

ISSN 2354-8428  
e-ISSN 2598-8727

JURNAL KEPERAWATAN

# KOMPREHENSIF

COMPREHENSIVE NURSING JOURNAL

**Published by :**

**Sekolah Tinggi Ilmu Keperawatan  
PPNI Jawa Barat**

Vol. 9 No. 3, July 2023



JURNAL KEPERAWATAN KOMPREHENSIF	VOL. 9	NO. 3	Bandung July 2023	ISSN 2354-8428	e-ISSN 2598-8727
------------------------------------	--------	-------	-------------------------	-------------------	---------------------



## Research Article

# The Effectiveness of Combination Online and Offline Health Promotion on Gastritis Prevention Among Undergraduate Nursing Students

Tri Mochartini<sup>1</sup> | Nyoman Indah Santika Dewi<sup>2</sup>

<sup>1,2</sup>Bachelor of Nursing  
Stikes Abdi Nusantara  
Jakarta - Indonesia

\*contact  
mochartinitri@gmail.com

Received : 06/07/2023  
Revised : 28/07/2023  
Accepted : 29/07/2023  
Online : 31/07/2023  
Published : 31/07/2023

### Abstract

**Aims:** Gastritis is an acute or chronic inflammation of the mucous lining of the stomach wall, and it commonly affects students with a heavy lecture load. The purpose of this study was to determine the effectiveness of a combination of online and offline health promotion on the prevention of gastritis in nursing undergraduate students.

**Methods:** This study examines the efficacy of health promotion using magnification media and leaflets for the prevention of gastritis. It employs the Cross Sectional method to assess independent and dependent variables. Using a random sample of 176 first-year students, 153 samples were divided into two groups: magnification and leaflet media. Normality tests and paired T tests are utilized to determine the impact of independent variables.

**Results:** Show of Bivariate Analysis with Paired T Test with a sample of 153 respondents (N = 153) obtained data that T - count (21.345), T - Table (0.662) and the p.Value is (0.004) alpha value (0.05) which means there is a difference in the initial level students of Stikes Abdi Nusantara about preventing gastritis after being given education through zoom media and leaflets.

**Conclusions:** Based on the result that 121 students had a good diet, while 21% had an adequate diet. Gastritis, caused by improper dietary habits, is more common among women. Stress levels were found to be a significant factor in gastritis incidence. Education through Zoom media and leaflets significantly improved initial-year students' knowledge of gastritis prevention.

### Keywords:

**Gastritis prevention, health promotion, nursing**

## INTRODUCTION

Gastritis is an inflammation of the stomach wall, especially the lining of the stomach wall or inflammation that occurs in the gastric mucosa area (1). Inflammation or erosion that can result in swelling and the occurrence of *Helicobacter pylori* bacterial infection can occur when bacteria attack and damage the stomach wall (2). This bacterium is different from other types of bacteria because it can survive and multiply between the folds of the stomach wall,

damage to the stomach wall that occurs continuously and lasts a long time can change the cell structure of the stomach wall can trigger cancer or lead to death. According to (3), gastritis is usually characterized by the onset of pain, swelling, and irritation of the mucous membrane of the stomach. This gastritis disease is a health disorder related to the digestive process, especially the stomach. This disease is still often considered mild and many people do not care about gastritis because they are lazy to find out whether

what triggers this disease occurs and handles it properly, and this disease is only left alone even though the risk if this disease is not treated immediately can cause complications such as peptic ulcers (4).

According to the Big Indonesian Dictionary, students are people who study in college. There are many universities in Indonesia, universities are educational units of formal educational institutions above secondary school, most of which provide theoretical education in natural sciences in addition to the development of certain skills, therefore many students are otherwise corporate actors. Students are the successors of higher education is a level of formal education. The point where students prepare their skills before entering real life (5). Being a student is very unique, even being a student is a dream for all students in the world, not only in taking education to be a student but also to add broader insight, for example adding friendships and various other experiences, and being able to be creative and pursue deeper knowledge in their fields. By being a student, you are required to think critically in dealing with the problems faced, and can control your emotional level in order to be able to make the right decisions. In addition to being taught to control emotions appropriately, students can also choose the life they want later (6).

Learning methods are a whole series that can be used in the presentation of teaching materials which include all aspects before learning or after learning carried out by lecturers or teachers as well as all related facilities and can be used either directly or indirectly in carrying out the teaching and learning process.

According to (7), in some countries in the world the percentage of gastritis is 69% in Africa, 78% in South America, and 51% in Asia (7). The incidence of gastritis is quite high in some parts of Indonesia with a prevalence of 274,396 cases with a population of 238,452,952. The prevalence

of magg disease in East Java is based on knowledge with lifestyle for the prevention of magg disease in students of Akper Pemkab Ngawi". The Indonesian Ministry of Health, the incidence of gastritis is very high in several cities in Indonesia reaching 91.6%, especially in the city of Medan, then in several other cities such as Surabaya 31.2%, Denpasar 46%, Jakarta 50%, Bandung 32.5%, Palembang 35.35, Aceh 31.7% and Pontianak 31.2% Ministry of Health of the Republic of Indonesia. On February 22, 2022, through several questions to 50 students of the Faculty of Public Health, Muhamadiyah University, Jakarta to see the occurrence of gastritis, the results showed that (60%) students had a history of abdominal pain and (76%) experienced pain or discomfort in the intestinal area.

Seeing the large population of cases and the high risk of gastritis among undergraduate nursing students of Stikes Abdi Nusantara, it is necessary to make efforts to prevent gastritis by expanding knowledge through health promotion using zoom media and leaflets to find out more effectively which is easier to understand among early year students. So that it can make Stikes Abdi Nusantara students aware specifically for early year students about the dangers of gastritis. This study aims to make Stikes Abdi Nusantara students more likely to understand how to prevent gastritis correctly and appropriately. In order for us to avoid the disease, the thing that students should do is to control all types of foods that can cause gastritis, by taking preventive measures such as avoiding alcoholic beverages because they can irritate the stomach area so that inflammation occurs, we also need to avoid smoking because the impact of cigarettes is very harmful to student health, for example, resulting in interference by coating the stomach wall like this, the stomach can be more easily affected by gastritis so that the stomach can more easily experience gastritis. And smoking can also increase stomach acid and lead to complications of other diseases. In

addition, cigarettes are also able to inhibit healing in the wound area, especially in the stomach area.

## METHODS

The purpose of this study is to analyze the efficacy of health promotion through zoom media and leaflets in the prevention of gastritis. Using a "Cross Sectional" approach involves gathering information about gastritis from the perspective of the various independent factors that contribute to the disease. The simultaneous assessment of variables resulting from (dependent) gastritis prevention using zoom media and

handouts. Sampling is performed using a random sampling technique, and normality tests and paired T tests are used to examine the impact of independent variables. Population, as stated by (8), is the entire focus of research. Participants in this research were the first cohort of students taught by Stikes Abdi Nusantara. There were 176 first-year students at Stikes Abdi Nusantara, and 153 of them were randomly selected to participate in the study, with each group receiving a different set of data. Media Zoom was used by the first group, media leaflets by the second, and media from both by the third.

## RESULT

**Table 1. Overview the Characteristic of Undergraduate Nursing Students (n=153)**

Variable	Frequency	Percentage (%)
<b>Knowledge</b>		
Good	121	79.0
Enough	32	21.0
<b>Stress Level</b>		
Normal	84	54.9
Moderate	16	10.4
Severe	53	34.7
<b>Smoke History</b>		
Yes	20	13.0
No	133	87.0
<b>Gender</b>		
Male	28	18.3
Female	125	81.7

Based on the results of the research data conducted, data were obtained from 153 students, the most students who had a good diet, namely as many as 121 respondents (79.0%). Based on the results of the study, the results of 153 early year students at Stikes Abdi Nusantara were the most in students who had normal stress levels, which were 84 respondents (54.9%), then students with severe stress as many as 53 respondents (34.7%). The results of 153 early year students at Stikes Abdi Nusantara on students who were active smokers, namely 20 respondents (13.0%) were all male where the total number of men was 28 respondents. Based on the results of the study, the results of 153 initial year students at Stikes Abdi Nusantara were mostly female students, namely 125 respondents (81.7%), and 28 male respondents (18.3%).

**Table 2. Normality Test for gastritis prevention of respondents before and after being given education via zoom and leaflet**

Gastritis Prevention	Mean	Standart Deviation	Kolmogrov -Smirnov	Signifikan Symp
Pretes	0,336	4,711	0,445	0,647
Posttes	0,502	7.504	0,256	0,787

Based on the results of the respondents' normality test in this study, a significant Symp result of  $> 0.05$  was obtained, so it was stated that the residual value in this study was normally distributed. Based on the results of Bivariate Analysis with paired T-test with a sample of 153 respondents ( $N = 153$ ), data were obtained that T-Count (21.345)  $>$  T-table (0.662) and p.Value value (0.004)  $<$  alpha value (0.05) which means there is a difference in the initial year students of Stikes Abdi Nusantara about gastritis prevention after being given education through zoom media and leaflets.

**Table 3. Gastritis Prevention Before and After Education (n=153)**

Variable	Mean	t	P-Value
Pretest	33,2	0.662	0.004
Posttest	40,2		

## DISCUSSION

First-year students at Stikes Abdi Nusantara were asked to describe their diets, and based on those responses, 121 students (or 79.0%) had a good diet, whereas 32 students (or 21.0%) had an adequate diet. The gastric mucosa can become inflamed due to a condition known as gastritis, which is classified into two subtypes: acute and chronic. A person can get gastritis if he doesn't pay enough attention to his health, particularly with regards to maintaining a healthy diet and regularly eating nutritious foods (9). According to (10) diet is a way to regulate the type, quantity of food to maintain health and the development of gastritis occurs due to improper dietary habits, for example the frequency of eating is still not right where the correct eating frequency is three meals a day and determining the right portion of food and the type of food consumed in daily life. This study is in line with research that has been conducted by (11) the results show that there is a relationship between diet and the emergence of gastritis so that the stomach will be difficult to adapt. Where the stomach should be filled instead of being left empty and postponed filling.

Students in their first year at Stikes Abdi Nusantara described their stress levels using a questionnaire, with 84 reporting normal levels (54.9%), 16 reporting moderate levels (10.4%), and 53 reporting severe levels (34.7%), as determined by a univariate analysis. Stress is a stimulation

of increased nerve autonomy which will then increase hydrochloric acid (HCL), so that it can erode the gastric mucosa area. The results of this study are in sync with research conducted by (12) that  $P = 0.001$  which means there is a relationship between stress and gastritis incidence.

Stress according to its symptoms there are three, namely: Mild stress is a stressor that occurs to someone regularly, such as criticism or advice given by someone. This situation occurs a few minutes or hours or often feels tired for no reason and the feeling becomes uneasy. Moderate stress condition lasts longer than mild stress, the main cause of moderate stress is where the condition of the situation that has been done but not resolved, so that sleep patterns will be disrupted. Severe stress is a situation that is felt for a long duration, this condition lasts approximately a few weeks to several months. The characteristics are difficulty to move and disruption of social relationships (13).

Univariate analysis reveals that, out of 153 first-year students polled at Stikes Abdi Nusantara, 20 are regular smokers (13.1%), and that all 20 are men (out of a total of 28). And of those who participated, 133 (87.0%) are confirmed ex-smokers. The reasons someone smokes are, among others, because they feel free, relieve stress, reduce anxiety and tobacco contains nicotine which can relieve hunger. Therefore, a smoker can delay hunger so that it can increase stomach acid and cause gastritis. This study

is in line with (14), that smoking habits are one of the factors and show a relationship between smoking and the incidence of gastritis.

The study's sample size of 153 first-year students at Stikes Abdi Nusantara revealed that women made up the vast majority of respondents (125 out of 153) (87.7%), while men accounted for just 28 out of 153 (18.3%). According to research conducted by (15), judging from the sex factor, gastritis is more often experienced by women because women more often do not maintain a diet and follow an unhealthy diet program and the desire to have ideal body proportions so that women are more likely not to regulate their diet properly. Women can do a diet program but in the right and proper way, for example, first consult a nutritionist and follow the doctor's rules appropriately so that gastritis does not occur. Total respondents amounted to 153, all respondents or students at Stikes Abdi Nusantara at the initial level aged 18-19 years (table 5).

Normality test of gastritis prevention of respondents before and after education was given through zoom media and leaflets. Based on the results of the respondent normality test in this study, a significant Symp result of 0.05 was obtained, so it was stated that the residual value in this study was normally distributed. Paired T Test for gastritis prevention of respondents before and after education was given through zoom media and leaflets. Based on the results of Bivariate analysis with paired T-test with a sample of 153 respondents (N = 153), data were obtained that  $T - \text{count} (21,345) > T - \text{table} (0,662)$  and  $p.\text{Value} (0,004) < \alpha \text{ value} (0,05)$  which means there is a difference in the initial year students of Stikes Abdi Nusantara about gastritis prevention after being given education through zoom media and leaflets.

## CONCLUSION

Based on the result that 121 students (79.0%) had a good diet, while 32 students

(21.0%) had an adequate diet. Gastritis, a condition causing inflammation of the gastric mucosa, is caused by improper dietary habits, such as not eating three meals a day and determining the right portion and type of food. Stress levels were also found to be a significant factor in gastritis incidence, with 84 students reporting normal levels (54.9%), 16 reporting moderate levels (10.4%), and 53 reporting severe levels (34.7%). The study found that 20 regular smokers (13.1%) were men, and 133 (87.0%) were confirmed ex-smokers. The majority of respondents were women, with women more likely to experience gastritis due to their poor diet and desire for ideal body proportions. The study found a significant difference in initial-year students' knowledge of gastritis prevention after receiving education through Zoom media and leaflets.

## REFERENCES

1. Rugge M, Pennelli G, Pilozzi E, Fassan M, Ingravallo G, Russo VM, et al. Gastritis: the histology report. *Digestive and Liver Disease*. 2011;43: S373-84.
2. White JR, Winter JA, Robinson K. Differential inflammatory response to *Helicobacter pylori* infection: etiology and clinical outcomes. *J Inflamm Res*. 2015;137-47.
3. Handayani SW, Dafriani P, Annita A. Pengaruh Edukasi Kesehatan Terhadap Pengetahuan Tentang Gastritis di Wilayah Kerja Puskesmas Tebo Tengah, Kabupaten Tebo, Provinsi Jambi. *Jurnal Abdimas Sainika*. 2019;1(1):73-8.
4. Pratiwi Y, Aji IE. Pengaruh Health Literacy melalui Media Brosur tentang Pengobatan Gastritis terhadap Pengetahuan Warga di Desa Muktiharjo Kabupaten Pati. *Cendekia Journal of Pharmacy*. 2021;5(1):63-9.
5. Napitupulu S. Analyzing linguistic errors in writing an English letter: A case study of Indonesian

- undergraduate students. *International Journal of Language and Linguistics*. 2017;5(3):71-7.
6. Wanders FHK, Dijkstra AB, Maslowski R, Van der Veen I. The effect of teacher-student and student-student relationships on the societal involvement of students. *Res Pap Educ*. 2020;35(3):266-86.
  7. Ghanem GA, Bedier NA, Desoky APDGM, Abdelkader AI. Assessment of lifestyle of patients with chronic gastritis. *Int J Nov Res Healthc Nurs*. 2019;6(3):203-13.
  8. Nursalam J. *Metodologi Penelitian Ilmu Keperawatan* Jakarta: Salembang Medika. 2016;
  9. Aspitasari A, Taharuddin T. Analisis Pengaruh Terapi Non-Farmakologi terhadap Intensitas Nyeri pada Pasien dengan Kasus Gastritis di Instalasi Gawat Darurat: Literatur Review. 2020;
  10. Kurdaningsih SV, Firmansyah MR. Pola Makan dan Stres dengan Kejadian Gastritis Mahasiswa Program Studi Ilmu Keperawatan Stik Siti Khadijah. *Jurnal Kesehatan Saemakers PERDANA*. 2021;4(2):196-203.
  11. Fhirawati F, Nurindahsari S, Nugroho H. The Relationship Between the Diet Served and The High Rate of Gastritis in Samarinda Police Detainees in East Kalimantan. *Jurnal eduhealth*. 2022;13(02):1035-9.
  12. Muliani N, Irianto G, Kurniawan T. Frekuensi Makan Dan Stres Dengan Kejadian Gastritis Pada Perempuan Usia 18-25 Tahun Di Wilayah Kerja Puskesmas Rawat Inap Kemiling Kota Bandar Lampung. *Jurnal Wacana Kesehatan*. 2021;6(2):101-6.
  13. Attia M, Ibrahim FA, Elsady MAE, Khorkhash MK, Rizk MA, Shah J, et al. Cognitive, emotional, physical, and behavioral stress-related symptoms and coping strategies among university students during the third wave of COVID-19 pandemic. *Front Psychiatry*. 2022;13:933981.
  14. Astuti DAOP, Wulandari D. Stres dan perilaku merokok berhubungan dengan kejadian gastritis. *Jurnal Ilmiah Permas: Jurnal Ilmiah STIKES Kendal*. 2020;10(2):213-22.
  15. Tussakinah W, Masrul M, Burhan IR. Hubungan Pola Makan dan Tingkat Stres terhadap Kekambuhan Gastritis di Wilayah Kerja Puskesmas Tarok Kota Payakumbuh Tahun 2017. *Jurnal Kesehatan Andalas*. 2018;7(2):217-25.

