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THE CORRELATION BETWEEN KNOWLEDGE LEVEL ABOUT CIGARETTES AND PEER SUPPORT WITH SMOKING BEHAVIOR IN STUDENTS AT SMKS MATHLA'UL ANWAR BUARANJATI

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ABSTRACT

Background: Smoking is a serious health problem among adolescents due to the increasing number of novice smokers at school age. Smoking behavior in adolescents can be influenced by various factors, including the level of knowledge about smoking and peer support. **Objective:** This study aims to determine the relationship between the level of knowledge about smoking and peer support with smoking behavior in students at SMKS Mathla'ul Anwar Buaranjati. **Method:** This research method applies quantitative research with a cross-sectional approach. The population in this study was 103 students. Sampling used the Stratified Random sampling technique with a sample size of 90 respondents. The research instrument was a questionnaire. **Results:** The results of bivariate analysis using the Chi-Square test showed that there was a relationship between the level of knowledge with smoking behavior (p value = 0.037) and peer support with smoking behavior (p value = 0.025). **Conclusion:** There is a relationship between the level of knowledge and peer support with smoking behavior in students at SMKS Mathla'ul Anwar Buaranjati.

Keywords: ***"Smoking behavior", "Knowledge", "Peers", "Adolescents"***

INTRODUCTION

Adolescence is the transition phase from childhood to adulthood, occurring between the ages of 10 and 19. This phase is marked by significant physical, psychological, and social changes, including the maturation of reproductive organs, or puberty (Widardjo, 2020). These changes often lead to confusion and conflict, both internally and within social relationships, which can influence adolescent behavior, including the emergence of deviant behaviors such as smoking (Nursal, 2023).

Smoking is the act of inhaling tobacco smoke containing nicotine and various harmful, disease-causing chemicals. Despite extensive publicity campaigns about the dangers of smoking, the number of smokers worldwide remains high (Puspita, 2024). Smoking is now widespread among adolescents and has become a lifestyle, as they tend to try new things during this time of self-discovery, including smoking, which can become a permanent habit (Jannah, 2021).

According to the World Health Organization (2019), smoking is a leading cause of death, with a projected 8 million deaths per year by 2030, primarily in low- and middle-income countries (Direja & Febrimuliani, 2021). The Indonesian Health Survey (2023) recorded approximately 70 million active smokers, of which 7.4% were aged 10–18 years, with the 15–19 age group being the most dominant (56.5%), followed by those aged 10–14 years (18.4%). According to the Health Research and Development Agency (2019), the proportion of the population aged ≥10 years who smoked in 2018 was recorded at 24.3% nationally, while in Banten Province the figure was higher, at 26.77%. This data indicates that the percentage of smokers in Banten exceeded the national average that year. On the other hand, the percentage of former smokers in Banten Province in 2018 reached 5.6%, slightly higher than the national average of 5.3%. The majority of individuals who quit smoking are in the age group over 54 (Hermawan & Padjajaran, 2020).

Several studies have shown a significant relationship between knowledge and peer support and adolescent smoking behavior. Research by Yuliastika & Amirulah (2023) found a significant relationship between knowledge and smoking behavior at SMK Sasmita Jaya 1. This finding aligns with research conducted by Umari (2020) at SMK Negeri Tanjungsari. Meanwhile, research by Amalizar et al. (2023) found a significant association between peer support and smoking behavior among adolescent boys in Surabaya.

According to information obtained by researchers from SMKS Mathla'ul Anwar Buaranjati, the school frequently receives reports of students smoking outside of school, but still in the school grounds, while wearing their uniforms. The school has also never received any counseling on smoking, and no measurements have been conducted on students' knowledge about cigarettes and smoking behavior. Based on this, the researcher is interested in conducting research on "The Relationship between Level of Knowledge about Cigarettes and Peer Support with Smoking Behavior in Students at SMKS Mathla'ul Anwar Buaranjati"

MATERIALS AND METHODS

This research used a quantitative method with a cross-sectional approach. The population consisted of 103 students. Sampling was conducted using stratified random sampling, a sampling method that divides the population into several homogeneous subgroups or strata and then randomly selects samples from each stratum. The sample size for this study was 90 respondents. This research was conducted at SMKS Mathla'ul Anwar Buaranjati from January to March 2025. Data collection was conducted using primary data obtained through questionnaires distributed directly to respondents. The questionnaire consisted of three sections: knowledge about smoking, peer support, and smoking behavior.

Knowledge about smoking was measured using 24 items. For positive statements, correct answers were scored 1 and incorrect answers 0. For negative statements, correct answers were scored 0 and incorrect answers 1. The total knowledge score was categorized as poor knowledge (score ≤13 or <56%), sufficient knowledge (score 14–18 or 56%–75%), and good knowledge (score ≥19 or 76%–100%). Peer support was measured using 16 items. Negative statements were scored with a score of 1 for "yes" and a score of 0 for "no." Positive statements were scored with a score of 0 and a score of 1 for "no." Peer support was categorized as low or high based on the median, with low support if the score was <the median and high support if the score was >the median (median = 6). Smoking behavior was measured using 16 items with response options: always (score 5), often (score 4), sometimes (score 3), rarely (score 2), and never (score 1). The total score was then categorized as non-smoker (score 16), light smoker (score 17–32), moderate smoker (score 33–48), and heavy smoker (score 49–80). The data analysis method used was the Chi-Square test.

RESULTS AND DISCUSSION

1. Univariate Analysis

   Univariate analysis in this study consists of: Level of Knowledge, Peer Support and Smoking Behavior.

Table 1 Distribution of Knowledge Levels about Cigarettes among Students at SMKS Mathla'ul Anwar Buaranjati (N = 90)

Knowledge Level	f	%
Poor	21	23,3
Sufficient	35	38,9
Good	34	37,8
Total	**90**	**100**

Source: Primary Data 2025

Table 1 shows that the majority of respondents, 35 students (38.9%), had sufficient knowledge.

Table 2 Distribution of Peer Support among Students at SMKS Mathla'ul Anwar Buaranjati (N = 90)

Peer Support	f	%
Low	55	61,1
High	35	38,9
Total	**90**	**100**

Source: Primary Data 2025

Table 2 shows that the majority of respondents have low peer support, namely 55 students (61.1%).

Table 3 Distribution of smoking behavior among students at SMKS Mathla'ul Anwar Buaranjati (N = 90)

Smoking Behavior	f	%
Not smoke	19	21,1
Light smoker	28	31,1
Moderate smoker	18	20,0
Heavy smoker	25	27,8
Total	**90**	**100**

Source: Primary Data 2025

Table 3 shows that the majority of respondents are light smokers, namely 28 students (31.1%).

2. Bivariate Analysis

The bivariate analysis used in this research is the Chi Square test.

Table 4 Results of the Analysis of the Relationship between the Level of Knowledge about Cigarettes and Smoking Behavior in Students at SMKS Mathla'ul Anwar Buaranjati.

Knowledge Level	Smoking Behavior								Total		*p value*
	Not Smoke		Light smoker		Moderate smoker		Heavy smoker				
	F	%	f	%	f	%	f	%	f	%	
Poor	6	6,7	5	5,6	5	5,6	5	5,6	21	**23,3**	0,037
Sufficient	5	5,6	18	20	6	6,7	6	6,7	35	**38,9**	
Good	8	8,9	5	5,6	7	7,8	14	15,6	34	**37,8**	
Total	**19**	**21,1**	**28**	**31,1**	**18**	**20**	**25**	**27,8**	**90**	**100**	

Source: Primary Data 2025

Table 4 The chi-square test results showed a p-value of 0.037. This indicates a relationship between the level of knowledge about cigarettes and the smoking behavior variable ($p < 0.05$). Therefore, it can be concluded that Ha is accepted and Ho is rejected.

Table 5 Results of the Analysis of the Relationship between Peer Support and Smoking Behavior in Students at SMKS Mathla'ul Anwar Buaranjati.

Peer Support	Smoking Behavior								Total		*p value*
	Not Smoke		Light smoker		Moderate smoker		Heavy smoker				
	N	%	N	%	N	%	N	%	N	%	
Low	14	15,6	19	21,1	13	14,4	9	10	55	61,1	0,025
High	5	5,6	9	10	5	5,6	16	17,8	35	38,9	
Total	**19**	**21,1**	**28**	**31,1**	**18**	**20**	**25**	**27,8**	**90**	**100**	

Source: Primary Data 2025

Table 5 The chi-square test results showed a p-value of 0.025. This indicates a relationship between peer support and smoking behavior ($p < 0.05$). Therefore, it can be concluded that Ha is accepted and Ho is rejected.

Discussion

1. Univariate Discussion
   a. Knowledge Level

      Knowledge is the result of a sensory process involving the five senses, especially sight and hearing, and is influenced by experience, education, and the environment (Notoatmodjo, 2018). In this study, the majority of respondents had sufficient knowledge (38.9%), followed by good knowledge (37.8%) and insufficient knowledge (23.3%). This indicates that although students are familiar with information about cigarettes, their understanding is not yet comprehensive. According to Notoatmodjo (2014) in (Syapitiri Heni, Amila, 2021), knowledge consists of six levels: knowing, understanding, applying, analyzing, synthesizing, and evaluating. This finding aligns with Nurahmah's (2021) research at SMP Diponegoro 3 Kedungbanteng, which showed that the majority of students had insufficient knowledge (38%), despite having received counseling. This indicates that formal education is insufficient without in-depth understanding and cognitive habituation.

   b. Peer Support

      Peer support is a crucial factor in adolescent social development, as it can influence behavior and self-identity formation (Saputro & Sugiarti, 2021). In this study, 61.1% of students reported low levels of peer support, while 38.9% reported high levels. Although fewer students reported high levels of peer support, they tended to be in social environments that supported smoking behavior. This finding aligns with research by Qoni (2022), which showed that adolescent smokers tend to have high levels of peer support and group conformity, which are positively associated with smoking tendencies. Therefore, social interaction within peer groups can be a key driver of smoking habit formation among adolescents.

   c. Smoking Behavior

      Human behavior encompasses observable activities such as smoking, as well as less observable ones such as thinking or imagining (Notoatmodjo, 2020). In this study, the majority of students were classified as light smokers (31.1%), indicating the potential for increased smoking if not prevented. A total of 21.1% of students were recorded as non-smokers, suggesting the potential positive influence of family, school, and anti-smoking campaigns. However, the percentage of students in the moderate (20%) and heavy (27.8%) smokers categories remained quite high, indicating that smoking has become an established habit for most students.

      These findings align with Lawrence Green's theory in Mahendra et al. (2019), which states that behavior is influenced by three main factors: predisposition (knowledge and attitudes), enablers (access and environment), and triggers (peer influence). Low awareness of the dangers of smoking, easy access to cigarettes, and pressure from a permissive social environment reinforce students' tendency to smoke.

2. Bivariat Discussion
   a. The Correlation Between Knowledge Level About Cigarettes with Smoking Behavior in Students at SMK Mathla'ul Anwar Buaranjati

      Bivariate analysis using the Chi-Square test showed a significant relationship between knowledge level and smoking behavior (p-value = 0.037). The findings of this study align with Notoatmodjo's (2018) theory, which states that knowledge plays a role in shaping health attitudes and behaviors. Good knowledge can influence a person's lifestyle decisions, including smoking behavior. However, knowledge is not the sole determinant of behavior.

      In this study, although students with better knowledge generally tended to exhibit lower smoking behavior, some students with good knowledge were still classified as heavy smokers. This suggests that differences in knowledge levels reflect individual differences in receiving, understanding, and interpreting smoking-related information, as proposed by Notoatmodjo (2014) in Syapitiri, Heni, and Amila (2021).

      Statistically, the significant relationship between knowledge level and smoking behavior in this study was determined by the overall data distribution pattern, not by individual cases. These results align with Umari's (2020) research, which found a significant relationship between knowledge level and smoking behavior among students at Tanjungsari State Vocational High School, South Lampung (p = 0.017)..

b. The Correlation Between Peer Support with Smoking Behavior in Students at SMK Mathla'ul Anwar Buaranjati

Bivariate analysis using the Chi-Square test showed a significant relationship between peer support and smoking behavior in students (p-value = 0.025). This finding aligns with the opinion of Kurniawan & Sudrajat (2018) in Widiastuti (2024), who explained that peer conformity encourages adolescents to follow the values and customs of their group. If smoking is considered normal or even socially accepted in a given environment, adolescents are more likely to smoke to fit in and avoid social rejection.

Research by Amalizar et al. (2023) corroborates these findings, showing that a majority of adolescents with peer support were more likely to smoke (58%). Conversely, adolescents without peer support were largely non-smokers (13.3%). The Chi-Square test results in this study also showed a significant relationship, indicating that social pressure from peers plays a significant role in shaping smoking behavior in adolescent boys. Research by Pratama et al. (2021) also demonstrated a significant relationship between peer interaction and smoking behavior. As many as 76.5% of respondents who interacted extensively with peers who smoked reported high levels of smoking behavior. This indicates that the more frequently adolescents are exposed to a social environment that is permissive of smoking, the greater the likelihood they will imitate this behavior.

CONCLUSION

Based on the research results and the description presented in the previous chapter, several conclusions can be drawn from this study, as follows:

1. Most students have a sufficient level of knowledge (38.9%).
2. Most students have low peer support for smoking behavior (61.1%).
3. Most students are light smokers, amounting to 28 students (31.1%).
4. Bivariate analysis results indicate a significant relationship between knowledge level about smoking and smoking behavior (p-value = 0.037).
5. Bivariate analysis results indicate a significant relationship between peer support and smoking behavior (p-value = 0.025).

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