GENIUS JOURNAL - VOL. 02 NO. 01 (2021) 022-028

GENIUS JOURNAL
general nursing science journal

e-ISSN: 2723-7729

A Cross Sectional

Prevalence and Correlation of Knowledge Level, Stress, Diet Compliance and Quality of Life in Gastritis Patients

Yudisa Diaz Lutfi Sandi[1], Ade Fitriani[2], Lilis Lismayanti[2], Yanti Srinayanti[2], Wina Widianti[2]

[1] *Akademi Keperawatan Pemerintah Kabupaten Ngawi, Department of Nursing, East Java, Indonesia*
[2] *STIKes Muhammadiyah Ciamis, Jln. KH. Ahmad Dahlan No. 20 Ciamis 46216, Indonesia*

ARTICLE INFORMATION

Received: June, 2021
Revised: July, 2021
Available online: July, 2021

KEYWORDS

diet, knowledge, stress, quality of life, gastritis

CORRESPONDENCE

Phone: +62 857-3620-5789
E-mail: yudisadiaz@gmail.com

A B S T R A C T

Introduction: Swelling of the mucosa in the stomach caused by inflammation due to irritation and infection is called gastritis. Gastritis can cause bleeding in the stomach, if not treated immediately will cause hemorrhagic shock. This study aims to determine the relationship between the level of knowledge, dietary compliance, stress, and quality of life in gastritis sufferers.
Method: This research uses quantitative analytic research with cross sectional approach and the sampling technique uses purposive sampling technique, the number of respondents is 30 people in Cijeungjing Village, Cijeungjing District, Ciamis Regency. instrument research used a gastritis knowledge level questionnaire that had been tested for validity and reliability as many as 20 questions to measure the level of knowledge in gastritis sufferers, Comstock scale questionnaire measure the level of dietary compliance in gastritis sufferers, the PSS-10 questionnaire with 10 questions to assess stress. and the 26 questions WHOQOL-BREF questionnaire measure the quality of life. Analyze adopt Chi Square test.
Result: Univariate analysis of each variable showed that respondents have a level of knowledge above the average on 22 people (73.3%), high levels of dietary compliance on 15 people (50%), severe stress levels on 11 people (36.7%) and a good quality of life on 16 people (53.3%).
Conclusion: There is a significant relationship between stress levels and quality of life as evidenced by the results of statistical tests >ρ value (0.05> 0.029) and chi squared (X^2) count < chi squared (X^2) table (4,866<12,592) but there is no significant relationship between other variables.

INTRODUCTION

Gastritis is swelling of the gastric mucosa caused by inflammation due to irritation and infection (Kusnadi & Yundari, 2020). One of the pathogens that causes infection in the stomach is Helicobacter Pylori bacteria. Besides that, long-term use of NSAIDs can also cause irritation to the stomach (Agustina, Azizah, & Agianto, 2016). Inflammation of the gastric mucosa that is sudden (acute) and gradually (chronic) (Zainurridha & Azis, 2020). Chronic gastritis is one of the most common diseases with serious, dangerous and lifelong categories (Sipponen & Maaroos, 2015). Inflammation of the gastric mucosa caused by gastritis can cause the release of the mucosal layer, causing an inflammatory process (Rosiani, Bayhakki, & Indra, 2020). People know gastritis with heartburn or heartburn, this condition usually can arise suddenly (Kusnadi & Yundari, 2020). Gastritis is also a disease that can be caused by an autoimmune (Hall & Appelman, 2019).

Symptoms include abdominal bloating, frequent burping, lack of appetite, nausea to vomiting, and pain in the pit of the stomach (Rosiani et al., 2020). Acute gastritis can cause other symptoms such as upper gastrointestinal bleeding, hematemesis and melena which ends up becoming hemorrhagic shock if not treated immediately, and even at risk of ulcers although perforation is rare (Siregar, 2016). In addition, other common symptoms that often arise are a sour taste in the mouth, intestinal colic and diarrhea (Fadli, Resky, & Sastria, 2019).

The World Health Organization (WHO) says that the percentage of deaths in inpatient gastritis patients reaches 17-21%. As many as 22% of the incidence of gastritis occurs in America and the incidence of gastritis in Indonesia is indicated by the number 4.8%. The Ministry of Health (2017) also said in the Profile of the Indonesian Ministry of Health that in the 10 sequences of disorders, gastritis ranks third with the number of cases reaching 380,744 people.

Primary health service center and other health facilities are visited by patients who have complaints related to heartburn (Kusnadi & Yundari, 2020). Gastritis can also be triggered by stress to the occurrence of pain as a sign of recurrence (Suryono & Ratna Dwi Meilani, 2015). Pain arises because of a nerve response that connects brain function with the stomach, especially during distress, depression, and poor diet, causing an increase in stomach acid and mucosal irritation. Usually the pain felt is heartburn or epigastric pain (Suhanda, Setiawan, Ariyanto, & Oktavia, 2021; Utami & Kartika, 2018). Inflammation that occurs in the gastric mucosa can cause the release of the superficial mucosal epithelium which is the most important part of digestive problems so that it can stimulate the inflammatory process in the stomach (Utami & Kartika, 2018).

Stress is the body's response in the form of physiological changes caused by exposure or threats to the body (Setiawan et al., 2018). Stress can be caused by unpleasant things such as medication, social conditions and the perceived burden of life. Stress can also trigger the recurrence of a disease that has subsided and can even be a trigger for some common health problems (Setiawan, Khaerunnisa, Ariyanto, & Firdaus, 2020). In a state of stress the stomach will produce excess acid so that it can cause irritation to the gastric organs, if left unchecked it will cause inflammation of the stomach (Tussakinah, Masrul, & Burhan, 2018)

Diet is a person's behavior in choosing and consuming daily food to meet nutritional needs. However, irregular eating habits can cause stomach disorders. After a disturbance in the stomach, the organ will be difficult to adapt so it is necessary to have a diet of foods that can irritate the stomach such as spicy, sour, and alcohol (Laurensius, Milwati, & Sulasmini, 2019). In addition to the type of food, the frequency and number of meals can affect the occurrence of gastritis, this is due to the lack of dietary compliance in patients can cause stomach acid to be easily stimulated to be secreted, too much gastric acid secretion can irritate the stomach wall, the longer it will cause the lining of the organ to erode and inflict injury (Wahyu, Supono, & Hidayah, 2015)

Individual assessment of his condition in life is related to the cultural context and value system in which they are located and related to their goals, expectations, standards and focus of attention is the definition of quality of life (QoL) or quality of life (Hidayat & Gamayanti, 2020; Setiawan et al., 2021)(Hidayat & Gamayanti, 2020) .

This research was conducted on the grounds that gastritis occupies the highest case of non-communicable diseases that occurred in Cijeungjing village, Cijeungjing district, Ciamis district.

OBJECTIVE

This study aims to determine the relationship between the level of knowledge, dietary compliance, stress, and quality of life in gastritis sufferers.

METHOD

This research is a quantitative analysis using a cross sectional approach with four variables, namely two independent

variables (independent) including knowledge and stress, while dietary compliance and quality of life are the two dependent (dependent) variables.

The population in this study were all gastritis sufferers in Cijeungjing Village, Cijeungjing District, Ciamis Regency who were more than 18 years old as many as 105 people. In this study, taking the number of samples using the Slovin formula obtained as many as 30 people with purposive sampling technique. The inclusion criteria for this study included gastritis sufferers, could write and read, were not in the process of being hospitalized and were willing to provide informed consent. As for the exclusion criteria in this study, namely in patients with chronic diseases other than gastritis.

The data used in this research is using primary data or data obtained directly from the object of research which is carried out by distributing questionnaires in the form of google forms to respondents. Furthermore, respondents were asked to fill out the questionnaires that had been distributed themselves.

The research instrument used is a questionnaire that can be used as a measuring tool for the level of knowledge, stress levels, dietary compliance and quality of life in gastritis sufferers. To measure the level of knowledge using a questionnaire about knowledge of gastritis which had previously been tested for validity and reliability as many as 20 questions. The measuring tool for determining stress levels is using the Perceived Stress Scale (PSS-10) questionnaire which consists of 10 questions. Furthermore, the Comstock scale was used as a measuring tool for dietary compliance and World Health Organization Quality of Life BREF (WHOQOL-BREF) questionnaire was used to measure the level of quality of life in gastritis sufferers as many as 26 questions were given to respondents.

On this research was conducted in Cijeungjing Village, Cijeungjing District, Ciamis Regency on December 20, 2020 - January 20, 2021 and the data obtained were then analyzed by Chi Square statistical test using the SPSS for Operating Windows version 20.

RESULTS

Sociodemographic Analysis

Tabel 1. Sosiodemography

Variabel	**F**	**%**	**Mean**	**Deviation Standart**
Age				
11-19 years	10	33.3	1.70	0.535
20-60 years	19	63.3		
>60 years	1	3.3		
Total	30	100		
Income (IDR)				
300.000-1.000.000	21	70	1.47	0.860
1.500.000-3.000.000	6	20		
3.500.000-6.000.000	1	3.3		
>6.000.000	2	6.7		
Total	30	100		
Knowledge				
> Average	22	73.3	1.27	0.450
< Average	8	26.7		
Total	30	100		

Stress				
Normal	14	46.7		
High	16	53.3	1.53	0.507
Total	30	100		
Dietary Compliance				
High	15	50.0		
Low	15	50.0	1.50	0.507
Total	30	100		
Quality of Life				
Good	16	53.3		
Poor	14	46.7	1.47	0.509
Total	30	100		

Based on the table above, the majority of respondents have a level of knowledge above the average with a total of 22 people (73.3%), respondents also have a major stress level of 16 people (53.3%). The level of dietary compliance of the respondents had the same number, namely 15 people (50%) and the quality of life of the majority of respondents was good, namely as many as 16 people (53.3%).

Bivariate Analysis

Tabel 2. Correlation among Variables people with gastritis in Cijeungjing Village, Cijeungjing District, Ciamis Regency

Stress Level	**Quality of life**				**Total**		**P value**	**X^2 count**
	Good		**Poor**					
	F	**%**	**F**	**%**	**F**	**%**		
Normal	13	43.3	6	20	19	63.3	0.029	4.866
High	3	10	8	26.7	11	36.7		
Total	16	53.3	14	46.7	30	100		
Stress Level	**Dietary compliance**				**Total**		**P value**	**X^2 count**
	High		**Low**					
	F	**%**	**F**	**%**	**F**	**%**		
Normal	11	36.7	8	26.7	19	63.3	0.256	1.304
High	4	13.3	7	23.3	11	36.7		
Total	15	50	15	50	30	100		
Knowledge	**Quality of life**				**Total**		**P value**	**X^2 count**
	Good		**Poor**					
	F	**%**	**F**	**%**	**F**	**%**		
> average	11	36.7	11	36.7	22	73.4	0.544	0.372
< average	5	16.7	3	10	8	26.7		
Total	16	53.4	14	46.7	30	100		
Knowledge	**Stress Level**				**Total**		**P value**	**X^2 count**
	High		**Normal**					
	F	**%**	**F**	**%**	**F**	**%**		
> average	12	40	10	33.3	22	75.3	0.098	3.085
< average	7	23.3	1	3.3	8	26.7		
Total	19	63.3	11	36.6	30	100		
Knowledge	**Dietary compliance**				**Total**		**P value**	**X^2 count**
	High		**Low**					
	F	**%**	**F**	**%**	**F**	**%**		
> average	9	30	13	43.3	22	73.3	0.099	2.824
< average	6	20	2	6.7	8	26.7		
Total	15	50	15	45	30	100		

Dietary compliance	Quality of life				Total		P value	X^2 count
	Good		Poor					
	F	%	F	%	F	%		
High	9	30	6	20	15	50	0.825	0.049
Low	7	23.3	8	26.7	15	50		
Total	16	53.3	14	46.7	30	100		

DISCUSSION

Based on the table above, the number of respondents who have a normal stress level with a good quality of life level is 13 people and 3 respondents who have a severe stress level with a good quality of life level. Then the respondents with normal stress levels and high dietary compliance are 11 people while the number of respondents with severe stress levels and high dietary compliance are 4 people. Furthermore, the level of knowledge is below the average by having a good quality of life level as many as 5 respondents and in respondents with a level of knowledge above the average with a good quality of life level as many as 11 people.

The data shown based on the table above shows that respondents who have a level of knowledge more than the average have a severe stress level of 12 people, while respondents who have a knowledge level below the average have a high stress level of 7 people. A total of 9 respondents had a level of knowledge more than the average with high dietary compliance, while as many as 6 people had a knowledge level below the average with high dietary compliance. The number of respondents with a high level of dietary compliance with a good quality of life were 9 people and respondents with a low level of dietary compliance with a good quality of life were 7 people.

From the results of data analysis, the Chi Square (X^2) value is 4.866 and the nilai value is 0.029. Based on the results of statistical test analysis, it can be concluded that there is a significant relationship between the stress level of gastritis sufferers and the quality of life in Cijeungjing Village because the value of >ρ value (0.05> 0.029) and the value of chi squared (X^2) count < value of chi squared (X^2). table (4,866<12,592)
Based on the results of the analysis, the Chi Square (X^2) value is 1.304 and the value is 0.256 on the correlation of stress levels with dietary compliance. This shows that there is no significant relationship between stress levels in gastritis sufferers and dietary compliance because <ρ value (0.05 <0.256) and chi square value (X^2) count < chi square (X^2) table (1.304<12.592). However, in a study conducted by Tussakinah et al (2018), there was a significant relationship between stress levels and diet or dietary compliance on gastritis recurrence. This is evidenced by the value of value in each test result, namely >ρ value (0.05> 0.000) (Tussakinah et al., 2018).

In the correlation between the level of knowledge and quality of life, the chi square (X^2) value is 0.372 and the nilai value is 0.544. Based on the results of the analysis, it can be concluded that there is no significant relationship between the level of knowledge of gastritis sufferers and the quality of life of gastritis sufferers because the value of <ρ value (0.05 <0.544) and the chi squared value (X^2) count < chi square value (X^2) table (0.372<12.592).

Based on the results of data analysis, the value of chi square (X^2) is 3.085 and the value of value is 0.098. From the results of the data above, it can be concluded

that there is no significant relationship between knowledge of gastritis sufferers and stress levels in Cijengjing Village. (3,085<12,592).

However, in a study conducted by Monica (2019) that there was a significant relationship between the level of knowledge and stress on recurrences that occurred in gastritis sufferers with evidence of the chi square test results, the level of knowledge with recurrence was p value 0.032 (P<0.05) and the results Chi square test on stress level with recurrence is p value 0.020 (P < 0.05) (Monica, 2019).

In the correlation between the level of knowledge and dietary compliance, the Chi Square (X^2) value is 2.824 and the value is 0.099. So it can be concluded that there is no significant relationship between the level of knowledge and the level of dietary compliance in gastritis sufferers in Cijeungjing Village because the value of <ρ value (0.05<0.099) and chi squared value (X^2) count < chi squared (X^2) table (2,824<12,592)

The result of the correlation of the level of dietary compliance with the level of quality of life is the Chi Square (X^2) value of 0.049 and the value of 0.825. This shows that there is no significant relationship between the level of dietary compliance with the level of quality of life of gastritis sufferers in Cijeungjing Village because the value of <ρ value (0.05 < 0.825) and chi squared value (X^2) count < chi squared (X^2) table (0.049<12.592).

CONCLUSIONS

The results of this study indicate that there is a significant relationship between stress levels and quality of life of gastritis sufferers (ρ value = 0.029) and there is no relationship between stress levels and dietary compliance (ρ value = 0.256), knowledge level and quality of life (ρ value = 0.544) , level of knowledge and dietary compliance (ρ value=0.099), level of knowledge with stress level (ρ value=0.098) and dietary compliance with quality of life of gastritis sufferers (ρ value=0.715).

Suggestions that can be given to the community are expected to increase knowledge about gastritis (Firmansyah et al., 2019; 2021) so that they can pay more attention to health in an effort to prevent gastritis, increase light exercise to maintain physical and spiritual fitness, maintain diet and take an active role in counseling and health counseling both held by Health Center, Hospital or other sources of information

REFERENCES

1. Agustina, R., Azizah, A., & Agianto, A. (2016). Kejadian Gastritis Di Rsud Ratu Zalecha Martapura. *Dunia Keperawatan*, *4*(1), 48–54. https://doi.org/10.20527/dk.v4i1.2545
2. Andan Firmansyah, Ahid Jahidin, & Nur Isriani Najamuddin. (2019). Efektivitas Penyuluhan Dengan Menggunakan Media Leaflet Dan Video Bahasa Daerah Terhadap Pengetahuan Bahaya Rokok Pada Remaja. *Bina Generasi : Jurnal Kesehatan*, *11*(1), 80–86. https://doi.org/10.35907/jksbg.v11i1.138
3. Fadli, Resky, & Sastria. (2019). Pengaruh Terapi Dzikir terhadap Intensitas Nyeri pada Pasien Gastritis. *Jurnal Kesehatan*, *10*(2), 169–174. https://doi.org/10.26630/jk.v10i2.1192
4. Firmansyah, A., Setiawan, H., & Ariyanto, H. (2021). Studi Kasus Implementasi Evidence-Based Nursing: Water Tepid Sponge Bath Untuk Menurunkan Demam Pasien Tifoid. *Viva Medika: Jurnal Kesehatan, Kebidanan Dan Keperawatan*, *14*(2), 174–181.
5. Hall, S. N., & Appelman, H. D. (2019). Autoimmune gastritis. *Archives of Pathology and Laboratory Medicine*, *143*(11), 1327–1331.

https://doi.org/10.5858/arpa.2019-0345-RA
6. Hidayat, I. N., & Gamayanti, W. (2020). Dengki, Bersyukur dan Kualitas Hidup Orang yang Mengalami Psikosomatik. *Psympathic : Jurnal Ilmiah Psikologi*, *7*(1), 79–92. https://doi.org/10.15575/psy.v7i1.6027
7. Kusnadi, E., & Yundari, D. T. (2020). Hubungan Stress Psikologis Dengan Kejadian Gastritis di Wilayah Kerja Puskesmas Cisurupan. *Jurnal Medika Cendikia*, *7*(1), 1–7.
8. Laurensius, F. U., Milwati, S., & Sulasmini. (2019). Hubungan Antara Stres Dan Pola Makan Dengan Kejadian Gastritis Yang Terjadi Di Pukesmas Dinoyo. *Nursing News*, *4*(1), 237–247.
9. Monica, T. (2019). Hubungan Antara Pengetahuan dan Tingkat Stres Terhadap Kambuh Ulang Gastritis Di Wilayah Kerja Puskesmas Kota Sungai Penuh Tahun 2019. *Menara Ilmu*, *VIII*(5), 176–184.
10. Rosiani, N., Bayhakki, & Indra, R. L. (2020). Hubungan Pengetahuan Tentang Gastritis Dengan Motivasi Untuk Mencegah Kekambuhan Gastritis. *Jurnal Ilmu Keperawatan*, *9*(1), 10–18.
11. Setiawan, H., Ariyanto, H., Khaerunnisa, R. N., Firdaus, F. A., & Fitriani, A. (2021). Yoga Improves Quality of Life among Breast Cancer Patients. *Faletehan Health Journal*, *8*(01), 1–9. https://doi.org/10.33746/fhj.v8i01.159
12. Setiawan, H., Khaerunnisa, R. N., Ariyanto, H., & Firdaus, F. A. (2020). Telenursing meningkatkan kualitas hidup pasien dengan penyakit kronis, *3*(2), 95–104.
13. Setiawan, H., Sopatilah, E., Rahmat, G., Wijaya, D. D., & Ariyanto, H. (2018). Hubungan Tingkat Pengetahuan dengan Kecemasan Penderita Diabetes Mellitus. *Proceeding The 7th Unversity Research Colloqium 2018*, 241–248.
14. Sipponen, P., & Maaroos, H. I. (2015). Chronic gastritis. *Scandinavian Journal of Gastroenterology*, *50*(6), 657–667. https://doi.org/10.3109/00365521.2015.1019918
15. Siregar, I. S. (2016). Tingkat Pengetahuan Pasien Tentang Perawatan Gastritis di RS Umum Bangkatan Binjai Tahun 2016. *Riset Hesti Medan*, *1*(2), 105–109.
16. Suhanda, Setiawan, H., Ariyanto, H., & Oktavia, W. (2021). A Case Study: Murotal Distraction to Reduce Pain Level among Post-Mastectomy Patients Suhanda1,. *International Journal of Nursing and Health Services (IJNHS)*, *4*(3), 325–331. https://doi.org/http://doi.org.10.35654/ijnhs.v4i3.461 Abstract.
17. Suryono, & Ratna Dwi Meilani. (2015). Pengetahuan Pasien Dengan Gastritis Tentang Pencegahan Kekambuhan Gastritis. *Jurnal AKP*, *1*(1), 17–24.
18. Tussakinah, W., Masrul, M., & Burhan, I. R. (2018). Hubungan Pola Makan dan Tingkat Stres terhadap Kekambuhan Gastritis di Wilayah Kerja Puskesmas Tarok Kota Payakumbuh Tahun 2017. *Jurnal Kesehatan Andalas*, *7*(2), 217–225. https://doi.org/10.25077/jka.v7i2.805
19. Utami, A. D., & Kartika, I. R. (2018). Terapi Komplementer Guna Menurunkan Nyeri Pasien Gastritis: Literatur Review. *REAL in Nursing Journal (RNJ)*, *1*(3).
20. Wahyu, D., Supono, & Hidayah, N. (2015). Pola Makan Sehari-Hari Penderita Gastritis. *Jurnal Informasi Kesehatan Indonesia (JIKI)*, *1*(1), 17–24.
21. Zainurridha, Y. A., & Azis, M. A. (2020). Pengetahuan Dengan Perilaku Pencegahan Gastritis: Literature Review. *Medical Jurnal of Al Qodiri*, *7*(1), 1–7.