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## Stress and Motivation to Smoke among Adolescents

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### ABSTRACT

**Background:** Stress is a condition of anxiety or mental strain brought on by challenging circumstances and motivates us to face obstacles and dangers in life. Stress often experienced by adolescents, with a reported high prevalence of depression among teenagers. Each person uses different stress coping techniques, some of which are beneficial and others of which are detrimental. Smoking is one of the negative stress coping strategies that some people turn to in the hopes of finding mental calm. However, smoking behavior is dangerous for both active and passive smokers, who may experience a range of illnesses, including cancer, lung disease, impotence, reproductive abnormalities, stroke, and possibly fatal pregnancy issues for the fetus. **Objective:** The aim of this research is to determine the relationship between stress levels and smoking motivation among adolescents. **Method:** This research is a quantitative descriptive study with a cross-sectional approach by involving 80 subjects of adolescents. The research instrument used a questionnaire that had been tested for validity. Analysis of this research data used the Spearman Rho test. **Results:** It was discovered that 38 subject (47.5%) had low level of stress, 26 subject (32.5%) had moderate levels of stress, 9 (11,25%) had high levels of stress, 7 (8,75%) had very high levels of stress. Smoking motivation was discovered that 59 subject (73.75%) had moderate smoking motivation, 31 subject (38.75%) had high smoking motivation. **Conclusion:** There is a relation between stress levels and smoking motivation among adolescents with a significance value of 0.00 ( $p < 0.05$ ).

### KEYWORDS

Stress, Smoking Motivation, Teenager, Adolescents



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## INTRODUCTION

Stress is a condition of anxiety or mental strain brought on by challenging circumstances. Stress is a normal human reaction that motivates us to confront obstacles and dangers in our lives (WHO, 2023). Stress is described from different angles, notably stress as a stimulus, stress as a response and stress as a stimulus response. The environment has an impact on stress as a stimulus. According to the theory of stress as a stimulus, stress is a force that compels people to react to stressors. The primary stress hormone, cortisol, is released when tension arises, and people who are under stress usually try to use stress coping mechanisms to lessen or deflect the pressure they are under (Andhini, 2017).

This approach views stress as a consequence of the interaction between environmental stimuli and individual responses (Rialmi, 2021). The high prevalence of depression among teenagers (38.9%) may be a contributing factor to the high prevalence of suicide ideation identified in this study when compared to other studies conducted in Indonesia. teenagers are also frequently affected by this stressful condition. In its most severe form, depression can result in behaviors that pose a risk to life, including self-harm and suicide, among other negative symptoms (Kurniawan et al., 2024). Each individual person handles stress in a different way, both advantageously and disadvantageously. In an attempt to achieve mental calm, some people turn to unhealthy stress coping mechanisms like smoking (Artawan & Cendana, 2021). Smoking, however, poses a risk to both active and passive smokers, who may die from a variety of illnesses, including lung disease, cancer, impotence, reproductive issues, stroke, and pregnancy and fetal abnormalities (Panji et al., 2022).

The number of smokers continues to increase and has become a lifestyle even among teenagers. Smoking from a young age increases the risk of becoming a heavy smoker and developing various chronic diseases (Panji et al., 2022). The World Bank (2024) stated that from 2000 to 2020 tobacco users in Indonesia increased by around 2.2% from 35.4% in 2000 and increased to 37.6% in 2020 (Bank, 2024).

Smoking behavior among adolescents is influenced by internal and external factors of the individual. External influences include the influence of parents, friends, and the social environment, while internal factors include personality, psychological factors, age, and gender. According to some people, smoking is considered to show pride or masculinity (Artawan & Cendana, 2021).

In Indonesia, the percentage of teenagers between the ages of 13 and 15 who smoke is rising (20%), with male adolescents making up 41% of this group. In 2016, the percentage of smokers among students increased by 23.1% to 37.3%, with 3 out of 10 students (30.9%) reporting that they started smoking before the age of ten. In Central Java, 62.7% of people smoke one to ten cigarettes a day (Panji et al., 2022). The increasing number of smokers among adolescents is because at this transitional age, adolescents have characteristics in growth and development, namely searching for identity and wanting to show their identity (Witriyani, et al., 2024).

Smokers cite stress as a motivation to smoke. One argument may be that they realize that nicotine consumption can overcome the effects of stress, as well as provide psychological benefits such as improved mood and concentration (Hojjatnia et al., 2021).

Based on this background, the author is interested in examining the relationship between stress levels and motivation to smoke behavior among adolescents.

## RESEARCH METHOD

This research is a quantitative study with a cross-sectional study approach. This research was conducted in January - July 2024. This research was conducted in Camden Village, Sambu District, Boyolali Regency. The population of this study were all early adolescents aged 17-25 years. The sampling technique used purposive sampling with 80 adolescents as samples. The instruments in this study using stress level questionnaire using the Depression Anxiety Stress Scale (DASS)-42 and questionnaire about smoking motivation. Smoking motivation questionnaire consisting of 17 statements, for favorable statements with answers strongly agree getting 4 scores, agree getting 3 scores, disagree getting 2 scores, and strongly disagree getting 1 score, while for unfavorable statements the answers strongly agree getting 1 score, agree getting 2 scores, disagree getting 3 scores, and strongly disagree getting 4 scores (Afifah, 2022). Furthermore, data analysis includes univariate data analysis using frequency tables and bivariate analysis using the Spearman Rank correlation test.

## RESULT AND DISCUSSION

### Result

The results of this study provide data the levels of stress and smoking motivation among adolescents, presented in the table below.

Tabel 1. Frequency tabulation of stress levels.

Stress Level	F	%
Mild	38	47.5%
Medium	26	32,5
High	9	11,25
Very High	7	8,75
<b>Total</b>	<b>80</b>	<b>100,0</b>

Table 1 shows that 38 respondents experienced mild stress (47.5%), while 26 respondents (32.5%) experienced moderate stress, 9 respondents (11.25%) experienced severe stress, and 7 respondents (8.75%) experienced very severe stress.

Tabel 2. Frequency tabulation of motivation to smoke

Motivation to Smoke	F	%
Low Motivation	0	0
Medium Motivation	59	73.75
High Motivation	31	38.75
<b>Total</b>	<b>80</b>	<b>100,0</b>

Table 2 shows that 59 respondents (73.75%) have a moderate level of motivation to smoke, while 31 respondents (38.75%) have a high level of motivation to smoke.

Tabel 3. Correlation Spearman Rank Test

		Smoking Motivation	
Spearman's rho	Stress_Level	Correlation	,526**
		Coefficient	
		Sig. (2-tailed)	,000
		N	80

Based on Table 3, it explains that the level of stress has a significant relationship with smoking motivation among adolescents, with a p-value of 0.000 ( $\alpha < 0.05$ ).

## DISCUSSION

Based on Table 1, it shows various levels of stress experienced by adolescents, ranging from mild stress to very severe stress. These results are in line with the study by Sari et al., 2023, which observed stress management in adolescents through a questionnaire indicating that the majority of respondents had experienced stress or burnout. There are many sources of stress experienced by teenagers in Indonesia. Piled-up tasks are one of the five most common causes. Every teenager faces the pressure of piling tasks at school and at home. In addition, some of the most common causes of stress among teenagers are heartbreak, parental expectations, and pressure from their environment. This is because teenagers often experience emotional outbursts while building their own identity and independence, as well as facing pressure to adapt sexually, form relationships with peers, and gain recognition from their parents. Balance disorders and several other factors, such as biological, psychological, and social, can lead to long-term stress. Teenagers can experience stress due to their lifestyle, friendships, and their ability to adapt. (Priyoto, 2019). This stress arises from the lack of balance between what they need and what they have. The greater the gap that occurs, the greater the stress experienced by teenagers. (Yosep & Sutini, 2014).

Table 2 shows the motivation and desire of a teenager to smoke, which is very concerning, ranging from a moderate to a high level of motivation to smoke. This is due to the influence of various factors, including internal factors, the environment, social interactions, parenting styles, the lack of parental figures in promoting a healthy lifestyle and high curiosity of adolescents causes adolescents to want to try new things that they have never experienced. This is in line with Riyadi's research which states that smoking behavior occurs more in adolescents who are exposed to media information about cigarettes than adolescents with little exposure to media information about cigarettes (Riyadi, 2020).

Southeast Asian countries have the highest prevalence of adolescent smokers exceeding the world prevalence (WHO, 2021). Smoking behavior in adolescents can be influenced by several aspects. Smoking behavior increases in adolescence due to massive cigarette advertisements in various media and sponsorship by cigarette companies in various sports and entertainment events. Smoking behavior can cause an increase in non-communicable diseases (NCDs), especially the risk of lung cancer which is 7.8 times greater than non-smokers (Sleman Regency, 2021). The level of knowledge about the dangers of smoking is the level of understanding about the dangers of smoking and exposure to information in the form of cigarette advertisements has a major influence on smoking behavior, especially in adolescents. Advertisements that use various media so that they are easily accessible to adolescents cause great curiosity in adolescents (Nurwahidah et al., 2015; Fadhila et al., 2022).

According to Zakiyah et al. (2023) research findings, there is a complex association between smoking behavior and stress levels that is influenced by a number of factors. Gaining this insight will help in the development of more potent intervention plans aimed at quitting smoking and enhancing personal health. There will be chances to create more effective strategies to address the link between stress and smoking with continued research. Stress management needs to be a key component of any effective smoking cessation program. Success in quitting smoking may depend on assisting people in learning constructive coping mechanisms and non-smoking stress management techniques. Due to the complexity of stress levels and smoking behavior, which vary among individuals, further research and a deeper understanding of these factors are essential for developing more effective interventions. Healthy stress management and alternative coping strategies should also be considered in efforts to prevent and treat smoking.

## CONCLUSION

There is a relation between stress levels and smoking motivation among adolescents with a significance value of 0.00 ( $p < 0.05$ ). Intensive mentoring among adolescents and cross-sectoral coordination need to be implemented to reduce smoking behavior among teenagers.

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