

## A STUDY OF PERCEPTIONS ABOUT CIGARETTES AMONG ADOLESCENTS IN BANJARNEGARA

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### ABSTRACT

Cigarettes remains a significant public health concern with broad health, social, and economic consequences. Despite continuous awareness efforts, smoking prevalence has not declined substantially, particularly among adolescents who represent a high-risk group. Research focusing on adolescent smoking is therefore essential to prevent long-term health and social harms and to inform evidence-based health, educational, and social interventions. This study applied a descriptive cross-sectional design involving 119 high school students selected through cluster random sampling. Data were collected using structured questionnaires and analyzed using univariate and bivariate methods with the Chi-square test. The findings indicated a nearly equal proportion of adolescents with smoking and non-smoking family members. Negative perceptions of smoking hazards were slightly more prevalent than positive perceptions, while most respondents perceived the implementation of Smoke-Free Areas in schools as adequate. Bivariate analysis demonstrated no significant association between family smoking behavior and adolescents' perceptions of smoking ( $p = 0.360$ ). These results underscore the need for comprehensive and collaborative prevention strategies involving families, schools, communities, and policymakers to reduce smoking initiation and protect adolescent health in the long term.

Keywords: Cigarettes; Perception; Teenagers

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### INTRODUCTION

Cigarettes are one of the most frequently discussed public health issues. Smoking is often associated with health problems such as heart disease, fetal and pregnancy disorders, and other health issues, including death. These warnings are also printed on cigarette packaging. Efforts to raise awareness of the dangers of smoking continue, but have not yet had a significant impact on reducing the number of cigarette consumers.

The primary ingredient in cigarettes is well-known to the public: tobacco, which is consumed by (WHO, 2024) many people worldwide. WHO data shows that in 2022, 1.25 billion people aged 15 and older used tobacco, compared to 1.36 billion in 2000. The (WHO, 2024) notes that tobacco in cigarettes can cause over 8 million deaths per year, both among active and passive

smokers. Smoking is a problem in most societies worldwide, including Indonesia.

The impact of cigarette consumption has been widely publicized through various media, but it is difficult to curb, so continuous control efforts are needed. The problem of smoking not only affects smokers themselves, but also those around them, known as passive smokers. Data from the (WHO, 2024) shows that smoking is one of the leading causes of preventable death worldwide.

Teenagers are one of the groups most vulnerable to tobacco consumption. The issue of tobacco has already reached children, which is concerning for their health. According to data from the Central Statistics Agency (BPS, 2025) the percentage of residents aged 15 years and older who smoked tobacco in the past month was 29.13% in Central Java and 36.99% in Banjarnegara District. This places Banjarnegara

among areas with a relatively high number of smokers. Other data indicate that the prevalence of active smokers continues to rise. The 2023 Indonesian Health Survey states that there are 70 million people who consume cigarettes, and 7.4% of them are smokers aged 10-18 years (Tarmizi, 2024).

The issue of smoking among adolescents is not only a matter of physical health risks but also poses risks to their social, economic, academic performance, and future. Regarding smoking behavior, the research findings of Wardiah, R., and Thabran, H. (2022) state that smoking is a habit that is difficult to avoid. According to them, smoking is influenced by family, peers, and advertising. If parents or family members smoke, teenagers are likely to imitate them. Peers influence teenagers' smoking behavior, and the portrayal of idols in media can also encourage smoking among teenagers.

Schools are also one of the environments outside the home that play an important role in preventing smoking behavior among teenagers or children. Schools serve as a means to educate and strengthen teenagers to have knowledge and healthy behavior, including avoiding smoking. Schools are one of the smoke-free zones that can support the creation of a safe and comfortable environment free from cigarette smoke. However, in practice, there are challenges in implementing schools as smoke-free zones. Among these challenges is how to educate and socialize the concept of smoke-free zones to all school components, including teachers, students, educational staff, and canteen managers, so that they understand the concept of smoke-free zones (Liziawati & Ayuningtyas, 2024).

Various studies on smoking have been conducted. To discuss the issue of smoking behavior, it can be examined from the perspective of adolescents as smokers, as well as the state of their immediate environment at home and at school. This study focuses on smoking among adolescents to further examine their perceptions of smoking, the presence of smoking family members, and the implementation of smoke-free zones in schools. By understanding the above, it can be revealed to what extent their perceptions and the support of the home and school

environments influence their behavior to not smoke.

## RESEARCH METHOD

This study is a descriptive study with a cross-sectional approach. The study was conducted in December 2024. The research locations were SMA N 1 Karangkobar and SMA N 1 Wanadadi. There were 119 respondents. The research sample selection technique was Cluster Random Sampling. Data collection was carried out using a questionnaire. Each question had been tested for validity and reliability. The validity of the instrument was tested using the Pearson Product Moment correlation test. Each statement item was declared valid with a value of  $r_{hitung} > r_{tabel}$  at a significance level of 5%. The reliability of the instrument was tested using Cronbach's Alpha coefficient. The entire instrument was reliable with a Cronbach's Alpha value  $\geq 0.70$ . The results of the validity and reliability tests showed that the instrument met the criteria and was declared suitable for use in the study. Before data collection, respondents were first given an informed consent form containing information about the purpose of the study, the voluntary nature of participation, data confidentiality guarantees, and the right to withdraw at any time during the study. All respondents agreed to sign the consent form after reading it. The data obtained was then analyzed using univariate analysis, where the data was presented in the form of frequency distribution tables on the variables of family smoking behavior, perceptions about smoking, and assessments of the implementation of the smoking ban policy in schools.

## RESULTS

### Univariate Analysis

Table 1 shows that of the 119 informants, 59 adolescents (49.6%) had family members who smoked. Meanwhile, 60 adolescents (50.4%) did not have family members who smoked. The difference between these two figures is not significant.

Table 1. Frequency Distribution of Family Smoking Behavior.

No	Family Smoking Behavior	Frequency	%
1.	There is	59	49,6
2.	There Isn't	60	50,4
	Total	119	100

Table 2 shows that of the 119 adolescents, 56 (47.1%) had a positive perception of cigarettes and 63 (52.9%) had a negative perception of cigarettes.

Table 2. Frequency Distribution of Adolescents' Perceptions of Cigarettes

No	Teenagers' Perceptions	Frequency	%
1.	Positive	56	47,1
2.	Negative	63	52,9
	Total	119	100

Table 3 shows that of the 119 adolescents, 83 (69.7%) believed that smoking bans in schools were in place and effective, while 36 (30.3%) believed that smoking bans in schools were in place but not yet effective.

Table 3. Frequency Distribution of Smoking Ban Policies in Schools

No	Smoking Ban Policy	Frekuensi	%
1.	Maximum in Place	83	69,7
2.	Not Yet Maximum	36	30,3
	Total	119	100

### Bivariate Analysis

Table 4 shows that of the 119 adolescents, 25 (42.4%) from smoking families had a positive perception of cigarettes. Furthermore, 34 (57.6%) adolescents from smoking families had a negative perception of cigarettes. In the table, it was also found that 31 (51.7%) adolescents from non-smoking families had a positive perception of smoking. Additionally, 29 (48.3%) adolescents from non-smoking families had a negative perception of smoking. The chi-square test yielded a p-value of 0.360, indicating that there is no significant association or difference in proportions between family smoking behavior and adolescents' perceptions of cigarettes.

Table 4. Distribution of Adolescents' Perceptions of Cigarettes Based on Family Smoking Behavior

No	Family Smoking Behavior	Perceptions of Cigarettes			Total
		Positive	Negative	%	
1.	There is	25	42,4	34	57,6
2.	There Isn't	31	51,7	29	48,3
	Total	56	47,1	63	52,9
					119
					100

P value = 0,360

## DISCUSSION

### Smoking Behavior

Smoking behavior is not merely a personal problem but is related to the health and social problems of other family members. One interesting aspect of the discussion on smoking behavior is smoking behavior within the family. The smoking behavior referred to in this study is a pattern of smoking behavior carried out by one or more family members as smokers, particularly at home and outside the home. The interaction process that occurs within the family is relatively frequent and therefore has great potential to become a role model for children or adolescents to behave in the same way.

On the other hand, parents play an important role in preventing smoking behavior. For example, by setting an example of not smoking and striving to create a smoke-free environment. Early education efforts are also necessary to raise children's awareness of the importance of maintaining health free from cigarette smoke (Julianto, 2025).

Exposure to cigarette smoke, especially indoors, can harm the health of other family members or disturb passive smokers. Smoke residue that sticks to chairs, curtains, and other furniture is not easily removed. Parents should be able to educate their children about the dangers of smoking, the dangers of cigarette smoke, and how to avoid cigarette smoke. Efforts to create a smoke-free family require strong commitment, educational processes, parenting styles, and creating a supportive environment (Julianto, 2025).

The results of the study in Table 1 show that the numbers are balanced between adolescents from smoking families and non-smoking families.

Family members who smoke are usually fathers, older siblings, and uncles. The presence of parents who frequently interact with their children enables imitative behavior among family members, especially children. Parents play a primary role in shaping children's behavior. The control function within the family lies with the parents, including guiding friends, setting agreements, and monitoring smoking behavior. Discipline education within the family, involving the roles of both parents, can prevent adolescents from smoking (Yenti et al., 2025). Thus, the role of parental figures or other family members can determine adolescents' smoking behavior. The minimum step that can be taken if smoking behavior within the family cannot be avoided is for family members to at least agree to smoke outside the house, such as on the terrace. Similarly, the community is also expected to raise awareness to protect the health of their families and themselves by not smoking inside the house (Ramdaniati, S.N., 2025).

### **Teenagers' Perceptions of the Dangers of Smoking**

Based on the results of the study, it was found that the majority of respondents had a negative perception of smoking (52.9%). According to Andi Mappiar in (Mayawi, 2019), perception is a single awareness that arises from the process of sensing when a stimulus appears. Direct experiences with smoking, both within and outside the family, can influence perceptions about smoking. Most respondents agreed that smoking can lead to various health risks, such as heart disease, fetal complications, and impotence. However, many also agreed that smoking can enhance inspiration and strengthen social bonds. According to (Tarmizi, 2024), the dangers of smoking, especially among adolescents, can cause respiratory problems such as chronic bronchitis, emphysema, and Chronic Obstructive Pulmonary Disease (COPD). Continuous exposure to cigarette smoke can cause damage to lung tissue and impair lung function. Many experts have also studied the harmful effects on both active and passive smokers.

The Indonesian government is trying to reduce smoking, especially among young people,

by spreading the word about the dangers of smoking. The results in Table 2 show that negative perceptions are greater than positive perceptions. These findings align with those of (Hidayat, T. dan Ibargal, 2021). According to them, the primary factor influencing whether adolescents smoke or not is their self-belief. If adolescents believe that smoking is harmless, it will encourage smoking behavior, and vice versa. Factors such as being attracted to advertisements, peer pressure, or wanting to appear cool are not direct factors leading to smoking behavior.

(Hidayat, T. dan Ibargal, 2021) Also examined smoking based on Friedman's (2003) Health Belief Model theory, which states that one of the main reasons someone engages in harmful health behaviors is due to a strong perception of the health risks associated with such behaviors. If someone believes that smoking threatens their health, they will not try smoking. According to him, this theory has also been adopted by the government to shape perceptions about the dangers of smoking, such as requiring every cigarette pack to include warnings and images about the dangers of smoking. This is stipulated in Government Regulation No. 28 of 2024 regarding the implementation regulations of Law No. 17 of 2023 on health, specifically Article 437, which states that all cigarettes sold in Indonesia must include warnings about the dangers of smoking, in the form of text accompanied by frightening images of the effects of smoking on cigarette packs.

The inclusion of text and images is expected to strengthen public perception of the dangers of smoking in order to reinforce non-smoking behavior. Strengthening perception is part of the initial steps or preventive measures to reduce smoking prevalence. However, these efforts have not yet been able to immediately reduce cigarette consumption. For example, research by (Afria, 2018) shows that respondents did not feel any internal motivation to quit smoking or reduce their cigarette consumption after seeing and reading the warning labels on cigarette packaging. According to (Mahmudah & Mirasari, 2020), who showed that there is a relationship between adolescents' perceptions of smoking and smoking behavior, it is hoped that adolescents, in particular, will improve

their perceptions of smoking so that better behavior is created.

Smoke-Free Areas in Schools, Smoke-Free Areas, or SFAs for short, are part of a program aimed at protecting the public, including teenagers, from the dangers of cigarette smoke, which can adversely affect physical health. According to (Yuwono, 2021), a smoke-free zone (KTR) is a room or area designated as off-limits for the production, sale, advertising, promotion, and use of tobacco products, including healthcare facilities, educational institutions, children's play areas, places of worship, public transportation, workplaces, public spaces, and other designated areas. Some public spaces that have implemented SFZs include hospitals, hotels, schools, and offices to create a healthy, smoke-free environment.

Although SFZs are widely known, it is important to consider the extent of teenagers' perceptions and understanding of them. For example, in schools, students' or teenagers' perceptions of SFZs can influence the success of the program.

Research findings indicate that adolescents' perceptions of KTR in schools are mostly positive, with 69.7% responding that KTR is in place and functioning effectively, while the remaining 30.3% responded that KTR is in place but not yet fully effective. Teenage respondents who stated that KTR in their schools were not fully implemented cited reasons such as students secretly bringing cigarettes, smoking in school areas including restrooms, and such activities not being detected by guidance counselors. Some efforts proposed by teenagers for the effective implementation of KTR in schools include establishing strict rules prohibiting smoking. Effective measures in schools include establishing strict rules prohibiting smoking on school premises, conducting inspections, raising awareness about the dangers of smoking, posting stickers and warnings, and imposing penalties on those who violate the rules.

According to (Liziawati & Ayuningtyas, 2024), many schools do not yet have policies containing technical rules regarding socialization, guidance, supervision, enforcement, and reporting of KTR for field implementers, which has resulted in the suboptimal implementation of KTR in schools.

High school is a level of education attended by teenagers. According to (Arifah, 2022) adolescence is a stage synonymous with self-discovery, during which many aspects of a person undergo change. During this phase, adolescents may struggle when left to their own devices, so they require social support and support from other environments. It can also be said that adolescents are in a phase of identity formation, where the surrounding environment exerts a strong influence. The norms and cultural values that serve as references are those of the group they belong to. The respondents' answers indicate that they understand that schools are smoke-free zones (KTR) and are able to assess whether they are functioning optimally or not. It is hoped that this awareness will strengthen their positive perception of cigarettes and their dangers to health and enable them to benefit from the smoke-free policy. Thus, it is hoped that they will fully support the implementation of smoke-free schools. Strengthening smoke-free schools can also be done by providing guidance to teachers and students and establishing strict regulations on smoking bans in the school environment.

### **The Relationship Between Family Smoking Behavior and Adolescents' Perceptions of Cigarettes**

As described above, there are many factors that cause smoking behavior in adolescents. The results of Table 4 indicate that there is no significant relationship between family smoking behavior and adolescents' perceptions of smoking, with a p-value of 0.360. This study is consistent with the findings of (Hidayat, 2025) who reported that parents' smoking habits do not significantly influence children's knowledge and attitudes toward smoking prevention. The p-value for knowledge is 0.295 and for attitude is 0.590. According to the study, both smoking and non-smoking parents essentially share the same view that smoking is not a good behavior, so they prohibit their children from smoking. On the other hand, there is the belief that adolescents do not yet have an income, so they are prohibited from smoking by their parents.

This study is similar to the research conducted by (Wardiah, R. dan Hasbullah, 2022) which concluded that there is no relationship between the perception of smoke-free zones based on the smoking status of parents. The chi-square test resulted in a p-value of 0.617. According to the study, parents do have an urgent role in shaping behavior within the family. Parents' patterns of action or behavior, including smoking habits, often serve as examples for children. Parents' or family members' smoking behavior at home can influence perceptions or knowledge about smoking. However, the results of this study indicate that there is no significant relationship between family members who smoke and adolescents' perceptions of smoking. This demonstrates that perceptions of smoking are not always influenced by the presence of family members who smoke. Perceptions of cigarettes may also be influenced by other factors. Therefore, even if there are family members who smoke, it does not necessarily mean that adolescents' perceptions of cigarettes automatically align with such habits. Adolescents' perceptions of cigarettes may be influenced by other variables such as health education and external influences that were not studied in this research.

## CONCLUSION AND RECOMMENDATIONS

Research results show a balanced number of family members who smoke and those who do not smoke. More adolescents have a negative perception of the dangers of smoking than those who have a positive perception. The implementation of smoke-free areas in schools is mostly optimal. There is no relationship between family smoking behaviour and adolescents' perceptions of smoking, with a p-value of 0.360. Smoking behaviour within families is still prevalent, even though education about the dangers of smoking can begin in that environment. Adolescents' perceptions of the dangers of smoking can be used as a basis for more effective smoking prevention efforts. The implementation of smoke-free policies in schools demonstrates a real effort to reduce smoking behaviour. Further research is expected to conduct an in-depth analysis to examine the role of parents and families, as well as the role of mass media or

advertising in influencing adolescents' perceptions of smoking.

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