Smoking behavior analysis on teenagers in Kulon Progo Yogyakarta

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ABSTRAK

Latar Belakang: Perilaku merokok remaja dari hari ke hari semakin meningkat. Remaja yang awalnya tidak merokok menjadi perokok karena lingkungan sekitar remaja banyak yang tidak mengindahkan norma subjektif. Ditambah dengan pengaruh keluarga perokok meningkatkan kekuatan remaja untuk bersikap negatif terhadap merokok.

Tujuan: Penelitian ini bertujuan untuk mengetahui pengaruh secara langsung maupun tidak langsung sikap, normal subyektif dan niat terhadap perilaku merokok remaja di Kulon Progo Yogyakarta.


Hasil: Terdapat pengaruh langsung sikap remaja terhadap tidak merokok (p <0,001) dan niat tidak merokok pada remaja (p <0,001) terhadap perilaku merokok pada remaja di Kulon Progo Yogyakarta.

Kesimpulan: Terdapat pengaruh tidak langsung antara norma subjektif tidak merokok melalui sikap tidak merokok dan niat tidak merokok terhadap perilaku merokok pada remaja di Kulon Progo Yogyakarta.

KATA KUNCI: norma subyektif; sikap; niat; remaja

ABSTRACT

Background: Adolescent smoking behavior from day to day is increasing. Teenagers who initially did not smoke became smokers because the environment around them did not heed subjective norms. Coupled with the influence of smoking, families increases the power of adolescents to be negative towards smoking.

Objectives: This study aimed to determine the direct or indirect effect of attitude, subjective norm, and intention on adolescent smoking behavior in Kulon Progo Yogyakarta.

Methods: This research is quantitative in form, conducted in Kulon Progo Yogyakarta. The population was 59,588 adolescents, after being calculated by the Slovin formula obtained 400 samples. Variable in the form of attitude, subjective norm, intention, and smoking behavior. The data were obtained by distributing valid and reliable questionnaires to 400 respondents, 200 smokers and 200 non-smokers, then analyzed using a path analysis using Stata 13.

Results: There was a direct influence on adolescent attitudes towards not smoking (p <0.001) and intention to not smoke in adolescents. (p <0.001) on smoking behavior in adolescents in Kulon Progo Yogyakarta.
Conclusions: There is an indirect influence between subjective norms of not smoking through non-smoking attitudes and non-smoking intentions on smoking behavior among adolescents in Kulon Progo Yogyakarta.

KEYWORD: subjective norms; attitude; intention; an adolescent

INTRODUCTION

Smoking behavior is a global problem. Each country’s characteristics always face issues with its citizens’ behavior that does not follow health standards. These unhealthy behaviors include smoking, drinking, free sex, drugs, and others. In Vietnam, for example, many people smoke, mostly migrants from rural areas to urban areas (1). Smoking behavior in Indonesian society from year to year has always increased; from 2007 to 2013, people aged 15 years and over increased from 34.2% to 36.3%. Male smokers are 64.9%, and there was 2.1% female. The average number of cigarettes smoked is around 12.3 cigarettes; this varies significantly from the lowest being ten cigarettes in the Special Region of Yogyakarta and the highest in Bangka Belitung (18.3 sticks). This smoking behavior is based on research conducted by Sajinadiyasa (2) can cause various diseases, including pulmonary tuberculosis (76.1%), pneumonia (55.6%), asthma (41.7%). The number of toxins in cigarettes in various health studies has been shown to damage and endanger health. It even kills its users slowly, even though Allah has spoken:

“.... Who ordered them to do what was ma’ruf and forbade them from doing what was wrong, and made lawful for them all that was good and forbade them all that was bad ...” (QS. Al-A’raf: 157)

Research conducted by the Kulon Progo Regency Government in 2017 in collaboration with Nanyang Technology University found that of the 15,000 junior high school students in Kulon Progo, 800 junior high school youth (5.3%) were smokers (3). This is a relatively high number, so it is necessary to find the best solution to decrease this number. Various physical and psychological changes mark adolescence. These changes will cause problems for adolescents if not accompanied by a good self-understanding of these changes. Youth is a transitional period between childhood and adulthood. Several changes are universal for adolescents, including that adolescent are more likely to prioritize emotions, changes in body shape, interests, and expected social roles, and adolescents tend to want freedom (4).

Freedom for adolescents is a form of looking for an identity, how other people believe in their existence. It is in this process of self-discovery that adolescents are encouraged by sociocultural. The compensatory form and symbolization of some teenagers are expressed by smoking behavior. This smoking method is considered a symbol of maturity, strength, leadership, and attraction to the opposite sex. Many factors cause
adolescents to smoke, including close friends and parents who smoke (5), intention, attitude, and subjective norms for smoking behavior (6). Changing this behavior is not an easy thing (7). It requires comprehensive efforts both internally and externally from the youth themselves. The purpose of this research is that the writer wants to analyze the influence directly or indirectly between subjective norms, attitudes, and intentions of adolescents on smoking behavior.

**MATERIALS AND METHODS**

This research was conducted from April to August 2018 with a quantitative research design, carried out using a cross-sectional approach (8). Cross-sectional approach seeks to find the relationship between variables whose data is collected through questionnaires filled out by respondents whose results allow for generalization. Population is youth in Kulon Progo, with as many as 59,588 people. Sampling was calculated using the Slovin formula, taken as many as 400 adolescents who were subjects in this study, then divided into 200 adolescents who smoke and 200 adolescents who do not smoke. This sample size ensures that all respondents are willing to provide data, because the researcher immediately looks for other respondents if a respondent who is asked to provide data at that time is not willing. The sampling technique used stratified random sampling was carried out on junior high and high school students / equivalent spread over 12 sub-districts in Kulon Progo Yogyakarta with a proportional random sampling technique. The questionnaire was created and developed by researchers based on attitude variables, subjective norms, and the intention not to smoke. These three variables are adapted from the theory of Planned Behavior (TPB) by Ajzen (9). Attitude variable consists of three dimensions of affective, cognitive, and conative. The subjective norm variable consists of two dimensions, namely community culture and self-confidence. The intention variable consists of the dimensions of threat appraisal and coping appraisal. All questionnaires were tested for validity and reliability first. There are 13 variable attitude statements declared valid with $\alpha = 0.675$, subjective norm variables there are 9 valid items with $\alpha = 0.694$ and the intention variable there are seven valid statement items with $\alpha = 0.773$. The data were obtained by giving questionnaires to the subjects and observing several subjects between the case group (smoking) and the control group (non-smoking). The analysis in this study uses path analysis (10) by analyzing one variable’s influence and another using the STATA 13 program (11).

**RESULTS AND DISCUSSION**

In Kulon Progo there has been a Regional Regulation on Non-Smoking Areas which has been implemented in various agencies. One of the real implementations of the Regional Regulation is the prohibition of advertising and sponsoring cigarettes in various activities such as music performances or sports activities.

Respondents in this study were students who attended junior high and high school levels in Kulon Progo. The distribution of respondents is in 12 sub-districts consisting of 87 villages and one kelurahan. The age of the respondents ranged from 12 years to 16 years. The economic condition of the respondents’ parents with low income is below the minimum wage, namely 51% and only a small portion of them have high income. However, in reality, smoking behavior, especially among adolescents, is still relatively high.

To reveal the direct or indirect influence of attitude, subjective normal and intention to
smoking behavior of adolescents in Kulon Progo, this study was analyzed quantitatively. The data collected are then processed and analyzed, and discussed to make it easier to understand what factors contribute to adolescents who smoke behavior. The results and discussion can be seen in the following table.

In Table 1, the results show that adolescents who smoke are caused by the lack of support from the community, or in other words that the subjective norms that apply and are mutually agreed upon by the community where adolescents are located do not support adolescents to behave healthily by not smoking 76%. When a teenager lives in a society that is not indifferent to the norms that apply in the community, it will cause the teenager to be more willing to smoke. In the adolescent attitude variable for not smoking, the results showed that 69.4% of adolescents had a positive attitude not to smoke. This means that the more positive adolescents do not smoke, the higher the nonsmoking behavior of adolescents. In the variable of adolescents’ intention to not smoke, the results show that the stronger the adolescent’s intention not to smoke, the higher the adolescent’s non-smoking behavior, namely 76.2%.

Research on the effect of attitudes on quitting smoking in young adults in Chongqing China, there were 30.97% of men did not think about quitting smoking (12). The path analysis test results using the STATA 13 program can be seen in the following figure.

As seen in Figure 1, path analysis shows that smoking behavior is directly influenced by two variables: intention and attitude. At the same time, subjective norm variables also indirectly influence both intention and attitude. When viewed from the results of the coefficients on each pathway, there is a direct negative influence between the intention of not smoking ($b = -2.11$) on adolescent smoking behavior. There is a negative influence between the attitude not to smoke ($b = -0.85$) on smoking behavior. There is an indirect positive effect of subjective norms through attitude ($b = 2.21$) on smoking behavior. There is also an indirect influence between subjective norms through intention ($b = 2.73$) on smoking behavior. For more details relating to the path analysis test results, it can be noted in Table 2 below.

In Table 2, it can be explained that there is a significant direct effect of no smoking intention on adolescent smoking behavior in Kulon Progo with $p < 0.001$. Research conducted by Su et al. (13) in China found that adolescents who live in rural areas play a significant role in influencing other teenage friends to strengthen their intention to smoke. Peer influence automatically increases adolescents’ intention to smoke behavior and follows other friends who have previously smoked (13). A direct effect on adolescent non-smoking

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Smoke n (%)</th>
<th>Do not smoke n (%)</th>
<th>Total n (%)</th>
<th>OR</th>
<th>p*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjective norms of not smoking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does not support &lt; 19</td>
<td>165 76</td>
<td>52 24</td>
<td>217 100</td>
<td>0.07</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Support ≥ 19</td>
<td>35 19.1</td>
<td>148 80.9</td>
<td>183 100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The intention of not smoking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weak &lt;31</td>
<td>150 78.9</td>
<td>40 21.1</td>
<td>190 100</td>
<td>0.08</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Strong ≥31</td>
<td>50 23.8</td>
<td>160 76.2</td>
<td>210 100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No smoking attitude</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative &lt; 51</td>
<td>136 71.2</td>
<td>55 28.8</td>
<td>191 100</td>
<td>0.18</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Positive ≥ 51</td>
<td>64 30.6</td>
<td>145 69.4</td>
<td>209 100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
attitudes towards teenage smoking behavior in Kulon Progo with p-value <0.001. A teenager’s perspective is a direct determinant of a person’s smoking behavior (9). Attitudes can be formed by giving education through positive behavioral videos (14). A positive attitude to quit smoking will also affect adolescents’ intention to stop smoking behavior (15). The interaction between people influences the formation of a person’s attitude. Teens who always interact with each other will change adolescents’ attitude who tend to follow friends in the community. This peer influence is powerful in changing adolescent behavior (16).

**DISCUSSION**

If the youth community has a lot of negative behavior, such as smoking, young people who have just joined the community may also smoke. Besides that, there are also factors from the family environment. If a smoker’s father is in a family, it will form an attitude for the child to imitate smoking behavior (17). Indirectly, there
was a significant influence between subjective norms of non-smoking on adolescent smoking behavior through non-smoking intention with \( p < 0.001 \) and through non-smoking attitudes with \( p < 0.001 \). A survey of 366 students from three Midwestern Universities in the United States states that there is an indirect influence on subjective norms, especially among students/adolescents or peer groups that can influence someone to smoke behavior (18). Social norms in society will shape a person’s behavior, starting from the composition of behavior formed in the environment of each family, then associating into a norm adopted by the surrounding community. This social relationship will also impact a person’s desire to try new things he meets. The existence of women who smoke due to environmental factors and the behavior of people who smoke (19). This also does not close the possibility that many adolescents smoke because society is already indifferent to the existing norms. Male adolescents generally have a higher proportion of smoking, drinking, and sexual activity than female adolescents (20). To overcome the problem of adolescent smoking behavior is needed: First, efforts in the form of interpersonal communication so that adolescents can stop Second, health education that involves adolescents (21), by combining the needs and wants and expectations of the population. Third, intervening in sociocultural accommodation with norms that uphold health values (22).

**CONCLUSION AND RECOMMENDATION**

There is a direct influence on the attitude of not smoking (\( P < 0.001 \)) and the intention of adolescents not to smoke (\( P < 0.001 \)) on the smoking behavior of adolescents in Kulon Progo Yogyakarta. There is an indirect effect of subjective norm of not smoking (\( P < 0.001 \)) through the attitude of not smoking and adolescents’ intention not to smoke on smoking behavior in adolescents in Kulon Progo Yogyakarta.

It is recommended for all adolescents to stay away from smoking behavior, both passive and active smokers, because smoking can endanger the body’s health. The next researcher can intervene in non-smoking behavior through positive behavior education with videos as presented by Kosasih and Solehadi.

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