

## ORIGINAL ARTICLE

# Empathy Description of Active Smokers Based on Individual Characteristics among University Students

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## ABSTRACT

**Introduction:** Empathy is the ability of an observer to understand what other people are thinking and feeling about a condition, which other people experience without losing their control. The aim of this research was to determine empathy of smokers based on individual characteristics among university students. **Methods:** This quantitative descriptive research involved smoker students of Universitas Padjadjaran. The sampling technique used sample quota, and the samples were 314. This research used the Interpersonal Reactivity Index instrument adapted from the Indonesian version of Davis (1980) with content validity and face validity. The final reliability coefficient was 0.78. Analysis of data used the mean values and presented these in the form of a frequency distribution table. **Results:** The results showed that smokers were higher in male students (70.1%) than in female students (29.9%). More than half of the respondents had high empathy (52.2%), which was associated with gender, age and smoking intensity. The proportion of high empathy tendencies was found in women aged 22-24 years and smokers with light smoking intensity. **Conclusion:** The overall student respondents who smoke at the Universitas Padjadjaran tend to have a high level of empathy.

**Keywords:** Active Smokers, Empathy, Individual Characteristics, Smoke, Student

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## INTRODUCTION

Smoking is an activity carried out by someone by burning tobacco, and then it will be sucked through the mouth and inhaled into the lungs (1). In developing countries, the prevalence of smokers reaches 800 million and 1.2 million smokers globally. In Indonesia, the prevalence of smokers is 33.8%, and, in West Java, the total number of people who consume cigarettes is high, with more than 32.2%. A high number with a prevalence of 33.2% is 20 to 24 years of age, who are vulnerable during the students' time at college (2).

The high prevalence of smoking causes health problems that occur not only to be a risk for active smokers but also to attack the people around the smoker, passive smokers or secondhand smoke (SHS), and the environment. In adolescents, about four out of ten were exposed to SHS in the past week (41.5%). SHS exposure was significantly higher among respondents who smoked than non-smokers (85.8% vs 35.7%), which was likely higher among adolescents who smoked due to having at least one smoker parent regardless of their smoking status (3).

This causes six million people to die from tobacco. An estimated 600,000 deaths were attributed to non-smokers' exposure to SHS, including 165,000 deaths among children, of whom about 60% occurred in Africa and Southeast Asia. SHS is associated with respiratory and cardiovascular disease, lung cancer and other forms of cancer and accounts for about 1% of the global burden of disease (4).

The government has set rules to solve smoking in public places through UU/RI/NO.36/2009, which regulates non-smoking areas and a smoking ban in campus areas. In its application, the rules are often not implemented. Many student smokers smoke indiscriminately, such as in toilets, parking lots, stairs, hallways, and spaces in the corner of the faculty and canteens, which negatively affects others. Smoking behaviour that tends to be risky because of being indifferent to the existence of others is influenced by emotions, enjoyment, addiction to cigarettes and empathy.

Smokers who have empathy will be able to make decisions to act and control their smoking urges because they care about the existence of others. So that feeling and understanding are applied as a change in actions that were initially smoking without regard to the presence of other people into smoking in a predetermined area. Empathy is the ability to occupy the position of others in oneself so that a person seems to be a part of you (5).

There are differences in empathy that are influenced by differences in the characteristics of each individual. Differences in empathy by gender are related to two main factors. One of the factors is the level of physiological maturity. As we grow, hormones differ between women and men. Another factor is the role of each gender (6).

Furthermore, considering various characteristics can explain differences in empathy. For example, factors that can be regarded as constant on an individual, such as ethnicity, gender, or personality, cannot be a consequence but can be a cause of empathy, while fluid characteristics such as gender, age, respondent's faculty of both health and non-health, and smoking intensity. Therefore this study aims to describe the empathy of active smokers based on individual characteristics among university students.

## MATERIALS AND METHODS

### Study Design

This research was quantitative descriptive with variable empathy because the aim was to describe the empathy of active smokers based on individual characteristics among university students.

### Samples/Participant

The population in this research involved inclusion criteria was 2017-2020 undergraduate students at Universitas Padjadjaran who are active smokers aged 18-27 years and willing to be a respondent. Exclusion criteria were respondents who refused to give informed consent. This research used non probability-sampling with a sample quota of 314 respondents.

### Data Collection

Data collection is done online by distributing a questionnaire containing 28 question items in may 2021. This research used the Interpersonal Reactivity Index instrument adapted from the Indonesian version of Davis (1980) with content validity and face validity. The final reliability coefficient was 0.78.

In the process of collecting data, researchers distributed questionnaires until they had obtained the required amount. In the first week of distributing the online questionnaire, the researcher received 70 respondents. Because the needed respondents still did not meet the quota, the researcher distributed the questionnaire online until the third week and got 317 respondents. Then the researcher selects the respondents' answers and eliminates the answers that are unwilling to participate in the study to become 314.

### Data Analysis

Data were analysed by version 23 of SPSS using univariate analysis. In this study, the results obtained from the answers to the questionnaire using a Likert scale are ordinal data. To be analyzed statistically,

the researchers converted the data into interval data using the method of successive (MSI) on Additional Instruments (Add-Ins) in Microsoft Excel. Analysis of data used the mean values (83,59), then presented these in a frequency distribution table. The mean values are based on normality test results, which states that the data have a normal distribution.

### Ethical Consideration

This research has obtained an ethics permit through the Ethics Commission of Universitas Padjadjaran with ethical number 255/UN6.KEP/EC/2021. There are ethical principles in this research, such as respect for person, beneficence and non-maleficence, and justice.

## RESULTS

The individual characteristics of the study based on socio-demographic data. More than half of the respondents are male students (70.1%) with an age range of 18-21 years which has the highest percentage (65.0%). The most significant percentage of students who smoke are non-health faculty students (89.5%), and most of them are light smokers (82.2%) with cigarette consumption of 1-10 cigarettes/day (Table I).

**Table I: Frequency Distribution of Individual Characteristics (n=314)**

Characteristics	Frequency (f)	Percentage (%)
<b>Gender</b>		
Male	220	70,1
Female	94	29,9
<b>Age</b>		
18-21 Years	204	65,0
22-24 Years	102	32,5
>24 Years	8	2,5
<b>Faculty</b>		
Health	33	10,5
Non Health	281	89,5
<b>Smoking Intensity</b>		
Light	258	82,2
Medium	46	14,6
Heavy	10	3,2

From 314 data collected, more than half of the respondents had high empathy, amounting to 164 (52.2%), and less than half of respondents with low empathy amounting to 150 (47.8%). The data show that the overall student respondents who smoke at the Universitas Padjadjaran tend to have a high empathy level (Table II).

The results show that the highest empathy based on characteristics is high, but some respondents have low empathy. The proportion of high empathy is more in female respondents (72.3%), while for low empathy, the ratio is more in male respondents (56.4%) (Table III).

**Table II: Empathy of Active Smoker Students**

Empathy	Score Range	Frequency (f)	Percentage (%)
High	$X \geq 83,59$	164	52.2
Low	$X < 83,59$	150	47.8
Total		314	100,0

**Table III: Frequency Distribution of Individual Characteristics toward Empathy**

Characteristics	Empathy			
	High	(%)	Low	(%)
<b>Gender</b>				
Male	96	43,6	124	56,4
Female	68	72,3	26	27,7
<b>Age</b>				
18-21 Years	99	48,5	105	51,5
22-24 Years	62	60,8	40	39,2
>24 Years	3	37,5	5	62,5
<b>Faculty</b>				
Health	16	48,5	17	51,5
Non Health	148	52,7	133	47,3
<b>Smoking Intensity</b>				
Light	142	55,0	116	45,0
Medium	21	45,7	25	54,3
Heavy	1	10,0	9	90,0

According to age range, the proportion of respondents in the age range of 22-24 years is more likely to have high empathy (60.8%) than 18-21 years (48.5%). Based on faculties, the proportion of respondents who have high empathy from the health faculties are 48.5% while those from non-health faculties are 52.7%.

Respondents who have a light smoking intensity and consume 1 to 10 cigarettes a day have a higher proportion of high empathy (55.0%), compared to moderate (45.7%) and heavy (10%). Meanwhile, the proportion of respondents with a low level of empathy with heavy smoking intensity was more (90.0%) compared to light (45.0%) and moderate (54.3%).

## DISCUSSION

Based on study results in Table I, from 314 students who smoke, 10.5% are health faculty students, and the remaining 89.5% are non-health faculty students. Other studies also show similar results, that the predominance of smoking among non-health faculty students was altogether higher than that of health faculty students (8). This is because health students have a more heightened awareness of the dangers of smoking than non-health students (8).

Although health faculty students are aware of the dangers of smoking, there are still some students who have smoking behaviour. Students who smoke enjoy

and feel no guilt for tobacco. In addition, students who smoke believe that they can easily quit smoking, ignore its addictive nature, and ultimately think that they can avoid the long-term effects of smoking. The factor that most influenced smoking behaviour in college students was friends (9). The most important factor related to smoking behaviour in college students is having friends who smoke (10).

Meanwhile, from other demographic data obtained, the research found that male students dominated respondents who smoked in this study compared to females. Following the prevalence of smokers in Indonesia, according to the Ministry of Health Indonesia, which states that the percentage is higher in male smokers than female smokers (2). There are significant gender differences in smoking habits, the prevalence of smoking among males is about three times significantly higher than that of females (8). In addition, a male student is more than three times more likely to smoke than a female student (8).

Smoking is also closely related to having a macho image and perceived benefits. Male students think that men who smoke look more mature, strong and attractive leaders and have incredible eyes. Others believe that, when they smoke, especially when they imitate the style of a popular public figure, they acquire positive associations in the minds of others. However, this perception is reversed when it comes to female students who smoke. A female smoker is generally associated with negative stereotypes (11).

From the gender data, the proportion of high empathy is more in female respondents, while for low empathy, the ratio is more in male respondents. Other studies support these results that females' empathy levels are higher than males (12). Females have more of the oxytocin hormone, which is positive for emotional empathy. In contrast, males have more testosterone, which was negatively associated with cognitive empathy. As a result, gender empathy differences begin to appear. Another factor is gender roles. A female's gender role orientation focuses on others, which is directly related to empathy. However, males' gender role orientation focuses more on justice and equality, which has nothing to do with empathy (6).

Table I also shows that more than half of the respondents are active smokers in the 18-21 age range. Initiation of smoking is higher at 18-21 years and the range for becoming a heavy smoker. In addition, the age of 18-21 is the age of late teens where all developmental tasks are focused on controlling childish behaviour patterns and attitudes and preparing themselves for adulthood (13).

According to the age range, the proportion of respondents aged 22-24 years is more likely to have high empathy than 18-21 years. These results are in line with other

research which states that empathy increases with age (14). Furthermore, the research shows aspects of ageing in a person, where, the older a person is, the better they understand the feelings and perspectives of others (14). Age can affect affective and cognitive empathy. Someone older shows to have higher affective empathy. Someone older has high empathy on the components of empathic concern and personal distress than someone younger. This is due to changes in task characteristics and cultural differences. In addition, empathy in the cognitive component shows impairment at older ages and is associated with memory decline (15).

Table 1 shows that the intensity of smoking in students is divided into three: light smokers consume 1-10 cigarettes/day, moderate smokers consume 10-20 cigarettes/day, and heavy smokers more than 20 cigarettes/day (16). Based on the research results, most of the respondents are light smokers. Students know the dangers and impacts of smoking, and students are not addicted to it. However, they smoke to relieve headaches and stress, provide calm and drive away laziness feelings. These results state that many students who smoke are categorised as light smokers (17).

Respondents who have light smoking intensity have a higher proportion of high empathy than moderate and heavy. There is analysis that shows a relationship between smoking intensity and empathy in active smokers. Another research supported this result, which states a negative relationship between smoking intensity and empathy (18).

The data processing results in this study show that more than half of active smokers have high empathy. High empathy affects the behaviour of smokers who control the place where they smoke because it relates to relationships with other people. If smokers have high empathy, they will be more oriented towards other people who face difficulties due to cigarette smoke without much thought and considering the impacts obtained (18).

Awareness of the lack of willingness to not smoke in public places and understanding it is a form of tolerance and empathy for others, making this necessary. There is a relationship between empathy and smoking behaviour. When a smoker's empathy is high, he is less likely to smoke in public areas that harm other people and the environment exposed to cigarette smoke (18). Several other factors can affect empathy to make someone get and give empathy, such as feelings and moods for each person present differently in interacting and responding to others, socialisation, identification and learning processes, situations and places, communication, and parenting patterns (19).

Environmental situations and motivation can influence the possibility of high empathy in smoker students at

Universitas Padjadjaran. Someone with a high level of cognitive empathy has a higher level of motivation in the behavioural, social and emotional domains (20). In contrast, someone who has high affective empathy has a more dominant level of emotional motivation due to the affective component related to emotional response. It has been associated with higher levels of prosocial tendencies or helping behaviour (20).

Less than half of the respondents had low empathy. Low empathy indicates that the individual lacks sensitivity to his environment, and finds it difficult to place himself in the thoughts or feelings of others. Smoking activities that are carried out seem to be considered a necessity that a smoker freely carries out whenever and wherever they want, in public places, and without caring about the impact on other people and the environment. Various understandings about cigarettes still do not make students have good attitudes towards smoking behaviour (21).

There are still student smokers who have low empathy, are expected to have the initiative to stop smoking. There are various interventions for the initiation of smoking cessation in students. Smokers are attracted to both traditional and technology-based behavioural interventions. Technology-based interventions can be carried out because they are cost-effective, accessible and attractive to students. In addition, daily smokers were more interested in pharmacotherapy; thus, most student smokers were able to decipher which intervention approach was appropriate for them. The Clinical Practice Guidelines recommend pharmacotherapy for adult smokers in general, with the caveat that pharmacotherapy may not be suitable for specific subpopulations, including light or intermittent smokers. Thus, it should be noted that student smokers were able to identify appropriate strategies to quit smoking (22).

Although the study results showed that more than half of the active smoker students had high empathy, there were still less than half of the respondents who had low empathy. So it takes the role of health workers to control behaviour that is at risk of impacting passive smokers and the surrounding environment (7). Health workers can carry out their role as educators to provide information and knowledge about exposure to cigarette smoke (7). This education expects to change the smoking behaviour of active smokers who usually smoke in public places so that they can put out their cigarettes or move. Learning about empathy can be implemented through simulations in the educational process and exercises that involve role modelling.

In this study, there are limitations that the survey is limited to university students; it may not represent the smoking prevalence of all people in different age groups. Researchers can't explore the smoking students with high or low empathy in their desire to quit smoking.

Future research is expected to investigate the empathy of smokers both low and high with initiating smoking cessation.

## CONCLUSION

Based on the research results, it can be concluded that based on individual characteristics, the higher number of smokers is found in male students (70.1%) than female students (29.9%). Furthermore, more than half of the respondents had high empathy (52.2%) associated with gender, age and smoking intensity. The proportion of high empathy tendencies was found in women, 22-24 years, and smokers who had light smoking intensity.

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