

# Effective Gastritis Healthy Card Games In Increasing Adolescent Understanding About Gastritis

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**Abstract:** Gastritis is inflammation (swelling) of the gastric mucosa. Inappropriate eating patterns and psychological factors often trigger gastritis. Wrong Knowledge about foods that increase stomach acid can lead to complications. Prevention efforts that can be done are providing health education about gastritis. The design used in this study was quasi-experimental with the pretest-posttest design with a control group. The number of samples in this study was 60 people. The sampling technique used is Simple Random sampling with the analysis of Knowledge variables using Mann Whitney while the variable attitude uses an independent T-test. The results of the study on Knowledge showed that the P value  $<0.05$  can be concluded that there is a difference in Knowledge between the intervention group and the control group. The results of the study on attitudes obtained P-value  $<0.05$  can be concluded that there is no difference in attitude between the intervention group and the control group. The provision of education with teaching and lecture methods is reasonable to make the respondents saturated and bored. Therefore there is a need for new things by providing education through educational games so that there is interest in being able to be understood and able to remember the health messages conveyed.

**Keywords:** KSG Cards, Knowledge, Games, Gastritis

## I. INTRODUCTION

Gastritis is one of the most common gastrointestinal health problems but is often considered a trivial thing (Gustin, 2012). Symptoms of gastritis that are felt like heartburn; people who are afflicted with this disease are usually often nausea, vomiting, feeling full, and feeling uncomfortable (Misnadiarly, 2009). Most cases of gastritis do not permanently damage the stomach, but someone is suffering from gastritis often experiences a recurrence attack which results in heartburn (Ehrlich, 2011). WHO data (2012) obtained the percentage results from the incidence of gastritis in the world 1, 8-2.1 million of the total population each year. Based on Indonesia's health profile in 2010, gastritis is ranked fifth of the top 10 most inpatient diseases, 24,716 cases and ranked sixth out of the top 10 most outpatient diseases in hospitals in Indonesia, namely 88,599 cases. The increase in the number of inpatients who experienced gastritis was 5,438 cases from 2010, namely 24,716 cases and in 2011 that were 30,154 cases.

Gastritis incidence in Bengkulu Province is still quite high, Bengkulu Provincial Health Office Data (2016) Gastritis ranks second after ARI with a total of 45001 cases, as well as the Dinas Kota Bengkulu annual report (2016) Gastritis ranks second after ARI with a total of 12856 cases. Initial survey conducted by researchers on January 8, 2018, at SMAN 3 Bengkulu City, From the results of interviews with ten respondents, three people (30%) had less Knowledge of 5 people (50%)

had sufficient Knowledge, and 2 people (20%) have good Knowledge and from those 10 patients 7 of them said they often consume spicy, sour foods, drink carbonated drinks and coffee so that they can cause nausea and bloating, besides often not eating on time to complete the assignment and not having breakfast causing recurrence. Thus, there is still a lack of Knowledge of adolescents in preventing recurrence of gastritis. So there needs to be an effort to provide education to increase awareness and Knowledge of adolescents about things that can cause gastritis. Through the correct method and the use of teaching aids that are right on target, the material delivered in health counseling will be readily accepted, digested and absorbed by the target (Baranowski *et al.*, 2015).

The author develops a method of health education through a game of good gastritis cards or abbreviated as KSG. This card game is a new model that has never been used extensively as a method of health education, especially regarding gastritis. The purpose of this study was to determine the influence of education through the KSG card game on Knowledge and attitudes about gastritis in adolescents in SMAN 3 Bengkulu City.

## MATERIALS AND HOW TO WORK

This research uses *quasi-experimental* research design with *pretest-posttest with control group* aims to analyze the effect of gastritis health card game

education on the average Knowledge score and gastritis attitude score. The study was conducted in Ja Nuari 2018 till March 2018 in SMAN 3 Bengkulu City. The population used as subjects in this study were all students of class X in SMAN 3 Bengkulu City. Sampling using *simple random sampling* with 30 people in a group and the entire sample is 60 people. The test used to compare the mean differences in Knowledge between the intervention and control groups using the Mann Whitney test. While the test used to compare the

mean attitude differences between the intervention and control groups using the Independent T-test.

## RESULTS

### 1) Characteristics of respondents

**Table 1**  
**Distribution of Respondents based on age, gender and history of gastritis in SMAN 3 Bengkulu City in 2018**

Characteristics	Intervention	Control	P Value
Age			
Mean	15,67	15,77	
Median	16,0	16,00	
SD	0,606	0,679	0,328
Min-Maks	15-17	15-17	
CI for Mean 95%	15,44-15,89	15,51-16,02	
Gender			
Man	12 (40,0%)	17 (56,7%)	0,196
Woman	18 (60,0%)	13 (43,3%)	
Gastritis history			
Ever	18 (60,0%)	19 (63,3%)	0,791
Never	12 (40,0%)	11 (36,7%)	

Table 1 is obtained that the average age of respondents in the intervention group was 15.67 (16 years). Whereas in the control group the average age of respondents was 15.77 (16 years). More than half of the respondents for the control group were male (56.7%) while the respondents for the intervention group were more than some women (60.0%).

Gastritis history category for group control more than most have experienced a history of

gastritis (63, 3%), while for the group intervention more than most have experienced a history of gastritis, namely (60.0%). Obtained the results of the equality test of respondents based on characteristics of age, sex, and history of gastritis which is equivalent to  $p\text{-value} > 0, 05$ . Bivariate analysis was carried out to determine differences in Knowledge and attitudes of respondents after being educated between intervention groups (KSG) moreover, control groups (Leaflets).

**Table 2**

**The difference in the value of respondents' Knowledge about Gastritis after being given education between the control and intervention groups in SMAN 3 Bengkulu City 2018**

Group (n=60)	Knowledge			P value
	Sd	Mean Rank	Sum of ranks	
Intervention	2,09	37,05	1111,50	0,003
Control	1,05	23,95	718,50	

\*\*Mann Whitney

**Table 3**

**The difference in the value of respondents' attitudes about Gastritis after being given education between the control and intervention groups in SMAN 3 Bengkulu City 2018**

Group (n=60)	Attitude			
	Sd	Mean	Δ mean	P value
Intervention	5,98	5,83	3,00	0,057
Control	5,95	2,83		

*\*\*Independent Sample T-Test*

Table 2 shows the results of the analysis of the value of P-value = 0.003 <0.05, so Ho is rejected so it can be concluded that there is a difference in Knowledge between the intervention group and the control group.

Table 3 shows the results of the analysis of the value of P-value = 0.057 <0.05, so Ho is accepted so that it can be concluded that there is no difference in attitude between the intervention group and the control group

## DISCUSSION

### 1. Characteristics of respondents

The results of research conducted on 60 respondents showed that the majority of respondents were 16 years old ( 51.7%). According to Potter (2005), adolescents are very vulnerable to gastritis. Angkor's research (2014)lifestyle among adolescents also dramatically affects the incidence of gastritis such as smoking, factors of drinking alcohol, fizzy and coffee drinking factors against the incidence of gastritis.

The results of research conducted on 60 respondents showed that most of the respondents were female (51, 7 %). In line with Warguna's research (2016) of 48 respondents, there were (52%) respondents as many as 25 women. It is because of girls tend to reduce the frequency of their meals. According to Kusumajaya, et al. (2007) explained that the perception of adolescent girls on *body image* could determine their diet and nutritional status.

The results of research conducted on 60 respondents showed that most respondents had experienced gastritis (61.7%).

### 2. Differences in Knowledge and Attitudes About Gastritis After Being Edited Between Intervention Groups and Control Groups

From the results of the study to determine differences in Knowledge about gastritis between the intervention group (KSG) and the control group (leaflet) after being given education obtained a significant number of 0.003, value *P value* <from 05. It means that there is a significant difference between the intervention group (KSG) and the control group (Leaflet) after being educated about Gastritis on the Knowledge of adolescents in SMAN 3 Bengkulu City.

Then the results of the study is to know the difference between the attitude of the gastritis intervention group (KSG) and the control group (Leaflet) after a given

educational obtained a significant number of 0.057, *Pvalue* > 0.05 then it means there is no significant difference between the intervention group (KSG) and the control group (Leaflet) after being educated about Gastritis on the attitude of adolescents in SMAN 3 Bengkulu City.

It is in line with Hartami Reza Gema's research, (2011), there were significant differences in Knowledge about Environmental Health in Randurejo NIV Elementary School students between the experimental group and the control group, namely by obtaining P value (0,000) <0.05. That is that the Flow Card media increased Knowledge of Environmental Health for students of SDN IV Randurejo Grobogan District in 2010.

Dita Anugrah Pratiwi's research, (2015) based on the analysis with Mc Nemar test obtained P value (0.500) > 0.05, so he was accepted, meaning that there was no influence of lecture method counseling on the attitudes of elementary students about the prevention of diarrheal diseases before and after counseling at SDN 7 Poasia in 2015.

Bigge in Dianita (2011) states that attitudes formed by specific values can be learned gradually. It is because to measure changes in attitude it takes a relative and gradual time according to the mental and nervous state of preparedness, which is regulated through experience that has a dynamic or directed effect on the response.

Whereas Knowledge according to Mubarak et al., (2007) states that the easier someone is in accessing information, the faster the person will get a new Knowledge.

Health education with educational games is more fun than counseling with teaching and lecture methods Baranowski et al., (2015). Through the right method and the use of teaching aids that are right on target, the material delivered in health counseling will be readily accepted, digested and absorbed by the targets of Baranowski et al., (2015).

Based on the description above, it can be concluded that educational game is a form of the game that can be useful to support the teaching and learning

process more fun and more creative, and is used to provide instruction or increase user Knowledge through appropriate and exciting media.

## CONCLUSION

From the results of the study it can be concluded as follows: The average respondent of the intervention group aged 15.67 years, while the control group aged 15.77 years. More than half of the female sex is 51, 7 %. More than most have ever experienced gastritis that is 61, 7%.

There was a difference in Knowledge between the intervention groups who were given education through the media of good gastritis cards (KSG) with the control group which was only given a leaflet  $P = (0.003)$ . There was no difference in attitude between the intervention groups who were given education through the media of good gastritis cards (KSG) with the control group which was only given a leaflet  $P = (0.057)$ .

It is expected that with this KSG media can be a means to increase Knowledge to students related to the prevention of gastritis in adolescents. Besides that, as an educational institution in the health sector is expected to develop methods and media in providing education to adolescents regarding gastritis and this media can be used in counseling or community service activities for the prevention of gastritis in adolescents. Another researcher is expected to discuss the prevention of gastritis are focused like gastritis, control the confounding variables tested such as age, education level, and medical history.

## REFERENCES

- Baranowski T., Buday R., Thompson D., Lyons EJ, Lu AS, Baranowski J., Developing Games for Health Behavior Change: Getting started. (2013). Vol.2, (4)  
Available from: Pubmed. <http://www.ncbi.nlm.nih.gov> .
- Dita, AP, Nani, Y., & Utu, EM (2016). *The effect of counseling methods on educational games and lecture methods on Knowledge, attitudes, and actions on prevention of diarrheal diseases in elementary students in the subdistrict district of Kendari in 2015*. Research article.
- Gustin, RK (2011). *Factor Factors Related to Gastritis Occurrence in Outpatient Patients at Bukit Tinggi City Curcuma Puskesmas in 2011*  
.respository.unand.ac.id / 17045/1 /
- Hartami, RG (2011). *The influence of the current card game on Knowledge and attitudes about the environment on the health of students Sd n iv randurejo Grobogan district in 2010*. The research article.
- Kristiyawan, AS & Wijaya, M. (2016). *The Effect of Kasugi Card Games on Increasing Knowledge of Clean and Healthy Life Behavior in Students*. Research Article.
- Kusumajaya, NAA, NK Wiardami, IW Juniarsama. (2007). *Adolescent Perceptions of Body Image (Body Image) Related to Eating Consumption Patterns and Nutritional Status*. Skala Husada Journal, 5 (2); 114-125. MOH Denpasar Health Polytechnic.
- Putri, AT (2017). *The effectiveness of audiovisual media and leaflets on improving Knowledge, attitudes, and actions regarding the prevention of gastritis in santriwati at the Hidayatullah Putri Islamic boarding school and the city ummusshabri is in 2017*. Kendari.