



THE INFLUENCE OF HEALTH PROMOTION THROUGH INSTAGRAM ON REGIONAL KNOWLEDGE AND ATTITUDE NO SMOKING IN THE COMMUNITY

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ABSTRACT

Non-Smoking Areas (KTR) are rooms or areas that are declared prohibited for smoking activities or activities for producing, selling, advertising and/or promoting tobacco products. The City of Bogor has established Regional Regulation Number 12 of 2009 concerning Smoking Free Areas and has been amended to become Number 10 of 2018. Knowledge and attitude towards the existence of this regulation regarding Smoke Free Areas needs to be known because it will affect the successful implementation of the policy. Knowledge can be obtained in various ways including the process of education or health promotion education through Instagram. This research aims to determine the effect of health promotion through Instagram on the knowledge and attitudes of Non-Smoking Areas in the Public Health STIKes Wijaya Husada Bogor City in 2022. This type of research is quantitative. The research design is quasi-experimental with the non-equivalent control group approach and carried out at the Sindang Barang Village Public Health Study Program from August 28 to September 1 2022 with 32 respondents using a systematic sampling technique. The results of knowledge and attitudes before and after health promotion using the Wilcoxon test were 0.000 and 0.001, while the results of the Mann-Whitney statistical test with a significance level of 0.05 obtained a p value of 0.008 for knowledge and 0.030 for attitudes. Because the p value < 0.05, there is an effect of health promotion through Instagram on the knowledge and attitudes of Smoke Free Areas in the people of Sindang Barang Village.

Keywords: Smoking Free Areas, Health Promotion, Instagram

INTRODUCTION

The number of smokers worldwide is increasing, from data from the World Health Organization (WHO) in 2013, nearly two-thirds of smokers worldwide live in 10 countries, namely in China, India, Indonesia, Russia, the United States, Japan, Brazil, Bangladesh, Germany, and Turkey. It is estimated that 900 million or 84% of smokers worldwide live in developing countries. Based on a survey of deaths due to smoking in 2020 there will be 8.4 million deaths of the world's population each year, and in 2030 it will reach 10 million people. It will increase if it is not handled immediately

Indonesia is ranked 3rd with the largest number of smokers in the world after China and India and remains the 5th largest cigarette consumer after China, the United States, Russia and Japan in 2007. More than 40.3 million Indonesian children aged 0-14 years died with smokers and exposure to secondhand smoke in their environment. Based on 2018 Basic Health Research (Riskesdas) data, the



prevalence of tobacco consumption in residents 15 years and over has decreased from 2016, although from 2007, 2010 and 2013 it tended to increase from 34.2% in 2007, in 2010 to 34.3%, and increased by 36.3% in 2013. In 2016 it decreased to 32.8% but the prevalence of tobacco consumption increased in 2018 to 33.8%. 62.9% men and 4.8% women still consumed tobacco in 2018.4

The number of smokers every day and occasionally in West Java in 2018 reached 32%. West Java province has the highest number of smokers every day and sometimes at the age of 10 and over. There is no denying that this data shows that the number of smokers in West Java is very large

In this regard, the government seeks to formulate various regulations and policies that can be implemented in overcoming the harmful effects of smoking, including through Health Law no. 36/2009. Based on these various policies, one of the policies that must be implemented by all regions in Indonesia is to establish a Non-Smoking Area (KTR) which can start from health, educational institutions and other public places. This is in accordance with Health Law No. 36/2009 article 115 paragraph 2 which states that “Local governments are required to establish smoking-free areas in their areas”.5

Non-Smoking Areas (KTR) are rooms or areas that are declared prohibited for smoking activities or activities for producing, selling, advertising and/or promoting tobacco products. Meanwhile, a special place for smoking is a room specifically designated for smoking activities inside the KTR. The purpose of implementing KTR in general is to reduce morbidity and mortality due to smoking, while specifically implementing KTR can help create a clean, healthy, safe and comfortable environment; provide protection for non-smokers; reduce the number of smokers; preventing novice smokers and protecting the younger generation from abuse of Narcotics, Psychotropics and Addictive Substances (NAPZA). 3

Since 2009 the City of Bogor has established Regional Regulation Number 12 of 2009 concerning Smoking Free Areas and has been changed to Bogor City Regional Regulation Number 10 of 2018 and Bogor Mayor Regulation Number 7 of 2010 concerning Guidelines for Implementing Regional Regulations concerning KTR. According to Regional Regulation No. 12 of 2009 concerning KTR Article 7 paragraph (2), Smoke Free Areas as referred to in paragraph (1) include public places, workplaces, places of worship, places for children to play and/or gather, public transportation vehicles, the environment places for teaching and learning processes, health facilities, and sports facilities

The implementation of Non-Smoking Areas (KTR), which has existed since 2009, was echoed and implemented in 8 (eight) areas in Bogor City. However, based on the Health Profile of the City of Bogor in 2017 the compliance of 8 Smoking Free Areas with the Regional Regulations of the City of Bogor shows that 64.2% of the people of Bogor City comply with the smoking ban in the No Smoking Area, but as many as 35.8% of the people of Bogor City do not comply with the ban. . The data concludes that one third of Bogor City residents do not comply with the No-Smoking Area regulations

Smoking behavior in adolescents generally increases over time according to the stage of development and often results in them experiencing nicotine dependence. Knowledge and attitudes



towards the dangers of smoking and the existence of regulations on Smoking Free Areas need to be known because they will affect the success of the implementation of the policy. Knowledge can be obtained in various ways including the learning process of information obtained by a person, direct experience or from the experience of others as well as the process of health promotion education or education through Instagram. By knowing how much the person knows about the dangers of smoking and smoking-free areas, then this will affect one's attitude towards the Non-Smoking Area Policy (KTR).

The internet is one of the information media that is widely used by teenagers today. The results of a survey conducted by the Association of Indonesian Internet Service Providers (APJII) in 2016 found that 132.7 million or around 51.8% of Indonesia's population used internet services. 75.5% of internet users are aged 10-24 years. The type of content that is accessed by the most internet users is social media, which is equal to 97.4%. The large number of adolescents who use social media must be used by the government or health workers to disseminate health-related information and health policies.⁹

Instagram is a photo and video sharing application that allows users to take photos, apply digital filters and share them on various social networking services including Instagram itself. Instagram is one of the most popular social media today. Based on APJII statistical data in 2016, Instagram is the second most visited social media content after Facebook, namely 19.9 million visits or 15%.⁹

In the preliminary study that the researchers conducted on August 1, 2022, out of 10 people, they stated that 3 people did not know about KTR (No-Smoking Areas) and 7 other people knew about the existence of KTR and got information about KTR through posters or stickers they found, but only 1 people who understand about Non-Smoking Areas, and 7 out of 10 people said there is a need for socialization regarding KTR because many people do not know about KTR. The results of a preliminary study conducted by the author on August 1 2022 of 10 people from the Sindang Barang community, found that 9 out of 10 people have and use Instagram social media. The results of the next preliminary study were that 6 out of 10 people stated that they were rarely exposed to information about Smoke Free Areas. The researcher also conducted a preliminary study of public places such as city parks, modern markets, traditional markets, health facilities and schools. In this observation, researchers found employees or visitors who still violated the rules of the KTR. This is related to several studies from experts which state that the implementation of smoking-free areas has not been effective, because it has not been accompanied by vigorous socialization.

The purpose of this study was to determine the effect of health promotion through Instagram on the knowledge and attitudes of smoke-free areas in the people of Sindang Barang Village, Bogor City in 2022.

RESEARCH METHODS

This research uses quantitative research methods. The design of this study uses Quasy Experimental with the non-equivalent control group approach. The population in this study was 60 people and the total sample used in this research was the people of the Sindang Barang sub-district, Bogor, with 32 respondents using the Federer formula which was then divided into 16 experimental groups who were given health promotion interventions via Instagram regarding Smoke Free Areas and 16 people. control groupby using systematic sampling technique. This research took place from 28 August to 1 September 2022.15

The variables of this study consist of health promotion through Instagram as the independent variable (free) and changes in knowledge and attitudes towards smoking-free areas as the dependent variable (tied). Data processing and data analysis using the computer program SPSS for windows series 17. The analysis consists of univariate analysis and bivariate analysis, where bivariate analysis uses the normality test, homogeneity test uses the Levene test and tests hypotheses on changes in knowledge and attitudes using the Wilcoxon test and to see differences effect of health promotion using the Mann-Whitney test.

RESEARCH RESULT

Table 1: Results of the Wilcoxon Pretest-Posttest Knowledge of Non-Smoking Areas in the 2022 Sindang Barang Village Public Health Community Experiment Group.

	<i>Pretest- Posttest</i>
Z	-3.873a
<i>asymp. Sig. (2-Tailed)</i>	.000

Based on table 1, the output results of the hypothesis test using the Wilcoxon Test show that the *asymp.sig (2-tailed)* value is 0.000. So it was concluded that there was an influence on the results of the pretest and posttest on public knowledge after carrying out health promotion interventions in the No-Smoking Area through Instagram.

Table 2 :Results of the Wilcoxon Pretest-Posttest Knowledge of Non-Smoking Areas in the Control Group of the Public Health Community in Sindang Barang Village in 2022

	<i>Pretest - Posttest</i>
Z	-.831a
<i>asymp. Sig. (2-tailed)</i>	.406



Based on table 2, the output results of the hypothesis test using the Wilcoxon Test show that the asymp.sig (2-tailed) value is 0.406. So it was concluded that there was no effect on the results of the pretest and posttest on public knowledge if no health promotion interventions in the No-Smoking Area were given through Instagram.

Table 3 :Results of the Wilcoxon Pretest-Posttest Attitudes to Non-Smoking Areas in the Experimental Group of the Sindang Barang Public Health Community in 2022.

	<i>Pretest-Posttest</i>
Z	-3.690a
<i>asymp. Sig. (2-tailed)</i>	001

Based on table 3, the output results of the hypothesis test using the Wilcoxon test show that the asymp.sig (2-tailed) value is 0.001. So it was concluded that there was an influence on the results of the pretest and posttest on people's attitudes after being given health promotion interventions in the No-Smoking Area through Instagram.

Table 4 :Results of the Wilcoxon Pretest-Posttest Attitudes to Non-Smoking Areas in the Control Group for Public Health in Sindang Barang Village in 2022.

	<i>Pretest - Posttest</i>
Z	-1.293a
<i>asymp. Sig. (2-tailed)</i>	.196

Based on table 4, the output results of the hypothesis test using the Wilcoxon test show that the asymp.sig (2-tailed) value is 0.196. So it was concluded that there was no effect on the pretest and posttest results on the attitude of the respondents after not being given health promotion interventions in the No-Smoking Area via Instagram. To compare the presence of significant differences between the intervention group and the control group, the Mann-Whitney test was used.



Table 5: Results of the Mann-Whitney Test Data on Posttest Knowledge of Non-Smoking Areas in the Experiment Group and the Control Group Sindang Barang Village Public Health Society in 2022.

	Posttest results
<i>Mann-Whitney U</i>	72,500
<i>Wilcoxon W</i>	208,500
<i>Z</i>	-2,670
<i>asympt. Sig. (2-tailed)</i>	.008
<i>Exact Sig. [2*(1-tailed Sig.)]</i>	.035a

Based on table 5, the output results of the hypothesis test using the Man-Whitney test show that the *asympt.sig (2-tailed)* value is 0.008. So it was concluded that there were differences in knowledge of the Non-Smoking Area between the experimental group and the control group.

Table 6: Results of the Mann-Whitney Test, Posttest Data for Attitudes to Non-Smoking Areas in the Experiment Group and the Control Group Sindang Barang Village Public Health Society in 2022.

	Posttest results
<i>Mann-Whitney U</i>	78,500
<i>Wilcoxon W</i>	214,500
<i>Z</i>	-2,165
<i>asympt. Sig. (2-tailed)</i>	.030
<i>Exact Sig. [2*(1-tailed Sig.)]</i>	.061a

Based on table 6, the output results of the hypothesis test using the Man-Whitney test show that the *asympt.sig (2-tailed)* value is 0.030. So it can be concluded that there are differences in the attitude of the Non-Smoking Area between the experimental group and the control group.

DISCUSSION

- a. Results of the Knowledge Level of Smoking Free Areas Before and After Health Promotion Through Instagram in the Sindang Barang Village Community in 2022.

Research results from *datapretest* and *posttest* in the experimental group that was given health promotion in the No-Smoking Area via Instagram. Because these two data are non-parametric, the researchers used the Wilcoxon test for decision making. The results show a *p* value <0.005 ,



which is 0.000 then there is an influence on the results of the pretest and posttest on the knowledge of respondents after the health promotion intervention in the No-Smoking Area through Instagram.

The results of this study are comparable to research conducted by Hiyatul Rahmi, 2018 examining "The Influence of Health Promotion Through Instagram on Knowledge and attitude of "realize" in female students of the Faculty of Public Health, Andalas University, with the results of his research obtained a p-value of 0.001 ($p < 0.05$), which means that there is a difference in BSE knowledge among FKM Unand students before and after being given health promotion through social media Instagram.

Provision of health promotion using a tool or media can affect a person's level of knowledge. The media used in health promotion must be adapted to the goals of health promotion, so that it can attract attention and be effective in increasing knowledge of health promotion targets. The selected health promotion media must be effective and efficient media. Social media is one of the media that can be used as a media for health promotion. Dissemination of information through social media is easier, cheaper and can reach a wider target, so that social media is one of the most effective and efficient media in health promotion. Provision of health promotion through social media can be done repeatedly.¹²

This is in line with the theory which states that the learning media used in learning activities can affect the effectiveness of learning. The development of science and technology, especially in the field of education, can be used as a tool or learning media so that it becomes more extensive and interactive, such as computers and the internet. The high number of internet media users, especially social media in Indonesia, can be used as a learning medium, one of which is by providing health promotion regarding Smoke Free Areas.¹¹

According to the researcher's analysis, knowledge about the No-Smoking Area is very important for respondents to know. Based on the theory and research results, it can be concluded that the use of social media *Instagram* can increase public knowledge. This happens because social media Instagram is one of the social media that is widely used by the public. Therefore, the use of social media Instagram as a media for health promotion needs to be further developed in accordance with existing technological developments.

b. Results of the Attitude Level in the Non-Smoking Area Before and After Health Promotion via Instagram in the Sindang Barang Village community in 2022.

Research results from data *pretest* and *posttest* in the experimental group that was given health promotion in the No-Smoking Area via Instagram. Because these two data are non-parametric, the researchers used the Wilcoxon test for decision making. The results show the *asympt.sig* value < 0.05 , which is 0.001 then there is an influence on the results of the pretest and posttest on the attitude of the respondents after the health promotion intervention in the No-Smoking Area through Instagram.



The results of this study are comparable to research conducted by Hiyatul Rahmi, 2018 examining "The Influence of Health Promotion Through Instagram on Knowledge and attitude of "realize" in female students of the Faculty of Public Health, Andalas University, with the results of his research obtained a p-value of 0.001 ($p < 0.05$), which means that there are differences in the attitude of BSE among female students of FKM Unand before and after being given health promotion through Instagram social media.

Attitude is a reaction or response of someone who is still closed to a stimulus or object. Attitude is readiness willingness to act, in other words attitude is not yet an action but is a predisposition to behavior or a closed reaction.^{13 14}

Attitude is a tendency possessed by a person to respond either positively or negatively to a certain object through persuasion or role models from a person or from his social group. Changes in attitude are basically influenced by knowledge and beliefs/beliefs obtained from sensory results, one of which is obtained through education or the learning process. In order to increase attitudes in a positive direction, increase knowledge and understanding of objects must first be carried out. Knowledge (cognitive aspect) is one of the important domains that shape attitudes.¹¹

According to the researcher's analysis, from the theory and research results it can be concluded that the use of social media *Instagram* can improve public attitudes. This happens because the use of social media which can increase knowledge will also affect a person's attitude. Therefore, the use of social media *Instagram* as a media for health promotion needs to be further developed in accordance with existing technological developments.

c. Analysis of the Effect of Health Promotion Through Instagram on the Sindang Barang Village Community in 2022.

The researcher made a comparison of the control group and the experimental group from the results of the posttest data research, the data were not normally distributed and had non-homogeneous data by drawing conclusions including non-parametric data, then testing was carried out using the Man-Whitney test to find out the average of the two groups experimental and control groups that have been posttested. There is a difference in the posttest results of the two groups on community knowledge, because the p value is $0.008 < 0.05$ and for people's attitudes the p value is $0.030 < 0.05$. This situation is very helpful to see the effect after giving health promotion through Instagram.

The results of this study are comparable to the research conducted by Ahmad Jumanto regarding "The Effect of Providing Visual Educational Media Via Line on the Smoking Behavior of the PSIK-UMY Community "with the results of his research that there was an influence of the educational media, as evidenced by the Friedman Test in the treatment group that was given the intervention also showing $p = 0.005$ with the highest average behavior on behavior measurements during pre- test (9.89), which means that social media has an influence on health promotion.

Health promotion is actually a renewal of health education. Based on previous experience, it can be concluded that health education has not "enabled" (practice or action) people to behave



healthily, but only can-"know" (knowledge) and "want" (attitude). This happens because indeed with sufficient knowledge and attitude alone it will not automatically turn into practice or action

The existence of media applications is very important in health promotion, because social media can directly interact with the public. The benefits of social media, namely Instagram in health promotion in today's era are one of them facilitating the reception of information by targets, facilitating the delivery of information, stimulating education targets to pass on information to other people and achieve more targets. The health promotion given can be carried out repeatedly, one of which is regarding Smoke Free Areas which can increase people's knowledge and attitudes so that they can increase public compliance and disseminate information about No Smoking Area policies.

Based on the safety pin analysis of the research results, it can be concluded between theory and research results that there are differences in the effect of health promotion through Instagram on knowledge and attitudes in the No-Smoking Area in the Sindang Barang Village community. Evidenced by a p-value <0.05 then H_0 is rejected and H_a is accepted.

Based on the explanation above, it can be concluded that the results of this study are the influence of health promotion through Instagram on the knowledge and attitudes of Non-Smoking Areas in the Sindang Barang Village community.

CONCLUSION

1. The level of knowledge before and after health promotion in Smoke Free Areas through Instagram in the Sindang Barang Village community, it is known that the significance value of the Wilcoxon test is 0.000, because the p value <0.05 , the pretest and posttest results have an effect on health promotion through Instagram on the level of knowledge of Smoke Free Areas in the Sindang Barang Village community.
2. The level of attitude before and after health promotion in the No Smoking Area via Instagram in the Sindang Barang Village community, it is known that the significance value of the Wilcoxon test is 0.001, because the p value <0.05 , the pretest and posttest results have an effect on health promotion through Instagram on the attitude level of the No Smoking Area in the Sindang Barang Village community.
3. Analysis of the effect of health promotion through Instagram on the knowledge and attitudes of Non-Smoking Areas in the Sindang Barang Village community. Health promotion through Instagram is said to be influential because it can be seen through the Mann-Whitney test with the result that the p value of knowledge is 0.008 and attitude is $0.030 < \alpha = 0.05$, then H_0 is rejected and H_a is accepted, so there is a difference in the effect of health promotion through Instagram on knowledge and attitudes in the region. No Smoking in the Sindang Barang Village community in 2022.



SUGGESTION

1. For researchers

It is hoped that this research can be useful for researchers and can be used as basic research for further research and for future researchers it is hoped that they can continue and modify this research by using more creative methods and adding research variables that do not exist in this study.

2. For Educational Institutions

It is hoped that it will be useful for the institution as literature material for further research, as a source of information about Smoking Free Areas, and as community material development as well as being used as a scientific reference regarding health promotion.

3. For Instagram users

It is hoped that Instagram users will consider and utilize online promotional media to increase the knowledge and attitudes of the public or social media users in the health sector.

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