Original Article

The Effect of Health Education on Gastritis Prevention Behavior Among High School Students

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ABSTRACT

Introduction: Gastritis is the inflammation of the gastric mucosa that is characterized by discomfort felt in the upper abdomen in addition to nausea, vomiting, a decreased appetite and headaches. Gastritis is one type of discomfort that is generally suffered by adolescents caused by various factors including their level of knowledge related to being aware of the necessary behavior to prevent gastritis. The purpose of this study was to determine the effect of health education on the student's behavior and on the prevention of gastritis.

Methods: The design used was pre-experimental with a pretest-posttest design approach. The sampling technique used in this study was a total sampling technique resulting in 57 respondents. Before the intervention, the respondents filled in a questionnaire about the concept of gastritis. Furthermore, the respondents were given health education intervention material about gastritis in the form of leaflets containing information on the understanding, causes, signs and symptoms, risk factors and prevention. The intervention was only conducted for one session for 20-30 minutes per respondent. Following this, 1 hour later, the intervention was evaluated by giving the same questionnaire to the respondent to fill in according to the questions. The data analysis used a paired sample t-test ρ = 0,000.

Results: The results showed an increase in behavior before and after the intervention related to preventing gastritis among the students. The results showed that 28 respondents (49.1%) with good behavior changed to 33 respondents (57.9%) who behaved well.

Conclusion: The conclusion is that there is a significant influence from counseling on the prevention of gastritis among high school students.

INTRODUCTION

Gastritis, often known as ulcer disease, is a disease that can be very disturbing. Gastritis usually occurs in people who have irregular eating patterns and they eat foods that stimulate stomach acid production. Some microorganism infections can also cause gastritis. Gastritis pain symptoms, besides pain in the abdomen, include nausea, vomiting, weakness, bloating, tightness, a decreased appetite, pale face, rising body temperature, cold sweats, dizziness, always belching and in more severe conditions, the patient can vomit blood. (Pratiwi, 2013)

Gastritis can affect all ages and genders. Some of the surveys show that gastritis most often attacks those of a productive age. At a productive age, they are prone to gastritis symptoms because of the level of busyness and lifestyle that involves not paying attention to health. Stress easily occurs due to the influence of the environmental factors (Hartati, Utomo, & Jumaini, 2014)

According to the data from the World Health Organization (WHO) in 2012, a review of several countries in the world showed the percentage of gastritis events in the world: the UK had 22%, China 31%, Japan 14.4%, Canada 35% and France 29.5%. The incidence of world gastritis is around 1.8-2.1 million of the population every year. The incidence of gastritis in Southeast Asia is around 583,635 of the population every year. The prevalence of gastritis confirmed through coffee endos out of the population in Shanghai made up around 17.2%. This is much higher than the Western population which is around 4.1%, and some have no symptoms. (Saroinsong, Palandeng, & Bidjuni, 2014)

Based on the data from the Ministry of Health of the Republic of Indonesia (2013), the incidence of gastritis in several regions in Indonesia is quite high with a prevalence of 274,396 cases out of 238,452,952 residents. It was found that in the city of Surabaya, gastritis totaled 31.2% while in Denpasar, 46% of the population had it. In Central Java, the incidence of infection was quite high at 79.6% [5]. Based on the data from the Maluku provincial health office, the incidence of gastritis in 2014 totaled 32,275 cases. The incidence of gastritis in 2016 totaled 31,921 (5.2%) out of the 10 most common diseases. Based on the data from the 10 biggest diseases obtained from the Tehoru Health Center in 2018, there were as many as 688 gastritis sufferers. Out of the patients with gastritis over the last 3 years, adolescents made up 218 sufferers. In 2016, there were 48 patients, in 2017 there were 94 patients and in 2018, there were 76 patients with gastritis who were adolescents.

Preliminary research was conducted at Tehoru Public Middle School 4 using interviews. Using leaflets was focused on 10 grade 3 students and this showed that prevention of gastritis behavior was good, amounting to 3 students. Those that behaved reasonably totaled 2 students and those that behaved less well totaled 5 students. From these results, it can be concluded that the lack of student behavior regarding the prevention of gastritis is due to a lack of knowledge about gastritis. Counseling is needed to add insight into the prevention of gastritis.

MATERIALS AND METHODS

Design

The design used in this research was pre-experimental with a one group pre-test and post-test design. The experimental design was implemented through a questionnaire (measurements) before and after treatment n (treatment). The research was conducted by providing a pretest (initial observation) first before the intervention was given and then after the intervention was given, which refers to the posttest (final observation). This study aims to determine the effect of counseling and the prevention behavior of gastritis by providing health education about gastritis and its prevention. The research was conducted with a focus on high school students from 1st August 2019 to 8th September 2019.

Sample

The sample has a number of characteristics possessed by the wider population. The sample in this study totaled 57 high school students.

Data Collection Techniques

The data collection techniques used were questionnaires and direct interviews with the respondent. Before the intervention, the respondents filled in a questionnaire about the concept of gastritis. Furthermore, the respondents were given health education interventions about gastritis disease material in the form of leaflets containing information covering the understanding, causes, signs and symptoms, risk factors and prevention. The intervention was only conducted through one session for 20-30 minutes per respondent. Following this, 1 hour later after the intervention, it was evaluated by giving the same questionnaire to the respondents to fill in.

Data Processing

After the data retrieval was done and the data was obtained, the data processing was then performed which includes several parts, namely editing, coding, processing, cleaning, and tabulating the data. Data analysis was performed using the SPSS version 21 computer software. The analysis used univariate and bivariate analysis conducted using a paired sample t test.

RESULTS

The most common age group of respondents was aged 16 years, totaling 29 people (50.8%). The most common sex of the respondents was male, totaling as many as 30 people (52.6%). The knowledge of the respondents before (pre-test) and after (post-test)

Table 1. Pretest and posttest results for behavioral prevention (n=57)

Behavioral prevention	Pre test		Post Test	
	n	%	n	%
Good	28	49.1	33	57.9
Not good	29	50.9	24	42.1

Table 2. Paired sample t-test before and after health education about gastritis (n=57)

Counseling	The mean	P value
Pre - test t	21.44	
Post t-test	24.88	0.000

counseling for gastritis prevention behavior was determined.

The pretest value for most of the respondents showed that they behaved well (28 people: 49.1%) and those that had bad knowledge totaled 29 respondents (50.9%). After the intervention, there was an increase. Most of the respondents behaved, totaling 33 respondents (57.9%). The behavior of 24 respondents was not good (24.1%) (Table 1).

Bivariate analysis was used to find out the effect between the dependent and independent variables using the paired-samples t-test statistically to determine the effect of illumination on the prevention of gastritis behavior. The significance value (ρ) from the results of the Paired Sample T-Test was 0,000. The hypothesis decision is that there is a significant influence from counseling on the prevention of gastritis in high school students (Table

DISCUSSION

Health education aims to change unhealthy behaviors into healthy ones. Any new behaviors that are formed are usually only limited to understanding the target.(Shalahuddin, 2018) There are several factors that influence the success of health education, including counseling factors, counseling target factors and health education process factors. From the results of the frequency distribution of the respondents, it can be seen that the effect of health education on preventive behavior carried out on the respondents indicates that out of the 57 respondents, most were aged 16 years old, totaling 29 people (50.8%). Those aged 17 years old totaled as many as 15 people (26, 3%) and those who were 15 years old totaled as many as 13 people (26.3%). It can be said that age can also influence the behavior of the respondents because those of certain young and adult ages are also included in the productive age category. The age range of 15-17 years old is an age range with a busy schedule because of work, school work and other activities. The respondents are more likely to have behaviors that can increase their risk of developing gastritis such as irregular eating patterns, smoking habits, lazy eating and an unhealthy lifestyle. According to August (2013), it affects one's understanding and mindset. As you get older, you will also develop your perception and mindset so the knowledge that you get will be able to be used better. For gender, men totaled 30 people and women totaled 27 people. The discussion above shows that the number of male respondents is greater than the number of female respondents. This is because the total population of class 3 Natural Sciences and Social Sciences was 57 respondents. The number of male respondents in Middle School 4 was higher than the number of female respondents who were high school students.

Regarding the effect of counseling on the prevention of gastritis behavior, it can be seen that the pretest value of the majority of respondents showed that they were behaving well. This totaled 28 respondents (49.1%). This also shows that the student's behavior was quite good before counseling because some of the students already knew about and understand the behavior used to prevent gastritis. Some of the students had adopted a healthy lifestyle in their daily lives. The respondents who behave badly totaling as many as possible 29 respondents (50.9%) indicated that the lack of gastritis prevention behavior is caused by the respondents never following and understanding the health education given on gastritis prevention. The behavior of the respondents is thus in accordance with the statement in the questionnaire on the prevention of gastritis behavior. This is also reinforced by the theory put forward by Rahma et al (2013), in that the occurrence of gastritis can be caused by poor and irregular eating patterns, namely referring to eating frequency in addition to the type and amount of food. The stomach thus becomes sensitive when the level of stomach acid increases.(Rahma, Ansar, & Rismayanti, 2012)

In the posttest, there was found to be an increase in that most of the respondents behaved well, totaling as many as 33 respondents (57.9%). It can be seen that there is an influence from health education on gastritis prevention behavior among the students. This shows that they can change their mindset and behavior in order to change bad habits into good habits. It can be concluded that students who engage in gastritis prevention behavior in the good category have a good eating pattern. This involves eating small amounts of food but often, and multiplying the eating of foods that contain flour such as rice, corn, and bread. This will produce less gastric acid.

Reducing the consumption of foods that can irritate the stomach, for example foods that are spicy, sour, fried and fatty, according to (Sumangkut, Rompas, & Karundeng, 2014), can prevent the recurrence of gastritis. This means that the disease will not occur even though a person cannot always eliminate Helicobacter pylori. Another action is maintaining a good and regular diet. Health education can influence knowledge and behavior. According to Wood, health education is a useful experience that can influence one's habits, attitude and knowledge (Mawey, Kaawoan, & Bidjuni, 2014). According to Nyswander, health education is a dynamic process of behavior change (Mawey et al., 2014). There were 24 respondents (42.1%) who misbehaved. This is because after counseling, the respondent did not change their bad habits regarding having a healthy lifestyle. Health education is an educational activity carried out by spreading the message and instilling confidence so then the students are not only aware and understand but so then they can also make suggestions related to their health (Mawey et al., 2014).

The statement is also in accordance with the theory put forward by Bandura in 1977 [13]. The behavior or activity in individuals or in one posttest does not appear by itself. It is a result of the stimulus received by one of the posttests concerning both the external stimulus and internal stimulus. Individual

behavior can affect the individual. This behavior also affects the environment. Likewise, the environment can affect individuals and vice versa.

The results of the analysis conducted using a paired sample t-test can be seen as the effect of health education on prevention behavior carried out by the respondents totaling 57 people. The average value obtained by the respondents is regarding gastritis prevention behavior before being given the health education. The value is (21.44), which shows that the behavior of students about the prevention of gastritis is still lacking because the students do not understand gastritis and how to prevent it. They are given very minimal health education about gastritis in high school. The average D value of the respondents after being given the health education about gastritis prevention behavior increased to (24.88). This shows that most students have understood and changed their life to gain a lifestyle that is healthy.

There is a better effect after counseling that was compared with before doing the counseling related to the behavior used to engage in gastritis prevention among the students. Health education can affect knowledge and behavior. According to Wood, health education is a useful experience when it comes to influencing one's habits, attitudes and knowledge. According to Nyswander, health education is a dynamic process of behavior change (Jamil & Tahun, 2019).

Based on Table 5.4, from the analysis of the Paired Sample t-test, the value obtained from the prevention of gastritis before and after counseling was 0,000. The result of < P = 0.05 shows that the health effects influence the behavior of gastritis prevention. The decision-based hypothesis shows that there is no significant effect from counseling on the prevention of gastritis in terms of the student's behavior in middle school. There is an increase before and after the given counseling related to the preventive health behaviors involved in gastritis.

This study is in line with the research conducted by (Jamil & Tahun, 2019) in Semarang City. The results of research using the Wilcoxon Match Pair Test has a P-value = 0,000. It can be concluded that there is an influence from health education on the adolescents concerning the efforts undertaken to prevent gastritis based on the level of knowledge and attitude of the adolescents when it comes to preventing gastritis.

Health education is an educational activity carried out by spreading the message and instilling confidence so then the community is more aware. The community must also be willing and able to carry out the given suggestions related to health (Mawey et al., 2014). Health education aims to change unhealthy behaviors into healthy ones. New behaviors that are formed are usually only limited to understanding the target. There are factors that influence the success of health education, including counseling factors, counseling target factors and health counseling process actors. The broader limits of counseling can be seen in terms of general health and the health education conducted in schools. The theory of counseling in one education site for the students in schools is related to the discussion of the theories of "Guidance and counseling." Some even refer to the term "Guidance and Counseling" .

The research was carried out by the researchers with a focus on the high school students in class 3 Natural Sciences and Social Sciences totaling 57 respondents. The researcher determined that there was a significant difference between the pretest and 1 posttest with a p-value 0,000 <0.05.

CONCLUSION

Health education improves the behavioral prevention of gastritis in the students and a difference was found before and after the counseling was given. The results of this study can be useful information for the students, especially those suffering from gastritis. This can be used to provide an understanding of the gastritis prevention behavior among students.

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