

The Influence of Leaflet Media on Students 'Knowledge, Attitudes and Smoking Actions

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Abstract

The smoking habit was chosen as one of the popular types of activities carried out to take advantage of free time for both men and women with a percentage of men dominating more than 64.80%. Data from SMA Negeri 1 Peulimbang Bireuen shows that the number of juvenile delinquents in the form of smoking reaches 4-6 people per day and they usually smoke during recess. The purpose of this study was to determine the effect of media leaflets on students' knowledge, attitudes and actions about smoking in SMA Negeri 1 Peulimbang, Peulimbang Bireuen District in 2019. Pre-experimental type of research design with one group research design before after or pre-test and post-test group design. The population in this study were all male students in SMA Negeri 1 Peulimbang, Peulimbang Bireuen Subdistrict as many as 86 students. The sample uses total sampling. Data analysis used univariate analysis and bivariate analysis with the Wilcoxon Test. The results of the Wilcoxon test found that the Asynp.Sig value (2 tailed) on knowledge was 0,024 with Mean ranks of 3.50 and sum of ranks of 21.00, Asynp.Sig value (2 tailed) on attitudes of 0.157 with Mean ranks of 1.50 and sum of ranks amounted to 3.00 and Asynp.Sig. (2 tailed) in actions amounted to 0.001 with Mean ranks of 6.00 and sum of ranks amounted to 66.00. The conclusion of this research is the opinion of the influence of media leaflets on the knowledge, attitudes and actions of smoking students in SMA Negeri 1 Peulimbang Peulimbang District Bireuen in 2019. It is recommended to SMA Negeri 1 Peulimbang Peulimbang District Bireuen to increase students' knowledge and attitudes about the dangers of smoking by increasing supervision the prohibition of smoking in schools and counseling both with leaflets and audiovisual media by playing videos about the dangers of smoking during school orientation.

Keywords: Media Leaflet, Knowledge, Attitude, Action

Introduction

The smoking habit was chosen as one of the most popular types of activity to take advantage of free time for both men and women with the percentage of men dominating 64.80%. Each has a reason to smoke, can vary and are personal. Men imagine that by smoking they are considered adults no longer as small children, as a symbol of masculinity, and they can enter the peer group as well as groups that have certain characteristics, namely smoking. Another case with women, smoking is considered not something that is commonly done, women who smoke are considered to have characteristics that will distinguish them from other women who do not smoke, and women smoke also to avoid body obesity.

Non -communicable diseases (PTM) in Indonesia have shifted infectious diseases and become the main cause of death. Smoking habit is a risk factor for certain diseases for PTM, such as heart disease. In 2016 the group diagnosed with cardiovascular disease provided a JKN burden of IDR 7.4 trillion (Ministry of Health, 2019)

The Global Youth Tobacco Survey Indonesia is a country with the highest number of teenage smokers in the world. The age at first trying to smoke is based on age group and sex, namely most men first smoked at the age of 12-13 years, and most women first tried smoking at the age of 14-15 years.³ The prevalence of smokers in Indonesia is based on research data Basic Health (Riskesdas) 2013 amounted to 29.3% of the total population and 11.2% of smokers started smoking since adolescence, namely 10-14 years, with the proportion of daily smokers of 0.5% and occasional smokers of 0.9% , while this age can be categorized as included in the range of adolescence.

The proportion of the age trend to start smoking in 2010 at the age of 5-9 years (1.7%) decreased to 1.6% in 2013. Ages 10-14 years 17.5% experienced an increase in 2013 by 18%. Age 15-19 years in 2010 amounted to 43.4%, to 55.4% in 2013. Ages 20-24 years 14.6% to 16.6% in 2013. Ages 25-29 years of 4.3 % in 2010, increased to 4.6% in 2013 and at the age of over 30 it was 3.9% in 2010, to 3.8% in 2013.

Based on the 2013 Basic Health Research (Riskesdas) data, the average number of cigarettes smoked by people aged ≥ 10 years is around 15.3 cigarettes, which is higher than the national figure. This number has increased compared to the number of active smokers in Aceh Province in 2010 which reached 37.1 percent, above the national average of only 34.7 percent, where on average they smoked 10 to 30 cigarettes per day (Basic Health Research, 2013)

GERMAS in Bireuen Regency is contained in the Government's policy in the Qanun of Bireuen Regency No. 18 of 2014 concerning No-Smoking Areas in health service facilities, places for teaching and learning, places for children to play, places of worship, public transportation, workplaces and public places. Where for every school, both SD, SMP and SMA, it is required to implement policies issued by the Regional Government, including that each manager, leader and person in charge of KTR at the teaching and learning process must prohibit every student, educator, educational staff, non-educational staff or everyone who are in the area where the teaching and learning process is his responsibility not to smoke, promote, advertise, sell, and buy cigarettes. The places for the teaching and learning process as referred to in Article 5 paragraph 2 include: schools, colleges, education and training places, dayahs and recitation centers, work training centers, study guidance and course places.

Students get a lot of commercial cigarette advertisements around the school environment every day. The student was exposed to the advertisement in the morning when the student headed to school and when the student was on his way home from school. The types of outdoor media advertisements that we often see are large billboards or billboards, posters, banners, or banners, banners, bus panels, and so on (Molnar, 2018).

Outdoor media according to the explanation of Government Regulation of the Republic of Indonesia number 109 of 2012 concerning Safeguarding of Materials Containing Addictive Substances in Tobacco Products for Health.

"..... all objects placed outside the room that are not used as a means of supporting the activities of the production process and distribution of tobacco products. These outdoor media include billboards, billboards, displays, billboards, posters, megatrons, stickers, banners, banners, neon boxes, decorative lights, signboards, hot air balloons, carts, houses, substations, motorcycle taxi stands, tents, buses, cars, motorbikes, bus stops, and tire covers. "

The Monitoring Report conducted by Lentera Anak Indonesia (LAI) Smoke Free Agents (SFA) Children's Media Development Foundation (YPMA) (2015: 4) entitled "Cigarette

Advertising Attacks Around Schools" states that schools surrounded by cigarette advertisements have the potential to trigger students start smoking activity. In addition, it was also stated that children and adolescents are a group that is vulnerable to the persuasion of advertisements, promotions, and cigarette sponsorship. Exposure to cigarette advertising and promotion from an early age increases positive perceptions and the desire to smoke.

There are several types of information media that can be used in health education, including print and electronic media (Vandewater et al., 20017; Kondracki et al., 2002). Leaflet is a type of printed media that contains information or health messages through folded sheets. Delivering health information through leaflets to the public as users is more effective for simple and inexpensive short messages, users can learn independently, can see the contents at a relaxed pace and are more detailed than conveyed orally (Zimmerman & Perkin 1982; Sommer & Quinlan 2018).

Based on the results of the initial survey, it is known that SMA Negeri 1 Peulimbang Bireuen has a total of 176 students, with 94 male students and 82 female students. The results of interviews with counseling teachers, found that the number of juvenile delinquency in the form of smoking reached 4-6 people per day and they usually smoke behind the school during recess. Every student caught smoking will be given a warning letter. Even though the students caught smoking already understood the dangers of smoking, most of them ignored it.

The results of observations at the SMA Negeri 1 Peulimbang Bireuen School also note that the Government's policy in the Qanun of Bireuen Regency No. 18/2014 concerning No-Smoking Areas in health service facilities, places for teaching and learning, places for children to play, places of worship, public transportation, workplaces and public places have not been implemented properly. Likewise, health promotion based on Islamic Shari'a agreed by the Ijtima 'ulama' commission fatwa from the Indonesian Ulema Council (MUI) regarding the law of smoking is still not being promoted.

Based on the description above, the researcher is interested in conducting research with the title "The Effect of Outdoor Media Advertising on Student Smoking Behavior". The general objective in this study was to determine the effect of leaflet media on students' knowledge, attitudes and actions about smoking in SMA Negeri 1 Peulimbang, Peulimbang Bireuen District in 2019.

Methods

The research design used a pre-experimental type with a one group before after research design or a pre-test and post-test group design. In this design a group of subjects is used. First of all, measurements were taken by distributing questionnaires, then subjected to treatment in the form of providing health education materials, then the questionnaire would be distributed again to the same respondent group.

The research was conducted at SMA Negeri 1 Peulimbang, which is located on Jalan Banda Aceh - Medan KM 196, Seuneubok Plimbang Village, Peulimbang District, Bireuen District, Aceh Province. The population in this study were all male students who smoked in SMA Negeri 1 Peulimbang, District Peulimbang Bireuen as many as 19 students. The sample in this study used the entire population to be the sample (total sampling). Data analysis used in this study was univariate and bivariate analysis with the Wilcoxon test.

Results and Discussion

Respondent Characteristics

Berdasarkan hasil pengumpulan data tentang karakteristik responden, bahwa siswa yang berumur 15 tahun sebanyak 5 orang (26,3%), umur 16 tahun sebanyak 5 orang (26,3%), umur 17 tahun sebanyak 7 orang (36,8%) dan yang berumur 18 tahun sebanyak 2 orang (10,5%). Berdasarkan kelas, siswa yang berada di kelas X sebanyak 6 orang (31,6%), siswa yang berada di kelas XI sebanyak 6 orang (31,6%) dan siswi yang berada di kelas XII sebanyak 7 orang (36,8%)..

Table 1. Frequency distribution of the characteristics of students who smoke at SMA Negeri 1 Peulimbang, Peulimbang Bireuen District in 2019

Characteristics	Frequency (f)	Percentage (%)
Age		
15 years	5	26,3
16 years	5	26,3
17 years	7	36,8
18 years	2	10,5
Class		
X	6	31,6
XI	6	31,6
XII	7	36,8

Univariate Analysis

The results of measuring students' knowledge about smoking before receiving information from leaflets (pre-test) with good knowledge were 1 person (5.3%), 5 people (26.3%) sufficient and 13 people lacking knowledge (68.4 %). The results of measuring students' knowledge about smoking after receiving information from leaflets (post-test) which had good knowledge were 6 people (31.6%), 4 people had sufficient knowledge (31.6%) and 9 people lacked knowledge (47, 4%). The results of measuring students' attitudes about smoking before receiving information from the leaflet (pre-test) were 3 people (15.8%) having positive attitudes and 16 negative attitudes (84.2%). The results of measuring students' attitudes about smoking after receiving information from the leaflet (post-test) were 5 people (26.3%) having positive attitudes and 14 negative attitudes (73.7%). The results of measuring the actions of students who smoked before receiving information from leaflets (pre-test) were 19 people and after receiving information from leaflets (posttest) about cigarettes, it was found that 8 students smoked (42.1%) and 11 students who did not smoke. people (57.9%).

Table 2. Frequency Distribution of Students' Knowledge, Attitudes and Actions on Smoking Before and After Receiving Information from Leaflets (Pretest)

Knowledge (Pre test)	f	%
Good	1	5,3
Enough	5	26,3
Less	13	68,4
Knowledge (Post-test)		
Good	6	31,6
Enough	4	21,1
Less	9	47,4
Attitude (Pretest)		

Positive	3	15,8
Negative	16	84,2
Attitude (Post-test)		
Positive	5	26,3
Negative	14	73,7
Action (Pretest)		
Smoking	19	100,0
Not Smoking	0	0,0
Action (Posttest)		
Smoking	8	42,1
Not Smoking	11	57,9

Bivariate Analysis

The results of the research using the pretest and posttest showed that there was no decrease in the results of the respondents' answers both on the knowledge variable and on the attitude variable. The result of knowledge on the pretest was 100 and in the post test was 172, meaning that there was an increase in students' knowledge of knowledge by 54. The results of the research on attitudes at the pretest were 588 and at the posttest were 616, meaning that there was an increase in knowledge after being given information from the leaflet of 28.

Based on the results of the negative ranks or the difference (negative) between the pretest and posttest knowledge is 0, both the value of N, Mean Rank, and Sum Rank. This means that there is no decrease in the pretest and posttest scores. Positive ranks or the difference (positive) between the pretest and posttest knowledge, there are 6 positive data (N), meaning that the 6 students experienced an increase in knowledge about smoking from the pre-test to the post-test scores. The mean rank or the average increase is 6.00, while the sum of ranks is 66.00.

Based on the results of statistical tests with the Wilcoxon test, it is known that the Asymp.Sig. Value (2 tailed) is 0.024 <0.05, it can be concluded that there is an effect of leaflet media on students' knowledge about smoking in SMA Negeri 1 Peulimbang, Peulimbang Bireuen District in 2019. Based on the results of the negative ranks or the difference (negative) between the pretest and posttest attitudes, it is 0, either the N value, the Mean Rank, or the Sum Rank. This means that there is no decrease in the pretest and posttest scores.

Positive ranks or the difference (positive) between the pretest and posttest attitudes there are 2 positive data (N), meaning that the 2 students experienced an increase in attitudes about smoking from the pre-test to the post-test scores. The mean rank or the average increase is 1.50, while the sum of ranks is 3.00. Based on the results of statistical tests with the Wilcoxon test, it is known that the Asymp.Sig. (2 tailed) value is 0.157 > 0.05, it can be concluded that there is no effect of leaflet media on student attitudes about smoking in SMA Negeri 1 Peulimbang, Peulimbang Bireuen District in 2019.

Based on the results of the negative ranks or the difference (negative) between the pretest and posttest attitudes, it is 0, either the N value, the Mean Rank, or the Sum Rank. This means that there is no decrease in the pretest and posttest scores. Positive ranks or the difference (positive) between the pretest and posttest attitudes there are 11 positive data (N), meaning that the 11 students experienced an increase in smoking from the pre-test to the post-test scores. The mean rank or the average increase was 6.0, while the sum of ranks was 66.00

Based on the results of statistical tests with the Wilcoxon test, it is known that the Asymp.Sig. (2 tailed) value is $0.001 < 0.05$, it can be concluded that there is an effect of leaflet media on student smoking in SMA Negeri 1 Peulimbang, Peulimbang Bireuen District in 2019. The Wilcoxon test is used to test or compare two treatments on the same sample.

Table 3. Wilcoxon test

		N	Mean Rank	Sum of Ranks
Knowledge Posttest - Knowledge Pretest	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	6 ^b	3.50	21.00
	Ties	13 ^c		
	Total	19		
Attitude Posttest - Attitude Pretest	Negative Ranks	0 ^d	.00	.00
	Positive Ranks	2 ^e	1.50	3.00
	Ties	17 ^f		
	Total	19		
Action Posttest - Action Pretest	Negative Ranks	0 ^g	.00	.00
	Positive Ranks	11 ^h	6.00	66.00
	Ties	8 ⁱ		
	Total	19		

The significance value is known from the Wilcoxon test results as in the following table.

Table 4. Significance with the Wilcoxon Test

	Knowledge Posttest - Knowledge Pretest	Attitude Posttest - Attitude Pretest	Action Posttest - Action Pretest
Z	-2.251 ^a	-1.414 ^a	-3.317 ^a
Asymp. Sig. (2-tailed)	.024	.157	.001

The Effect of Leaflet Media on Students' Knowledge

Based on the results of the research that has been done, the knowledge of students before being given leaflet media at SMA Negeri 1 Peulimbang, Peulimbang Bireuen District in 2019 with the Wilcoxon test it is known that there is an increase in knowledge about smoking from the pre test to the post test score. The mean ranks or the average increase was 26.50, while the sum of ranks was 1378.00.

The Wilcoxon test results show that the Asymp.Sig. (2 tailed) value is $0.000 < 0.05$, it can be concluded that there is an effect of leaflet media on students' knowledge about smoking in SMA Negeri 1 Peulimbang, Peulimbang Bireuen District in 2019. Kasman's (2017) research entitled Experimental Study of the Use of Leaflet Media and Videos of the Dangers of Smoking in Adolescents shows that both the use of leaflet and video media are equally effective in increasing adolescent knowledge about the dangers of smoking There is a difference in the effect between the video and leaflet groups, where the p value = $0.004 \leq \alpha = 0.05$, it is known that the average increase before and after being given health education from

the leaflet group was 36.67 and the video media group was 22.48. Leaflet media was more effective in increasing adolescent knowledge about the dangers of smoking than video, although the video media group also showed an average increase in knowledge (Kasman 2017).

This is emphasized in Notoatmodjo's (2010) theory, that knowledge and cognition are very important domains in shaping one's actions (over behavior). This is in accordance with the related theory which explains that knowledge is the result of human sensing or the result of someone's knowledge of objects through their senses. Knowledge seen from a person's cognitive abilities includes the ability to know, understand, apply, analyze, synthesize and evaluate a thing (Notoatmodjo, S. 2010). According to researchers, based on the average knowledge prior to receiving the leaflet, students' knowledge about smoking had never received information about the dangers of smoking, knowledge will be formed after someone senses an object or gets information from information sources.

Martias' research (2017) entitled *The Effect of Counseling Regarding the Dangers of Smoking Using Leaflet Media on Changes in Knowledge and Attitudes of Students at SMPN 3 Bintan Timur*, it is known that there is a relationship providing counseling on the dangers of smoking using leaflet media on knowledge and knowledge outcomes ($0.001 < 0.05$) (Martias, 2017)

Health education is an effort to empower people to maintain, improve and protect the health of themselves and their environment. One of the media commonly used in health education is leaflet and audiovisual media, namely the media used to interpret the sense of sight and sense of hearing through the eyes and ears. The combination of information channels through the eyes reaches 75% and 13% ears will provide good enough stimulation so that it can provide optimal results (Notoatmodjo, 2010).

According to researchers, based on the average value of knowledge after health education, health education through leaflet media affects respondents' knowledge to be better, namely an increase in the knowledge of the average value of respondents in SMA Negeri 1 Peulimbang, Peulimbang Bireuen District, because of the receipt of information. through the eyes and ears which will give optimal results.

Effect of Leaflet Media on Student Attitudes

Based on the results of the research that had been conducted, the attitude of students before being given leaflet media at SMA Negeri 1 Peulimbang, Peulimbang Bireuen District in 2019 with the Wilcoxon test it was known that there was an increase in student attitudes about smoking from pre-test to post-test scores. The mean rank or the average increase was 6.50, while the sum of ranks was 78.00.

The Wilcoxon test results show that the Asynp.Sig. Value (2 tailed) is $0.001 < 0.05$, so it can be concluded that there is an influence of leaflet media on student attitudes about smoking in SMA Negeri 1 Peulimbang, Peulimbang Bireuen District in 2019. Dharmastuti's (2017) research entitled *The Effect of Health Education on the Dangers of Smoking through Booklet and Poster Media on Knowledge and Attitudes of Students at SMP N 2 Tasikmadu* shows that there are differences in attitudes before and after being given health education about the dangers of smoking through booklet media ($p = 0,000$) (Dharmastuti 2017).

The attitude that is formed cannot be changed just like that because it is closely related to factors from within and outside the individual. So to change the respondent's attitude, a policy and increased knowledge is needed so that the elderly can know the goals and benefits and the results obtained from the utilization of the elderly posbindu. According to

Notoatmodjo, attitude is closed behavior that cannot be immediately seen and is a readiness or willingness to act, attitudes are not yet an action or activity but a predisposition to action or behavior (Notoatmodjo, 2012).

The formation of a positive attitude which is related to the activeness of the elderly in following the posyandu for the elderly is also influenced by the knowledge possessed by the individual. Knowledge is an important basis for the formation of a person's actions, knowledge itself is important to support psychology and behavior every day so that knowledge is a factor that supports one's actions (Notoatmodjo, 2012).

According to the researcher, the percentage of the control group's attitude at the time of the pre-test showed that most respondents had negative attitudes. After being given health education using poster media, there was a decline in attitudes in the negative category. This is due to the lack of student attitudes, reflecting the presence of trial and error towards smoking. Moreover, students in class X-XII are a time to seek new experiences that are a little bit opposing, though not challenging. Opposition to this attitude is not merely naughty but to seek experience just to feel the sensation of smoking. The low attitude of these students was also possible because of the urge to try something new and ignore the message of knowledge about the dangers of smoking.

Effect of Leaflet Media on Student Smoking Actions

Based on the results of the research that has been conducted, the smoking action of students before being given leaflet media at SMA Negeri 1 Peulimbang, Peulimbang Bireuen District in 2019 with the Wilcoxon test, it is known that there is an increase in the smoking action of students from the pre test to the post test score. The mean rank or the average increase is 6.00, while the sum of ranks is 66.00.

The Wilcoxon test results show that the Asymp.Sig. (2 tailed) value is 0.001 <0.05, so it can be concluded that there is an effect of leaflet media on the smoking action of students at SMA Negeri 1 Peulimbang, Peulimbang Bireuen District in 2019. The results of this study are in line with Ariyani's (2011) research on the relationship between advertising and adolescent attitudes and smoking behavior among adolescents (SMA Negeri 4 Semarang). The results of his research indicate that there is a relationship between advertising and smoking behavior in adolescent students of SMA Negeri 4 Semarang) (Ariani 2011).

In theory, adolescent smoking behavior can arise as a result of advertisements in the mass media. Cigarette advertisements in various places and in the mass media which are now increasingly rampant are very attractive to teenagers. Advertising is a print or electronic media that provides sponsorship and promotion through various activities. Seeing advertisements in mass and electronic media that depict smokers as a symbol of cruelty or glamor, makes teenagers often triggered to follow behaviors like those in these advertisements.

According to researchers, adolescents who are exposed to cigarette advertisements and have seen advertisements alternately on one television can influence someone to smoke, besides that teenagers who are not exposed to cigarette advertisements will have less to smoke.

Conclusion

Based on the research that has been done, it can be concluded that there is an influence of leaflet media on students' knowledge and actions about smoking and there is no influence of leaflet media on student attitudes about smoking in SMA Negeri 1 Peulimbang, Peulimbang Bireuen District in 2019.

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