

Relationship Between Food Consumption Patterns, Stress Levels and Drug Use in Recurrence of Dyspepsia at Widya Dharma Husada Clinic

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Abstract

Dyspepsia is a common digestive disorder characterized by symptoms such as nausea, bloating, and epigastric pain. This study aims to analyze the relationship between dietary patterns, stress levels, and medication use on the recurrence of dyspepsia among patients at Widya Dharma Husada Clinic, Tangerang. A quantitative approach with a cross-sectional design was employed. The sample consisted of 73 respondents selected from a population of 90 dyspepsia patients. Data were collected using a closed-ended questionnaire and observation sheet, and analyzed using correlation tests with SPSS software. The results showed that most respondents were aged 17–19 years (53.4%), female (86.3%), had poor dietary patterns (69.9%), experienced mild stress levels (53.4%), and used antacid medication (39.7%). The majority of respondents did not experience a recurrence of dyspepsia (75.3%). Bivariate analysis indicated a significant relationship between dietary patterns and dyspepsia recurrence ($p = 0.001$), but no significant relationship was found between stress levels ($p = 0.274$) or medication use ($p = 0.274$) and the recurrence of dyspepsia. This study highlights the importance of maintaining healthy eating habits as a preventive measure against dyspepsia recurrence, particularly among university students.

Keywords: dietary patterns, stress levels, medication use, dyspepsia recurrence.

INTRODUCTION

According to the World Health Organization (WHO), dyspepsia is a common stomach condition that causes problems in the upper abdomen. Its symptoms include bloating, nausea, early satiety, and stomach pain. The global incidence of dyspepsia ranges from 15 to 30% annually. In terms of the number of people affected by dyspepsia, Indonesia ranks third, behind the United Kingdom and the United States. According to data from the 2020 Basic Health Research (Riskesdas), the prevalence of dyspepsia in several cities in Indonesia is quite high, reaching 91.6% in Medan. Other cities include Surabaya at 31.2%, Denpasar at 46%, Jakarta at 50%, Bandung at 32.5%, Palembang at 35.35%, Aceh at 31.7%, and Pontianak at 31.2% (Ministry of Health of the Republic of Indonesia, 2020). For individuals suffering from dyspepsia, irregular eating patterns, consuming overly spicy food, or experiencing stress can worsen stomach problems. Irregular eating habits may trigger relapses in individuals with dyspepsia; at times, excessive stress leads to a lack of appetite, late meals, or even consuming spicy food to relieve stress.

Excessive stress can also trigger dyspepsia relapse. Stress can affect gastrointestinal function, causing otherwise healthy individuals to experience dyspepsia. A person's

psychological problems are influenced by stress, which alters behavior, physiology, and psychology. Stress can cause symptoms such as nausea, bloating, and early satiety, thus contributing to dyspepsia relapses.

When individuals experience signs or symptoms of dyspepsia such as bloating, early satiety, or nausea, they typically turn to antacids. This is because antacids are often the first line of treatment for dyspepsia and can prevent stomach acid from rising. Antacids are also easily available at pharmacies or drugstores without a doctor's prescription. The accuracy of medication use is analyzed based on the National Consensus on the Management of Dyspepsia and *Helicobacter pylori* Infection (Indonesian Society of Gastroenterology) (Simadibrata et al., 2014), which includes the right drug, correct dosage, appropriate method of administration, and correct timing of administration (Ministry of Health RI, 2011).

In a study by Ikhsan et al in 2020 titled "The Relationship Between Depression, Anxiety, and Stress with the Incidence of Dyspepsia Syndrome in First-Year Medical Students at the Faculty of Medicine, Andalas University Before and After Block Exams," the findings indicated a relationship between anxiety and stress in the occurrence of dyspepsia. Levels of depression and anxiety before and after exams showed significant differences.

In a study by Goncalves et al in 2021 titled "The Relationship Between Stress Levels and Dyspepsia Syndrome in Medical Students at the Faculty of Medicine, Nusa Cendana University," the findings revealed that 56 samples (35.9%) did not experience stress (normal), while samples experiencing mild, moderate, and severe stress were 31 (19.9%) each, and very severe stress was reported in 7 samples (4.5%). Additionally, 77 samples (49.9%) did not have dyspepsia syndrome (normal), 39 samples (25.0%) had mild dyspepsia, 37 samples (23.7%) had moderate dyspepsia, and 3 samples (1.9%) had severe dyspepsia. The conclusion of this study was that there is a significant relationship between stress levels and dyspepsia syndrome among medical students at Nusa Cendana University.

In a study by Syafitri et al in 2021 titled "Evaluation of Drug Use in Dyspepsia Patients at Samarinda Medika Citra Hospital in 2021," the results showed that the most frequently prescribed anti-ulcer drugs for dyspepsia patients were combinations of H2RA, antiemetics, and cytoprotective drugs, accounting for 42.85% (30 people). The evaluation results showed 100% accuracy in drug selection (193 drugs), 100% accuracy in indication (193 drugs), and 96.37% accuracy in dosage (186 drugs).

Widya Dharma Husada Clinic is a healthcare facility affiliated with STIKes WDH, and dyspepsia cases frequently occur among students. Based on a preliminary survey identifying patients suffering from dyspepsia, many cases were influenced by dietary habits and stress levels. Therefore, the researchers aim to conduct a study at Widya Dharma Husada Clinic. Based on the background above, the researchers intend to conduct a study on the relationship between dietary patterns, stress levels, and medication use with dyspepsia relapse at Widya Dharma Husada Clinic, Tangerang. The objective of this research is to analyze the relationship between patients' dietary patterns, stress levels, and medication use at Widya Dharma Husada Clinic, Tangerang. A preliminary survey showed that many patients suffering from dyspepsia were affected by dietary habits and stress levels.

METHOD

This study employed a quantitative method aimed at examining the relationship between dietary patterns, stress levels, and medication use with the recurrence of dyspepsia. It also utilized an observational approach, as data were collected through interviews with respondents using a questionnaire. Based on the time of implementation, this research is classified as cross-sectional because it was conducted within a specific period. The population in this study consisted of 90 dyspepsia patients who visited the Widya Dharma Husada Clinic

in Tangerang. The sample was drawn from this population using the Krejcie and Morgan table, resulting in a total of 73 respondents. The research instruments included a self-developed closed-ended questionnaire and an observation sheet on medication use based on the types of drugs recorded in the clinic's medical records. Data collection was carried out by distributing the questionnaires to respondents for self-completion. Data analysis began with univariate analysis to measure each variable, such as patients' dietary patterns and stress levels. For bivariate analysis, a correlation statistical test was used to evaluate the relationship between the independent variables (dietary patterns, stress levels, and medication use) and the dependent variable (recurrence of dyspepsia). Data were analyzed using SPSS software.

RESULT AND DISCUSSION

Analysis of Respondent Characteristics Based on Age and Gender

The results of this study show that the majority of respondents were in the 17–19 age group, with 39 respondents (53.4%). This is in line with a study conducted by Kurniawan (2022), which found that individuals aged 17–19 are more prone to dyspepsia, and as age increases, the prevalence of dyspepsia also tends to rise. This is because poor eating habits can hinder and cause excessive gastric acid secretion, which can irritate the gastric mucosa.

Dyspepsia is a common gastric condition that causes problems in the upper abdomen. Symptoms include bloating, nausea, early satiety, and stomach pain. Dyspepsia can affect people of all ages, from children to adults. Most dyspepsia sufferers are female, and those experiencing recurrence of dyspepsia are also predominantly female. This is because women often fear gaining weight and therefore engage in strict diets and poor eating habits. Moreover, women tend to be more emotional than men, leading to greater mental burden and potentially increased gastric acid production.

Eating Patterns of Dyspepsia Patients

Most respondents, totaling 57 (67.9%), had poor eating patterns. This is consistent with a study conducted by Irfan (2019), which stated that poor eating habits and irregular mealtimes can lead to dyspepsia, causing pain in the abdomen and epigastric region. Additionally, irregular eating patterns are more common among university students.

Eating patterns refer to the regulation of food quantity and types aimed at maintaining body health, nutritional status, preventing disease, and aiding recovery (Ministry of Health, 2009). Irregular eating can trigger various diseases due to imbalances in the body. This irregularity is related to mealtime consistency. A person may be either overly hungry or overly full, disrupting stomach and digestive function. Factors triggering excess gastric acid production include certain chemicals such as alcohol, commonly used painkillers, vinegar, acidic foods and drinks, spicy foods, and stimulating seasonings, all of which can lead to dyspepsia (Fithriyana, 2018).

This condition occurs because the Widya Dharma Husada Clinic is mostly visited by university students, whose busy schedules include academic activities such as lectures and discussions, as well as extracurricular activities such as student organizations and off-campus engagements. These factors contribute to irregular eating patterns that increase gastric acid, such as consumption of fried or spicy foods (Hairil Akbar, 2020).

Stress Levels of Patients at Widya Dharma Husada Clinic That May Cause Dyspepsia

Regarding stress levels among patients at Widya Dharma Husada Clinic, it was found that half of the respondents experienced mild stress, with 39 respondents (53.4%). This is in line with research conducted by Siregar (2021), which reported that most students experience moderate stress. This is because the clinic is mostly visited by university students who face

academic pressures such as assignments, which often lead to staying up late and difficulty sleeping, ultimately resulting in mild stress levels.

Medication Use Among Patients

Nearly half of the respondents at Widya Dharma Husada Clinic used antacid medication, totaling 29 respondents (39.7%). This aligns with a study by Taufiq et al. (2023), which found that antacids, particularly chewable tablets, are more effective when chewed before swallowing, as antacid activity is related to particle size. This is because students visiting the Widya Dharma Husada Clinic often report symptoms such as epigastric pain, nausea, and bloating, making antacids an appropriate choice for neutralizing excess stomach acid.

Dyspepsia Recurrence Among Patients

Regarding dyspepsia recurrence, the majority of patients at Widya Dharma Husada Clinic did not experience recurrence, with 51 respondents (75.3%). This is because dyspepsia recurrence refers to the reappearance of symptoms at undetermined intervals.

Relationship Between Eating Patterns and Dyspepsia Recurrence

There is a significant relationship between eating patterns and dyspepsia recurrence at Widya Dharma Husada Clinic, as evidenced by a p-value of 0.001, indicating a statistically significant association ($p < 0.05$). This is in line with a study by Nasution (2023), which found that students with irregular eating patterns are more likely to experience dyspepsia syndrome compared to those with regular eating habits. Irregular eating can lead to dyspepsia recurrence due to bodily imbalances. Acidic foods and beverages can trigger dyspepsia.

Relationship Between Stress Levels and Dyspepsia Recurrence

There is no significant relationship between stress levels and dyspepsia recurrence at Widya Dharma Husada Clinic, as indicated by a p-value of 0.274 ($p > 0.05$). This finding differs from a study by Amin et al. (2023), which found that higher stress levels increase the likelihood of dyspepsia recurrence.

Stress experienced by an individual is strongly related to dyspepsia recurrence. When someone is overwhelmed with work and overthinks, it leads to stress, which can increase gastric acid levels beyond normal limits, resulting in dyspepsia (Artini et al., 2022). Stress has a significant correlation with gastritis and negatively impacts the digestive system through neuroendocrine mechanisms, increasing the risk of dyspepsia.

Relationship Between Medication Use and Dyspepsia Recurrence

There is no significant relationship between medication use and dyspepsia recurrence, as indicated by a p-value of 0.274 ($p > 0.05$). The more frequent the dyspepsia episodes, the higher the likelihood that additional therapies will be prescribed by the doctor. It is possible that previous medications were ineffective, prompting the doctor to add combination therapies (Puteri & Yuristin, 2022). In contrast, this study found that patients at Widya Dharma Husada Clinic did not experience recurrence after receiving treatment, indicating that the medication provided was effective.

CONCLUSION

The results of the study show that the majority of respondents were aged 17–19 years (53.4%) and female (86.3%). Most respondents had poor eating patterns (69.9%) and experienced mild stress levels (53.4%). Nearly half of the respondents used antacid medication

(39.7%), and the majority did not experience dyspepsia recurrence (75.3%). Bivariate analysis showed a significant relationship between eating patterns and dyspepsia recurrence ($p = 0.001$), while no relationship was found between stress levels ($p = 0.274$) or medication use ($p = 0.274$) and dyspepsia recurrence.

For students, it is recommended to maintain a healthy and regular diet to prevent dyspepsia recurrence, as it has been proven to be a significant contributing factor. For future researchers, it is advised to broaden the scope of independent variables, particularly those related to medication use and other potentially relevant factors. For institutions, the findings of this study are expected to serve as a reference for theory development as well as a basis for education or intervention efforts related to dyspepsia management within healthcare settings.

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