

## **The Effect of Smoking Behavior on Students' Learning Discipline A Study at SMA Negeri 2 Bitung**

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### **Abstract**

*Smoking among students is a growing concern worldwide. Research conducted by the Indonesia Institute for Social Development (IISD) in collaboration with the Muhammadiyah Student Association (IPM) revealed that 27.7% of high school students in Indonesia have tried smoking. Furthermore, 10.67% of students actively smoke on a daily basis. Among teenagers, smoking is often perceived as a symbol of maturity or a form of rebellion against rules. However, deciding to smoke at a young age can have detrimental effects on both health and development. This study aims to determine the relationship between smoking behavior and learning discipline among students at SMA Negeri 2 Bitung. This is a quantitative research study using a cross-sectional approach, conducted on 40 randomly selected samples. Data collection was done using a questionnaire that had previously undergone validity and reliability testing. Data were analyzed using the Chi-Square test with a significance level of  $\alpha = 0.05$ . The Chi-Square test results showed a significant relationship between smoking behavior and students' learning discipline ( $p = 0.000 < 0.05$ ).*

**Keywords:** Behavior, Smoking, Students' Learning Discipline

### **Abstrak (Indonesian)**

Merokok di kalangan pelajar merupakan masalah yang terus meningkat di seluruh dunia. Hasil riset Indonesia Institute for Social Development (IISD) bersama Ikatan Pelajar Muhammadiyah (IPM) menunjukkan, sebanyak 27,7% pelajar di tingkat Sekolah Menengah Atas (SMA) di Indonesia pernah merokok. Bahkan, 10,67% pelajar sudah aktif merokok setiap harinya. Kebiasaan merokok di kalangan remaja seringkali dianggap sebagai simbol kedewasaan atau bentuk perlawanan terhadap aturan. Padahal, Keputusan merokok di usia remaja dapat berdampak buruk bagi kesehatan dan perkembangan. Penelitian ini bertujuan untuk mengetahui hubungan antara Perilaku Merokok dengan disiplin belajar Siswa di SMA Negeri 2 Bitung. Jenis Penelitian ini adalah penelitian kuantitatif dengan pendekatan cross sectional yang dilakukan terhadap 40 sampel yang ditentukan secara random sampling. Pengumpulan data diperoleh dari alat ukur menggunakan kuesioner yang sudah dilakukan uji validitas dan reliabilitas. Analisa data Menggunakan uji Chi-Square sampel dengan kemaknaan  $\alpha = 0,05$ . Hasil Uji Chi-Square di dapatkan adanya Hubungan Antara Merokok Dengan Disiplin Belajar Siswa ( $p=0.000<0.05$ ).

**Kata kunci:** Perilaku, Merokok, disiplin belajar siswa

## INTRODUCTION

Smoking among students is a growing problem worldwide. The results of research by the Indonesia Institute for Social Development (IISD) together with the Muhammadiyah Student Association (IPM) show that as many as 27.7% of students at the high school (SMA) level in Indonesia have smoked. In fact, 10.67% of students are already actively smoking every day. Although smoking often begins as a social activity or a way to adjust to peer influence, smoking has far-reaching consequences that can affect students' health, academic achievement, and social relationships. Smoking at a young age can lead to a variety of health complications. This habit exposes students to high levels of nicotine, an addictive substance that can damage lung tissue, inhibit respiratory function, and decrease overall physical endurance<sup>(1)</sup>. Adolescence is a transitional period between childhood and adulthood. There is a developmental period called the identity search period, where various adolescent behaviors are aimed at imitating adult behavior. One of the behaviors that occurs a lot among adolescents today is smoking behavior<sup>(2)</sup>. People who are called adolescents may vary, according to the World Health Organization (WHO) the definition of adolescent is given through three biological, psychological, and socioeconomic criteria. Therefore, it can be explained that adolescence is a period of individual development from the time he or she shows the first secondary sexual signs until he reaches social maturity<sup>(3)</sup>.

A student is an individual who is undergoing an educational process in an institution, such as a school or other educational institution. In fact, in school, students cannot be separated from the problems they experience, both problems that come from home and problems that arise from their peers at school<sup>(4)</sup>. Discipline is related to order and order which contains the meaning that discipline is a person's obedience to the rules that apply in the environment where he or she is located. With this discipline, it can show the value of obedience to the set rules. A person's disciplined attitude is also related to his or her learning activities. According to Yulianti (2023), learning is a process of obtaining new information and knowledge from the outside world, by learning will make many changes in a person<sup>(5)</sup>.

According to data from the Ministry of Health of the Republic of Indonesia (2023), the prevalence of smoking among adolescents aged 15-19 years reaches 23.1%<sup>(6)</sup>. Smoking behavior can have a negative impact on student learning discipline. Students who have a smoking habit tend to have low concentration levels, often violate school rules, and pay less attention to academic assignments. This is caused by the effects of nicotine substances that can affect concentration, emotions, and mindset. In addition, students who smoke are also more prone to hanging out with groups of friends who have deviant behavior, which can ultimately worsen their learning discipline. According to data from the WHO in 2020, around 21 million adolescents aged 13-15 years are recorded as smokers, with 15 million of them being adolescent boys and 6 million adolescent girls. Globally, the prevalence of male smokers in the 13-15 age group reached 7.9% during the 2010-2020 period. On the other hand, the prevalence of female smokers in the same age group is lower, at around 3.5%.

Data from the 2023 Indonesian Health Survey (SKI) by the Ministry of Health shows that the number of active smokers reaches 70 million people, with 7.4% of them aged 10-18 years. The 15-19 year old age group is the most smoker (56.5%)<sup>(7)</sup>. Based on data from the Central Statistics Agency (BPS) in 2021, the presentation of the population aged 15 years and above who smoke in North Sulawesi Province for the age group of 15-24 years is 15.46%. Meanwhile, based on data from the Central Statistics Agency in 2022, the presentation of the population aged 15 years and above who smoke in North Sulawesi Province is 29.50%<sup>(8)</sup>. According to Sarbani (Elpiani, 2020), student behavior that reflects a lack of learning discipline is not following the learning process for various reasons, not making notes of subject matter, arriving late, not paying attention to the teacher's explanations and making a fuss in class. This description is in accordance with the results of interviews with character development teachers at SMA Negeri 2 Bitung<sup>(9)</sup>.

Based on observations, the results were obtained that at SMA Negeri 2 Bitung there are still students who lack discipline in learning which is shown by the presence of students who skip class with the aim of going to the canteen or skip because they want to smoke. The problem of smoking behavior among students is due to social environmental factors at school. SMA Negeri 2 Bitung City has implemented a No Smoking Area. The age of the students who are still labile and easily influenced by the social environment is a factor that affects the smoking habits of the students. Based on preliminary data conducted by researchers from 50 male students, and who had smoked the researcher took samples in class XII totaling 17 male students, 4 of whom smoked because they wanted to try and it, and 3 of them because they were afraid of being underestimated by their friends, 10 others said cigarettes could relieve the stress they experienced.

Health problems that often arise from smoking are coronary heart disease, stroke, and hypertension. Smoking also causes chronic obstructive pulmonary disease (COPD), emphysema, and lung cancer as well as respiratory system disorders as smokers are more susceptible to respiratory infections, including pneumonia and tuberculosis<sup>(10)</sup>. Based on this, the researcher is interested in discussing "The Relationship Between Smoking Behavior and Student Learning Discipline at SMA Negeri 2 Bitung".

## METHODS

### Design, place and time

This type of research uses quantitative research methods, The type of research used is *pre-experimental* with a *one group pre-test* and *post-test design*. This research was conducted at SMA N 2 Bitung. The time for the implementation of the research began in June 2025 which included the preparation stage, data collection using questionnaires that have been tested for

validity and reliability, as well as initial data processing to ensure the completeness of the information obtained from respondents.

**Number and method of taking subjects**

The population, used in this study is all 10 and 11 students in total at SMA N 2 Bitung which totals 70 students. The sample in this study is the entire population of grade 10 and 11 students.

**Types and Methods of Data Collection**

The data types in this study consist of primary data and secondary data. Primary data was obtained directly from respondents through filling out a structured questionnaire that had been tested for validity and reliability.

**Data processing and analysis**

The data collected from the questionnaire is first checked for completeness through *the editing* process to ensure that no answers are missed or inconsistent. Next, the coding process is carried out, which is the provision of numerical codes for each category of answers to facilitate data processing. The next stage is *data entry*, which is entering all the data that has been coded into a computer program using SPSS software.

**RESULTS AND DISCUSSION**

**A. RESULTS**

**1. Univariate Test**

Diagram 1. Characteristics of Respondents by Gender

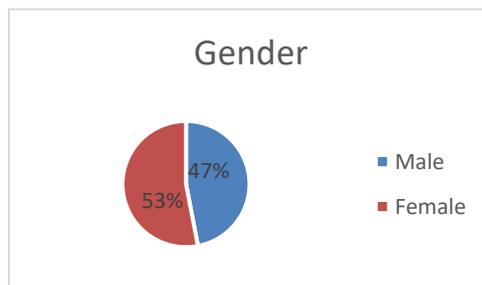


Diagram 1 shows that most of the respondents at SMA Negeri 2 Bitung are female 37 (53%)

**a) Knowledge**

Diagram 2. Distribution of Respondents Based on Knowledge

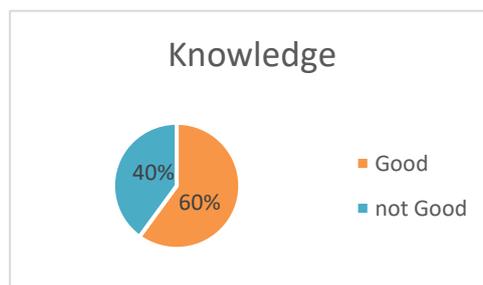


Diagram 2 shows that the smoking knowledge of 42 people (60%) is categorized as good.

b). Attitude

Diagram 3. Distribution of Respondents Based on Attitude

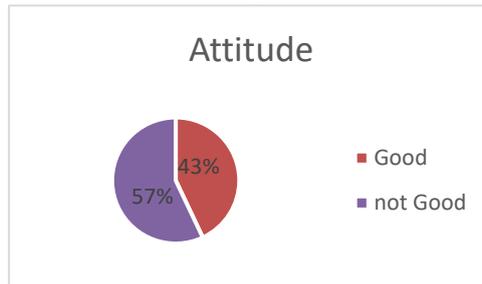


Diagram 3 shows that the smoking attitude of 40 people (57%) is categorized as poor

c). Actions

Diagram 4. Distribution of respondents by action

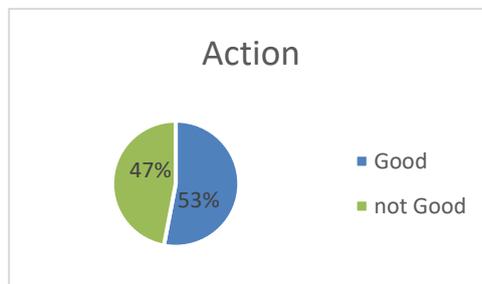


Diagram 4 shows that the actions of 37 students (53%) are categorized as good.

d). Learning Discipline

Diagram 5. Distribution of Respondents Based on learning discipline

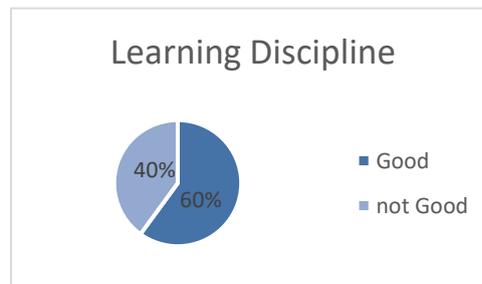


Diagram 5 shows that 24 students (60%) answered well.

2. Bivariate Analysis

a) Knowledge

Table 10. Analysis of Smoking Knowledge with Learning Discipline

Knowledge	Learning Discipline		Total	P Value
	Good	Less		
Good	18	24	42	.000
Less	10	18	28	
Total	42	28	70	

Table 10 shows that the results of the Person Correlation Test were obtained that there was a relationship between smoking knowledge and student learning discipline  $p=0.000 < 0.05$ .

b) Attitude

Table 11. Analysis of Smoking Attitudes with Learning Discipline

Attitude	Learning discipline		Total	P Value
	Good	Less		
Good	18	12	30	.004
Less	24	16	40	
Total	42	28	70	

Table 11 shows that the results of the Person Correlation Test found a relationship between smoking attitudes and student learning discipline  $p=0.004<0.05$

c) Actions

Table 12. Analysis of Smoking Actions with Learning Discipline

Actions	Learning discipline		Total	P Value
	Good	Less good		
Yes	23	12	37	.000
No	21	14	35	
Total	26	44	70	

Table 12 shows that the results of the Person Correlation Test were obtained in a relationship between smoking and learning discipline  $p=0.000<0.05$ ).

**DISCUSSION**

1. Univariate

a. Characteristics of Respondents at SMA Negeri 2 Bitung

Based on the results of the identification of the characteristics of the Respondents based on gender and age at SMA Negeri 2 Bitung, 37 (52%) were female. Gender is an important factor in a person's behavior so that the person can determine good and bad behavior. This is supported by research from Ikasari (2020) in his research that respondents with the female gender understand the importance of behaving well compared to male respondents<sup>(11)</sup> Previous research from Jovie (2023), because women value themselves more to do good things than men<sup>(12)</sup>

SMA Negeri 2 Bitung is 16 years old and 31 (44%). Likewise with age, from the theory of Sarwono (2016) stating that age is the most important factor in individual retention and attitude, so that they will tend to have positive behavior compared to their age<sup>(13)</sup>. This is further emphasized by the journal from Dharawati (2018) in his research it is explained that when you get older, it also affects the level of maturity in thinking and acting. The older you get, the more a person's behavior will be different according to the knowledge that has been obtained<sup>(14)</sup>

Based on age, it was found that the highest age frequency was 16 years old, which was 19 respondents (47.5) and the lowest was 17 years old, which was 9 respondents (22.5), while based on gender, the highest was female, which was 22 respondents (53) and the lowest was male, which was 18 respondents (47).

b. Identifying the Level of Smoking Behavior in Students at SMA Negeri 2 Bitung

1. Smoking Knowledge

The results showed that as many as 42 respondents (60%) had knowledge about smoking and showed good learning discipline. This research is supported by research conducted by Putra (2020) which states that good knowledge about the dangers of cigarettes is positively correlated with healthy behavior and a more orderly learning pattern<sup>(15)</sup> in addition, Wahyuni (2019) also found that students who have a high level of knowledge about cigarettes are better able to manage their study time and show better academic responsibility than students with low knowledge<sup>(16)</sup>

The researcher argues that knowledge about the dangers of smoking can have a positive influence on students' learning discipline behavior. Students who have adequate knowledge about the negative impacts of smoking tend to be more aware of the importance of maintaining health and focus on academic activities. These findings are in line with health behavioral theory, which states that knowledge is an important initial factor in encouraging healthy behaviors, including in maintaining learning discipline.

2. Smoking Attitude

The results of the study showed that as many as 40 respondents (57%) showed a negative attitude towards smoking and had good learning discipline. This means that there is a significant correlation between students' attitudes towards cigarettes and their level of discipline in learning.

This research is in line with research by Safitri & Hadi (2021), where students who have a negative attitude towards smoking also show better academic behavior and are emotionally stable. Attitude is an important psychological factor that plays a role in the formation of students' habits, including in determining their consistency in learning<sup>(17)</sup>

Researchers argue that negative attitudes toward smoking reflect an awareness and rejection of smoking habits, which can then have a positive impact on other behaviors, including learning discipline. This supports the psychosocial theory that states that an individual's attitude can affect daily behavior patterns.

### 3. Acts of Smoking

The results of the study showed that as many as 37 students (53%) had non-smoking actions or behaviors and showed good learning discipline. Previous research by Nasution (2018) concluded that smoking behavior is inversely proportional to the level of concentration and learning productivity. Students who actively smoke tend to experience a decrease in focus and motivation in academic activities. Therefore, the act of not smoking is an important indicator in creating a healthy learning climate<sup>(18)</sup>

The researchers argue that this gives the impression that the actual actions of avoiding the habit of smoking have a relationship with positive behavior in other aspects, such as discipline. This action reflects the success of the process of internalizing health and discipline values that may be obtained from the family, school, and information media.

### 4. Students' Level of Learning Discipline in General

Overall, 42 respondents (60%) said "yes" to the learning discipline indicators, indicating that the majority of students in this study had a good level of learning discipline. These results indicate that in general, students are able to show responsibility in carrying out study tasks and obeying the applicable rules. However, there are still 40% of students who have not shown optimal learning discipline, which can be influenced by external and internal factors, including smoking habits.

This is consistent with the results of a study by Rohmah (2020) which shows that although most students are able to carry out learning disciplines, environmental factors and bad habits such as smoking remain the main challenges in maintaining good learning consistency<sup>(19)</sup>

## 2. Bivariate

Based on the results, it was found that there was a relationship between the act of smoking and learning discipline ( $p=0.000<0.05$ ). Smoking behavior in high school students greatly affects the physical and learning condition of students. The habit of students who smoke will worsen the physical and reduce the learning discipline. When physical quality decreases, it will decrease the quality of learning. This is because one of the factors that affect learning development is physical conditions such as hearing, nervous system, and vision<sup>(20)</sup>

Smoking behavior can more or less interfere with students' brain and mental health. Nicotine as one of the substances contained in cigarettes, has various side effects for its users, including causing dependence, addiction, and toxicity to cognitive function which then gives rise to symptoms of difficulty concentrating<sup>(21)</sup>. The main characteristics of dependence include the use of a substance that causes psychoactive effects (effects on the brain that can cause emotional changes, behavioral changes, decreased consciousness, and perception) that affect smokers' behavior<sup>(22)</sup>

Smoking behavior can also interfere with students' cognitive function. Smoking can also cause a decrease in cognitive function, concentration, attention, memory, and can cause users to have difficulty remembering information, expressing opinions and having difficulty speaking<sup>(23)</sup> This will certainly have an impact on the level of students' concentration in learning which will then reduce their learning discipline.

Students' smoking habits, especially at the high school level, which have an effect on cognition, certainly cause an influence on academic achievement as well. Based on research data by Purwaningsih (2020), it was concluded that the academic achievement index of smokers and non-smokers has different achievement results. With lower learning achievement of students who smoke than students who do not smoke<sup>(24)</sup> Smoking students have a greater possibility of getting a lower learning index than students who do not smoke because theoretically smoking habits have a very bad impact, especially on cognitive functions which are then closely related to the functions of thinking, memory, concentration, and learning, resulting in worse learning outcomes or academic achievement indexes that smoke<sup>(25)</sup>

Based on research by Ferdita (2021), the results of research on the relationship between smoking behavior and learning achievement at SMK Negeri 4 Bima City are that smoking behavior greatly affects student learning achievement, When students have regular smoking behavior, it will cause nicotine accumulation in the body<sup>(26)</sup> The accumulation of nicotine in the body can cause a decrease in brain function, where students can experience a decrease in motivation to learn, a decrease in students' memory and concentration<sup>(27)</sup> Research conducted by Ningsih (2020) in stating that even though there is a ban on students from smoking in schools, in fact as many as 17% of adolescent boys still smoke as much as one pack of cigarettes in the past month<sup>(28)</sup>

## CONCLUSION

Based on the results of the research on the relationship between smoking behavior and student learning discipline at SMA Negeri 2 Bitung, the following can be concluded:

1. Respondent Characteristics  
Most of the respondents in this study were female students as many as 22 people (53%), and the majority were at the age of 16 years, which was as many as 19 people (47.5%). This shows that the middle age group at the high school level is the majority in this study.
2. Smoking Behavior Levels in Students  
The level of smoking behavior of students at SMA Negeri 2 Bitung is still relatively high. A total of 22 students (53%) admitted to having or still smoking. Meanwhile, in terms of knowledge, the majority of students (62.5%) have good knowledge about the dangers of smoking. However, most students (52.5%) showed poor attitudes towards smoking behaviour, reflecting a difference between personal understanding and attitudes.
3. The Relationship of Smoking Behavior with Learning Discipline  
The results of the Chi-Square test showed that there was a significant relationship between the three components of smoking behavior (knowledge, attitudes, and actions) and student learning discipline:
  - a) Smoking knowledge was significantly related to learning discipline ( $p = 0.000$ ),
  - b) Attitudes towards smoking were also significantly related to learning discipline ( $p = 0.004$ ),
  - c) The act of smoking had a significant relationship with learning discipline ( $p = 0.000$ ).

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