


Determinants Of Student Smoking Behavior In Jambi City

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Article Info	ABSTRACT
Keywords: Adolescents, Smoking Behavior, Knowledge, Attitude.	Background: Smoking continues to be one of the major health concerns. This behavior has the potential to endanger the health of the entire world and can result in death for humans. When compared to other educational categories, secondary schools (SMA/SMK) have the highest percentage of daily smokers. This study aims to determine the factors associated with adolescent smoking behavior in Jambi City State Vocational High Schools in 2023. Methods: This study is a type of quantitative method research with a cross sectional research design. The population in this study was 4,314 respondents with a research sample of 255 respondents. The sample in this study was selected through the Quota Sampling Technique. The analysis was carried out using Univariate analysis and Bivariate analysis using the chi square test. Results: There is a relationship between knowledge ($p=0.047$), attitude ($p=0.000$), cigarette affordability ($p=0.000$), family attention ($p=0.000$), peer influence ($p=0.000$) with adolescent smoking behavior. Conclusion: Factors associated with adolescent smoking behavior at SMK Negeri Jambi City are knowledge factors, attitudes, cigarette affordability, family attention and peer support.
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INTRODUCTION

Smoking continues to be one of the major health issues. This conduct can kill people and endanger the health of the entire world. Furthermore, smoking has been linked to an increased risk of chronic illnesses like cancer, heart disease, stroke, and chronic obstructive pulmonary disease. (Mirnawati *et al.*, 2018). In Indonesia, smoking is a habit that is widely shared by men and women of all ages, including children, adolescents, and adults. Every year, the number of men and women who smoke rises, and as a result, smoking is becoming more and more commonplace in public areas such as marketplaces, food courts, and offices. The results of several surveys, including the Global Youth Tobacco Survey (GYTS), the Global Adult Tobacco Survey (GATS), and the Basic Health Research (RISKESDAS), demonstrate the severity of the cigarette consumption issue among Indonesians. According to the Global Adult Tobacco Survey (GATS) Indonesia has the highest rate of adolescent smokers in the world, with 34.8% of smokers aged ≥ 15 years with a prevalence of 67% males and 2.7% females (WHO, 2012). According to the Global Youth Tobacco Survey (GYTS) 19.2% of students, 35.6% of boys, and 3.5% of girls currently use tobacco products. 18.8% of students, 35.5% of boys, and 2.9% of girls currently smoke tobacco. 19.2% of students, 38.3% of boys,

and 2.4% of girls currently smoke cigarettes. 1.0% of students, 1.4% of boys, and 0.7% of girls currently use chewing tobacco (WHO, 2019). According to the Basic Health Research report, adolescents, especially those aged ≥ 10 years, are more likely to smoke. The 2018 Riskesdas data shows that the prevalence of smoking aged ≥ 10 years in Indonesia was 29.3% in 2013 and 28.8% in 2018. The prevalence of smoking in Indonesia aged ≥ 15 years increased every year from 34.3% in 2010 to 36.3% in 2013 and to 33.8% in 2018 (Riskesdas, 2018b). Jambi Province Riskesdas data in 2018 showed that the proportion of smoking behavior at the age of > 10 years in Jambi Province was 21.48%. While in Jambi City the proportion of current smoking at the age of > 10 years was 21.70%. The proportion of first-time smoking behavior in Jambi City at the age of 10-14 years was 4.01%, age 15-19 years was 45.18%, age 20-24 years was 33.07%, age 25-29 years was 10.13% and age > 30 years was 7.61%. According to Jambi Province Riskesdas data in 2018, the proportion of daily smokers aged > 15 years was 28.40% for Jambi city, which was 17.91% (Riskesdas, 2018a).

Smoking habits in school-age children in Indonesia are often seen in SMA / SMK students, because at this age it is a transition period between childhood and adulthood. Adolescence is a very decisive period because at this time children experience many changes in their psychological and physical aspects. The occurrence of psychological changes causes confusion among adolescents, so they experience full of emotional turmoil and mental pressure so that they easily deviate from the rules and social norms that apply in society (Alamsyah, 2017). Adolescent smoking behavior can be attributed to a number of internal and external factors. Teenagers' internal factors include things like attitudes and knowledge that originate from within. Peers and family influence are examples of external factors that originate from the surrounding environment and can affect an adolescent's behavior (Partiningsih, 2014). Among all education levels, secondary school (SMA/SMK) has the highest percentage of daily smokers relative to all other education levels (Patricia, 2021). Judging from the existing data shows that male smokers are more than female smokers. Based on data from the ministry of education, culture, research and technology, SMK is dominated by men as evidenced by the number of male students of SMKs in the city of Jambi which amounted to 4,314 people in the 2023/2024 academic year. Based on the results of an initial survey conducted by researchers, researchers conducted interviews with Counseling Guidance (BK) teachers and several other teachers, the number of cases handled by counseling guidance teachers is student smoking cases. And the results of observations of researchers in the field found that many students smoke both in the school environment, and outside school, such as in stalls near schools. The purpose of this study was to determine the factors associated with adolescent smoking behavior at SMK Negeri Jambi City in 2023.

METHODS

This research is a type of quantitative method research with a cross sectional research design. Cross sectional research design is a research design in which research on independent variables and dependent variables is carried out at the same time. The population in this study were male students of SMK Negeri Jambi City totaling 4,314, with the resulting sample size of 255 people. Sampling using the Quota technique. The instrument used in this study is to

use a questionnaire by measuring the self administered questionnaire. Data analysis using the chi-square test with univariate and bivariate analysis. This study has obtained a certificate of ethical eligibility from the Health Polytechnic of the Republic of Indonesia No. LB.02.06/2/459/2024.

RESULTS AND DISCUSSION

Univariate Analysis of Respondent Characteristics

Univariate analysis was conducted to see and describe the distribution and frequency of respondents' characteristics.

Tabel 1. Analisis Univariat Karakteristik

Respondent Characteristics	Frekuensi	Persentase
Age		
15	60	23.5
16	138	54.1
17	57	22.4
Class		
X	201	78.8
XI	54	21.2
School		
SMK Negeri 1	50	19.6
SMK Negeri 2	65	25.5
SMK Negeri 3	89	34.9
SMK Negeri 4	14	5.5
SMK Negeri 5	19	7.5
SMK Negeri 6	18	7.1
Total	255	100

Source: Primary Data Processed, 2024

Based on table 1 above, it shows that the age characteristics of respondents with the highest number of ages are 16 years old as much as 54.1%. Characteristics of respondents based on the highest class, namely respondents in class X as much as 78.8%. Characteristics of respondents based on the highest school, namely respondents at SMK Negeri 3 as much as 34.9%.

Univariate Analysis of Variables

Univariate analysis was conducted to see and describe the distribution and frequency of all variables studied, both dependent and independent variables.

Tabel 2. Univariate Analysis of Variables

Distribusi	N	%
Knowledge		
Less	100	39.2
Good	155	60.8
Attitude		
Negative	103	40.4

Distribusi	N	%
Positive	152	59.6
Affordability of cigarettes		
Easy to reach	116	45.5
Difficult to reach	139	54.5
Family attention		
Less	109	42.7
Good	146	57.3
Total	255	100

Source: Primary Data Processed, 2024

Based on table 2 above on the knowledge variable as many as (39.2%) respondents have less knowledge. In the attitude variable as many as (40.4%) have a negative attitude. In the cigarette affordability variable as many as (45.5%) were easily reached by cigarettes. In the family attention variable as many as (42.7%) have poor family attention.

Bivariate Analysis

Bivariate analysis was performed to see the relationship between the independent variable and the dependent variable. The statistical test used was chi-square analysis with a 95% confidence interval (CI) and a significance level of $p < 0.05$.

Tabel 3. Analisis Bivariat Variabel

Variables & categories	Adolescent Smoking Behavior				P-Value	PR(95%CI)
	Smoking		No Smoking			
	N	%	N	%		
Knowledge						
Less	63	63.0	37	37.0	0,047	1,268 (1.019-
Good	77	49.7	78	50.3		
Attitude						
Negative	88	85.4	15	14.6	0,000	2,497 (1,975-
Positive	52	34.2	100	65.8		
Affordability of cigarettes						
Easy to reach	114	63.7	2	52.3	0,000	5,254 (3,721-
Difficult to reach	26	76,3	113	62.7		
Family Attantion						
Less	83	59.8	26	49.2	0,000	1,950 (1,552-
Good	57	80,2	89	65,8		

Sumber : Primary Data Prossed 2024

The knowledge variable shows that the proportion of respondents who smoke with poor knowledge is (63%) and good knowledge is (49.7%). While the proportion of respondents who do not smoke with poor knowledge as much as (37%) and good knowledge as much as (50.3%). Based on the results of the chi-square test obtained p -value = 0.047

(<0.05) which means that there is a relationship between knowledge and adolescent smoking behavior at SMK Negeri Jambi City. The test results also obtained a PR value (95% CI) = 1.268 which means that adolescents with less knowledge have a 1.268 times higher risk of smoking behavior compared to adolescents with good knowledge.

The results of this study are in line with research conducted by (Fransiska and Firdaus, 2019) that there is a significant relationship between knowledge and smoking behavior in adolescent boys at SMA X Payakumbuh District, Lima Puluh Kota Regency in 2018 with a p-value of 0.038 ($p < 0.05$). The results of this study are also in line with research conducted by (Oroh *et al.*, 2022) that there is a relationship between knowledge and adolescent smoking behavior in Alam Barajo District, Jambi City with a p-value = 0.000. The results of this study are not in line with research (Budiyati, Sari and Suryati, 2021) which shows that the p value = 0.132 which means there is no relationship between knowledge and adolescent smoking behavior. A person's actions or overt behavior are greatly influenced by their knowledge or cognitive abilities. This is because research and experience have shown that behavior based on knowledge is more likely to persist than behavior based on ignorance. Lawrence Green in (Notoatmojo, 2010) Knowledge is a factor that makes it easier to influence health behavior. One of the factors that make adolescents smoke is a lack of knowledge about cigarettes, in this case adolescents have less knowledge about the content of cigarettes but adolescents have good knowledge about diseases caused by smoking. Good knowledge of cigarettes will reduce smoking behavior in adolescents.

The attitude variable shows that the proportion of respondents who smoke with a negative attitude is (85.4%) and a positive attitude (34.2%). While the proportion of respondents who did not smoke with a negative attitude was (37%) and a positive attitude was (34.2%). Based on the results of the chi-square test obtained $p = 0.000$ (<0.05) which means that there is a relationship between attitude and adolescent smoking behavior in Jambi City State Vocational Schools. The test results also obtained a PR value (95% CI) = 2.497 which means that adolescents with a negative attitude have a 2.497 times higher risk of smoking behavior compared to adolescents who are positive.

The results of this study are in line with research conducted by (Indra, Edison and Lestari, 2019) that there is a relationship between attitude and smoking behavior of high school students in Pariaman City with a p-value = 0.000. The results of this study are also in line with research (Yowa, Manurung and Riwu, 2023) showed that there was a relationship between attitude and smoking behavior in high school students in Pahunga Lodu District of East Sumba in 2022 with a p-value of 0.001. This study is not in line with research conducted by (Putri and Adiwiryo, 2020) The results of this study explain that there is no relationship between attitudes and adolescent smoking behavior in DKI Jakarta State High School and Kuningan Regency Vocational High School with a p-value = 0.962. An emotional response or evaluation is what is known as an attitude. An individual's attitude toward an object can be defined as their level of favoritism, support, or impartiality. The respondent's attitude regarding smoking is the attitude that is being discussed in this study. Beliefs have an impact on attitudes as well. In this case, adolescents are more likely to smoke if they do not think that smoking is bad for their health, either through personal experience or information from others. One of the elements influencing behavior is attitude. (Pratiwi, 2022)

In the cigarette affordability variable, it shows that the proportion of respondents who smoke easily affordable cigarettes is (63.7%) and difficult to reach (76.3%). Based on the results of the chi-square test obtained $p = 0.000 (<0.05)$ which means that there is a relationship between cigarette affordability and adolescent smoking behavior in Jambi City State Vocational Schools. The test results also obtained a PR value (95% CI) = 5.254 which means that adolescents who are easily accessible to cigarettes have a 5.254 times higher risk of smoking behavior compared to adolescents who are difficult to reach.

The results of this study are in line with research (Indra, Edison and Lestari, 2019) that there is a relationship between cigarette affordability and smoking behavior of male high school students in Pariaman City with a p value = 0.001. The results of this study are also in line with research conducted by (Awaluddin, Supriyati and Fuad, 2019) showed that there is a spatial relationship between the affordability of cigarette retailers and student smoking behavior with a value of $p = 0.00922$. The results of this study are not in line with research conducted by (Noviana, Riyanti and Widagdo, 2016) that there is no relationship between cigarette affordability and adolescent smoking behavior with a p value = 0.742. One could say that purchasing student cigarettes is easy and affordable for students. Due to easy access to vendors who let kids purchase their own cigarettes, the majority of smoking students have been able to purchase their own cigarettes from the stall. Easy access to cigarettes encourages and aids in the maintenance of the smoking habit in new smokers. The low cost of cigarettes contributes to the high rate of smoking in Indonesia. Therefore, examining how affordable cigarettes are is crucial because it has a direct bearing on a cigarette consumption-control measure that has worked well in many other nations: the excise tax on tobacco products. Excessive excise taxes on tobacco products drive up the cost of cigarettes, which in turn drives down smoking rates both in terms of frequency and intensity. Price and affordability are correlated, so increasing the price of cigarettes makes them unaffordable for teenagers (Goyal *et al.*, 2020). In addition to increasing the price of cigarettes to reduce adolescent smoking behavior can be done by implementing a smoke-free area policy. According to research conducted by (Ridwan *et al.*, 2023) The no smoking area policy will be very meaningful if its implementation continues to be carried out, but the no smoking area policy is meaningless if there is negligence in its application so that it does not have an impact on smoking behavior compliance following the No Smoking Area policy. This study is in line with Laurence Green's theory which states that the affordability of access to cigarettes is included in the enabling factors that can influence a person's behavior. So it can be concluded, the easier a person's access to cigarettes, the greater the likelihood of smoking practices.

The family attention variable shows that the proportion of respondents who smoke with poor family attention as much as (59.8%) and good family attention as much as (80.2%). While the proportion of respondents who do not smoke with less family attention as much (49.2%) and good family attention as much (65.8%). Based on the results of the chi-square test obtained $p = 0.000 (<0.05)$ which means that there is a relationship between knowledge and adolescent smoking behavior at SMK Negeri Jambi City. The test results also obtained a PR value (95% CI) = 1.950 which means that adolescents with less family attention have a 1.950 times higher risk of smoking behavior compared to adolescents who have good family attention.

The results of this study are in line with research conducted by (Badri, Hayat and Rahmadeni, 2021) that there is a relationship between the role of parents and smoking behavior in adolescents in the Galang Health Center work area with a p value = 0.029. The results of this study are also in line with research conducted by (Marita and Yansyah, 2023) that there is a significant relationship between family attention and smoking behavior in adolescents aged 16-19 years in the village of Kota Baru Barat, the work area of the UPTD Puskesmas Kota Baru, East Oku Regency with a value of p = 0.000. This study is not in line with research conducted by (Sholihah, 2021) It is known that there is no relationship between family attention and adolescent male smoking behavior with a P value = 0.694. A child's environment has a lot to do with their family. Children's behavior formation, norms, and assessments are shaped by their surroundings. To enable children to make decisions and refrain from harmful behaviors like smoking, parents must give them clear guidance and accurate information. Parental exposure has a significant impact because parents who smoke openly can send the message that smoking is a healthy and acceptable behavior. On the other hand, children are more likely to view smoking negatively if their parents do not smoke.

CONCLUSION

The results of this study show that knowledge, attitudes, affordability of access to cigarettes and family attention are factors that influence smoking behavior among high school students in the city of Jambi. It is necessary to implement smoking-free areas as the first step in controlling students' smoking behavior.

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