with a P-value of <0.001. These results showed that there was a significant relationship between diet and coffee consumption with gastritis symptoms in nursing students at Triatma Mulya University because the p-value was less than 0.05. The value of the correlation coefficient indicates the direction of a positive relationship, which means that the more irregular the diet and the higher the coffee consumption, the higher the symptoms of gastritis experienced by students. The strength of the relationship between variables is in the medium to very strong category.

DISCUSSION

Diet of Nursing Students

The results showed that most of the respondents had a fairly regular diet, namely 60 respondents (73.2%), while respondents with irregular diets were 21 respondents (25.6%) and 1 respondent (1.2%) had a regular diet. The results of this study show that most students have a fairly good diet, although there are still students who are not able to maintain regular mealtimes. Students who are not able to maintain regular meal times can be influenced by busy academic activities, such as lecture schedules, individual and group assignments, practicums, and other academic activities so that students often postpone meal times. The habit of delaying eating can lead to an empty stomach for a long time, while stomach acid production persists.

The habit of delaying meals that lasts continuously results in stomach acid that irritates the gastric mucosa and increases the occurrence of gastritis symptoms. Regularity of diet is one of the important factors in maintaining stomach health in students. The results of this study are supported by previous research Fhirawati et al., (2022) which states that an irregular diet can increase the occurrence of gastritis symptoms in college students. Students often delay meal times and have the habit of consuming coffee to maintain concentration during study and complete academic assignments, due to busy lecture activities. The results of the research conducted by Santoso (2023) which states that there is a relationship between coffee consumption and the incidence of gastritis in college students. The habit of consuming coffee excessively can increase stomach acid production and trigger gastritis. Research conducted by Nainggolan (2024) stated that students with irregular diets are more likely to experience gastric disorders such as gastritis. The habit of skipping meals and eating on time is the most common factor found in college students. Research Afriyanti et al., (2025) explained that dense academic activities make students tend to have poor diets, such as delaying meals and

preferring fast food because it is considered practical. Nur et al., (2023) Explains that a good diet is influenced by the regularity of meal times, types of food, and the amount of food consumed to maintain a healthy body and digestive system. Research conducted by Sihotang et al., (2025) It shows that college students who often skip breakfast, eat spicy foods, and have irregular eating schedules are more likely to experience complaints of heartburn and symptoms of gastritis.

Based on the results of the study, the researcher argues that the diet of nursing students is influenced by lecture schedules and practical activities that are quite dense so that students often eat on time. Some students also prefer instant food or fast food because it is easier to get and does not take long. This habit if carried out continuously can have a negative impact on health. Students need to pay more attention to their diet by maintaining regular meal times and choosing healthier foods so that their body condition is maintained during lecture activities.

Coffee Consumption of Nursing Students

The results showed that most of the respondents had a moderate coffee consumption level, namely 42 respondents (51.2%), low consumption as many as 26 respondents (31.7%), and high consumption as many as 14 respondents (17.1%). The results of this study show that coffee consumption is a fairly common habit among college students. The high consumption of coffee can be influenced by the need for students to maintain concentration while attending lectures, completing academic assignments, and reducing sleepiness while studying at night. Coffee consumption is also often part of social habits among college students. Coffee contains caffeine that can stimulate stomach acid secretion. Coffee if consumed in excess, especially on an empty stomach, this condition can increase irritation of the stomach wall and trigger gastric disorders such as gastritis. Research Kesuma et al., et al., (2024) It shows that students who consume coffee more than twice a day are more likely to experience gastritis complaints such as heartburn, nausea, and abdominal pain. Research by Soebroto & Harlita (2025) stated that the caffeine and chlorogenic acid content in coffee can stimulate excessive stomach acid production thereby increasing the occurrence of gastritis symptoms. Research Azmi & Alnur (2024) mentioned that excessive coffee consumption, especially on an empty stomach, can cause irritation to the gastric mucosa due to the organic acid content in coffee. Research Mukhaira et al., (2023) explained that individuals who often consume coffee have a risk of about 3.57 times higher developing gastritis than individuals who rarely consume coffee. The research was conducted by Olechno et al., (2021) explains that the caffeine content in coffee can affect the increase in stomach acid production, especially if coffee is consumed excessively and continuously. Other research by Akhondi & Sarkoohi (2023) stating that the habit of consuming coffee without being balanced with a regular diet can increase the risk of gastric inflammation because the stomach does not have enough mucosal protection when it receives acid exposure from coffee.

Based on the results of the study and several previous studies, the researcher argues that the habit of consuming coffee in students is influenced by dense lecture activities and fairly high academic demands. College students often consume coffee to help maintain focus and reduce drowsiness while studying or doing assignments. Consuming coffee too often and not balanced with a good diet can have an impact on stomach health. Many students consume coffee on an empty stomach or when eating late. The habit of consuming coffee can trigger an increase in stomach acid, causing discomfort in the stomach. According to researchers, coffee consumption is actually not a problem if it is consumed within reasonable limits and is still accompanied by a regular diet. Students need to pay more attention to coffee consumption habits so that stomach health is maintained and the symptoms of gastritis can be reduced.

Symptoms of Gastritis in Nursing Students

The results showed that most of the respondents were in the category of moderate gastritis symptoms, namely 46 respondents (56.1%), 24 respondents (29.3%), and 12 respondents (14.6%) in the low category. The results of this study show that most students have a tendency to experience gastric disorders at a moderate level. Stomach disorders can be influenced by various factors, such as an irregular diet, high coffee consumption, academic stress, and the lifestyle of students who tend to pay less attention to digestive health.

The symptoms of gastritis experienced by students need to be a concern because if not treated properly, it can develop into more serious gastric disorders and interfere with daily academic activities. Research Turnip et al., (2023) stated that higher students experience gastritis due to irregular diets, staying up late, and excessive coffee consumption. Symptoms that often appear are heartburn, nausea, and discomfort in the stomach. Research conducted by Kesuma et al., (2024) It also mentions that students who often eat late and consume coffee excessively often experience gastritis symptoms such as heartburn and nausea. Research Akhondi & Sarkoohi (2023) Explains that the habit of consuming coffee on an empty stomach can worsen the condition of the stomach because the protective layer of the stomach mucosa becomes more susceptible to increased stomach acid. Research Mufarika et al., (2025) states that individuals who have an irregular diet and often consume coffee have a higher risk of developing gastritis than individuals who maintain a good diet. According to Mufarika et al., (2025) Individuals who have poor coffee consumption habits and diets have a higher risk of experiencing gastritis symptoms than individuals who maintain a regular diet. Other research conducted by Nainggolan 2024) He said that gastritis often occurs in college students due to the habit of skipping meals, consuming spicy foods, and a unhealthy lifestyle that causes disorders in the digestive system.

Based on the results of the study, researchers argue that the symptoms of gastritis in college students are influenced by daily habits that do not pay attention to health, such as often delaying meals, staying up late, and consuming coffee to support lecture activities. Intensive academic activities make students sometimes neglect rest time and a good diet. Students with this habit are carried out continuously, so it can increase the occurrence of gastritis symptoms. Students need to maintain a healthy lifestyle by paying attention to meal times, reducing excessive coffee consumption, and managing rest time properly so that stomach health is maintained.

The Relationship between Diet and Gastritis Symptoms in Nursing Students

Results of analysis using test *Spearman's rho* shows a significance value of $p = 0.001$ with a correlation coefficient of $r = 0.817$. The results of this study show that there is a significant relationship between diet and gastritis symptoms with a very strong relationship strength and positive direction. The correlation value shows that the more irregular the student's diet, the higher the incidence of gastritis symptoms. The symptoms of gastritis are caused because the stomach continues to produce stomach acid even though no food enters. The production of stomach acid lasts for a long time, stomach acid can irritate the gastric mucosa thereby increasing the symptoms of gastritis. The results of this study are in line with the research Kesuma et al., (2024) which shows that college students with irregular diets are more likely to have gastritis. The study explained that delayed eating causes the stomach to continue to produce acid, triggering irritation of the gastric mucosa. The results of this study are also supported by research Saputri et al., (2023) which states that irregular eating is significantly related to an increased incidence of gastritis in college students. The habit of skipping meals causes unbalanced stomach acid secretion and increases the risk of

inflammation in the stomach.

The results of this study are also supported by research Fhirawati et al., (2022) which suggests that irregular eating is significantly associated with increased gastritis symptoms in college students. The study explains that delayed eating can lead to increased stomach acid secretion which triggers irritation of the gastric mucosa. Research by Norlita et al., (2023) It was also found that the frequency of irregular eating had a meaningful relationship with the appearance of gastritis complaints. Students who often skip meals tend to be more prone to stomach disorders than students who maintain regular eating. Similar findings were also reported by Pasangka et al., (2025) which states that regular diet is one of the main factors in the prevention of gastritis. Students who maintain regular meal times tend to have lower rates of gastric disorders. According to Nainggolan (2024) Students who have irregular eating habits such as eating late and skipping meals are more likely to experience gastritis complaints than students who maintain a regular diet. Gastritis complaints occur because the stomach continues to produce acid even though no food is digested, so it can cause irritation to the stomach. Based on the results of the previous research, according to the researcher, it can be concluded that diet is one of the important factors that affect the occurrence of gastritis symptoms. Irregular mealtimes cause the stomach to continue to produce acid even though there is no digested food, so that in a certain period of time it can cause irritation to the gastric mucosa. Students with an increasingly irregular diet have a higher incidence of gastritis symptoms, thus strengthening the results of this study.

The Relationship between Coffee Consumption and Gastritis Symptoms in Nursing Students

The results of the analysis using *the Spearman's rho* test showed a significance value of $p = 0.001$ with a correlation coefficient of $r = 0.764$. The results of this study show that there is a significant relationship between coffee consumption and gastritis symptoms with the strength of a strong relationship and positive direction. The value of $p = 0.001$ with a correlation coefficient of $r = 0.764$, shows that the higher the coffee consumption of students, the higher the incidence of gastritis symptoms. Symptoms of gastritis can occur because the caffeine content in coffee can stimulate stomach acid production, increasing the risk of irritation to the stomach wall. Excessive coffee consumption, especially on an empty stomach, can increase the likelihood of gastritis complaints such as heartburn, nausea, flatulence, and stomach discomfort.

The results of this study are in line with the research Bili et al., (2023) which shows a significant relationship between coffee consumption and the incidence of gastritis with correlation values $r = 0.715$ and $p = 0.000$. Respondents who consumed coffee more than twice a day had a higher risk of gastritis. According to Olechno et al., (2021) The caffeine content in coffee can stimulate increased stomach acid secretion so that if consumed in excess, it can increase the risk of gastritis, especially in individuals with high gastric sensitivity. Research by Musrah & Hanifah (2022) It was also found that coffee consumption was significantly related to gastritis symptoms. The caffeine content in coffee can stimulate increased stomach acid secretion, increasing the risk of stomach irritation. Research by (Nainggolan, 2024) It shows that excessive coffee consumption in college students contributes to an increased risk of gastric disorders, especially when accompanied by the habit of skipping meals.

Similar results were also found by Pasangka et al., (2025) which states that the consumption of irritating beverages such as coffee needs to be limited as one of the measures to prevent gastritis. Research conducted by Kesuma et al., (2024) It also shows that high

coffee consumption in college students can worsen the condition of the stomach if not balanced with a regular diet. Based on the results of the previous study, according to the researcher, it can be concluded that coffee consumption has an effect on increasing gastritis symptoms, especially if consumed excessively and on an empty stomach. The caffeine content in coffee can stimulate the secretion of stomach acid, increasing the likelihood of stomach irritation. The results of the study showed that the higher the coffee consumption of students, the higher the symptoms of gastritis.

Analysis of the Relationship between Diet and Coffee Consumption with Gastritis Symptoms

Based on the results of the study, it was shown that irregular diet and coffee consumption had a significant relationship with gastritis symptoms in nursing students of Triatma Mulya University Jembrana. The results of the *Spearman Rank* test showed a *p-value* of <0.001 so that H_0 was rejected and H_a was accepted. Diet has a greater power of association with gastritis symptoms than coffee consumption. The results of this study show that the regularity of diet is a more dominant factor in influencing the occurrence of gastritis in students. Students are expected to maintain a regular diet and limit coffee consumption so that the symptoms of gastritis can be reduced.

CONCLUSION

Based on the results and discussion of research on the relationship between irregular diet and coffee consumption to gastritis symptoms in nursing students of Triatma Mulya University Jembrana, it can be concluded that: Most students have a less regular diet, such as often eating late, skipping breakfast, and not having a fixed eating schedule. Coffee consumption in students is still quite high, especially to help reduce drowsiness and support lecture activities. College students who have an irregular diet and often consume coffee are more at risk of experiencing symptoms of gastritis, such as heartburn, nausea, flatulence, and stomach discomfort. There is a relationship between irregular diet and coffee consumption on gastritis symptoms in nursing students of Triatma Mulya University Jembrana. The more irregular the diet and the more frequent the consumption of coffee, the more the occurrence of gastritis is also increasing.

SUGGESTION

Students are expected to pay more attention to their diet by eating regularly, not skipping meals, especially breakfast, and reducing excessive coffee consumption so that stomach health is maintained and gastritis symptoms can be prevented. Researchers are then expected to develop this study by adding other factors that can affect gastritis symptoms, such as stress, sleep patterns, spicy food consumption, and physical activity so that the results of the study become broader and more in-depth.

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