

Factors Related to Student Compliance with the Smoke-Free Area Policy at SMK Negeri 1 Parigi Selatan

Faktor yang Berhubungan dengan Kepatuhan Siswa pada Kebijakan Kawasan Tanpa Rokok di SMK Negeri 1 Parigi Selatan

Muhammad Ryman Napirah*, Vidyanto, Sri Rahmadani

Department of Health Administration and Policy, Faculty of Public Health, Tadulako University, Palu, Indonesia

***Correspondence:**

E-mail/ Phone Number: muhammadrymannapirah.untad@gmail.com/082196219942

Address: Bumi Tadulako Campus, Jl. Soekarno-Hatta No. KM. 9, Tondo Village, Mantikulore District, Palu City, Central Sulawesi, 94148, Indonesia

ABSTRACT

Students can be unpredictable and sometimes do not comply with the No Smoking Area (NSA) policy. At SMK Negeri 1 Parigi Selatan, more than 50 students were found smoking in areas where the NSA has been implemented. This study aims to analyze the factors influencing student compliance with the NSA policy at SMK Negeri 1 Parigi Selatan. The study is quantitative in nature, taking the form of an analytical survey with a cross-sectional approach. The sample consisted of 125 male students selected using a total sampling technique. The data were analyzed using univariate and bivariate Chi-Square tests. The results showed significant relationships between student compliance with the NSA policy and attitudes ($p = 0.001$), facilities and infrastructure ($p = 0.005$), and peers ($p = 0.009$), with 95% confidence intervals (CIs) calculated using SPSS. It is expected that schools will organize education on the benefits of NSA to improve students' positive attitudes, provide educational posters in support of NSA, improve facilities and infrastructure, and hold workshops to enhance peer collaboration on the KTR policy.

Keywords: Student compliance, policy, smoke-free area

ABSTRAK

Siswa terkadang masih labil dan tidak patuh pada kebijakan Kawasan Tanpa Rokok (KTR). Ditemukan lebih dari 50 siswa perokok di SMK Negeri 1 Parigi Selatan melakukan kegiatan merokok di lingkungan sekolah yang telah menerapkan KTR. Penelitian ini bertujuan menganalisis faktor yang berhubungan dengan kepatuhan siswa terhadap kebijakan KTR di SMK Negeri 1 Parigi Selatan. Penelitian ini merupakan penelitian kuantitatif berupa survey analitik dengan pendekatan cross sectional. Sampel berjumlah 125 orang siswa laki-laki dengan teknik pengambilan sampel total sampling. Data dianalisis secara univariat dan bivariat menggunakan uji Chi-Square. Hasil penelitian menunjukkan ada hubungan antara sikap ($p = 0,001$), sarana dan prasarana ($p = 0,005$), serta teman sebaya ($p = 0,009$) dengan kepatuhan siswa pada kebijakan KTR di SMK Negeri 1 Parigi Selatan dengan SPSS pada CI 95%. Diharapkan sekolah melakukan penyelenggaraan edukasi manfaat KTR untuk meningkatkan sikap positif siswa, menyediakan poster edukatif penunjang sarana prasarana KTR, serta mengadakan workshop untuk meningkatkan kolaborasi teman sebaya pada kebijakan KTR.

Kata Kunci: Kepatuhan siswa, kebijakan, kawasan tanpa rokok

Article Info:

Received: 11 April 2026 | Revised form: 16 April 2026 | Accepted: 29 May 2026 | Published online: June 2026



INTRODUCTION

Non-compliance in Smoke-Free Zones (SFZs) occurs due to psychological, social, environmental, and policy factors. Based on behavioral theories such as the Theory of Planned Behavior, Social Learning Theory, the Health Belief Model, and Social Ecological Theory, smoking behavior among students is shaped through the interaction between individual attitudes, peer influence, environmental examples, and weak policy implementation. Therefore, efforts to improve compliance with SFZs must be comprehensive, utilizing health education approaches, strengthening social norms, and consistently enforcing school policies.¹

A World Health Organization (WHO) report highlights the significant progress made by various countries in implementing health policies to combat the tobacco epidemic, which claims 8.7 million lives annually, including 1.3 million non-tobacco users, with women and children being particularly vulnerable to secondhand smoke exposure.¹

In 2023, the Central Statistics Agency (BPS) reported that 28.62% of the Indonesian population aged 15 and older were smokers, indicating increased public awareness and thus requiring enhanced tobacco control measures and effective prevention strategies to reduce health risks associated with smoking.²

According to the 2023 Indonesia Health Survey (SKI), the prevalence of smokers aged 10–18 years by province shows that Central Sulawesi Province has a rate of daily and occasional smokers of 9.3%.³

In Parigi Moutong Regency, the prevalence

of adolescent smokers is very high, with daily smokers reaching 30.6% and occasional smokers reaching 4.00%, making this regency the highest among the 13 regencies in Central Sulawesi.⁴

Research at high schools in South Parigi Regency revealed that at SMK GPID Sumbersari, approximately 10% of students and 4 teachers are active smokers, while at MAS Nurul Amanah Dolago, 15% of students and 1 teacher smoke; however, these figures may underestimate the actual prevalence of smoking among students that goes unobserved within the school environment.

The prevalence of smoking students attending SMK Negeri 1 Parigi Selatan, ranging from 10th to 12th grade across 5 departments, was recorded at over 50 students. This was determined through a field survey conducted by the researcher, as well as interviews with the vice principal for curriculum and several students at the school.

Student compliance with the Smoke-Free Zone policy is influenced by internal and external factors. A positive attitude toward the dangers of smoking will increase student compliance with the Smoke-Free Zone policy. Supporting facilities and infrastructure create a school environment conducive to the implementation of the Smoke-Free Zone policy. Meanwhile, peers exert a strong social influence in shaping student behavior, whether toward compliance or violation. Therefore, improving compliance with the SFZ requires attitude education, the provision of supporting facilities, and the creation of a healthy social environment at school.³

A preliminary study conducted at SMK Negeri 1 Parigi Selatan revealed that approximately



20% of students are active smokers, although many may smoke outside of school. The school has established a smoking ban policy in accordance with local regulations, yet violations persist due to indifference among students and inadequate enforcement by stakeholders. Additionally, the accessibility of smoking areas such as the nearby cafeteria and kiosks selling cigarettes, along with peer influence, exacerbates non-compliance with the smoke-free policy.

Based on the data obtained, gaps were identified regarding students' negative attitudes, inadequate facilities and infrastructure, and the negative influence of peers regarding smoking behavior, which may affect the suboptimal level of student compliance with the Smoke-Free Zone (SFZ) policy.

Given the context of the issues mentioned above, this study aims to analyze the factors associated with student compliance with the Smoke-Free Zone policy at SMK Negeri 1 Parigi Selatan.

MATERIALS AND METHODS

This study is a quantitative study in the form of an analytical survey using a cross-sectional approach. A structured interview questionnaire was used to analyze the relationship between the dependent and independent variables. The independent variables were attitude, facilities and infrastructure, and peers, while the dependent variable was student compliance with the smoke-free policy. Variables were measured using questionnaire items on a Likert and Guttman scale. Validity and reliability tests were conducted on the

questionnaire, and research ethics were observed. This study was conducted in May–June 2024 at SMK Negeri 1 Parigi Selatan.

The study population and sample consisted of 125 male students from SMK Negeri 1 Parigi Selatan, using total sampling. Male students were selected because the study focused solely on the hypothesis of non-compliance with the KTR policy among male students, excluding female students. All male students met the criteria for inclusion in the sample. The inclusion criteria were male respondents enrolled at SMK Negeri 1 Parigi Selatan who were willing to participate, while the exclusion criteria were non-male respondents, specifically female students. Data collection involved both primary and secondary data. The data were processed and analyzed using SPSS with univariate and bivariate analyses, employing the Chi-Square test at a significance level of 0.05. The results are presented in tabular format to facilitate interpretation and the derivation of conclusions

RESULTS

The results of the univariate analysis were used to describe the frequency and percentage of each variable. The results of the univariate analysis are tabulated as follows:

Table 1 shows that of the 125 respondents, by major, 6 students (4.8%) were from the nursing assistant major, 18 students (14.4%) were from the office administration major, 23 students (18.4%) were from the agriculture major, 28 students (22.4%) were from the animal husbandry major, and 50 students (40.0%) were from the TBSM major.



Table 1. Distribution of Respondent Characteristics at SMK Negeri 1 South Parigi

| Respondent Characteristics | n | % |
|--------------------------------------|------------|------------|
| Majors | | |
| Nursing Assistant | 6 | 4,8 |
| Perkantoran | 18 | 14,4 |
| Agriculture | 23 | 18,4 |
| Farm | 28 | 22,4 |
| TBSM | 50 | 40,0 |
| Student Compliance | | |
| Non-compliant | 104 | 83,2 |
| Obedient | 21 | 16,8 |
| Attitude | | |
| Not Good | 78 | 62,4 |
| Good | 47 | 37,6 |
| Facilities and Infrastructure | | |
| Not Available | 73 | 58,4 |
| Available | 52 | 41,6 |
| Peers | | |
| Not Good | 91 | 72,8 |
| Good | 34 | 27,2 |
| Quantity | 125 | 100 |

Source: Primary Data, 2024

It was revealed that the largest number of students came from the TBSM program and the smallest number from the nursing assistant program. This indicates that the TBSM program has a larger student population or representation compared to other programs at the school. This finding is important because differences in program backgrounds have the potential to influence students' knowledge, attitudes, health behaviors, and compliance with school policies. Therefore, education and monitoring programs related to the smoke-free school policy should be tailored to the characteristics of each department so that interventions are more effective and targeted.

Based on student compliance, 104 students (83.2%) were non-compliant, while 21 students (16.8%) were compliant. It was found that more

students were non-compliant than compliant. These results indicate that the level of student compliance with the implementation of the KTR policy at the school remains very low. Consequently, efforts to improve student compliance with the KTR policy must be undertaken comprehensively through educational, social, and policy-based approaches to reduce non-compliant behavior.

Based on attitude, 78 students (62.4%) had a negative attitude, while 47 students (37.6%) had a positive attitude. It was revealed that more students exhibited poor attitudes than good ones. These results indicate that the majority of students do not yet hold positive views, assessments, or acceptance of the implementation of the KTR policy at school. With increased understanding and a shift in students' attitudes toward a more positive direction, it is hoped that compliance with the KTR policy will improve.

Regarding facilities and infrastructure, 73 students (58.4%) stated they were unavailable, while 52 students (41.6%) stated they were available. It was found that more students reported that facilities and infrastructure were unavailable compared to those who reported they were available. These results indicate that supporting facilities for implementing the KTR policy at school are still inadequate, according to the perception of the majority of students. With the availability of adequate facilities and infrastructure, it is hoped that students' awareness of and compliance with the KTR policy can increase optimally.

Regarding peers, 91 students (72.8%) reported having peers who were not supportive,



while 34 students (27.2%) reported having supportive peers. It was found that more students

had peers who were not supportive compared to those who were supportive.

Table 2. The Relationship between Attitudes and Student Compliance with the No Smoking Area Policy at SMK Negeri 1 Parigi Selatan

| Attitude | Student Compliance | | | | Quantity | | p-value |
|-----------------|--------------------|-------------|-----------|-------------|------------|------------|---------|
| | Non-compliant | | Obedient | | n | % | |
| | n | % | n | % | | | |
| Not Good | 72 | 92,3 | 6 | 7,7 | 78 | 62,4 | 0,001 |
| Good | 32 | 68,1 | 15 | 31,9 | 47 | 37,6 | |
| Quantity | 104 | 83,2 | 21 | 16,8 | 125 | 100 | |

Source: Primary Data, 2024

Table 3. The Relationship between Facilities and Infrastructure with Student Compliance with the No Smoking Area Policy at SMK Negeri 1 South Parigi

| Facilities and Infrastructure | Student Compliance | | | | Quantity | | p-value |
|-------------------------------|--------------------|-------------|-----------|-------------|------------|------------|---------|
| | Non-compliant | | Obedient | | n | % | |
| | n | % | n | % | | | |
| Not Available | 67 | 91,8 | 6 | 8,2 | 73 | 58,4 | 0,005 |
| Available | 37 | 71,2 | 15 | 28,8 | 52 | 41,6 | |
| Quantity | 104 | 83,2 | 21 | 16,8 | 125 | 100 | |

Source: Primary Data, 2024

Table 4. Peer Relations with Student Compliance with the No Smoking Area Policy at SMK Negeri 1 Parigi Selatan

| Peers | Student Compliance | | | | Quantity | | p-value |
|-----------------|--------------------|-------------|-----------|-------------|------------|------------|---------|
| | Non-compliant | | Obedient | | n | % | |
| | n | % | n | % | | | |
| Not Good | 71 | 78,0 | 20 | 22,0 | 91 | 72,8 | 0,009 |
| Good | 33 | 97,1 | 1 | 2,9 | 34 | 27,2 | |
| Quantity | 104 | 83,2 | 21 | 16,8 | 125 | 100 | |

Source: Primary Data, 2024

Table 2 shows that among respondents with a negative attitude, the majority were non-compliant (72 students, or 92.3%) compared to those who were compliant (6 students, or 7.7%). Similarly, among respondents with a positive attitude, the majority were non-compliant (32 students, or 68.1%) compared to those who were compliant (15 students, or 31.9%). The results of the Chi-Square test indicate a significant association between attitude and student compliance with the Smoke-Free Zone policy at

SMK Negeri 1 Parigi Selatan, with $p = 0.001$ ($p < 0.05$) and a 95% confidence interval.

Table 3 shows that among respondents who stated that facilities and infrastructure were not available, the majority were non-compliant (67 students, or 91.8%) compared to those who were compliant (6 students, or 8.2%). Similarly, among respondents who stated that facilities and infrastructure were available, the majority were non-compliant (37 students, 71.2%) compared to those who were compliant (15 students, 28.8%).



The results of the Chi-Square test indicate a significant association between the availability of facilities and infrastructure and student compliance with the Smoke-Free Zone policy at SMK Negeri 1 Parigi Selatan, with $p = 0.005$ ($p < 0.05$) and a 95% confidence interval.

Table 4 shows that among respondents with poor peer relationships, the majority were non-compliant (71 students, or 78.0%) compared to those who were compliant (20 students, or 22.0%).

DISCUSSION

An attitude is a person's evaluation of an object or stimulus that shapes an individual's behavior. Attitudes can determine a person's behavior, including their response to smoke-free zone regulations. A negative attitude means rejecting or disagreeing with the norms in effect where the individual is located. Conversely, a positive attitude means accepting the norms in effect where the individual is located.⁵

Students' lack of attention to the no-smoking stickers indicates that they view the stickers as ineffective in conveying the anti-smoking message or as irrelevant to their behavior. This may be due to several factors, such as unattractive sticker design or unclear messaging that makes them easy to ignore. Additionally, students may feel the message is irrelevant to their lives, especially if they do not see real-world examples in their surroundings that support a healthy lifestyle. A lack of education about the dangers of smoking is also a major contributing factor, as without sufficient understanding, students tend to view the ban as unimportant. Peer influence also plays a significant

Similarly, among respondents with good peer relationships, the majority were non-compliant (33 students, or 97.1%) compared to those who were compliant (1 student, or 2.9%). The results of the Chi-Square test indicate a significant association between peer relationships and student compliance with the Smoke-Free Zone policy at SMK Negeri 1 Parigi Selatan, with $p = 0.009$ ($p < 0.05$) and a 95% confidence interval.

role; a social environment that is permissive toward smoking behavior can lead students to disregard the message on the stickers. Therefore, a more creative and relevant alternative approach is needed, such as social media campaigns, educational videos, or interactive activities that directly involve students. In this way, the anti-smoking message can be conveyed in a more engaging and effective manner, thereby changing students' attitudes toward smoking behavior. The placement of anti-smoking stickers or signs is one effort in implementing smoke-free zone policies within the school environment.⁶ The students' lack of interest in smoke-free zone (SFZ) informational media such as stickers suggests that the effectiveness of SFZ awareness campaigns depends on various factors, including students' attitudes which can fluctuate because attitudes are learned and can change in individuals under specific circumstances that facilitate such changes.⁷

Students' indifference toward others violations of the smoke-free zone policy indicates a lack of social responsibility regarding the enforcement of the smoke-free zone policy within the school environment. Although students comply



with the smoking ban for themselves, they do not feel obligated to remind or reprimand others who violate the rules of the smoke-free zone policy.⁸

Students who support the smoke-free policy and know that smoking is harmful may still engage in smoking within the school environment because they find it difficult to resist the temptation when gathering with friends who are also smoking in the school area. A positive attitude does not guarantee full compliance, as human behavior is influenced by various complex, interacting factors, including self-belief, environment, and habits. This occurs because an attitude is a latent reaction or response from an individual to a stimulus.⁹

Students who exhibit good behavior and comply with the school's smoke-free zone policy are typically influenced by an awareness of the health risks of smoking, both for themselves and others. Students who express a willingness to participate in and support awareness campaigns on the dangers of smoking and report violations to the guidance counselor demonstrate active support and a strong sense of responsibility toward the implementation of the smoke-free school policy. This indicates that students not only hold a positive attitude toward the smoke-free school policy but are also willing to make tangible contributions to creating a healthy, smoke-free school environment. Effective implementation of the smoke-free zone policy depends not only on individual awareness of the dangers of smoking but also on active support from the school. Students' positive attitudes and school support create a strong synergy, enabling the school to achieve a high level of compliance with the smoke-free zone policy.⁹

Thus, it can be concluded that there is a relationship between students' attitudes and their compliance with the smoke-free zone policy at SMK Negeri 1 Parigi Selatan. This is because many students still feel that posting stickers is not very useful, as they perceive it as irrelevant to their attitudes.

This is supported by the Theory of Planned Behavior (TPB), which explains that behavior is influenced by three main factors: attitude, perceived social norms, and perceived behavioral control. Students may have a neutral attitude or feel indifferent toward violations, but they still comply because of the perception that others expect them to comply and because of their behavioral control—such as their belief that they are capable of refraining from smoking in a school environment that encourages them to do so.⁸

This situation indicates that students' attitudes are a key factor influencing compliance with the smoking ban in the school environment. One finding suggests that many students still feel that posting "no smoking" stickers is not very effective because they perceive them as irrelevant to their attitudes and habits. This phenomenon can be systematically analyzed using Icek Ajzen's Theory of Planned Behavior (TPB). According to TPB, a person's behavior is influenced by behavioral intention, while intention is formed through three main components: attitude toward behavior, subjective norm, and perceived behavioral control. In other words, negative attitudes cause students to fail to see the benefits of compliance, peer norms reinforce smoking behavior, and weak school control makes violations



seem easy to commit. These three components interact with one another, resulting in low levels of student compliance with the smoke-free zone policy.⁸

This study aligns with research conducted in Banjarmasin, which found a significant relationship between attitude and smoking habits that lead to violations of the smoke-free zone policy at school.¹⁰ It is also consistent with research by Pangulimang (2016), which showed that attitudes had a p-value of 0.005, indicating a relationship between attitudes and smoke-free zone policies among students at State High School 1 Tangulandang Biaro.¹¹ It is also consistent with research by Kendrich & Bintang (2023), which stated that the obtained p-value was smaller than the alpha level, i.e., $p = 0.001 < 0.05$. In this case, it can be concluded that there is a significant relationship between attitude and compliance with smoke-free zone policies.¹²

This is inconsistent with the study conducted at State High School 9 Banjarmasin, which stated that the Chi-Square statistical test results used Continuity Correction to draw conclusions in this study. The test result yielded $p = 0.683 (> 0.05)$, leading to the conclusion that the null hypothesis is accepted, meaning there is no relationship between attitude and the effectiveness of the smoke-free zone.¹³

The facilities and infrastructure available at a school are undoubtedly the most important factors that must be ensured. The quality of a school can be assessed based on the completeness and availability of its facilities and infrastructure, as facilities and infrastructure that are fully available and in good

condition will greatly support the learning process, both academic and non-academic. Facilities and infrastructure at schools can also influence student behavior, including smoking behavior. Facilities such as designated smoking areas facilitate students' ability to smoke, while a lack of supervision allows students to engage in smoking activities. Existing facilities and infrastructure can contribute to students' non-compliance with the school's smoke-free zone policy.¹⁴

The tendency of students to smoke in areas rarely monitored by teachers indicates that a lack of supervision and control is a key factor in non-compliance with the smoke-free zone policy. Without adequate supervision, students are more likely to feel free to violate the rules. This aligns with environmental theory, which emphasizes that both the physical and social environment can influence individual behavior. In this context, a school environment that does not support the implementation of smoke-free zones—such as one with weak supervision—creates opportunities for students to violate the rules, regardless of their knowledge or attitudes toward smoke-free zones. Without adequate facilities and infrastructure, smoke-free zone policies will be difficult to enforce. The importance of school support and policy implementation in creating an environment compliant with the smoke-free zone policy means that the availability of adequate facilities and infrastructure can be part of the school's support for the policy.¹⁵

Whether or not no-smoking signs are present on school premises, students remain compliant with the smoke-free policy. This means compliance does



not solely depend on the availability of physical facilities and infrastructure, but also on students' level of awareness and understanding of the smoke-free policy. Even if facilities and infrastructure are inadequate, students still comply with smoke-free zone policies due to several factors, including a positive attitude toward smoke-free zones, students' knowledge of the dangers of smoking and smoke-free zone policies, students' awareness, and school support, which are also crucial in enhancing compliance.¹⁶

Even if facilities and infrastructure for smoking are available, students with a high level of awareness regarding the negative health impacts of smoking are more likely to comply with smoke-free zone policies. Although smoking prevalence exists among students, those with positive attitudes and good knowledge of smoke-free zone policies demonstrate higher compliance. This underscores that awareness of the negative health impacts of smoking plays a crucial role in adhering to these rules.¹⁷

Facilities and infrastructure are important supporting factors; comprehensive implementation of smoke-free zones, including outreach and enforcement of rules, is necessary to enhance the effectiveness of the smoke-free zone program in schools.¹⁸

Thus, it can be concluded that there is a relationship between facilities and infrastructure and student compliance with the smoke-free zone policy at SMK Negeri 1 Parigi Selatan. This is because adequate facilities and infrastructure are among the factors supporting the implementation of the smoke-free policy at the school. The facilities

and infrastructure in question can include no-smoking stickers, reinforcing regulations, and restricting areas that might serve as places for students to smoke.

This is supported by Environmental and Behavioral Theory, which states that the physical environment, including facilities and infrastructure, can influence individual behavior. In the context of the smoke-free policy, supportive facilities such as smoke-free zones can increase student compliance with the smoke-free policy.¹⁹

These results indicate that the availability of supporting facilities plays a significant role in shaping students' compliance with school smoking bans. The facilities and infrastructure in question include the posting of no-smoking stickers, the enforcement of school regulations, and surveillance of areas where students are likely to smoke. These findings can be systematically analyzed using environmental and behavioral theories, particularly Social Ecological Theory and the concept of the relationship between the environment and health behaviors. This theory explains that an individual's behavior is influenced not only by personal factors but also by the physical, social, institutional, and policy environments surrounding them. This means that when the school environment provides strong supportive facilities, compliant behavior is easier to establish; however, when facilities and infrastructure are inadequate, students are more likely to violate rules because there is no environmental reinforcement for healthy behavior. This condition demonstrates that the presence of no-smoking stickers, monitoring of high-risk areas, and enforcement of rules are not merely



administrative symbols but integral components of a systematic strategy for shaping student behavior.¹⁹

This study aligns with research conducted at Sinar Husni High School in Deli Serdang Regency, which found that the Chi-Square test yielded a p-value of 0.021, which is less than 0.05; thus, the hypothesis is accepted, and it can be concluded that there is a relationship between facilities and infrastructure and smoking behavior that promotes student compliance with smoke-free zone policies.²⁰ It is also consistent with research conducted at State High School 2 in Garut Regency, which stated that the p-value was 0.044 (< 0.05), meaning that a relationship exists between facilities and infrastructure and smoking behavior, which encourages student compliance with smoke-free zone policies.²¹ Similarly, a study conducted in Madiun Regency reported a p-value of 0.001 (< 0.05), thus indicating a relationship between facilities and infrastructure and compliance with smoke-free zone policies.²²

This finding is inconsistent with the study by Artanti (2024), which stated that facilities and infrastructure are not associated with smoking behavior that leads students to engage in smoking, as indicated by a Chi-Square test p-value of 0.399 > 0.05 .²³

Peers are people of the same age and background as ourselves. They are friends encountered at school, in the neighborhood, or in other places. Peers can provide us with emotional support, assistance, and useful advice. However, it is important to remember that peers can also have a negative influence. They may encourage us to

engage in harmful behaviors. Peer conformity is a form of social influence among adolescents within a group where all members follow the group's norms or rules to avoid being criticized, belittled, or mocked by other group members. To protect themselves and be accepted within a group, adolescents tend to avoid conflict and stay within their comfort zone, leading them to conform.²⁴

These results indicate that the availability of supporting facilities plays a significant role in shaping students' compliance with school smoking bans. The facilities and infrastructure in question include the posting of no-smoking stickers, the enforcement of school regulations, and surveillance of areas where students are likely to smoke. These findings can be systematically analyzed using environmental and behavioral theories, particularly Social Ecological Theory and the concept of the relationship between the environment and health behaviors. This theory explains that an individual's behavior is influenced not only by personal factors but also by the physical, social, institutional, and policy environments surrounding them. This means that when the school environment provides strong supportive facilities, compliant behavior is easier to establish; however, when facilities and infrastructure are inadequate, students are more likely to violate rules because there is no environmental reinforcement for healthy behavior. This condition demonstrates that the presence of no-smoking stickers, monitoring of high-risk areas, and enforcement of rules are not merely administrative symbols but integral components of a systematic strategy for shaping student behavior.¹⁹



This study aligns with research conducted at Sinar Husni High School in Deli Serdang Regency, which found that the Chi-Square test yielded a p-value of 0.021, which is less than 0.05; thus, the hypothesis is accepted, and it can be concluded that there is a relationship between facilities and infrastructure and smoking behavior that promotes student compliance with smoke-free zone policies.²⁰

It is also consistent with research conducted at State High School 2 in Garut Regency, which stated that the p-value was 0.044 (< 0.05), meaning that a relationship exists between facilities and infrastructure and smoking behavior, which encourages student compliance with smoke-free zone policies.²¹

Similarly, a study conducted in Madiun Regency reported a p-value of 0.001 (< 0.05), thus indicating a relationship between facilities and infrastructure and compliance with smoke-free zone policies.²²

This finding is inconsistent with the study by Artanti (2024), which stated that facilities and infrastructure are not associated with smoking behavior that leads students to engage in smoking, as indicated by a Chi-Square test p-value of 0.399 > 0.05 .²³

Peers are people of the same age and background as ourselves. They are friends encountered at school, in the neighborhood, or in other places. Peers can provide us with emotional support, assistance, and useful advice. However, it is important to remember that peers can also have a negative influence. They may encourage us to engage in harmful behaviors. Peer conformity is a

form of social influence among adolescents within a group where all members follow the group's norms or rules to avoid being criticized, belittled, or mocked by other group members. To protect themselves and be accepted within a group, adolescents tend to avoid conflict and stay within their comfort zone, leading them to conform.²⁴

This study is consistent with research showing a relationship between the influence of peers and compliance with smoke-free zone policies in vocational high schools.²⁶

It is also consistent with a study conducted at Sinar Husni High School in Deli Serdang Regency, which stated that the results of the Chi-Square statistical test yielded a p-value of 0.000, which is less than 0.05; therefore, the hypothesis was accepted, and it can be concluded that there is a relationship between peer influence and smoking behavior that encourages student compliance with smoke-free zone policies.²⁰ Similarly, a study by Cai et al. (2015) conducted at junior high schools, senior high schools, and vocational schools in Shanghai, China, reported a p-value of 0.001 (< 0.05), indicating a significant relationship between peer influence and smoking behavior that leads to compliance with smoke-free zone policies.²⁹

This finding is inconsistent with the study by Wangi (2020), which reported that, based on statistical tests using the Chi-Square test, there was no association between peers and student compliance with smoke-free zone policies, yielding a p-value of 0.146. The p-value of 0.146 is greater than 0.05.³⁰

A limitation of this study is that it focuses only on the variables of attitude, facilities,



infrastructure, and peers in relation to student compliance with the smoke-free zone policy, without examining other variables. The possibility of bias may also exist. Self-report bias occurs because respondents' answers may not align with actual conditions, while social desirability bias occurs because respondents tend to provide answers considered socially acceptable. Furthermore, while a cross-sectional design has the advantage of quickly and efficiently illustrating relationships between variables, it has limitations in determining causal relationships. Since variables are measured simultaneously, the study cannot confirm whether a particular factor is truly the cause of a specific behavior. Another limitation is that the study sample consisted solely of male students. This means the findings cannot fully represent the behavior of all students in the school, particularly female students. This limitation may affect the generalizability of the study's results, as behavioral characteristics, attitudes, and social influences may differ between males and females.

CONCLUSIONS AND SUGGESTIONS

Based on the research findings and discussion, it can be concluded that attitudes, facilities and infrastructure, and peers are key determinants of student compliance with the smoke-free policy.

As a recommendation regarding attitudes, it is suggested that schools take strategic steps to foster positive student attitudes toward this policy, such as implementing in-depth educational programs on the dangers of smoking and the benefits of the smoke-free policy. Additionally,

regarding facilities and infrastructure, it is recommended that schools create an environment supportive of the smoke-free policy, such as tightening supervision of students to prevent violations, providing informational boards or educational posters, and providing counseling rooms where students can seek support and information regarding smoking habits and methods to quit. Furthermore, regarding peers, it is recommended that schools facilitate the formation of student groups or communities focused on promoting a healthy, smoke-free lifestyle, such as organizing group discussions, seminars, or workshops, where students can share experiences and support one another in rejecting smoking.

ACKNOWLEDGMENTS

We extend our deepest gratitude to all parties who contributed to this study, especially SMK Negeri 1 Parigi Selatan.

CONFLICT OF INTEREST

The data published in this manuscript do not give rise to a conflict of interest with any party.

REFERENCES

1. WHO. World Health Organization report on the global tobacco epidemic 2023: protect people from tobacco smoke. 2023. World Health Organization.
2. BPS. Presentasi Merokok pada Penduduk Menurut Daerah Tempat Tinggal. 2023. Badan Pusat Statistik.
3. Kemenkes RI. Survei Kesehatan Indonesia:



- prevalensi perokok usia 10-18 tahun per provinsi. 2023. Kementerian Kesehatan Republik Indonesia.
4. Dinkes Kabupaten Parigi Moutong. Profil Kesehatan Kabupaten Parigi Moutong. 2023. Dinas Kesehatan Kabupaten Parigi Moutong.
 5. Bintoro, A. C. Faktor-faktor yang Berhubungan dengan Perilaku Merokok di Kawasan Tanpa Rokok (KTR). *Jurnal Ilmu Kesehatan Masyarakat (JIKM)*. 2022. UPN Veteran Jakarta.
 6. Ruhyat, E., Fatmi, E., Aldino, P. Penerapan Kawasan Tanpa Rokok (KTR) di Kota Bandung tahun 2016. *Jurnal Sehat Masada*. 2016;11(1):64-72.
 7. Firgiwan, F. Studi tentang pemahaman dan sikap terhadap kawasan tanpa rokok di Universitas Halu Oleo Kendari tahun 2015. Skripsi. Universitas Halu Oleo. Kendari. 2016.
 8. Hartoni, I. G. P. O., & Riana, I. G. Sikap, norma subjektif, dan kontrol perilaku pada implementasi keselamatan kerja: Dampaknya terhadap intention to comply (Studi pada pekerja kontraktor PT. Utama Karya Kantor Wilayah IV Bali, NTB, NTT). *E Jurnal Ekonomi dan Bisnis Universitas Udayana*. 2015;4(4):243-264.
 9. Primasari, S. I., Listina, F. Faktor-faktor yang Berhubungan dengan Kepatuhan dalam Penerapan Kawasan Tanpa Rokok di Lingkungan Puskesmas Candipuro Kabupaten Lampung Selatan. *Jurnal Ilmu Kesehatan Indonesia (JIKSI)*. 2021;2(2):87-93.
 10. Surya, Aquarista. Hubungan Pengetahuan, Sikap dan Persepsi Siswa Terhadap Kawasan Tanpa Rokok (KTR) Dengan Kebiasaan Merokok pada Pelajar SMKN 2 Banjarmasin Tahun 2020. Dissertation. Universitas Kalimantan Islam MAB. Banjarmasin. 2020.
 11. Pangulimang, I. Perilaku Pelajar Tentang Kebijakan Kawasan Tanpa Rokok di SMA Negeri 1 Siau Timur, Kabupaten Kepulauan Siau Tagulandang Biaro. Skripsi. Universitas Sam Ratulangi. Manado. 2016.
 12. Kendrich, I., Bintang, Y. M. S. Knowledge, Attitude, and Behavior Toward Smoking Among Medical Students In Universitas Sumatera Utara. *The Indonesian Journal*. 2023;18(1):1-10
 13. Humaerah, H. Faktor-faktor yang Berhubungan dengan Efektifitas Area Kawasan Tanpa Rokok (KTR) di Sekolah Menengah Atas Negeri (SMAN) 9 Banjarmasin. Skripsi. Universitas Jambi. Jambi. 2020.
 14. Sutisna, N. W., & Effane, A. Fungsi manajemen sarana dan prasarana. *Karimah Tauhid*. 2022;1(2):226-233.
 15. Rezer, Yuni D. Kepatuhan Perilaku Merokok Terhadap Kebijakan Kawasan Tanpa Rokok di SMA/MA Negeri di Kota Jambi. Skripsi. Universitas Jambi. Jambi. 2024.
 16. Wiyani, S. R., Meita V., Rina K. F., Nia M. Tingkat Kepatuhan Siswa SMA Terhadap Perda KTR: Studi Komparasi di SMA Triguna dan SMAN 4 Kota Tangerang Selatan Tahun 2023. *Jurnal Pendidikan Kesehatan*. 2023;3(1):88-94.
 17. Liziawati, M., Ayuningtyas, D. Implementasi Kawasan Tanpa Rokok Tatanan Sekolah di

- Indonesia. *Jurnal Review Pendidikan dan Pengajaran*. 2024;7(4):17040-17052.
18. Nurhakim, Ahmad S. Implementasi Pasal 7 Huruf A Peraturan Daerah Kabupaten Purwakarta Nomor 9 Tahun 2019 tentang Kawasan Tanpa Rokok di Sekolah Menengah Kejuruan Bina Taruna Purwakarta: Studi Kasus di Sekolah Menengah Kejuruan Bina Taruna Purwakarta. Skripsi. Universitas Islam Negeri Sunan Gunung Djati. Bandung. 2023.
 19. Gifford, R. & Nelson, A. Personal and social factors that influence pro-environmental concern and behavior: A review. *International Journal of Psychology*. 2014;49(3):141-157.
 20. Utari, A. D. & Nuraini. Faktor yang Mempengaruhi Perilaku Merokok Remaja di SMA Sinar Husni Kabupaten Deliserdang Tahun 2019. *Excellent Midwifery Journal*. 2020;3(1):1-10.
 21. Amira, I., Hendrawati H., & Senjaya S. Faktor-faktor yang Berhubungan dengan Perilaku Merokok pada Siswa SMAN 2 Garut. *Jurnal Keperawatan BSI*. 2019;7(1):1-10.
 22. Marchel, Y. A., Indraswari R., & Handayani N. Implementasi Kawasan Tanpa Rokok Sebagai Pencegahan Merokok pada Remaja Awal. *Journal Promkes*. 2019;7(2):144-155.
 23. Artanti, K. D. The Influence of Social Environment and Facility Support on Smoking in Adolescent Males in Indonesia. *Journal of Public Health Research*. 2024;3(1):1-6.
 24. Meilani, K., & Tobing, D. H. Dampak Konformitas Teman Sebaya pada Remaja: Systematic Review. *Innovative: Journal of Social Science Research*. 2023;3(5):2544-2559.
 25. Hidayati, N., Arianto, D. Pengaruh Orang Tua, Keluarga, dan Lingkungan Sosial terhadap Perilaku Merokok Remaja. *Jurnal Ekonomi Kependudukan dan Keluarga*, 2024;1(2):99-111.
 26. Hutapea, C. E., Rumayar, A. A., & Maramis, F. R. Hubungan antara Pengetahuan dan Sikap dengan Tindakan terhadap Kebijakan Kawasan Tanpa Rokok pada Siswa di SMP Kristen Tateli. *E-Journal Unsrat Kesmas*. 2017;6(3):1-13.
 27. Mahrani, A., Tahara, D. S., Putri, A. Faktor-faktor yang Berhubungan dengan Kepatuhan Mahasiswa untuk Tidak Merokok di Kawasan Tanpa Rokok (KTR) Universitas Muhammadiyah Aceh. *Jurnal Kesehatan Tambusai*. 2024;5(3):8886-8878.
 28. Urberg, K. A., Tolson, G. C., & Degirmencioglu, S. M. A two-stage model of peer influence in adolescent substance use: Individual and relationship-specific differences in susceptibility to influence. *Addictive Behaviors*. 2003;28(7):1243-1256.
 29. Cai, Y., Li, R., Zhu, J., Na, L., He, Y., Redmon, P., Qiao, Y., Ma, J. (2015). Personality, perceived environment, and behavior systems related to future smoking intentions among youths: an application of problem-behavior theory in Shanghai, China. *PLOS ONE*, 10(3), e0122276.
 30. Wangi, A. S. Hubungan Pengetahuan, Sikap dan Teman Sebaya dengan Kepatuhan Terhadap Perda KTR pada Mahasiswa



Fakultas Hukum Universitas Islam
Kalimantan Muhammad Arsyad Al Banjari
Banjarmasin Tahun 2020. Dissertation.

Universitas Islam Kalimantan MAB.
Banjarmasin. 2020.

