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The Influence of Health Education via WhatsApp Media on the Level of Knowledge of Adolescents about Gastritis

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ABSTRACT

Purpose of the study: This study aims to determine the effect of health promotion through social media whatsapp on adolescent knowledge about gastritis in State High School 03 Bengkulu City.

Methodology: The type of research used was the Pre Experimental One Group Pre test and Post test design. The sample in this study was students of class X State High School 03 Bengkulu City, amounting to 30 people, sampling using purposive sampling techniques were analyzed usingtest Wilcoxon.

Main Findings: The results obtained by the average knowledge before (7.1000) and after (13.9667). The results of increased knowledge before to after that is (15.50) test results Wilcoxon obtained p value = 0.000 < 0.05 which shows there is an influence after being given health promotion through social media whatsapp about gastritis in adolescents at State High School 03 Bengkulu City.

Novelty/Originality of this study: This study found that health promotion through WhatsApp social media significantly increased adolescents' understanding of gastritis, indicating that this instant messaging platform can be an effective and easily accessible health education tool to increase awareness and encourage behavioral change in the adolescent age group.

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1. INTRODUCTION

National development is greatly influenced by the existence of quality human resources. One of the main factors that supports the quality of human resources is health [1]-[3]. However, dense activity patterns, lack of attention to adequate nutritional intake, and the habit of consuming acidic or spicy foods are the main risk factors that trigger digestive disorders [4]-[6]. One of the most common disorders is gastritis, or better known as ulcer disease. Gastritis can occur in all age groups, from adolescents to the elderly, and is a significant health problem in Indonesia [7]-[9].

Adolescents are a group that is vulnerable to gastritis, considering the modern lifestyle that tends to be unhealthy [10]-[12]. The habit of consuming instant foods such as junk food, soft drinks, instant noodles, and unhealthy snacks, plus irregular eating patterns, are the main triggering factors. These dietary errors are often considered trivial by adolescents, even though they can cause various health disorders, including gastritis [13]-[15]. In addition, low knowledge about healthy eating patterns and disease prevention behaviors also worsen this situation, so appropriate interventions are needed to increase their awareness and knowledge [16]-[18].

Previous research on health education on gastritis prevention behavior has been conducted by Umasugi et al., [19] which stated that there was a significant influence of counseling on gastritis prevention in students.

Although various efforts have been made to increase public awareness of health, there are still gaps in effective health education approaches, especially for adolescents [20]-[22]. Most health promotion still relies on conventional methods such as face-to-face counseling, which is often less popular with adolescents. In addition, there has not been much research exploring the use of social media as an integrated health promotion platform, especially in Indonesia. In fact, social media has great potential to reach young age groups in a more relevant and interesting way.

This study offers a new approach by utilizing WhatsApp, one of the most popular social media in Indonesia, as a health promotion medium. WhatsApp was chosen because of its efficient, simple, and easily accessible nature to various groups, including adolescents. According to We Are Social data, around 83% of Indonesians use WhatsApp, which means there are around 125 million active users throughout Indonesia. By utilizing this platform, it is hoped that health messages can be delivered more effectively and on target. The high incidence of gastritis in adolescents is an urgent health problem that needs to be addressed immediately [23], [24]. Adolescents are the next generation of the nation whose productivity can be hampered by health problems that can actually be prevented. With social media already an inseparable part of everyday life, a digital technology-based approach offers the potential to create better behavioral changes, especially in terms of healthy eating patterns and gastritis prevention [25], [26].

Based on the background and problems above, this study aims to determine the effect of health promotion through WhatsApp social media on the level of adolescent knowledge about gastritis. This study is expected to contribute to the development of effective health promotion strategies that are relevant to the needs of today's adolescents, as well as help reduce the incidence of gastritis in Indonesia.

2. RESEARCH METHOD

2.1. Type of Research and Research Design

This research is a quantitative research, using the Pre Experimental research type which aims to determine a symptom or effect that arises, as a result of a certain treatment [27]-[29]. Using the One Group Pretest Postest design. This research contains a paradigm that there is a group that is given treatment and then the results are observed, but before being given treatment there is a pre-test to determine the initial conditions.

2.2. Population and Sample

Population is a generalization area consisting of objects or subjects that have certain qualities and characteristics determined by researchers to be studied and then conclusions drawn. The population used in this study were students of State High School 03 Bengkulu City. The sample is part of the number and characteristics possessed by the population. The method of taking non-probability sampling using purposive sampling techniques [30]-[32]. The minimum sample required in this study is 30 samples.

2.3. Data Collection Instruments and Techniques

The instrument in this study used a questionnaire, a questionnaire is a data collection technique carried out by giving a set of written questions or statements to respondents to answer. The research media is WhatsApp social media to provide health promotion about gastritis in adolescents.

2.4. Data Analysis

Univariate analysis is an analysis carried out on each variable in the research results. This univariate analysis describes the characteristics of each research variable [33]-[35]. In general, this analysis only produces the distribution and percentage of each variable. The univariate analysis used was to see the characteristics of respondents including age and gender at State High School 03 Bengkulu City. This analysis was carried out to describe the independent variable, namely health promotion through WhatsApp social media, the dependent variable, namely adolescent knowledge about gastritis. For numerical data, the mean or average value, Min value, Max value and standard deviation are used. And this univariate analysis will be presented in the form of a frequency distribution table.

This study aims to test the significance of the influence of health promotion through WhatsApp social media on adolescent knowledge about gastritis. To test the hypothesis, a normality test was first carried out using the Kolmogorov Smirnov statistical test. The data obtained were analyzed using the Wilcoxon test. The level of significance $\alpha = 0.05$ with decision making if $P\alpha \leq 0.05 = H_o$ is rejected, which means there is an influence of health promotion through Whatsapp social media on adolescent knowledge about gastritis at State High School 03 Bengkulu City. However, if $P\alpha > 0.05 = H_o$ fails to be rejected, which means there is no influence of health promotion through Whatsapp social media on adolescent knowledge about gastritis at State High School 03 Bengkulu City.

3. RESULTS AND DISCUSSION

3.1. Univariate Analysis

Univariate analysis in this study was to see the characteristics of respondents and the average value of respondents' knowledge before and after the intervention was given to students. With the following explanation:

Table 1. Characteristics of adolescents based on age and gender at State High School 03 Bengkulu City

No	Variable	F	%
1	Respondent Age		
	15 Years	13	43.3
	16 Years	17	56.7
	Amount	30	100
2	Gender		
	Male	17	56.7
	Female	13	43.3
	Amount	30	100

Based on the results above, it was found that the distribution of respondent characteristics based on age was that the majority (56.7%) were 16 years old, while based on gender, the majority (56.7%) of respondents were male.

Table 2. Description of adolescent knowledge before and after being given WhatsApp social media

No	Knowledge question items about gastritis	Before (%)		After (%)	
		False	True	False	True
1	Definition of gastritis	6.7	93.3	0	100
2	Types of gastritis	53.3	46.7	6.7	93.3
3	Symptoms of gastritis	30	70	6.7	93.3
4	Causes of gastritis	90	10	10	90
5	Bacteria that cause gastritis	66.7	33.3	3.3	96.7
6	Consequences of gastritis	30	70	6.7	93.3
7	Pathophysiology of gastritis	66.7	33.3	10	90
8	Risk factors for gastritis	86.7	13.3	13.3	86.7
9	Types of food that must be	50	50	10	90
10	Preventing gastritis recurrence	66.7	33.3	16.7	83.3
11	Drinks to avoid to prevent gastritis	23.3	76.7	6.7	93.3
12	Recommended foods for gastritis sufferers	36.7	63.3	0	100
13	Prevention of gastritis	86.7	13.3	3.3	96.7
14	Recommended daily meals	23.3	76.7	0	100
15	Consumption of medication when suffering from gastritis	73.3	26.7	10	90

Based on the table above, it was found that from 15 knowledge question items, the most wrong answers were obtained in questions 4, 8, and 13, namely about the causes of gastritis, risk factors for gastritis, and prevention of gastritis. However, there was a change after being given treatment, the wrong answers decreased from question 4 previously 90 to 10, question 8 previously 86.7 to 13.3 and question 13 previously 86.7 to 3.3. In question 5, there was an increase from 33.3 correct answers to 96.7, as well as in question 15 from 26.7 to 90 correct answers.

Table 3. Average knowledge of adolescents before and after being given WhatsApp social media

Variable	N	Mean	SD	Min	Max
Knowledge					
Before	30	7.100	2.203	3.00	12.00
After	30	13.966	1.098	12.00	15.00

Based on the results of the table above, it was found that the average knowledge before being given WhatsApp social media was 7.100 with a standard deviation of 2.203, a Min value of 3.00 and a Max value of 12.00. While the average knowledge after being given intervention with WhatsApp social media was 13.966 with a standard deviation of 1.098, a Min value of 12.00 and a Max value of 15.00.

3.2. Bivarial Analysis

Before the bivariate test was conducted, a data normality test was first conducted using the Kolmogorov Sminornov test and the results obtained were that the data was not normally distributed, namely p value <0.05.

Because the data was not normally distributed, this study used the Wilcoxon test. To determine the effect of health promotion through social media WhatsApp on adolescent knowledge about gastritis at State High School 03 Bengkulu City. With the following data processing results:

Table 4. The influence of WhatsApp social media on adolescent knowledge about gastritis at State High School 03 Bengkulu City

Variable	N	Mean	Sig. (2-Tailed)
Knowledge	30	15.50	.000

Based on the results of the table above, it is found that the influence of the use of WhatsApp social media obtained a p value = 0.000 <0.05 using a 95% confidence level, which means that there is an influence of health promotion through WhatsApp social media on adolescent knowledge about gastritis at State High School 03 Bengkulu City.

Based on the results of the study regarding the age of respondents totaling 30 people, the majority were 16 years old (56.7%), this happened because when entering elementary school the age requirement for elementary school children was 7 years old so that respondents who were 16 years old were in class X of high school. so it would be very good if they were given health education to improve student knowledge. Age affects a person's comprehension and mindset. As one gets older, one's comprehension and mindset will develop more, so that the knowledge one gains will be better [36]-[38].

Based on the characteristics of the gender of respondents in the pre-test and post-test, they were dominated by males (56.7%), This happened because at the time the study was conducted the school only provided 1 class to be used as respondents so that in that class there were more boys than girls. The results of this study support Francisco et al., [39] that psychologically boys are more active than girls. This level of activity affects how boys view all aspects including the learning process in the classroom.

The results of the analysis of the average knowledge before being given WhatsApp social media at State High School 03 Bengkulu City were 7.100. While the average knowledge after being given WhatsApp social media about gastritis was 13.966. Based on these results, it can be seen that the mean value of knowledge after being given WhatsApp social media is greater than before being given WhatsApp social media with an average difference of 6.86. The most frequently answered questions by high school students during the pretest were about the causes of gastritis, risk factors for gastritis, prevention of gastritis, consumption of drugs when suffering from gastritis and bacteria that cause gastritis. Meanwhile, during the posttest, the questions that were still frequently answered incorrectly by high school students were about risk factors for preventing gastritis and prevention of gastritis. This is because there are questions whose answers are almost similar to risk factors for preventing and prevention, and because there is scientific language that is difficult for students to understand.

Knowledge is the result of knowing and occurs after someone senses a particular object. Sensing occurs through the five human senses, namely sight, sensation, smell, taste and touch. Knowledge can be obtained, among others, through education, both curricular, non-curricular and extracurricular. Knowledge can also be obtained from the knowledge of others, such as hearing, seeing directly and through communication tools such as television, radio, books and others. The existence of a high desire can influence adolescents in obtaining the right sexual information. Increasing knowledge is not absolutely obtained from formal education alone, but can also be obtained through non-formal education. A person's knowledge of an object contains two aspects, namely positive aspects and negative aspects and negative aspects. These two aspects will determine a person's attitude, the more positive aspects of an object are known, the more positive attitudes will arise towards a particular object. Health promotion is the same as health education which can influence knowledge and behavior. Health education is a useful experience in influencing a person's habits, attitudes, and knowledge [40], [41].

The results of the statistical test with Wilcoxon at the level of knowledge obtained a p value = 0.000 (p <0.05) which means that there is an influence before and after being given WhatsApp social media about gastritis on adolescent knowledge at State High School 03 Bengkulu City. Health promotion provided through WhatsApp social media can have an influence on respondents' knowledge, because the information or material provided by researchers in the WhatsApp group that has been created can be understood by respondents because it is concise and clear.

The implications of this study in the context of general health indicate that the use of social media such as WhatsApp in health promotion can be an effective alternative to increase adolescent knowledge about health issues, including gastritis. The use of WhatsApp as an educational medium allows for wider dissemination of information and easy access by students, which in turn can increase their understanding of disease prevention and healthy living behavior. Therefore, it is recommended that educational institutions and health agencies develop social media-based health promotion programs that can reach adolescent groups more effectively, in order to increase their awareness of the importance of maintaining health and preventing disease through a healthy lifestyle.

4. CONCLUSION

Based on the results of the study on the influence of health promotion through WhatsApp social media on adolescent knowledge about gastritis at State High School 03 Bengkulu City, it can be concluded that the difference in the average knowledge score before and after being given WhatsApp social media was 6.866, so there is an influence of health promotion through WhatsApp social media. Based on the results of the study showing the influence of health promotion through WhatsApp social media on increasing adolescent knowledge about gastritis at SMA Negeri 03 Kota Bengkulu, it is recommended that health promotion through social media, especially WhatsApp, can be applied more widely in other schools to improve adolescent health knowledge. In addition, it is important to develop more interesting and interactive promotional materials to maintain attention and improve student understanding. The proper use of social media, such as WhatsApp, can be an effective tool for disseminating health information to the younger generation, given the high use of this platform among adolescents. The use of this method is expected to increase awareness and prevention of diseases, especially gastritis, which often occurs in adolescents.

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