

**THE CORRELATION BETWEEN DIETARY PATTERNS AND GASTRITIS
SYMPTOMS IN ADOLESCENTS IN RW.03, LUMBANGSARI VILLAGE,
BULULAWANG DISTRICT, MALANG REGENCY**

Ahmad Alvin Pratama^{1*}, Rif'atul Fani², Bayu Budi Laksono³

¹⁻³Department of Nursing, Faculty of Health and Science Institute of Technology Science and Health RS dr Soepraoen Kesdam V/Brawijaya, Malang, Indonesia.

(*Correspondence: ahmadalvinpratama29@gmail.com)

ABSTRACT

Introduction: Gastritis is a common condition often observed among adolescents. Characterized by inflammatory response affecting the gastric mucosa, which is identified through histopathological evaluation of gastric tissues. Common manifestations associated with gastritis include abdominal discomfort, mainly localized in the epigastric region, gastric distension, nausea, emesis, cephalalgia, along with nausea that may interfere with daily activities. Sufferers may also experience pain or burning in the upper part of the stomach that may improve or worsen after eating, loss of appetite, belching, and abdominal bloating. Among adolescents, gastritis is caused by a lack of attention to diet, which occurs due to their busy activities, resulting in irregular eating habits. **Methods:** This type of research is non-experimental with Correlation design and cross-sectional approach. Sample in this study were adolescents who had symptoms of gastritis in the RW.03 Lumbangsari Village, Bululawang District, Malang Regency, totaling 54 people, with purposive sampling technique. **Result:** The results of this study found that H1 is accepted, there is a significant and unidirectional the pearson correlation coefficient pearson correlation of 0.381, and an r-table value of 0.263. **Conclusion:** The conclusion of this study is that Sig. and the p-value (2-tailed) ($p = 0.005$). This can be caused by irregular dietary habits, frequent consumption of acidic foods, containing gas, and spicy foods can cause gastritis.

Keywords: adolescents, dietary patterns, gastritis symptoms.

***HUBUNGAN ANTARA POLA MAKAN DAN GEJALA GASTRITIS PADA REMAJA DI
RW 03 DESA LUMBANGSARI, KECAMATAN BULULAWANG,
KABUPATEN MALANG***

ABSTRAK

Pendahuluan: Gastritis merupakan kondisi yang sering ditemukan pada remaja. Gastritis ditandai dengan adanya respons inflamasi pada mukosa lambung yang dapat diidentifikasi melalui pemeriksaan histopatologi jaringan lambung. Manifestasi klinis yang umum pada gastritis meliputi ketidaknyamanan abdomen, terutama pada daerah epigastrium, distensi lambung, mual, muntah, sakit kepala, serta keluhan lain yang dapat mengganggu aktivitas sehari-hari. Penderita juga dapat mengalami nyeri atau sensasi terbakar pada bagian atas perut yang dapat membaik atau memburuk setelah makan, penurunan nafsu makan, sendawa, dan perut kembung. Pada remaja, gastritis sering dipengaruhi oleh kurangnya perhatian terhadap pola makan akibat aktivitas yang padat sehingga menyebabkan kebiasaan makan yang tidak teratur. **Metode:** Penelitian ini merupakan penelitian non-eksperimental dengan desain korelasional dan pendekatan cross-sectional. Sampel penelitian terdiri dari 54 remaja yang mengalami gejala gastritis di RW 03 Desa Lumbangsari, Kecamatan Bululawang,

Kabupaten Malang, yang dipilih menggunakan teknik purposive sampling. **Hasil:** Hasil penelitian menunjukkan bahwa H1 diterima, yang berarti terdapat hubungan yang signifikan dan searah antara pola makan dengan gejala gastritis. Hasil uji korelasi Pearson menunjukkan koefisien korelasi sebesar 0,381 dengan nilai r tabel sebesar 0,263. Nilai signifikansi (p -value 2-tailed) diperoleh sebesar $p = 0,005$. **Kesimpulan:** Terdapat hubungan yang signifikan antara pola makan dengan gejala gastritis pada remaja. Pola makan yang tidak teratur, sering mengonsumsi makanan asam, makanan yang menghasilkan gas, dan makanan pedas dapat menjadi faktor yang memicu terjadinya gastritis.

Kata kunci: gejala gastritis, pola makan, remaja.

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Correspondence

Name: Ahmad Alvin Pratama

Affiliation: Department of Nursing, Faculty of Health and Science,

Institute of Technology Science and Health RS dr Soepraoen

Kesdam V/Brawijaya, Malang, Indonesia

Address: Jl. Sudanco Supriadi 22, Malang, Indonesia

Email: ahmadalvinpratama29@gmail.com

INTRODUCTION

Gastritis is a common condition frequently identified among adolescents. It is characterized by an inflammatory response affecting the gastric mucosa, verified through histopathological evaluation of gastric tissue. Common manifestations of gastritis include abdominal discomfort, especially in the epigastric region, gastric distension, nausea, vomiting, cephalalgia, along with nausea that may disrupt daily activities. Affected individuals may also report discomfort or a burning sensation in the upper stomach which may improve or worsen postprandially, decreased appetite, recurrent belching, and a sensation of fullness (Fajariyah et al., 2023).

Among adolescents, the etiology of gastritis is often associated with dietary neglect, which commonly results from increased activity levels, leading to

irregular eating patterns (Monika et al., 2021). Irregular meal schedules hinder the stomach's ability to adapt appropriately. Prolonged exposure may result in hypersecretion of gastric acid, irritating the gastric mucosa and triggering gastritis (Yessi Angelica & Ernawaty Siagian, 2022). Factors influencing gastritis include inadequate and poorly regulated dietary patterns, which may increase gastric sensitivity along with heightened gastric acid levels (Astika Nisa Putri et al., 2023). A lack of dietary regularity limits the stomach's ability to adapt effectively, ultimately leading to excessive gastric acid and mucosal irritation. Unpredictable eating behavior combined with frequent consumption of acidic, carbonated, and highly seasoned foods may act as a catalyst for gastritis (Herliyanti et al., 2024).

A detailed analysis conducted by the World Health Organization (WHO)

reported the prevalence rates of gastritis in several countries: France at 29.5%, the United Kingdom at 22%, Canada at 35%, and Japan at 14.5%. Globally, an estimated 1.8–2.1 million cases of gastritis occur annually. In Southeast Asia, 583,635 cases are reported each year, with a significant proportion being asymptomatic. Gastritis often remains underdiagnosed and may serve as a precursor to more serious health complications (Arianto & Aminah, 2024). Indonesia contributes 40.8% of global gastritis cases, ranking fourth among countries with the highest incidence. The prevalence in Indonesia has reached 274,396 cases out of a total population of 238,452,952 individuals (Astika Nisa Putri et al., 2023). In 2015, East Java recorded a prevalence of 44.5% (58,116 cases) (Nor Laily, Umi Hanik, Yurike Septianingrum, 2023). Based on the background above, the researchers conducted a study titled “The Correlation Between Dietary Patterns and Gastritis Symptoms in Adolescents.”

METHODS

This research employed a non-experimental study with a correlational design using a cross-sectional approach. A purposive sampling technique was used based on established inclusion criteria. The inclusion criteria consisted of adolescents aged 14–21 years residing in RW.03 Lumbangsari Village who exhibited

symptoms indicative of gastritis. The exclusion criteria included adolescents experiencing digestive disorders unrelated to gastritis.

Based on the determined formula, a sample size of 54 respondents was obtained. Bivariate data analysis was performed using the Pearson correlation test in SPSS. Dietary patterns were assessed using a questionnaire developed by Rodliya (2022), while gastritis symptoms were measured using a questionnaire by Yatmi (2017). Data collection was conducted using Google Forms.

Ethics Approval

This study received ethical approval from the Health Research Ethics Committee of Yayasan Wahana Bhakti Karya Husada, Institut Teknologi Sains dan Kesehatan RS dr. Soepraoen (ITSK RS dr. Soepraoen), with ethical clearance number No. KEPK-EC/189/I/2025. The ethical approval was valid for the period from January 21, 2025 until January 20, 2026. The study was conducted in accordance with ethical principles for health research. Prior to participation, all participants were provided with comprehensive information regarding the study objectives, procedures, potential risks, and benefits. Written informed consent was obtained from all participants. The confidentiality and anonymity of all participant data were

strictly maintained throughout the research process.

RESULTS

This research was conducted in December 2024 in RW.03, Lumbangsari Village, Bululawang District, Malang Regency.

Table 1. Distribution of Dietary Patterns

Dietary Pattern	F	%
Good	3	5,6
Poor	51	94,4
Total	54	100

Table 3. Correlation Between Dietary Patterns and Gastritis Symptoms

Dietary Pattern	Gastritis Symptoms				Total		p-value
	With Symptoms		Without Symptoms				
	F	%	F	%	F	%	
Poor	50	98	1	2	51	100	0,005
Good	2	67	1	33	3	100	

Based on the data, almost all adolescents with poor dietary patterns exhibited gastritis symptoms (50 respondents or 98%). Only one adolescent with good dietary patterns did not show gastritis symptoms (Table 3).

Based on the results of the Pearson correlation test using SPSS, a Sig. (2-tailed) value of 0.005 was obtained with an alpha of 0.05, a Pearson correlation of 0.381, and an r-table value of 0.263. The conclusion of this study is that Sig. (2-tailed) (0.005) < α (0.05), which means that there is a significant correlation between the variables Dietary Patterns and Gastritis Symptoms. The Pearson correlation value of 0.381 > r-table (0.263) indicates that

Most respondents (51 respondents or 94.4%) had poor dietary patterns, while only 3 respondents (5.6%) demonstrated good dietary patterns.

Table 2. Distribution of Gastritis Symptoms

Gastritis Symptom	F	%
No symptoms	2	3,7
With symptoms	52	96,3
Total	54	100

A total of 52 respondents (96.3%) experienced gastritis symptoms, while only 2 respondents (3.7%) did not.

there is a correlation between Dietary Patterns and Gastritis Symptoms. Since the Pearson correlation is positive, the correlation between the two variables is unidirectional, meaning that the worse the dietary pattern, the higher the incidence of gastritis symptoms. From these results, it can be interpreted that H1 is accepted, indicating a significant and unidirectional correlation between Dietary Patterns and Gastritis Symptoms among adolescents in RW.03, Lumbangsari Village, Bululawang District, Malang Regency.

DISCUSSION

The results of this study indicate that there is a correlation between Dietary

Patterns and Gastritis Symptoms in adolescents. This statement is supported by the Pearson correlation statistical test using SPSS, which obtained a Sig. (2-tailed) value of 0.005 with an alpha of 0.05, a Pearson correlation of 0.381, and an r-table value of 0.263. The conclusion of this study is that Sig. (2-tailed) (0.005) < α (0.05), which means that there is a significant correlation between the variables Dietary Patterns and Gastritis Symptoms. The Pearson correlation result of 0.381 > r-table (0.263) indicates that there is a correlation between Dietary Patterns and Gastritis Symptoms. Since the Pearson correlation value is positive, the correlation between the two variables is unidirectional, meaning that the worse the dietary pattern, the higher the incidence of gastritis symptoms.

The results of this study are consistent with the findings of Musyafra (2024), whose research concluded that respondents who applied good dietary patterns mostly did not experience gastritis, totaling 31 respondents (77.5%), while respondents who applied poor dietary patterns mostly experienced gastritis, totaling 27 respondents (56.2%). The Chi-Square statistical test (Continuity Correction) at a 95% confidence level ($\alpha = 0.05$) obtained a p-value of 0.003 ($p < 0.05$), which means that H_a is accepted and H_o is rejected. Thus, it can be concluded that there is a correlation between dietary

patterns and the incidence of gastritis in adolescent girls. Dietary patterns influence the occurrence of gastritis, as shown by the research results in which respondents with good dietary patterns tended not to experience gastritis, whereas respondents with poor dietary patterns tended to develop gastritis. This is due to dietary irregularities in terms of frequency and timing, as well as the types of foods consumed, particularly those that are irritative to the gastric mucosa. Foods contaminated with microorganisms may also cause gastritis. Several respondents stated that they frequently consumed oily, acidic, spicy, and highly seasoned foods. Therefore, students should maintain a regular eating schedule, reduce the consumption of fast food, and more frequently consume foods with high nutritional value to prevent the onset of gastritis.

This is also in line with the findings research (Romadona et al., 2024), whose statistical analysis using the Spearman rank test with $\alpha < 0.05$ showed that 52 respondents (68.4%) had unhealthy dietary patterns, and 37 respondents (48.7%) experienced recurrent gastritis. The conclusion is that there is a correlation between dietary patterns and gastritis occurrences among female students at the Cemerlang An-Najach Islamic Boarding School, Tambak Beras, Jombang. There are similarities and differences between this

study and previous theories. The similarity is that dietary patterns influence the occurrence of gastritis, while the difference is that dietary patterns consist of several factors and not only trigger gastritis events. However, this study also states that risk factors for gastritis include stress and economic status. Prolonged stress levels are one of the triggering factors for gastritis because they increase gastric acid production. Increased gastric acid levels will cause discomfort in the stomach.

The results of this study are also consistent with the findings research (Nugraha & Huda., 2022). The Chi-Square test showed a significant correlation between dietary patterns and the incidence of gastritis among adolescents at Al-Musaddadiyah Islamic Boarding School in Garut (p-value 0.043). The Odds Ratio (OR) calculation indicated that respondents with poor dietary patterns were 0.393 times more likely to experience gastritis compared to those with good dietary patterns (95% CI: 0.158–0.981). Based on the observations conducted by the researchers, the dietary patterns of respondents in this study often involved not eating three times a day, having inconsistent portion sizes (sometimes small, sometimes adequate), and consuming foods that tend to trigger gastritis, such as spicy foods, acidic foods, instant foods, and carbonated drinks. This

can be seen from the questionnaire results, which showed that respondents commonly had poor eating habits, such as eating less than three times a day, eating only when hungry, and frequently consuming spicy foods, instant foods, acidic foods, and carbonated beverages (Nugraha & Huda, 2022).

Efforts that can be undertaken to address issues related to Dietary Patterns and Gastritis Symptoms include creating a regular eating schedule and making time for breakfast in the morning, as well as always paying attention to the nutritional value of the foods consumed to prevent gastritis.

CONCLUSION

Based on the data obtained, 51 respondents (94.4%) exhibited poor dietary patterns, and 50 respondents (92.6%) experienced gastritis symptoms. The results indicate a significant and unidirectional correlation between dietary patterns and gastritis symptoms in adolescents. Poor and irregular dietary patterns can lead to inflammation of the gastric mucosa, which may contribute to the onset of gastritis symptoms.

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