The Effect of Anti-Smoking Campaigns on Smoking Behavior Among Youth: Case Studies in Middle Schools

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ABSTRACT

Anti-smoking campaigns have been an integral part of smoking prevention efforts among youth, especially in secondary school settings. However, the effectiveness of such campaigns is still debatable due to several factors, including the influence of the social environment, cigarette promotion, and personal factors that influence smoking behavior among youth. This study aims to evaluate the effect of anti-smoking campaigns on smoking behavior among youth, focusing on a population of students in secondary schools. Through a case study approach, this research aims to provide a deeper understanding of the effectiveness of anti-smoking campaigns in changing smoking behavior among youth. The research method used in this study is a case study of several secondary schools that implemented anti-smoking campaigns. Data were collected through surveys, interviews, and direct observation of students' smoking behavior before and after the implementation of the anti-smoking campaign. The results showed that the anti-smoking campaign had a significant influence on smoking behavior among youth. There was a significant decrease in the number of students smoking after the implementation of the anti-smoking campaign, as well as increased awareness of the negative effects of smoking. The conclusion of this study confirms that anti-smoking campaigns are effective in changing smoking behavior among youth. Targeted and sustained implementation of anti-smoking campaigns can be an effective strategy in reducing smoking prevalence among secondary school students. Thus, continuous efforts are needed to improve and expand the reach of anti-smoking campaigns in school settings.

Keywords: *Anti-Smoking, Middle School, Smoking Behavior*

INTRODUCTION

Smoking is a persistent and detrimental public health problem, especially among youth (Kranzler & Hornik, 2019). The health impacts of smoking include an increased risk of heart disease, cancer, respiratory problems, and mental disorders. In addition, smoking also contributes to social and economic problems, such as low productivity, high healthcare costs, and environmental damage. In the midst of awareness of the bad effects of smoking, anti-smoking campaigns have become one of the main strategies in efforts to prevent smoking, especially in secondary schools (Reis et al., 2019). The campaign aims to increase awareness of the dangers of smoking, change social perceptions of smoking, and encourage individuals to quit smoking or prevent beginners from starting the smoking habit (Dono et al., 2020). However, despite these efforts, the prevalence of smoking among youth remains relatively high, and the effectiveness of anti-smoking campaigns remains a matter of debate.

Therefore, research investigating the influence of cigarettes and anti-smoking campaigns on smoking behavior among youth in secondary schools is of great importance (Colombo & Galmarini, 2023). This kind of research can provide a deeper understanding of the factors that influence young people's decisions to smoke, as well as the effectiveness of anti-smoking campaigns in changing their behavior (M. Kim, 2019). In addition, this research can also provide a basis for developing more effective intervention strategies in preventing smoking among youth. This research was conducted with the aim of investigating the influence of cigarettes and anti-smoking campaigns on smoking behavior among youth in secondary schools (Hutchinson et al., 2020). Through a case study approach, this research will examine the implementation of anti-smoking campaigns in several secondary schools and their impact on students' smoking behavior (Braillon, 2022). By analyzing data from surveys, interviews, and direct observations, this article will provide a deeper understanding of the factors that influence youth's decision to smoke, the effectiveness of anti-smoking campaigns in changing their behavior, and the policy implications that can be taken to improve efforts prevention of smoking among youth.

Smoking has serious and dangerous impacts on young people in secondary schools, both from a health and social perspective. First of all, health-wise, smoking can cause various serious diseases that can threaten young people's lives (Durkin et al., 2021). One of the most common health impacts of smoking is lung disease, such as chronic bronchitis, emphysema, and chronic obstructive pulmonary disease. Young people who smoke are also at higher risk of frequent asthma attacks and respiratory infections because smoking can damage lung tissue and disrupt immune system function. In addition, smoking also increases the risk of developing various types of cancer, including lung, mouth, throat, and esophageal cancer (Verma & Bhadauria, 2019). This risk is mainly caused by the presence of carcinogenic substances in cigarettes, which can damage the DNA of body cells and cause the growth of

malignant cells. Youth who start smoking at a young age have a higher risk of developing cancer in adulthood due to exposure to harmful substances in cigarettes that last for a longer period.

Smoking also has a negative impact on young people's heart and blood vessel health (Titus et al., 2021). Cigarettes can cause narrowing of blood vessels, increased blood pressure, and increased risk of coronary heart disease. Young people who smoke also have a higher risk of experiencing heart attacks and strokes later in life because smoking can cause plaque formation on artery walls, which can block blood flow to the heart and brain (Piko et al., 2023). In addition to the physical health impacts, smoking also has a serious impact on the psychological and social well-being of youth in secondary school (Friedman, 2022). Teenagers who smoke tend to experience higher levels of stress and anxiety than non-smokers because smoking can affect the chemical balance in the brain and cause dependence (Sato et al., 2019). In addition, they are also at risk of experiencing mood disorders, depression, and other mental problems as a result of their smoking habit.

The social impact of smoking is also significant. Smoking can affect youth's social relationships with peers, family, and society as a whole. Teens who smoke may face social pressure from peers to smoke or feel isolated from friends who do not smoke (Daama et al., 2023). Apart from that, they also risk being shunned by their families or judged by society because of their smoking behavior, especially if smoking is prohibited in public places or within the family environment (Daley et al., 2021). The economic impact of smoking also cannot be ignored, especially for youth in high school. Smoking is an expensive habit, and the cost of purchasing cigarettes regularly can pose a significant financial burden for youth, especially if they rely on limited sources of income such as pocket money or part-time work (Selya et al., 2019). The costs of smoking can also interfere with other financial priorities, such as education or plans. Apart from the direct impacts felt by young people who smoke, there are also indirect impacts that can affect the surrounding environment (Doggett et al., 2021). Cigarette smoke is not only dangerous for active smokers but also for non-smokers who are exposed to passive cigarette smoke (Notley et al., 2022). Youth who smoke in high school settings can pose health risks to their peers and non-smoking school staff, especially if exposure occurs over long periods and in poorly ventilated spaces.

Smoking behavior among youth in secondary school is influenced by a number of complex factors involving interactions between social, psychological, environmental, and biological factors (Ford et al., 2019). A deep understanding of these factors is important for designing effective interventions to address smoking among youth. One of the main factors influencing smoking behavior among youth is peer pressure (Dare et al., 2022). The social environment in high school often plays a large role in shaping youth behavior. Teenagers tend to imitate or adapt to the behavior of their peers, including smoking habits. If smoking is considered the norm in their social environment, then the likelihood of youth smoking will also increase. To overcome this factor, efforts are needed to strengthen social norms that do not

support smoking through anti-smoking campaign approaches in schools and communities.

Exposure to cigarette advertising can also influence smoking behavior among youth. The cigarette industry often uses aggressive marketing strategies to attract the attention of teenagers, including organizing sponsored events, advertising on social media, and promotions in places frequented by youth, such as cinemas or music festivals. Exposure to cigarette advertising can influence youth's perception of cigarettes and increase their interest in smoking. To reduce the negative impact, strict regulations on cigarette advertising are needed, as well as efforts to increase media literacy among youth so that they are more critical of cigarette promotional messages. Apart from external factors, internal factors such as the level of awareness of the dangers of smoking also play an important role in determining youth smoking behavior (A. Glasser et al., 2019). Many youth may not be fully aware of the health risks associated with smoking, or they may feel disaffected by the information.

In some cases, youth may even have a positive perception of smoking, considering it a cool or mature act. Therefore, it is important to increase awareness of the dangers of smoking among youth through integrated health education in the school curriculum and anti-smoking campaigns that target youth directly (Harrison et al., 2020). Psychological factors also play a role in shaping smoking behavior among youth. Some young people may start smoking as a form of experimentation or to seek a new sensation (Imtinan et al., 2023). The need to feel accepted or part of a certain social group can also be a driving force for smoking. Apart from that, stress, anxiety, or depression can also be a trigger factor for starting smoking or continuing the smoking habit (Harlow et al., 2022). To address these psychological factors, a holistic approach is needed that involves psychological support, counseling, and behavioral interventions to help youth overcome the urge to smoke and manage stress or other emotional problems in a healthier way.

In an effort to reduce the prevalence of smoking among youth in secondary schools, various efforts have been made. One of the main efforts is the implementation of anti-smoking campaigns in schools. This campaign aims to increase awareness of the dangers of smoking, change social perceptions of smoking, and provide support to individuals to stop smoking or not start smoking at all (Harlow et al., 2021). This campaign can take the form of a series of activities such as seminars, workshops, exhibitions, and other outreach activities for students, school staff, and parents. In addition, health education is also included in the school curriculum as part of efforts to increase health literacy and awareness of the dangers of smoking among youth (MacMonegle et al., 2022). Lesson material about the dangers of smoking, the health consequences associated with smoking, and strategies for stopping or preventing smoking are taught to students as part of the lesson curriculum. This approach aims to provide accurate knowledge and build negative attitudes towards smoking from an early age.

Apart from education, regulation is also an important part of efforts to prevent smoking among youth. Many countries have implemented policies regulating cigarette advertising, cigarette sales to underage youth, and smoke-free environments in schools and other public places. This policy aims to reduce youth exposure to cigarettes, narrow their access to cigarettes, and create an environment that does not support smoking (Cohn et al., 2019). Apart from education, regulation is also an important part of efforts to prevent smoking among youth. Many countries have implemented policies regulating cigarette advertising, cigarette sales to underage youth, and smoke-free environments in schools and other public places. This policy aims to reduce youth exposure to cigarettes, narrow their access to cigarettes, and create an environment that does not support smoking. Awareness of the dangers of smoking is also important for parents and teachers (A. et al. et al., 2020). Parents have a very large role in shaping their children's behavior.

The first research, according to (D. B. Kim et al., 2023), was the Association between anti-smoking campaign types and smoking cessation attempts. The results of his research stated that those who saw anti-smoking advertisements both online and offline were found to have tried to quit smoking more than those who did not. (Online & offline: male, odds ratio [OR] 1.36; 95% confidence interval [95% CI], 1.08–1.71; female, OR, 1.75; 95% CI 1.21–2.54) In a subgroup analysis of the independent variables into which smoking cessation advertisements were subdivided, males were found to have the highest OR for smoking cessation attempts when they encountered advertisements in newspapers. The second research, according to (Colston et al., 2021, pp. 2001–2015), has the research title Anti-Smoking Media Campaigns and Disparities in Smoking Cessation in the United States, 2001-2015. The results of his research stated that Year-ago smokers with greater exposure to media campaigns were more likely to report 30-day (Prevalence Ratio [PR]: 1.18, CI: 1.03, 1.36) and 90-day cessation (PR: 1.18, CI: 1.00, 1.41) compared to respondents with less campaign exposure. The third research, according to (Slocum et al., 2022), with the research titled Impact of the Tips From Former Smokers Anti-Smoking Media Campaign on Youth Smoking Behaviors and Anti-Tobacco Attitudes. The results of his research stated that Tips GRPs were not associated with smoking behaviors within any grade. However, 12th graders in the highest quartile of Tips had a 7.0 percentage point higher probability (95% CI = 0.023–0.116) of responding that anti-tobacco ads made them less likely to smoke.

METHOD
Research methods

This research uses a case study approach to investigate the influence of anti-smoking campaigns on smoking behavior among youth, with a focus on secondary school students. A case study approach was chosen because it allows researchers to gain an in-depth understanding of the specific context in which anti-smoking campaigns are implemented, as well as their impact on smoking behavior. This

method allows researchers to collect rich and detailed data, which is necessary to analyze the relationship between anti-smoking campaigns and smoking behavior among youth.

Sample Selection

This research sample consisted of several secondary schools that had implemented anti-smoking campaigns in their environment. Sampling was carried out by selecting schools that represent various social, economic, and geographic backgrounds (Karaki et al., 2019). This was done to ensure sample representativeness and diversity in the context of anti-smoking campaign implementation. After school selection, the research chose students as the main unit of analysis, taking into account diversity in gender, age, and education level.

Data Collection Instruments

Data was collected through several methods, including surveys, interviews, and direct observation. Surveys are used to collect quantitative data about students' smoking behavior, including smoking frequency, number of cigarettes consumed, and factors that influence their decisions to smoke or not. The survey also included questions about awareness of the dangers of smoking and perceptions of anti-smoking campaigns. In addition, interviews were conducted with school staff, teachers, and students involved in implementing the anti-smoking campaign to gain a deeper understanding of the implementation process and responses to the campaign (Bird et al., 2020). Direct observations are carried out to observe student behavior directly in the school environment, including activities in smoking areas and social interactions that might influence smoking behavior.

Research procedure

This research was carried out in several stages. The initial stage involves collaborating with the school to obtain permission and support to carry out the research. After obtaining permission, researchers conducted a baseline survey to collect baseline data on students' smoking behavior before implementing the anti-smoking campaign. Furthermore, an anti-smoking campaign was implemented in selected schools, involving various activities such as seminars, workshops, exhibitions, and other outreach activities. During the implementation of the campaign, researchers continued to monitor and collect data about student responses to the campaign. After the campaign was completed, researchers conducted a follow-up survey to collect data after the intervention. Pre- and post-campaign survey data were then analyzed to evaluate changes in student smoking behavior and the impact of the anti-smoking campaign.

Data analysis

The collected data was analyzed using descriptive and inferential statistical methods. Descriptive analysis was used to describe sample characteristics, including the frequency distribution of smoking behavior before and after the anti-smoking campaign. Next, inferential analysis was used to test significant differences in smoking behavior before and after the intervention. Regression analysis was also

carried out to evaluate factors that influence changes in smoking behavior, such as the level of awareness of the dangers of smoking and participation in campaign activities. Qualitative data from interviews and observations were also analyzed thematically to understand the social context and factors influencing the implementation of anti-smoking campaigns.

Validity and Reliability

To ensure the validity and reliability of the data, several steps were taken. First, the survey instrument and interview guide have been carefully prepared based on related literature and discussions with experts. In addition, this research uses data triangulation by combining quantitative and qualitative data from various sources, including surveys, interviews, and observations. This aims to increase confidence in research findings and minimize bias that may arise from just one data collection method. Thus, it is hoped that this comprehensive case study approach can provide a deeper understanding of the influence of anti-smoking campaigns on smoking behavior among youth, especially in the secondary school environment.

RESULTS AND DISCUSSION

Smoking is a serious global health problem, especially among youth. Youth are a vulnerable group who tend to start smoking at a young age and are exposed to long-term health risks due to their smoking habit. Anti-smoking campaigns have become one of the main strategies in smoking prevention efforts, with the hope of changing smoking behavior among youth. Anti-smoking campaigns are a series of efforts designed to raise awareness of the dangers of smoking, change social perceptions of smoking, and encourage individuals to quit smoking or discourage beginners from starting smoking (Choi & Noh, 2020). Middle schools are the right environment to implement anti-smoking campaigns because many teenagers are at a vulnerable stage of social and emotional development. However, the effectiveness of the campaign is still questionable and requires further evaluation.

This case study uses a comprehensive methodological approach to investigate the influence of anti-smoking campaigns on smoking behavior among youth. The research methods used include selecting representative samples from several secondary schools, collecting data through surveys, interviews, and direct observation, and data analysis using descriptive and inferential statistical methods. Through these steps, this research aims to provide a deeper understanding of the effectiveness of anti-smoking campaigns in changing smoking behavior among youth. The research results show that anti-smoking campaigns influence smoking behavior among youth. There was a significant reduction in the number of students smoking after the implementation of the anti-smoking campaign, as well as increased awareness of the negative impacts of smoking. Data analysis also shows a relationship between the level of participation in anti-smoking campaigns and changes in students' smoking behavior. These results indicate that anti-smoking campaigns can be an effective strategy in reducing smoking prevalence among secondary school students.

However, several factors need to be considered when interpreting the results of this study. First, the successful implementation of an anti-smoking campaign requires strong

support from various parties, including schools, teachers, parents, and the community. Additionally, it is important to consider the local social and cultural context in designing and implementing effective anti-smoking campaigns (Tupas & Agreda, 2020). Factors such as social norms, smoking culture, and cigarette promotion can influence the effectiveness of anti-smoking campaigns and need to be considered in intervention strategies. Additionally, it should be noted that anti-smoking campaigns are not only about changing individual behavior but also about creating an environment that supports healthy behavior. Therefore, it is important to strengthen school policies that prohibit smoking on school grounds and provide resources and support for students who want to quit smoking. Collaboration between schools, government, health institutions, and the community is also needed to create a smoke-free environment and support healthy lifestyles among youth. In addition, it is also necessary to continuously evaluate anti-smoking campaigns to ensure their sustainability and increase their effectiveness. This evaluation could include measuring the long-term impact of anti-smoking campaigns on smoking prevalence, public health, and smoking-related health costs. Thus, this research makes an important contribution to understanding the influence of anti-smoking campaigns on smoking behavior among youth and provides a basis for the development of more effective intervention strategies in smoking prevention efforts.

Table: Forms of anti-smoking campaigns carried out against smoking behavior

NO	Form an Anti-Smoking Campaign
1	**Counseling** Through seminars, workshops, or classroom materials, students are given information about the health risks associated with smoking, such as heart disease, cancer, and respiratory problems.
2	**Installation of Posters and Banners** Posters and banners highlighting anti-smoking messages are displayed around the school premises.
3	**Social Media Campaign** Using social media platforms such as Facebook, Instagram, and Twitter to spread anti-smoking messages to students and other youth. Content such as short videos, infographics, and hashtag campaigns are used to raise awareness of the dangers of smoking
4	Special Programs Schools can organize special programs such as smoking cessation clinics, counseling sessions, or healthy living skills training in collaboration with health institutions or organizations.
5	**Parental Participation** Collaboration with parents can also expand the reach of anti-smoking campaigns.

Anti-smoking campaigns can take a variety of forms, from educational approaches to more creative and innovative strategies. One form of campaign that is commonly carried out is education about the negative impacts of smoking on health. Through seminars, workshops, or introductions to class material, students are given clear and factual information about the health risks associated with smoking, including heart disease, cancer, and respiratory

problems. Apart from education, anti-smoking campaigns also often involve placing posters, banners, or billboards highlighting anti-smoking messages around the school environment. This visual form aims to provide constant reminders to students of the dangers of smoking and encourage them not to indulge in this behavior. Putting up posters or banners that display strong images and clear messages can have a significant impact on shaping students' perceptions and attitudes toward smoking.

Anti-smoking campaigns can also use social media as a means to spread anti-smoking messages to youth. Through platforms such as Facebook, Instagram, or Twitter, educational messages about the dangers of smoking can be easily accessed by students and other teenagers. These campaigns are often accompanied by interesting content, such as short videos, infographics, or hashtag campaigns to increase awareness and participation in the anti-smoking movement. Apart from educational and social media approaches, anti-smoking campaigns can also involve positive and inspiring activities, such as poster design competitions, short video-making competitions, or anti-smoking music concerts. Through these activities, students in secondary schools can be actively involved in voicing anti-smoking messages to their friends in a creative and fun way. This not only helps raise awareness of the dangers of smoking but also builds engagement and solidarity among students in supporting a healthy lifestyle.

Apart from the campaigns that have been mentioned, many other strategies and innovations can be carried out in an effort to suppress smoking behavior among youth in secondary schools. For example, schools can collaborate with health agencies or organizations to organize special programs such as smoking cessation clinics, counseling sessions, or healthy living skills training. In addition, an approach involving parents and local communities can also be an important factor in supporting anti-smoking campaigns in schools. In evaluating the effectiveness of anti-smoking campaigns, it is important to pay attention to several factors. First, measuring the direct impact on smoking behavior, such as reducing smoking prevalence among high school students. In addition, it is also necessary to take into account changes in attitudes, knowledge, and intentions to quit smoking among students. Regular evaluation and collection of feedback from campaign participants is also an important step to increase the effectiveness and relevance of the anti-smoking campaign.

CONCLUSIONS

Based on the results and discussion above, it can be concluded that the anti-smoking campaign is effective in changing smoking behavior among youth. Implementation of targeted and sustainable anti-smoking campaigns can be an effective strategy for reducing the prevalence of smoking among secondary school students. Thus, continuous efforts are needed to improve and expand the reach of anti-smoking campaigns in the school environment. Through case study analysis, it was found that anti-smoking campaigns influenced changing smoking behavior among teenagers. Results showed a decrease in smoking rates among secondary school students who were exposed to consistent anti-smoking campaigns. Factors such as education, increased awareness of health risks, and the role of a supportive school environment are major

contributors to the effectiveness of this campaign. However, continued efforts and more diversified strategies are needed to maintain the momentum of reducing smoking behavior among youth.

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