



Original Research

Factors Associated with Perceived Behavioral Control and Adolescents Smoking Behavior in a Rural Area of Indonesia

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ABSTRACT

Introduction: For the most recent, smoking among teenagers was found as a common behavior in the society. The behavior was studied to be associated with self-control ability along the transition's period from child to adulthood. Nevertheless, less study on this issue was conducted in developing country with a huge population of teenagers such as in Indonesia. This study aims to determine the relationship between Perceived Behavioral Control (PBC) and Smoking Behavior among adolescents in a rural area of Indonesia.

Method: This study applied cross-sectional approach. Through purposive sampling technique, a total of 44 respondents involved. Data were collected by self-report paper-based questionnaire. Data analysis were conducted in two phases of descriptive and inferential statistics. The significant value (p) was set at 0.05 or lower.

Results: The results showed almost all respondents had PBC as many as 33 respondents (75.0%) and had been smoking behavior as many as 27 respondents (61.4%). Considering statistical analysis, the obtained p value was 0.368 or higher than 0.05. The result showed no relation between PBC and smoking behavior. Less association in the two variables might relate to the influence of peers and the informant's social environment.

Conclusion: This study underlined the urgency of supporting teenagers by way strengthening their self-confidence and establishing peer's support group on the impact of smoking. It is highly suggested, community health education in the school settings should consist of establishing teenager's self-awareness. Further research examining factors that relate to their critical ability to make decision are necessary.

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1. INTRODUCTION

Smoking is one of the agendas that is still carried out by individuals of all ages starting from young people to adults (Hasna et al., 2017). Smoking behavior among teenagers today seems a common finding in the community. Teenagers who were also school-aged society smoked cigarettes with friends. One of the causes of adolescents' unable to regulate the intensity of their smoking behaviors is their low self-control in adolescents. Aspects of smoking risk are male adolescents, aged 15 years who s, have poor

skills, lack knowledge about cigarettes, and have poor behavior (Wijayanti et al., 2017).

The act of smoking is seen to be able to leave satisfaction for smokers. The growth of a high sense of self-confidence in students further develops centration in overcoming problems. Intellectual perspective plays a role in the reference to smoking in adolescent sectors Becoming a smoker or becoming addicted to smoking is a method of various stages of initiation and adaptation (Sulastris, 2018).

Based on preliminary data recorded in October in Bandarkedungmulyo Village, it was found that one

of the causes of adolescents' unable to regulate the intensity of their smoking behavior was low self-control in these adolescents. This chapter is also supported by previous research (Fadly, 2015) which found low self-control associated with smoking behavior in adolescents.

Based on data (WHO, 2021), the number of smokers aged 15 years and over in the world is 991 million people in 2020. The results of Riskesdas (Riskesdas, 2018) explain that the smoking behavior of the Indonesian population aged 15 years and over is 33.8%. The percentage in Jombang of adolescents who smoke aged 15-19 years is 24.9% (Dinkes, 2018).

The factors that control the younger generation to smoke include knowledge, behavior, availability of cigarettes, affordability of cigarettes, effects on family and friends, and advertising (Oktaviani & Avianty, 2019). The threats of smoking to health include impotence, osteoporosis, gravidity disorders, coronary heart attacks, and respiratory system disorders (Winengan, 2017).

To apply modifications to smoking behavior in adolescent smokers, it is necessary to know at first whether there is a positive intention in the individual to change or not. All behavior begins with the intention, including smoking behavior. Theory of Planned Behavior (TPB) is a successful theory for assessing behavior. In this material, intention forms one part of the TPB. This TPB can be applied to assess smoking behavior by examining attitudes, subjective norms, PBC, and smoking intentions. Researchers want to see whether there is a relationship between perceived behavior control and adolescent smoking behavior in Bandarkedungmulyo Village, Jombang.

Research by (Nguyen et al., 2017) describe smokiness as a behavior that is occupied. The existence of a mandate and coverage of anti-smoking by various means can promote correct insight regarding the effects of smoking and the perception of adolescents about smoking. Then the village apparatus provides stricter and systematic education to all adolescents and parents are obliged to doubt their peers who are symptomatic of smoking, and families educate positive activities for adolescents (Rachmat et al., 2016).

According to the description of the context above, the researcher then took the title "The Relationship of Perceived Behavioral Control with Smoking Behavior in Adolescents in Bandarkedungmulyo Village, Jombang"

2. METHODS

2.1 Design

The research design used correlation analysis with the cross-sectional approach. This research was conducted in Bandarkedungmulyo Village, Jombang in March 2022.

2.2 Population, Sample, and Sampling

The population in this study were all male adolescents aged 12 - 21 in the village of Bandarkedungmulyo Jombang as many as 174 adolescents. The sample in this study was some teenage male smokers in Bandarkedungmulyo Village, Jombang as many as 44 teenagers. The inclusion criteria in this study were: adolescent boys who smoke aged 12-21 years, are able to communicate well, do not experience psychiatric disorders, are willing to be research respondents. Exclusion criteria in this study are: not cooperative during the research, not a native of bandarkedungmulyo. The sampling technique used is purposive sampling.

2.3 Variable

The independent variable in this study was perceived behavioral control. The dependent variable in this study was adolescents smoking behavior.

2.4 Instruments

The instrument used in this research is a questionnaire. Perceived Behavioral Control questionnaire with a total of 10 questions (Nurussama, 2019) and smoking behavior with a total of 21 questions (Adiyofa, 2019).

2.5 Procedure

The research procedure begins with taking care of research permits in Bandarkedungmulyo Village, Jombang. Carry out an ethical test at the health research ethics committee of STIKes Husada Jombang. After the research can be carried out, then collect respondents according to the inclusion criteria. Explain the purpose and intent of the research to respondents and if they are willing to become respondents, they are welcome to sign the informed consent form and fill out the questionnaire properly. After the research activities are completed, then all data can be collected. The next stage is data processing by editing, coding, scoring, and tabulating the data obtained.

2.6 Data Analysis

The data analysis were descriptive analysis and inferential analysis. This data analysis was selected based on research needs namely correlational research, descriptive analysis was used to provide a description of the independent variables (PBC) and the dependent variable (smoking behavior). While inferential analysis is used to determine the effect of independent variables (PBC) on the dependent variable (smoking behavior). In the descriptive analysis, data are grouped by category and frequency. While the inferential analysis used a logistic regression test with a significance value of $p \leq 0.05$. Data analysis in this study used the SPSS version 25.0 application.

2.7 Ethical Clearance

This research received approval from the Nursing Research Ethics Commission (KEPK) of the Sekolah Tinggi Ilmu Kesehatan Husada Jombang on February 23, 2022, with the ethics certificate number 0455-KEPKSHJ.

3. RESULT

Table 1. General Data of Respondents

Education	F	(%)
SMP/MTS	26	59.1
SMA/SMK	14	31.8
PT	4	9.1
Total	44	100.0
Age	F	(%)
12-15 years old	6	13.6
16-18 years old	18	40.9
19-21 years old	20	45.5
Total	44	100.0
Smoking Intensity	F	(%)
1-4 /day	27	61.4
5-14 /day	16	36.4
> 15 /day	1	2.3
Total	44	100.0
Smoking Time	F	(%)
1-3 year	31	70.5
4-6 year	11	25.0
7-10 year	2	4.5
Total	44	100.0

Table 2 Characteristics of Respondents Based on PBC and Smoking Behavior

Perceived Behavioral Control	F	(%)
Low	11	25.0
High	33	75.0
Total	44	100.0
Smoking Behavior	F	(%)
Low	3	6.8
Medium	27	61.4
High	14	31.8
Total	44	100.0

Table 3 Tabulation of Respondents' Frequency by Variable Category

	Smoking Behavior			Total
	Low	Medium	High	
Low PBC	1	8	1	10
	10.0%	80.0%	10.0%	100.0%
High PBC	2	21	11	34
	5.9%	61.8%	32.4%	100.0%
TOTAL	3	29	12	44
	6.8%	65.9%	27.3%	100.0%

Tables should be numbered in Arabic numerals, captions should be brief, clearly indicating the purpose or content of each table. Maximum 5 tables, the table will be included as such in the online version of your article.

Characteristics of respondents based on education is found that the majority of respondents have a junior high school/MTS education of 26 respondents (59.1%). According to data table 1, it proves that almost all respondents are mostly 19-21 years old as many as 20 respondents (45.5%). Research results relate to smoking intensity were obtained known that almost all respondents had the most smoking intensity (1 - 4 cigarettes) as many as 27 respondents (61.4%). Characteristics of respondents based on smoking time is known that almost all of the respondents who had the longest smoking period (1 - 3 years) were 31 respondents (70.5%).

The result showed that the characteristics of respondents based on PBC had the most Perceived Behavioral Control with the high category are 33 respondents (75.0%). Characteristics of respondents based on smoking behavior shows that the majority of respondents who have moderate smoking behavior are 27 respondents (61.4%). The research result showed that almost all respondents who had low PBC with medium smoking behavior, with 8 respondents (80,0%). While respondents who have high PBC with medium smoking behavior are 21 respondents (61.08%).

4. DISSCUSSION

Perceived Behavioral Control in Adolescents in Bandarkedungmulyo Village

The majority of respondents who have the highest Perceived Behavioral Control (PBC) with the High Category are 33 respondents (75.0%). Study by Ajzen revealed the perception of behavioral control as a role based on beliefs expressed as control beliefs, namely individual beliefs about the presence or absence of variables that support or restrain individuals to carry out a behavior (Saud, 2016).

In individual adolescents who have PBC (High) because the more they get a large number of supportive variables and fewer restraining factors to be able to carry out behavior, the more control they get over the listed behavior. This section deals with the degree of resilience of a person's belief or expectation about his potential. The strong hope that drives the person must endure in his endeavors. Although perhaps found the definitively supportive experience.

Perceived behavioral control can be influenced by age. According to data table 1, it proves that almost all respondents are mostly 19-21 years old as many as 20 respondents (45.5%). According to (Nurhaini, 2018) expressing the perception of self-control is influenced by the internal elements that conquer the perception of human self-control, namely the level of age and emotional maturity. As the human age

increases, to improve the power of perception and control themselves, psychologically mature individuals will be able to control behavior and review what is good and bad for them.

In adolescents, the power of perception and self-control develops along with age and emotional maturity. Adolescents are said to have reached the peak of adolescence and emotional maturity if at the end of their teenage years they are 19-21 years old (late adolescence). At the age of late teens, they will begin to get a pattern of perception or thought of life that can be relied upon to meet their needs and has more controlled behavior control or better if by way of disclosure or application that is more acceptable.

Perceived behavioral control can be influenced by education. This can be seen. According to the data in table 2, it was found that the majority of respondents had an SMP/MTs education of 26 respondents (59.1%). According to Carter (Carter, 2011), the higher the level of human education, the easier it will be to receive news so that the patterns of thinking and behavior will improve as well as the many experiences they have. The formal education that has been taken by the respondent can prove whether or not the perception of behavioral control or insight and behavior about a thing is good or not.

The degree of education will affect the perception and behavior of individuals about cognition. Respondents who follow a higher level of education will tend to have more moral knowledge or thoughts (perceptions) and behavior patterns than respondents who have low education degrees. This is because the higher the education, the more knowledge and information a person receives.

Smoking Behavior in Teenagers

Based on research result related to smoking behavior the result were obtained that the majority of respondents who have the most smoking behavior (moderate) are 27 respondents (61.4%). Smoking behavior is an activity of sucking or inhaling cigarette smoke along with using a pipe or cigarette which is done permanently and is created through four levels, namely: the level of preparation, initiation, becoming a smoker, and maintenance of smoking (Setyani & Sodik, 2018). Smoking behavior can be influenced by age. This can be known. According to data table 1, it proves that almost all respondents are mostly 19-21 years old as many as 20 respondents (45.5%).

Demographic factors can influence a person to smoke every day (Guzman et al., 2016). several demographic factors that influence smoking behavior are age, education, occupation, smoking intensity, smoking duration, and smoking group which have a positive and significant influence (Cahyo, 2012). Adolescents aged > 18 years smoke is a sign of smoking, and smoking has a bad influence on power, virility, and maturity (Wijayanti et al., 2017). Support for the desire to become an adult causes teenagers to want to do what adults do, for example, teenage boys who hide try to smoke because they often stare at adults doing it (Ali & Asrori, 2018).

In the era, the late adolescent period aged 18-21 years, adolescents during this period begin to enter the position of becoming adults, and adolescents try to stimulate a sense of personality. At the time of the late teens are willing to be accepted in the association of peers and adults. To be accepted by these peers can cause teenagers to undergo friendship behaviors in their sector, one of which is smoking behavior. In addition, teenagers suspect that smoking cigarettes will make them look strong and heroic. It starts with trial and error and proves the identity of the teenager, until over time it forms a desire (addiction effect) which is thought to be able to provide satisfaction for smokers, regardless of the consequences for the individual and the sector.

Smoking behavior can be influenced by education. The results showed that the majority of respondents had an SMP/MTS education of 26 respondents (59.1%). According to (Nketiah-Amponsah et al., 2018) education is the thing that has a lot of influence on smoking behavior, someone with a low level of education is more influential for cigarette use than those with high education. Another factor that influences smoking behavior is the intensity of smoking. According to the general data, it is known that almost all of the respondents who mostly have smoking intensity (1 - 4 sticks) are 27 respondents (61.4%). According to the Indonesian Dictionary (KBBI, 2022), the intensity of smoking behavior here has meaning regarding the degree, period, or scale of intense smoking, then the intensity of smoking behavior listed is classified in the variation of smoking behavior versions (light, moderate, heavy smokers). There are 3 versions of smokers who are classified based on the abundance of cigarettes smoked, namely heavy smokers who smoke more than 15 cigarettes a day, moderate smokers who smoke 5-14 cigarettes a day, and light smokers who smoke 1 - 4 cigarettes. cigarettes in a day.

The duration of smoking also influences smoking behavior. According to the data known that almost all of the respondents who mostly have a smoking duration (1 - 3 years) are 31 respondents (70.5%). Most of the respondents started smoking at the age of 12 years, and most had a long smoking period (\leq 3 years). Smokers who have smoked for 1 - 3 years are called novice smokers or people who have just started smoking. The majority of respondents have smoked for 0 - 10 years. The measured length of smoking is how long (years) the respondent has smoked regularly. When teenagers start smoking, disability in the body has started to occur. Being young does not mean apart from disease, it must be known that there are sometimes other effects in the short term that occur quite quickly.

The Relationship between Perceived Behavioral Control and Smoking Behavior in Adolescents in Bandarkedungmulyo Village, Jombang

Based on research data, the determination of the Chi-Square test with SPSS 20 is determined by the Asymp value. Sig. (2-sided) of $0.368 > (0.05)$, so it can be concluded that H_0 is accepted, which means there is no relationship between Perceived Behavioral Control and Smoking Behavior in Adolescents in Bandarkedungmulyo Village, Jombang.

PBC means the ease or difficulty of perception will carry out the behavior. This PBC considers past experiences and estimates the existing age, therefore it moves to attract subjective attitudes and norms about behavior, goes up the control of perceptual behavior, and increases the goal of human beings to carry out the behavior that is regularly negotiated (Ajzen, 1991).

The results of this study indicate that a high PBC has not been able to make adolescents behave well or not smoke. Most of the causes of respondents having a high PBC, while moderate smoking behavior can be influenced by the respondent's inability to control his personality so that they are more agile to be affected by the surrounding area to smoke without the respondent being deterred that smoking is a threat to the respondent. In addition, the respondent's age is mostly in late adolescence (19-21 years) causing late teens to want to be accepted among peers and adults. This is because the age is immature to make decisions such as following behavior in their relationships, one of which is smoking behavior which is influenced by peers who are also smokers.

Perceived Behavioral Control (PBC) can predict a person's intention to fulfill a specific behavior. However, in some situations, PBC may be unrealistic. This is done because there is little information that individuals have about the behavior when the needs or available resources change, or when a new and unknown substance enters the stated atmosphere. During this time, PBC assessment could only slightly improve the accuracy of behavior prediction. PBC that has changed will affect the behavior that is expressed as a result not as long as it is intended (Ajzen, 2012).

Another similar review was carried out by Randika Akhira (2016) regarding Factors Influencing Intentions to Stop Smoking in Al Hasra Islamic Junior High School Students, Depok from Syarif Hidayatullah State Islamic University Jakarta. The output proves that there is no significant central relationship between perceived behavioral control and the intention not to smoke among Al Hasra Junior High School students. The next analysis is also on the agenda (Nurussama, 2019) regarding the Influence of Attitudes, Subjective Norms, Descriptive Norms, Perceived Behavioral Control (PBC), and Risk Perceptions of Smoking Quitting Intentions in Syarif Hidayatullah State Islamic University Students, Jakarta, the results of the study show (Power to control) PBC did not have a significant effect on smoking intention.

Researchers hope that this research will bring about changes in smoking behavior and ways to fend off the impact of smoking behavior on adolescent

smokers in Bandarkedungmulyo Village, it needs to be supported more maximally by messages and information about anti-smoking through various media that can add knowledge about the effects of smoking and adolescent perceptions of smoking. Smoking prevention is also the role of parents, other parties, and village officials to provide positive and more optimally dedicated activities to adolescents in the village so that the physical and mental health of the youth will be more guaranteed and of good quality.

5. CONCLUSION

Almost all respondents have high perceived behavioral control and have moderate smoking behavior. The results showed that there was no relationship between Perceived Behavioral Control with Smoking Behavior in Adolescents in Bandarkedungmulyo Village, Jombang. The results of the study indicate that in addition to perceived behavioral control, other aspects greatly influence the smoking behavior of a teenager, namely the peer environment. This research is expected to provide benefits, especially for adolescents to be able to realize that smoking behavior is not good. And teenagers should be able to avoid smoking behavior because many negative impacts can be caused. For further research, it can discuss ways to prevent adolescents from smoking behavior with interesting education, including how to behave in an environment where there is a lot of smoking behavior.

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