

ANALYSIS OF EXTERNAL FACTORS OF SMOKING BEHAVIOR AMONG STUDENTS

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Abstract. State Senior High School 4 of Manado has implemented a rule that limits the space for smoking, marked with a sign "No smoking in designated areas" since early 2016. This policy and regulation need to be done to prevent the students smoking in the school area. However, in reality they tend to do the opposite. Based on direct observation toward the students, the teachers become an example of smoking in state Senior High School 4 of Manado. Smoking teachers become one of the factors that cause students to smoke. The purpose of this study is to analyze the external factors of smoking behavior of state Senior High School 4 of Manado students. This research is an analytic observational study with Cross sectional study design. The independent variables are the smoking behavior in the family and the reverence of the people around and the dependent variable is the smoking behavior. The population of this study was 653 students both male and female. As the results of calculation, 257 students were accounted for the sample of this research, using simple random sampling. The instrument used in this research is questionnaire. The result data was analyzed with univariate and bivariate by using chi square test to see the correlation of smoking behavior on students by calculating prevalence ratio (RP). As the result of data analysis, there is a significant relationship between smoking behavior in the family and of students, marked by $p = 0,000$; $RP = 2,666$ smoking behavior in the family is the risk factor in students' smoking behavior. There is a significant association between people around the students and their smoking behavior, marked by $p = 0,000$; $RP = 5,559$ example given by the people around is a risk factor to smoking behavior. Conclusion: There is a significant correlation between family members who smoke and smoking behavior of state Senior High School 4 of Manado students and there is a significant relationship between reference group to smoking behavior and references of people around is a factor risk to smoking behavior of state Senior High School 4 of Manado students. Suggestion: The school to apply strictly the regulation of non-smoking area in state Senior High School 4 of Manado.

Keywords: Smoking Behavior in Family, Referring People, Smoking Behavior of Students

INTRODUCTION

Smoking behavior in Indonesia ranging from children aged 15 years and over and there has been no decrease from 2007-2013, even in 2007 increased to 34.2% and very drastic occurred in 2013 reaching up to 36.2%. An increase in the number of cigarette addicts \pm 2% within a span of 6 years only. This result was also reinforced by research in 2013 that proves male smokers were up to 64.9% and the remaining 2.1% were women. Riskesdas also issued that between 10 and 14 year old there were about 1.4% active smokers, and 9.9% were among unemployment group (Riskesdas, 2013).

Two main factors for high smoking behavior in Indonesia are internal and external. The internal factors are attitude, experience and observation, personality, self concept, motive and perception while the external factors are culture, social class, group references and family. These factors become logical because it can not be denied that a lot of people formed by the surrounding environment, whether family, neighbors, or friends and also the level of knowledge that the people have. This illustrates that smoking behavior is related to emotional states. Conditions that most affect the behavior of smoking are when a person experiences stress (Carr Allen, 2013).

Students are defined the people who have the knowledge, certain level of self-maturity, intellectual, critical thinking and a bright future plan. Stages or levels of education that the students obtained would determine the attitude, responsibility and level of emotional maturity, a student should know what is good or not, including for health (Anggia, 2012).

If you look at the danger of smoking for your health, you should be aware that smoking behavior is a behavior that must be stopped. State Senior High School 4 of Manado since early 2016 has implemented a rule that limits the space for smoking behavior, "No smoking in designated areas". These policies and regulations need to be done to prevent students from smoking in the school area (General Section of SMA Negeri 4 Manado, 2016), but in reality this is not the case and tends to be reversed. Based on direct observation of the students, even teachers become an example of smoking behavior in state Senior High School 4 of Manado. Teachers who smoke become one of the factors that affect students to smoke. The smoke inhaled and then exhaled by smokers, has an impact that will occur, among others, lung cancer, asthma risk and ear infections (District Health Office Pamekasan, 2013).

Dangers of smoking habits for the health depend on internal and external factors. This will be an analysis of external factors on smoking behavior in high school 4 of Manado students. The purpose of this study is to analyze the external factors of smoking behavior among students of state Senior High School 4 of Manado.

METHOD

This research is included in the analytical research with cross sectional study design, data collection is done by observation. The independent variables are external factors of smoking behavior (smoking behavior in family and people's reverence) and dependent variable is the smoking behavior. The population of this study was 653 students both male and female. As the results of the calculation of large samples taken as many as 257 students with sampling method is simple random sampling.

The instrument used in this study is using questionnaires to see the smoking behavior. The result data were analyzed with univariate and bivariate using chi square test. Bivariate analysis was conducted to see the effect of smoking behavior on students by calculating prevalence ratio (RP) value using 2×2 contents table, with interpretation of RP value as follows:

1. If the value of $RP > 1$, then the variable under study is a risk factor
2. If the value of $RP = 1$, then the variable under study is not a risk factor
3. If the value of $RP < 1$, then the variable studied is a protective factor

RESULTS AND DISCUSSION

Results

1. Result of Univariate Analysis

The results of data analysis for the distribution of respondents based on research variables can be seen in table 1 below. Table 1 explains that the distribution of respondents by sex is, the most respondents are female gender of 178 people (69.3%) and the remaining are male respondents as much as 70 people (30.7%). Distribution of respondents based on smoking behavior, most of them are respondents with smoking behavior as many as 138 people (53.7%) and the remaining are respondents without smoking behavior, as many as 119 people (46.3%). The result of data analysis for respondent contribution is based on the number of cigarette consumption. The number of respondents who did not smoke as many as 119 people (46.3%) and the least was respondent on very heavy smoker category as many as 17 people (6.6%). Distribution of respondents based on smoking behavior in the family, at most is no smoking behavior in the family as many as 147 people (57.2%) and the rest are respondents where there are family members with smoking behavior of 110 people (42.8%).

The result of data analysis for the behavior of smoking, most of the respondents who are not affected with about 164 people (63.8%) and the rest are the respondents who influenced with people around to smoke as many as 93 people (36.2%).

Table 1. Results of Univariate Analysis for Smoking Behavior among Students of state Senior High School 4 of Manado

NO	Variables	Frequency	%	
1	Gender	Man	79	30,7
		Women	178	69,3
2	Smoking Behavior	Smoke	138	53,7
		Do not smoke	119	46,3
3	Cigarette Consumption	Do not smoke	199	46,3
		Light smoker	79	30,7
		Medium smoker	20	7,8
		Heavy Smokers	22	8,6
		Very Heavy Smokers	17	6,6
4	Smoking behavior in the family	Some smoke	110	42,8
		No one smokes	147	57,2
5	References of people around	Affected people around	93	36,2
		Not affected	164	63,8

2. Results of Bivariate Analysis

Results of processing and data analysis for internal and extrinsic factor analysis on smoking behavior among state Senior High School 4 of Manado students can be described as follows:

a. Relationship of Smoking Behavior in Family with Smoking Behavior of Students

The results of data analysis for smoking behavior in the family against smoking behavior of state Senior High School 4 of Manado students can be seen in table 2 below.

Table 2 explains that the respondent's distribution based on smoking behavior in the family that the respondents with family members who do not smoke as many as 147 people (57.2%), and it is found 83 respondents (32.3%) who do not smoke and 64 people (24, 9%) of respondents who smoke. Respondents who have family members who smoke as many as 110 people (42.8%), among which there are 74 people (28.8%) of respondents who smoke and 36 people (14%) of respondents who do not smoke.

Table 2. Analysis of Smoking Behavior Relationships in Families with Smoking Behavior of state Senior High School 4 of Manado Students

Smoking Behavior in the Family	Smoking Behavior				N	%	P-value	RP	95% CI
	Smoke		Do not smoke						
	n	%	n	%					
Some smoke	74	28,8	36	14	110	42,8			
No one smokes	64	24,9	83	32,3	147	57,2	0,000	2,666	1,593-4,460
Total	138	53,7	119	119	257	100			

The results of bivariate data analysis were analyzed using Chi square test, marked with p value = 0,000 where there was a significant correlation between the behavior of family members who smoke and the smoking behavior on the students. When viewed from the value of RP = 2.666 then the smoking behavior in the

family is a risk factor in the student's smoking behavior. The results of this analysis prove that the respondents who have family members who smoke are 3 times higher at risk of adopting the smoking behavior compared to respondents who do not have family members who smoke.

b. Relationship of Referring People Around with Smoking Behavior

The results of data analysis for the reference of people around with the smoking

behavior of students of state Senior High School 4 of Manado, can be seen in table 3 below:

Table 3. Analysis of Reference Relation of People Around with Smoking Behavior of Students of state Senior High School 4 of Manado

References of people around	Smoking Behavior				N	%	P-value	PR	95% CI
	Smoke		Do not smoke						
	N	%	n	%					
Affected with people around	73	28,4	20	7,8	93	36,2			
Not affected by the people around	65	25,3	99	38,5	164	63,8	0,000	5,559	3,096-9,982
Total	138	53,7	119	119	257	100			

Table 3 explains about respondents' distributions based on references of people around to smoking decisions. Mostly unaffected by smoking people around are 164 people (63.8%), among which 99 respondents (38.5%) of non-smokers and 65 people (25.3%) of respondents who smoke. Respondents affected by others who smoke are 93 (36.2%), of which 73 (28.4%) smoke and 20 (7.8%) do not smoke.

The results of bivariate data analysis were analyzed using Chi square test, marked with p value = 0,000 where there was a significant correlation between references of people around and smoking behavior on the students. Considering the value RP = 5,559, the reference of people around is therefore a risk factor to smoking behavior.

The results of this analysis prove that respondents who have references of smoking people around are six times at risk to have smoking behavior compared to respondents who do not have references of smoking people around.

DISCUSSION

1. Relationship of Smoking Behavior in Family with Smoking Behavior Students of state Senior High School 4 of Manado

The result of data analysis for smoking behavior in the family on smoking behavior of state Senior High School 4 of Manado students, based on smoking behavior in the family, most of the respondents whose family members do

not smoke as many as 147 people (57.2%), among which there are 83 respondents (32.3 %) who do not smoke and 64 people 24.9%) respondents who smoke. Respondents who have smoking family members as many as 110 people (42.8%), of whom there are 74 people (28.8%) of respondents who smoke and 36 people (14%) of respondents who do not smoke.

The results of bivariate data analysis were analyzed using Chi square test, marked with p value = 0,000 where there is a significant correlation between the behavior of family members who smoke and the smoking behavior of the students. Considering the value of RP = 2.666, then the smoking behavior in the family is a risk factor to the students' smoking behavior.

The results of this analysis prove that the respondents who have family members who smoke are three times at risk having the opportunity to adopt smoking behavior compared to respondents who do not have family members who smoke.

The results of this study are supported by research conducted by Gunawan (2013) who examines the types of communication patterns between parents and active smokers, with the results of research that there is a close relationship between smoking family members and smoking behavior of students. Similar study conducted by Helmi (2000) proves that there is a meaningful relationship between the

behavior of parents and family members who smoke and the students' smoking decision.

The results of research conducted by Kustanti (2014), which examines the relationship between family influence, influence of friends and the influence of advertising to smoking behavior of adolescents in state Junior High School 1 of Slogohimo, Wonogiri, with the results of research that there is a meaningful relationship between families who smoke and smoking behavior. Family members who smoke strongly influence the smoking behavior of other family members.

Families in the socio-cultural context can not be separated from cultural traditions that grow and develop in society. In a social context, the child must live in a society and involve with the culture existing in the society. In this case, parents have a responsibility to educate children to become people who are good in living within a community and mingling with the culture in the society. As members of society, children are required to engage in it instead of being passive without taking a role.

The function of the family, including the father and mother are to teach about the values and norms to shape the children's personality. Therefore, the children's behavior depends on the quality of communication within the family. If communication is not intertwined then the losses will be experienced by both parties, both on their own side and on the part of the community. Children should significantly behave in line with family's principle or in other words the internal factors within the family should be more dominant than the external factors. The formation of family life pattern consists of elements of education, the formation of attitudes and behavior of children who affect the development of children (Hurlock, 1997, in Gunawan, 2013).

Family plays an important and longest role in the formation of attitudes and behavior of individuals. Therefore, input from the family in the form of advice and stories about the experiences obtained by the family itself by using lifestyle as an influence, culture for family members can become a habit.

Research from Cahyo, et al (2012) who studied about smoking, marketing pattern and smoking behavior of high school students in Semarang City, proves that marketing pattern of cigarette product strongly influence teen smoking behavior is association of peers, the immediate family resulted in a positive attitude toward smoking behavior.

Family as the nearest neighborhood, peers as playmates and school and the place of sale. Most of the study subjects had family members who were also smokers, including fathers and brothers/sisters. This is in accordance with the results of interviews, where respondents claimed to have family members who smokers, but did not feel the influence of smoking family members. This is in accordance with Soemartono's research (1998 in Cahyo, et al., 2012), in the analysis of Susenas 2001, found a relationship between father, elder brother and friend to the prevalence of smoking in high school students in Jakarta. If the father is a smoker, then the risk of a child will be smoker is about 2 times greater than the child whose parents do not smoke. Meanwhile, if there is a smoking older brother, then the risk of a child to smoke about 3 times and if most of his friends smoke, then the risk of becoming a smoker is 3.2 times higher.

2. Relationship between Reference People Around and Smoking Behavior of students of state Senior High School 4 of Manado

The result of data analysis for the reference of smoking people around with the behavior of the students of state Senior High School 4 of Manado showed that many respondents are not affected by smoking people around as many as 164 people (63.8%), among which there are 99 respondents (38.5%) who are not smoking and 65 people (25.3%) of respondents who smoke. Respondents affected by other smoking people around are 93 (36.2%), of which 73 (28.4%) smoke and 20 (7.8%) do not smoke.

The results of bivariate data analysis were analyzed using Chi square test, marked by p value = 0,000 where there is a significant correlation between references of people around and smoking behavior of the students. Considering the value $RP = 5,559$, then the

example given by reference people around is a risk factor to smoking behavior.

The results of this analysis prove that respondents who have references of smoking people around to have six times higher risk of smoking compared to respondents who do not have references of people around to smoke.

The results of this study is supported by research conducted by Pramintari (2014) who examines the influence of parenting styles and peers on smoking behavior of high school students in Bogor City, with the results of research that there is a meaningful relationship between peer influence and tobacco consumption. Similar study conducted by Ristianti, et al (2008) who examined the relationship between peer social support and self-identity in adolescents in state Senior High School Pusaka 1 of Jakarta, with the results of research that there is a meaningful relationship between self-identity and smoking decisions of high school students Pusaka 1, Jakarta.

Various facts reveal that the more teenagers smoke the more likely it is that their friends are smokers as well and vice versa. There are two possibilities that occur from the fact, first the adolescent is affected from his friends or vice versa (Nasution, 2007).

The results of this study are in line with the results of research conducted by Maharani (2011) who examined the smoking behavior of male faculty lecturer, at Diponegoro University of Semarang, with the result of research that there is a meaningful relationship between attitudes and peer influence on cigarette consumption in male lecturers in Faculty of Medicine Diponegoro University of Semarang.

Results of interviews with most of smoking respondents showed that they were influenced by peers or people close to the respondents. At first, respondents did not know smoking but after hanging out with friends who generally smoke, then the respondents want to try to smoke and they eventually were accustomed to smoking.

The results of this interview are in line with the results of research conducted by Fikriyah, et al (2012), who examine the factors that influence smoking behavior in male students in Dormitory Putra, with the results of

research that there is a meaningful relationship between the influence and support of peers against smoking behavior.

Research from Cahyo, et al (2012) who studied about smoking, marketing pattern and smoking behavior of high school students in Semarang City, this research proves that the marketing pattern of cigarette products has a strong effect on teenage smoking behavior is the association of peers, smoking behavior of parents or close family resulting in a positive attitude towards smoking behavior.

Friends are the closest people after family and often even found a friend who is closer person than family. In many cases, especially when someone knows the family will oppose his actions then a friend is everything. A friend is a refuge, a place to complain or a friend is where someone feels at ease near him. In this study, all respondents who have smoking behavior, have friends who smoke. While respondents who have had smoking behavior do not have friends who smoke, and respondents who do not have smoking behavior most have no friends who smoke.

Someone will smoke and continue smoking if they have friends who smoke and often socialize with their smoking friends. The results found that, peers give influence to continue smoking. This is because gathering with peers is a habit and has become a lifestyle for teenagers so that teenagers want to come to feel the cigarette or just because they feel bad because all his friends smoke. According to Leventhal (1988 in Cahyo, 2012), pressure from peer groups is the most important variable that causes a teen to smoke. As experienced by the research, the subjects are influenced by their smoking peers, who encourage them to smoke.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

1. There is a significant relationship between existing family members who smoke against smoking behavior and there are family members who smoke is a risk factor

for smoking behavior of the students of state Senior High School 4 of Manado.

2. There is a significant relationship between the reference group and smoking behavior and references of people around is a risk factor to smoking behavior of the students of state Senior High School 4 of Manado.

Suggestion

1. Applying strictly the Regulation of Non-Smoking Area in state Senior High School 4 of Manado that has been issued by the school.
2. Providing explicit sanction of violation against violators of Non-Smoking Area in state Senior High School 4 of Manado so that the offenders pay more attention to the regulation, and not repeat it again.
3. Hold a program "Peer-Counselor", which is a consultation program about the behavior of cigarette consumption and other hazardous substances for students by peers. This program is expected to give good impact given the results of this study showed peers play a role in the formation of teenage cigarette consumption behavior.

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