HEALTH EDUCATION OF NO SMOKING BEHAVIOR IN ADOLESCENTS WITH A SOCIAL COGNITIVE THEORY (SCT) APPROACH

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ABSTRACT

Introduction: Smoking behavior is an action that can harm the smoker himself and can even harm others (passive smokers). Someone who is exposed to cigarettes for a long time will result in health problems and disease, Out of 800 junior high school youth in Kulon Progo, 5.3% are smokers. **Aims:** To determine the factors that influence directly or indirectly on the behavior of not smoking in adolescents. **Methods**: This case-control study was conducted in Kulon Progo Regency, Yogyakarta Special Region Province, Indonesia. The samples were 400 teenagers, 200 teenagers who smoked (cases) and 200 other teens who didn't smoke (controls). Data were collected using a questionnaire filled out by teenagers who are still active in school in junior high and high school. There are six variables studied including knowledge, media exposure, non-smoking attitudes, self-efficacy, non-smoking intentions and non-smoking behavior. Data were analyzed multivariately using STATA 13 **Result**: There are two variables (intention and self-efficacy) that have a direct influence on adolescents' non-smoking behavior, while the other three variables (knowledge, media exposure and attitude) have an indirect influence on adolescents' non-smoking behavior. **Conclusion**: Intention variable has the biggest contribution in influencing adolescent behavior not to smoke.

Keywords: Adolescent, Social Cognitive Theory, Smoking behavior

INTRODUCTION

Adolescence is a transitional period between childhood and adulthood, in the social life of adolescents and always marked by the prominence of intellectual and emotional functions. Erickson calls it a period of identity crisis, marked by the formation of self-identity and self-concept in adolescents which are very complex. This adolescent self-concept is not only formed from how a teenager believes in his own existence, but is also formed from how other people believe in his existence (Perera et al., 2021). In its development, adolescents will determine their identity and choose their close friends. Many teenagers are very confident in their group in finding their identity (Ehsani-Chimeh et al., 2020). In the process of self-discovery, adolescents are socio-culturally driven. The compensatory and symbolic forms of some adolescents are expressed by smoking behavior; by smoking this way, adolescents have the perception that they are mature, have strength and can lead and have an attraction to the opposite sex. Some of these things are believed to give a heavy burden on the mental and psychological of adolescents so that smoking is used as an alternative stress coping (Cabral, 2022; Kosendiak et al., 2022).

In social cognitive theory, human function is the result of the interaction between behavior (B), person (P), and environment (E). It is clear that human behavior is in the context of a continuous reciprocal interaction between cognitive, behavioral and environmental influences. By observing other people, humans learn which responses can be followed/adopted or which are not reinforced (Abdullah, 2019). If a teenager observes a character

on television in the form of an adult smoking, for example, then he will himself perform a variety of behaviors that he has seen in the hope of knowing which behavior will be appreciated and imitated (Yanuardianto, 2019). This is where the role and function of knowledge which is a very important domain for the formation of one's actions, applies.

Smoking is a habit that can give happiness to young smokers, even though there are negative impacts that are very dangerous for teenagers who smoke themselves and also for other people around them (Li & Gilleskie, 2021). A person exposed to cigarette smoke for eight hours is equivalent to smoking directly as much as 20 cigarettes per day. The consequences of smoking include increased incidence of acute respiratory infections (ARI) (Murarkar et al., 2021), cough, asthma, bronchitis, pneumonia, COPD (chronic obstructive pulmonary disease) (Hogea et al., 2020; Pertiwi et al., 2022), tuberculosis (pulmonary tuberculosis), sinusitis, cardiovascular disease, cancer, interference with fertility (Daltveit et al., 2020; Murarkar et al., 2021), low birth weight (LBW), death or absence from work/school (Baniya et al., 2020; Henning & Henning, 2020). At Sanglah Hospital Bali, diseases caused by a person being exposed to cigarette smoke were pulmonary TB as many as 46 cases (76.1%), COPD 16 cases (81.3%), pneumonia nine cases (55.6%), bronchiectasis seven cases (100 %), lung tumor three cases (100%), asthma 12 cases (41.7%) (Asta & Artana, 2020). If this is allowed to continue, then smoking behavior is estimated to have a major contribution to a person's death. This denotes the importance of teenagers to learn to socialize themselves with a good environment. Social learning shows a direct correlation between a person's perceived self-efficacy and behavior change. Self-efficacy is the ability of an individual's perception to control his behavior; efficacy is the main determinant

of behavior, because it can affect health behavior either directly or indirectly by its influence on other determinants.

A teenager who smokes is also inseparable from the influence of the media (Jiang et al., 2020; Tattan-Birch et al., 2021). The media is known to have a very powerful power in influencing the mindset of society, especially teenagers. The media also has the power to innovate, shape people's behavior and preferences. Media information about smoking can be obtained from various sources including through posters, billboards, banners, and other social media such as WhatsApp, Facebook, Instagram, TikTok and so on via the internet. On the other hand, health information media about the importance of healthy living is also very much needed as a counterweight for people to make choices related to their behavior. Smoking behavior is also inseparable from the attitude of the adolescents themselves. Attitude is a reaction or response from someone to a stimulus or object. Attitude shows the connotation of the suitability of reactions to certain stimuli which in everyday life emotional responses to social stimuli (Haryati et al., 2021).

In 2017, the Kulon Progo Yogyakarta Regency Government agency conducted research in collaboration with the Nanyang Technological University Malaysia; the results obtained were that there were 800 junior high school youth (5.3%) who smoked from a total sample of 15,000 junior high school students in Kulon Progo Yogyakarta Indonesia (Wardoyo, 2017). Based on the evaluation of non-smoking areas in 2020, the results showed that 100% of office areas in Kulonprogo, including schools, had warnings against smoking installed, 23.7% had special smoking areas installed, 10.5% found ashtrays in the building, 7.9% found cigarette butts, 2.6% found cigarette advertisements, 5.3% found cigarette sellers, and 7.9% people smoked (Aryoko et al., 2021). The general aim of this research is how to provide education to

teenagers using a social cognitive theory (SCT) approach. The specific aim is to determine the direct and indirect influence of various variables on adolescent non-smoking behavior. The variables in question consist of teenagers' level of knowledge about smoking, media exposure about smoking, teenagers' attitudes about not smoking, teenagers' self-efficacy and intentions not to smoke which are then linked either directly or indirectly to teenagers' non-smoking behavior.

METHODS
Study design and sampling

This research was conducted using a cross-sectional approach, which is a study that connects research variables by taking data simultaneously at the same time. The research location is in Kulon Progo Regency, Yogyakarta Indonesia, conducted from April to August 2018. The population is all teenagers aged between 12-25 years who live in Kulon Progo Regency, Yogyakarta Indonesia. The sample was selected by means of fixed exposure sampling (Murti, 2020), namely by sampling based on the exposure status of the subject. The sampling technique used is stratified random sampling, which is a sampling technique by dividing the target population into strata (sub-populations). Furthermore, the researchers used a proportional random sampling technique so that all units can be represented proportionally in the form of early and late teens who attend junior high school and senior high school, vocational schools and both public and private schools in Kulon Progo Yogyakarta Indonesia. The sample is sampled by sub-district; using the Slovin formula, the total sample is 400 teenagers who are the subjects of the study. In practice, this research uses an analytical survey method.
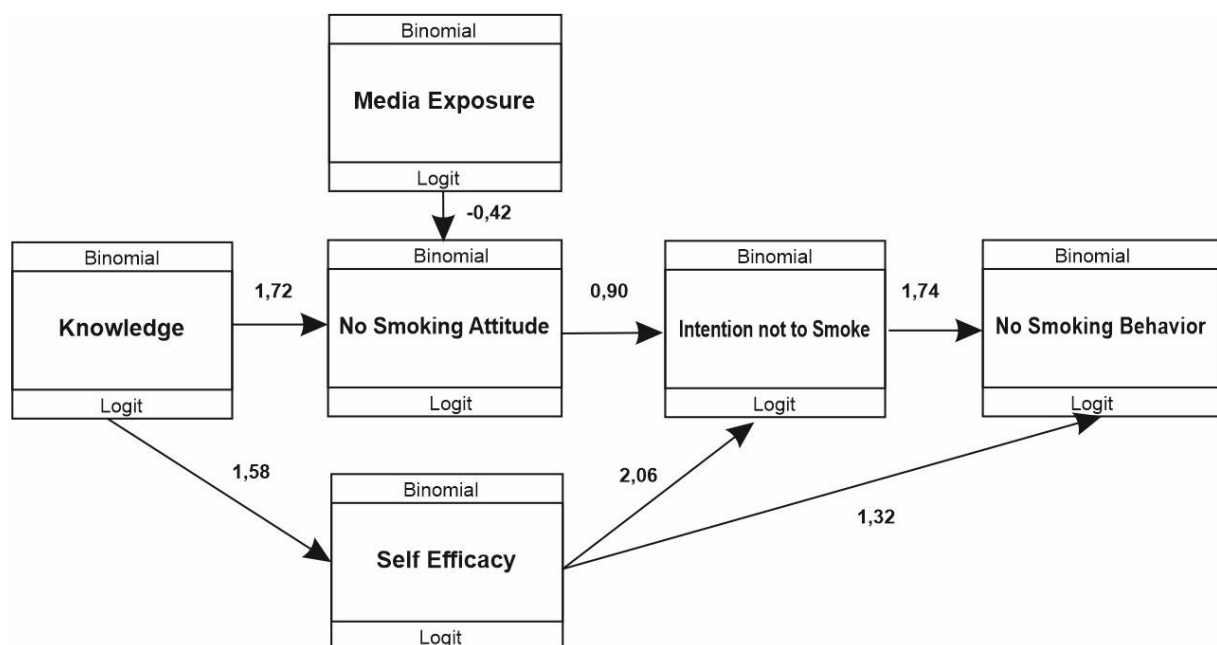

Figure 1. Model suitability and parameter estimation

Data collection

Data collection was done by means of observation or using a questionnaire given directly to the subject. The main tool for collecting information about smoking behavior uses the GYTS questionnaire developed by the World Health Organization. The questionnaire was modified and then adapted to the respondent's culture, religion and community situation (Masjedi et al., 2020).

The data in this study were obtained by observing the research variables/subject exposure status of 400 respondents consisting of the case group (smoking) of 200 respondents and the control group (non-smokers) of 200 respondents. Questionnaires were administered to two groups randomly selected from junior and senior high schools in Kulon Progo Regency. Subjects were asked to fill out the existing questionnaire by first agreeing to the existing informed consent.

Research variables

There are six variables, the dependent variable is non-smoking behavior, while the independent variables include non-smoking intentions, attitudes towards smoking, perceived self-efficacy/behavioral control, media exposure and knowledge about smoking. Research ethics approval was granted by the Research Ethics Committee of Jenderal Achmad Yani University, Yogyakarta, No. SKep/330/KEPK/IV/2018. Subjects were taken after going through the informed consent process and they signed the consent form after been explained the research. The information provided to participants includes the objectives, procedures, potential risks, and benefits of the research. Participants have the right to refuse participation at any time and there are no obligations whatsoever.

Smoking status: Subjects in this study were active adolescents at school, classified as smokers if the subjects were daily smokers or non-daily smokers (smokers only occasionally), or classified as non-smokers if they had never smoked at all. They were said to be smokers if they answered to the question "Do you currently smoke every day, sometimes or not at all?" Subjects answered "every day" or "occasionally" or "never smoked." The frequency of smoking is measured by asking the question "how many cigarettes do you smoke per day?" This is to find out whether the subject is a light smoker, moderate smoker or heavy smoker.

Intention to smoke: Existence of intention is defined as the subjective view probability of the adolescent (what the adolescent feels). Whether he will engage in tobacco smoking behavior or not. There are seven questions to assess smoking intention. Participants were asked to answer these questions using a 5-point scale (from 1 to 5 where 1 = strongly disagree and 5 = strongly agree). For example, participants answered questions such as: "I intend to smoke in the next two weeks" (Strongly Agree/Strongly Disagree). The resulting continuous data were then reclassified into two categories with codes 0 for weak (<mean) smoking intention and 1 for strong (≥ average) for smoking.

Attitudes toward smoking behavior: Attitudes are defined as a person's evaluation of smoking (attitude object), and can be categorized as "positive" (good) or "negative" (bad). The attitude questionnaire was measured by 13 questions with a 5-point answer scale (from 1 to 5 where 1 = strongly disagree and 5 = strongly agree). The resulting continuous data were then classified into two categories with code 0 for a positive attitude (< average) and 1 for a negative attitude (≥ average) toward smoking.

Self-efficacy: This variable is the perception of research subjects (adolescents) on their own ability to overcome various conveniences or difficulties in carrying out the behavior they are interested in, namely smoking behavior. The questionnaire has 10 questions with a 5-point answer scale of 1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, and 5 = strongly agree. Typical questions include things like: "It's hard for me not to smoke," or "I refrain from smoking when my smoking friends surround me." For data analysis, the resulting continuous data were changed into two categories with code 0 for weak (< average) and 1 for strong (≥ average).

Media exposure: Media exposure to cigarette advertisements can occur in

adolescents when they see advertisements containing names, logos, product names, and trademarks of tobacco manufacturers, traders or distributors, which are displayed on television, radio, newspapers, magazines, billboards, pamphlets, or disseminated through other social media such as Facebook, WhatsApp, Instagram, TikTok. This variable is measured by 16 questions with a 5-point answer scale including 1 = never, 2 = rarely, 3 = sometimes, 4 = often, and 5 = always. For data analysis, the resulting continuous data were changed into two categories with code 0 for low (< average) and 1 for high (≥ average).

Knowledge about smoking: Knowledge is defined as theoretical or practical understanding and awareness of adolescents to smoke in relation to health problems, including types of cigarettes, exposure to cigarette smoke and its dangers, and diseases caused by smoking. This construct is measured by 21 questions non-smoking behavior through attitudes and intentions of adolescents not to smoke and they also tested the level of knowledge of adolescents on non-smoking behavior through self-efficacy. The next step was to examine the effect of exposure to tobacco advertising media on adolescent non-smoking behavior through attitudes and non-smoking intentions of adolescents. Self-efficacy was also tested directly on non-smoking behavior and indirectly through the intention not to smoke. Finally, the non-smoking attitude variable on non-smoking behavior was tested through the adolescent's intention not to smoke.

RESULT

The multivariate test in the form of path analysis using the STATA 13 program can be seen in Figure 1 below. In Figure 1 it can be explained that there is a direct effect of non-smoking intentions (b = 1.74) on non-smoking behavior. There is a direct effect of adolescent self-efficacy (b = 1.32) on non-smoking behavior. There is

with "right" or "wrong" answers. For data analysis, the resulting continuous data were changed into two categories coded 0 for bad knowledge (< average) and 1 for good knowledge (≥ average).

Data analysis

The data filled by the respondent were then submitted to the researcher and a quantitative analysis carried out. If data are still obtained that require further explanation, it will be equipped with information on the research subject by involving relevant agencies (schools) and community leaders by conducting in-depth interviews. The analysis in this study uses path analysis, which is to analyze the influence between one variable and another, either directly or indirectly; the program used is STATA 13 (Ayuningrum & Murti, 2019). This was done by researchers by testing the level of knowledge of adolescents on

an indirect effect of self-efficacy (b = 2.06) through non-smoking intentions (b = 1.74) on non-smoking behavior. There is an indirect effect of non-smoking attitudes (b = 0.90) through non-smoking intentions (b = 1.74) on non-smoking behavior. There is an indirect effect of the level of knowledge (b = 1.72) through non-smoking attitudes (b = 0.90) and non-smoking intentions (b = 1.74) on non-smoking behavior.

There is an indirect effect of the level of knowledge (b = 1.58) through self-efficacy (b = 2.06) and intention not to smoke (b = 1.74) on non-smoking behavior, as well as indirectly there is an effect of the level of knowledge (b = 1.58) through efficacy self (b = 1.32) on non-smoking behavior. There is an indirect effect of media exposure (b= -0.42) through attitude (b=0.90) and non-smoking intention (b= 1.74) on adolescents' non-smoking behavior. A more detailed explanation relating to the direct relationship between variables and the indirect relationship between can be seen in Table 1 below.

Table 1. Path Analysis of Adolescent Non-Smoking Behavior in Yogyakarta Indonesia

Variable	Coefficient Path (b)	Coefficient Interval/CI (95%)		p
		Lower limit	Upper limit	
Direct				
No Smoking Behavior ←				
Intention not to smoke	1.74	1.18	2.29	<0.001
Self-efficacy	1.32	0.76	1.87	<0.001
Indirect				
Intention not to smoke ←				
No Smoking Attitude	0.90	0.29	1.50	0.004
Self-efficacy	2.06	1.45	2.67	<0.001
No Smoking Attitude ←				
Knowledge	1.72	1.27	2.16	<0.001
Media exposure	-0.42	-0.87	0.02	0.063
Self–efficacy ←				
Knowledge	1.58	1.15	2.02	<0.001

Note:
N observation = 400 AIC = 2289.25
Log likelihood = -1130.62 BIC = 2345.13
←——— : Effect

DISCUSSION

After path analysis was carried out, the results showed that there was a direct influence on the adolescent's intention not to smoke on non-smoking behavior in adolescents with a positive correlation coefficient value. This means that adolescents who do not have the intention to smoke, then the behavior of not smoking will tend to decrease. The contribution of attitudes, subjective norms and intentions is very large on youth smoking desire (Lim et al., 2021). Intention to behave in theory of planned behavior (TPB) is a form of readiness of individuals to perform certain behaviors. A teenager's intention not to smoke is correlated with the adolescent's own smoking behavior. TPB also states that human behavior is guided by three kinds of considerations, namely behavioral beliefs, normative beliefs and control beliefs.

The formation of human behavior is influenced by two main factors, namely behavior caused factors and non-behavior caused factors. In more detail, these factors include predisposing factors including the presence of intentions, attitudes, knowledge, and beliefs. Enabling factors can be realized in the form of the physical environment, facilities and infrastructure. Reinforcing factors are the behavior of certain community groups (peer groups) and so on (Dsouza et al., 2022; Kamruzzaman, 2021). Another study said that there were 78% of students in Iran in 2014 who did not smoke controlled by the intention not to smoke, while another 22% was influenced by behavioral control factors (Hamzeh et al., 2020). The magnitude of the influence of intention in the hearts of adolescents will lead adolescents to immediately take concrete action in the form of the desired behavior change, namely by making a high commitment not to smoke. Conformity between heart and action is a concrete manifestation of the seriousness of youth to always be healthy and prosperous in wading through life in the future (Badea et al., 2021).

Perception of behavioral control can also be referred to as self-efficacy, which is a form of adolescent belief that he is able to not smoke or at least reduce the number of cigarettes. Control beliefs are a person's beliefs about the existence of factors that

can facilitate or hinder behavioral performance. In this case, it is felt that behavioral control is in the form of the perceived ease of an individual or difficulty in performing certain behaviors (Lareyre et al., 2021). The self-efficacy factor is 22%, which can influence a person to smoking behavior. Other studies also say that there is an influence of behavioral control on adolescent intentions to smoke (Ma et al., 2020; Rosen et al., 2023). Social cognitive theory (SCT) presented by Bandura holds that one's self-efficacy can be increased by studying past experiences, observing social behavior and exposure to long cases in the past can increase one's knowledge in improving adaptive self-defense mechanisms. In addition, verbal persuasion gives encouragement to individuals to immediately complete tasks to achieve certain behaviors. There is a strong urge not to smoke that arises from within each person's heart that should be actualized immediately; this is to prevent teenagers from changing their minds, which in the end they don't want to change their behavior in a better direction. Many factors ultimately change plans to quit smoking, including environmental factors, family influences, and peer community factors. Research results show that the initiation of smoking in adolescents is due to parents who have low education and the influence of peers who smoke (Itanyi et al., 2020; Sabina et al., 2020). Peers have a very strong influence on adolescent behavior to not smoke. Besides that, environmental factors also have a big contribution in shaping the character of adolescents. The school's contribution is smaller compared to the environment around where adolescents live; this is because the time spent by adolescents interacting with peers at school is only 8 hours per day, the rest they interact with people in the immediate environment around the house. You can imagine this big influence if the youth community is surrounded by people who smoke, be it their parents, close neighbors or playmates in the home environment.

Attitude is a form of evaluation of belief or positive or negative feelings of each individual to perform certain behaviors. Attitude is the amount of affection felt by individuals to accept or reject a certain object or behavior. Adolescent attitudes not to smoke have a positive effect on adolescents' intention not to smoke. This means that the more teenagers have a positive attitude not to smoke, the greater teenagers' intention not to smoke. There is a positive influence of adolescents' intention not to smoke on non-smoking behavior which means that the more adolescents who intend not to smoke, the higher the youth's non-smoking behavior in Kulon Progo Yogyakarta. This is in accordance with other studies which say that there is an influence between the attitudes of adolescents in China to the intention to quit smoking (Wang et al., 2020; Zhao et al., 2022). The positive attitude of students toward the campus policy of being smoke-free greatly affects the behavior of students not to smoke (Mohmad & Ismail, 2021). Attitude is a form of a person's ideas that are closely related to emotions that encourage someone to take certain actions in social situations. Besides that, attitude is a mental and neural condition obtained from past experience. This past experience can dynamically direct and influence individual responses to an object. A teenager who has a positive attitude not to smoke may have a bad experience in the past about the behavior of the smokers themselves. An example, for example, is that teenagers find their closest people who are chronically ill (lung disease, hypertension, heart disease and other metabolic system diseases) due to smoking behavior, so that the teenager finally decides not to smoke. This experience finally makes teenagers have a positive attitude not to smoke (Pertiwi et al., 2022). This positive attitude must always be nurtured so that it grows and develops, so

that it makes teenagers become capable figures, not easily swayed by situations that can make them fall into negative things. Armed with the knowledge and experience they have. adolescents can show their abilities that they are able to do the best for their future and also do good for their health.

Adolescent knowledge about the dangers of smoking from various studies is almost always positively correlated with smoking behavior. But this does not apply absolutely, there are still people who know and understand the dangers of cigarette smoke, but not a few of them still continue to smoke. In this study also, it was found that there are 40.5% of adolescents who have a high level of knowledge still smoke. Similar studies also say that smoking behavior in boys is not only influenced by the level of knowledge, but there are other factors that can influence a teenager to continue to choose to smoke, even though they know and understand the dangers of smoking to their health. Factors that make teenagers still choose to smoke include psychological factors; Adolescents have the autonomy and freedom to seek and form their own identity; adolescents try to adapt to all psychosocial changes related to their physical maturation, and by smoking adolescents feel able to find their identity, try to be accepted in their peer community, feel free from various forms of pressure, stress, want to look dashing or try to avoid being bored (Fithria et al., 2021; Lee et al., 2021). Knowledge about smoking also does not necessarily reduce exposure to cigarette smoke in pregnant women. Most pregnant women in Temanggung (91.3%) are exposed to cigarette smoke either from their own partners or from other people around them. Even though women, especially pregnant women, have a high level of knowledge about the adverse effects of passive smoking, they also cannot avoid exposure to cigarette smoke (Mayangsari & Mahmood, 2021).

This study is similar to other studies which say that there is a relationship between the level of knowledge about smoking-related diseases and smoking behavior in early adulthood (Alves et al., 2022; Aryoko et al., 2021; Snell et al., 2022) there is a significant positive relationship between attitudes toward smoking behavior and adolescent smoking intentions (Bashirian et al., 2020; Ng'ombe et al., 2020; Tapera et al., 2020), as well as the positive attitude of adolescents to immediately stop smoking obtained from various moral messages that are delivered in detail and are very effective in calculating the negative effects of consuming cigarettes (Firth et al., 2020; Flor et al., 2021). A positive attitude will be positively correlated with intention; if the attitude of adolescents is to refuse to smoke, then the intention not to smoke will be high, and if the intention not to smoke is high, then the behavior of adolescents not to smoke will also be high. This positive correlation certainly cannot be achieved by adolescents, it takes sufficient time to continuously increase commitment to obey and always maintain good intentions. Attitudes and intentions can change if there are external factors that are strong enough to change the behavior, such as peers and the environment which can indirectly influence the good behavior that has been going on. This is where it is important for teenagers to choose good friends; friends who don't smoke are made a priority in finding friends so that the intention to quit smoking is even better.

Cigarette promotion media in the form of massive advertisements carried out by every cigarette producer has the potential to shape the attitudes and behavior of teenagers to smoke. Advertising media about cigarettes is also very influential on the level of knowledge of adolescents about the availability of cigarettes and their ins and outs; there are 93.63% of respondents who understand about cigarettes from advertisements on television (Chen et al., 2020; Wang et al.,

2020), 75% are exposed to advertisements about cigarettes from billboards, 87% exposed to advertisements on television, 42% exposed to cigarette advertisements through radio and 32% exposed to cigarette advertising media through newspapers. The pro and contra media of tobacco have an effect on adolescent smoking behavior through the peer community (Hunter et al., 2020; Rahayu & Yunarsih, 2020) In Africa, the implementation of government policies related to anti-tobacco, cigarette advertising, cigarette promotion and sponsorship, reduced smoking rates among students from 16% to 14%. In contrast to what happened in Botswana, Africa, adolescent smoking behavior has not decreased either; this is due to advertising and promotion of smoking and the strong influence of peers who smoke and the behavior of parents who also smoke (Keetile, 2020; Keetile et al., 2023) On Malaysia's Batu Buruk beach, even though it has been designated a smoke-free area, there are still many visitors who smoke in the area (Bin Nik Mahdi et al., 2020). This includes the Kulon Progo Regency, where there is already a regional regulation regarding smoke-free areas (Aryoko et al., 2021). Even though there are regulations regarding smoke-free areas, including areas in public places, in schools, in reality there are still many unscrupulous students or even teachers who smoke in these prohibited areas. This is possible because enforcement of the rules has not gone well, so many people ignore them. Besides that, the poor awareness of teenagers with regard to smoking behavior can clearly interfere with the health of smokers themselves and other people around them because they are forced to inhale cigarette smoke (become passive smokers).

Media information about smoking should be minimized so that children and adolescents avoid smoking behavior. Media that informs about cigarettes should highlight the negative effects of inhaling cigarette smoke so that l many Indonesian children, especially those free from cigarette smoke, do not become passive smokers (Kuga et al., 2021; Shukr et al., 2023). One way is by not smoking in places that can be reached by children, for example at home, on public transportation, or in other public places such as restaurants (Boderie et al., 2023; Rosen et al., 2023). Another approach so that teenagers do not smoke can be done by making a policy related to smoking-free areas. This smoke-free area can be enforced in all schools, including in Kulonprogo. Kulonprogo Regency has regional regulation no. 5 of 2014 concerning smoke free areas, it is hoped that this will become a joint commitment for policymakers in the schools in their area. As for the reality, compliance with this policy is not being implemented optimally; this is indicated by the high percentage of designated smoking areas in several schools. Cigarette butts are still found in the school environment, there are ashtray facilities, cigarette advertisements, cigarette sellers and smokers themselves (Aryoko et al., 2021). Providing regulations to all academics directly or indirectly will provide a form of moral responsibility for teachers in controlling the sale of cigarettes in the school environment (Purba et al., 2022).

Adolescents who have high knowledge of the dangers of smoking affect self-efficacy. The results showed that there were 76.5% of adolescents who had strong self-efficacy so that they did not smoke. A teenager's belief that he is avoiding smoking behavior and or at least can reduce the number of cigarettes he consumes can be seen from the results of statistical tests showing that there are still 25% of teenagers who have strong self-efficacy, but they still smoke. High knowledge of the dangers of smoking and passive smoking has not been able to awaken the public in Kuala Terengganu (Bin Nik Mahdi et al., 2020). This belief can influence adolescents' intention not to smoke. Adolescents who have no intention

of smoking are in the high category, namely 80% who do not smoke. The high intention not to smoke can reduce the number of teenagers who smoke by 25%. Knowledge is a predisposing factor that can affect a person's behavior; adolescents who have a high level of knowledge about the dangers of smoking are expected to have positive behavior by not smoking or reducing and even quitting smoking. Similar research also shows that medical students in Sumatra who have high knowledge about the dangers of smoking always try to increase their awareness to quit smoking (Kendrich & Sinaga, 2023). Provision of high knowledge does not, however, necessarily change a person's behavior; the knowledge that has been possessed must be pursued by changing the intention in his heart, and if knowledge and intentions have both shown to be strong it is hoped that adolescents will be able to change their behavior to non-smoking behavior.

In this study, there are many factors that influence adolescents to smoke; in addition to the knowledge of the dangers of smoking, there are other factors that directly or indirectly influence a person to smoke, including; adolescent's non-smoking attitude, exposure to information media about smoking, subjective norms, self-efficacy and adolescent's intention not to smoke. Someone who has high knowledge of the dangers of smoking does not necessarily stop smoking; even their belief in the negative impact of smoking does not guarantee someone not to smoke (quit smoking). High education can affect a person's knowledge about smoking, but there is no effect on people's behavior to stop smoking (Bafunno et al., 2020; Chertok, 2020; Mohmad & Ismail, 2021). From several existing studies it is found that what is needed for a person to change his behavior toward good and healthy behavior is a strong commitment within that person. With knowledge about the importance of adolescents knowing and understanding the effects and dangers of

smoking (both passive and active smoking), is hoped that over time it will make adolescents aware and with this awareness the next stage is that adolescents want to change. The final change that is expected is that adolescents are able to really change their behavior toward non-smoking behavior which is manifested by concrete actions that adolescents are truly free from cigarette smoke.

CONCLUSIONS

This study reveals the strong influence of non-smoking intentions and self-efficacy of adolescents for not smoking behavior. Other factors that have an indirect effect include the level of knowledge of adolescents which indirectly influences non-smoking attitudes and non-smoking intentions on adolescent non-smoking behavior. The level of knowledge also has an indirect effect through self-efficacy and intention not to smoke on adolescents' non-smoking behavior. Media exposure to information about smoking has an indirect effect through attitudes and non-smoking intentions on adolescents' non-smoking behavior.

Recommendation; These findings can be used to design health promotion programs to prevent and reduce smoking behavior among adolescents.

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