Smoking Behavior in Health Students in Jayapura City

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ABSTRACT

Background: The 2021 Global Adult Tobacco Survey (GATS) showed an increase in the number of adult smokers by 8.8 million, namely from 60.3 million in 2011 to 69.1 million in 2021. Although the prevalence of smoking in Indonesia has decreased from 1 8% to 1.6, Papua Province's percentage of smoking among the population aged ≥ 15 years from 2021-2023 is 24.91%, decreasing to 22.22% in 2023 to 22.3%. Aims: This research is to determine the perception of smoking among health students in Jayapura City. Method: The research used a descriptive survey with samples from 100 health students from various universities in Jayapura City, the research location, from June to September 2023. Data were collected using a questionnaire consisting of several questions. The data were analyzed univariately, displayed in table form, and narrated. Results: There were 34 respondents (34%) smoking activities and 66 respondents (66%) who did not. This type of cigarette is smoked 100% cigarettes. The number of cigarettes smoked was 4-6 cigarettes; there were 25 respondents (73.5%) and nine respondents (26.5%) 7-10 cigarettes. Twenty-nine respondents (85.3%) smoked outdoors, and five respondents (14.7%) were indoors. Length of smoking ≥ three years, there were 30 respondents (88.2%), and for less <than one year, there were four respondents (11.8%). The reason for smoking was to relieve stress for 25 respondents (73.5%) and for hanging out with friends for nine respondents (26.5%). Plans to stop smoking: 27 respondents (79.5%) and 7 respondents (20.5%) did not stop smoking. Conclusion: It can be concluded, that the reason for smoking is because of stress and having many problems, but more respondents want to stop smoking. Efforts and good intentions can stop smoking among health students as agents of societal change.

Keywords: Behavior, Jayapura, Smoking, Student Health.

INTRODUCTION

Non-communicable diseases (NCDs) have been part of the double burden of epidemiology for the last few decades and tend to increase. The high rate of morbidity with the burden of medical costs, which are not cheap, as well as the high rate of death or disability that it causes, makes this disease a priority disease that must be addressed. One of the main risk factors for NCDs that can be changed and greatly contribute to the incidence of several non-communicable diseases is tobacco use and smoking habits (Ministry of Health of the Republic of Indonesia, 2022).

The smoking habit is a form of smoking tobacco, which is a major risk factor for cardiovascular disease and respiratory tract disease and the cause of more than 20 types of cancer and other health problems (Handayani, 2023). Based on the 2020 World Health Organization (WHO) report, 22.3% of the world's total population uses tobacco, including 36.7% men and 7.8% women. Of the total 1.3 million tobacco users worldwide, more than 80% live in countries with low and middle economic levels. Tobacco use has an impact on the economic condition of the family because smokers prioritize spending on buying cigarettes over fulfilling food and adequate shelter as basic human needs. If this condition is left for a long time, it will result in poverty (WHO, 2022).

Smoking habits in Indonesia are alarming. The prevalence of smoking among adult men is 62.9%. This puts Indonesia third in the world, after India and China, as the largest cigarette users. Likewise, the prevalence of smoking among adolescents aged 10-18 years has increased. In 2013, the prevalence of smoking in adolescents (10-18 years) was

7.2%, and in 2018 it was 9.1% (Fauzi, 2017).

The percentage of smoking in the age group > 15 years in Papua Province since 2020-2022 has decreased, namely from 24.91 to 22.22, but in the adult age group, it has increased (BPS, 2022). The Jayapura Indonesian Abdi Sehat Foundation (YASIN) survey in 2020 showed that 34.9 percent of students in Jayapura City smoked. Around 50 to 70 percent of this figure is high school students. (Yasin, 2020). In 2020, the smoking situation among students showed data of 34.9; this smoking activity continues with students moving from high school to university in Jayapura City. The total population in Papua province is 1,774,690 men and 1,604,612 women spread across all districts and cities in Papua. The number of students in the city of Jayapura who are in tertiary institutions at the Bachelor level is 127,808 people, and those at the Diploma III level are 17,647 people (Papua Health Profile, 2019). PTM needs serious treatment to protect the public from the dangers of PTM; Jayapura city has PTM data for Asthma at 3.51%, Diabetes Mellitus at 1.80%, Heart at 0.59%, Hypertension 7.77%, Stroke 0.70% for 4.24% of patients with student status, 0.11% with kidney failure, 0.03% with student status and 14.19% with joint disease and 2.89% of patients with student status. (Riskesdas Papua, 2018).

Based on preliminary observations carried out by researchers in January-March 2023 at several universities in Jayapura City, smoking is one of the habits carried out by students on campus and outside campus. The smoking habit occurs among students when sitting together with friends while doing work.
On assignments or when relaxing in cafes or campus canteens. Smoking activity also occurs among health students, even though, as health students, they should be more careful about their behavior by not smoking, in reality, there are still healthy students who smoke. Research by Jarelnape in 2022 on medical students in Sudan showed that the prevalence of smoking was 48.8% (41.1% in men and 7.7% in women). In total, 76.8% reported daily smoking of 5–10 cigarettes per day. In terms of students' beliefs about smoking, 86.8% disapproved of selling cigarettes at universities. Of these respondents, 68.4% did not approve of

smoking on campus. This research proves that there are still healthy students who smoke. As an agent of change, smoking activity must be stopped so that it does not have an impact on society. With the description of the problem that has been presented, further research is needed on the perception of smoking among health students in the city of Jayapura. This research aims to determine the perception of smoking among health students.

METHODS

Descriptive survey research is research conducted to determine the value of independent variables, either one or more variables (independent), without making comparisons or connecting one variable with another variable. According to (Adiputra, 2021). The data source for this research uses primary data sources, data directly obtained from respondents, while secondary data comes from journals and the results of the same research. The research was conducted from April to July 2023. The research was conducted at 15 state and private universities Jayapura. The sample in this study consisted of 100 students using the Slovin formula. The sample was taken using a random sampling technique.

The research used seven closed questions, which respondents answered. The data is processed using univariate analysis to provide information on the questions asked in the questionnaire. Data is presented in table form and narrated according to the research objectives. This research maintains the confidentiality of the information provided by respondents; the information provided is only used for research purposes with research ethics issued by FKM with no. 044/KEPK-FKM UC/2023

RESULTS AND DISCUSSION

Table 1. Frequency Distribution of Smoking Perceptions among health students in Jayapura City

Smoking	N	%
Yes	34	34
No	66	66
Total	**100**	**100**

Table 1 shows that there are 34 respondents (34%) of health students who smoke, while there are 66 respondents (66%) of health students who do not smoke.

Table 2. Frequency Distribution of Smoking Perceptions among health students in Jayapura City

Variable	N	%
Type of cigarette		
Cigarettes	100	100
Many Cigarettes smoked one day		
4-6 stems	25	73,5
7-9 stems	9	26,5
Smoking Place		
Indoor	29	85,3
Outdoor	5	14,7
Long time smoking		
≥ 3 years	30	88,2
< 1 years	4	11,8
Reasons for smoking		
Overcoming stress	25	73,5
Get together with friends	9	26,5
Plan to quit smoking.		
Yes	27	79,5
No	7	20,5
Total	**34**	**100**

Success for a country can be seen from the quality of the nation's youth; young people have a big role in any changes that occur in the social environment, especially "students" who are called "agents of change." As the name suggests, as agents of change, students must play an active role in helping build this nation. Many positive things can be done, such as producing scientific works that can be useful for society, playing an active role in society, being a good role model for society, and other productive things (Andika, 2021)

Smoking is a form of smoking tobacco, which is a major risk factor for cardiovascular disease, respiratory tract disease, and the cause of more than 20 types of cancer and other health problems (Handayani, 2023). 34 respondents smoked among health students in the city of Jayapura, which means that smoking also occurred among health students. Health students should be a generation of quality in all aspects of their lives because health students can become health leaders in society, become role models for society, and develop the concept of empowerment in the health sector; with active smoking activities it will certainly influence them in implementing a healthy living paradigm.

Smoking not only has an impact on active smokers but also on the environment (Seroyadji, 2024). Research conducted by Granados PS and friends states that an estimated 766,571 tons of cigarette butts pollute the environment every year. Likewise, data released by the World Health Organization WHO (World Health Organization) in 2022 states that every year the tobacco industry has resulted in losses of 8 million human lives, 600 million trees, 200,000 hectares of land, 22 billion tons of air, and produce 84 million tons of carbon dioxide (CO_2). The environmental impact due to cigarettes smoked by health students is 100% the type of cigarette, where cigarette butts are thrown away in any place and pollute the environment. The type of cigarette smoked is by the type of cigarette produced in Indonesia and distributed throughout Indonesia namely Cigarette production consists of 3 types: Hand-rolled Clove Cigarettes (SKT), Machine-Made Clove Cigarettes (SKM), and Machine-made White Cigarettes (SPM). The most widely produced cigarettes are machine-made kretek cigarettes (SKM). Machine-rolled Kretek Cigarettes (SKM) increased from 2011-2018 by 26.3% (TCSC, 2022).

The maximum number of cigarettes smoked by respondents was 4-6 cigarettes per day; in 1 cigarette, there are 400 types of chemical compounds, 400 dangerous substances, and 43 substances that cause cancer (carcinogenic). Carbon monoxide (CO), a poisonous gas, reduces oxygen levels in the blood, thereby reducing concentration and the emergence of dangerous diseases. Tar is a dangerous substance that causes cancer (carcinogenic) and various other diseases (P2PTM, 2022). The results of this study show that the respondents' bodies contain dangerous substances that are at risk. One of the biggest risk factors that cause lung cancer is smoking (Prasetio et al, 2019). Apart from that, other research conducted by Lipfert (2019) proves that smoking is the biggest trigger for lung cancer, where there is a tendency for people who actively smoke to be at higher risk of developing lung cancer. Around 85% - 90% of lung cancer sufferers are caused by active smoking habits. Smoking is a habit that can damage health and can

cause various diseases, which can result in morbidity and mortality, where the Crude Death Rate (CDR) can be used as a mortality parameter (Dodi, 2021).

The number of cigarettes smoked in 1 day and the length of time the respondent smoked shows that the respondent had consumed 5475 cigarettes in 3 years; the longer the respondent smoked, the more cigarettes the respondent had smoked. A greater perception that smoking is dangerous is associated with a greater likelihood of being a non-daily smoker (Anas SR, 2022) where non-daily smokers generally perceive their smoking habit to pose less of a health hazard compared to a daily smoking habit. The logic of minimizing or quitting smoking as a strategy to minimize or reduce harm is supported by a large body of research showing that the association between smoking and many diseases becomes stronger the more cigarettes are smoked each day (i.e., a dose-response relationship) (Schane RE, 2009).

Smoking activities are carried out outside, but there are still people who smoke inside the house. The danger of smoking inside the house is that cigarette smoke does not disappear for up to 3 hours, and the residue can stick to various equipment in the house, such as carpets, walls, clothes, etc. Smaller smoke particles make it very easy to move from one room to another, even if the door is closed. The smoke that comes from the smoker's breath will stick to clothes, hair, skin, and other things on the bodies of other family members, so it will be carried wherever they go (Ministry of Health of the Republic of Indonesia, 2023).

Experiencing stress and the problems they face, smoking becomes one of the activities to eliminate these feelings. The nicotine in cigarettes makes it feel delicious and addictive to keep smoking and gives momentary pleasure when smoking. Nicotine has the effect of causing addiction because it can bind to nicotic acetylcholine receptors found in nerves in the brain. Activation of this nerve will result in the release of dopamine. Dopamine in the brain increases, thereby strengthening brain stimulation and activating the reward pathway, namely the regulation of feelings and behavior caused by certain mechanisms in the brain. This is what creates the desire to use nicotine again and triggers physical nicotine dependence to occur quickly and violently. Apart from that, dopamine is a chemical compound produced by the body that balances feelings of pleasure, joy, motivation, and self-confidence in humans. This effect is desired by smokers, which causes addiction. So, if someone consumes cigarettes continuously, it will increase dopamine levels in the body, which results in a feeling of addiction (Prasetyo, 2019).

Planning to stop smoking was the most frequent choice of respondents in this study. According to WHO in the Health Promotion Book, behavior change carried out through planning is one of the behavior change strategies. To design effective smoking cessation interventions, the effectiveness of delivering smoking cessation recommendations is of concern. According to the transtheoretical model. (Emadzadeh M, 2020 and Owusu, 2020) Individuals begin the change process during the "pre-contemplation" stage. Next, the individual enters and moves through the "contemplation," "preparation," and "action" stages before reaching the "maintenance" stage. This model reveals how interventions influence the behavior change process. The unique cyclical characteristic of the transtheoretical model focuses not only on reflection in taking action but also on change moving in the opposite direction. Also, it describes the hesitations and actions associated with quitting smoking well. According to this model, each stage can be differentiated, and the timing of certain changes in attitudes, intentions, and behavior can be explained (Emadzadeh M, 2020 and Owusu, 2020). However, its applicability to specific populations must be further verified.

CONCLUSION

The behavior of smoking among health students is that the activity of smoking tobacco rolled in paper or cigarettes is 100%, the number of cigarettes smoked is 4-6 in 1 day, respondents have been smoking for more than three years, while most smoking activities are done outdoors. The reason for smoking is because of stress and having many problems, but more

respondents want to stop smoking. Efforts and good intentions can stop smoking among health students as agents of societal change.

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