

The Relationship of Smoking Behavior to Bronchitis Incidence in Sawit Hulu Village, Sawit Seberang District in 2019

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ABSTRACT

Smoking is one habit that is difficult to break. Moreover, currently smoking has become a national problem, and even internationally. Smoking behavior seen from various points of view is very detrimental, both for oneself (active) and those around them (passive). The purpose of the study was to determine the relationship between smoking behavior and the incidence of bronchitis in Sawit Hulu Village, Sawit Seberang District in 2019 and to determine smoking behavior in Sawit Hulu Village, Sawit Seberang District, to determine the incidence of bronchitis in Sawit Hulu Village, Sawit Seberang District. To find out the relationship between smoking behavior and bronchitis incidence in Sawit Hulu Village, Sawit Seberang District in 2019. The results showed that from 38 respondents the majority of good behavior were 25 respondents (68.5%) and bad minority were 13 respondents (34.2%) and the majority of the incidence of Acute bronchitis were 24 respondents (63.2%) and chronic minority were 14. respondents (36.8%).

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1. Introduction

Smoking is one habit that is difficult to break. Moreover, currently smoking has become a national problem, and even internationally. Smoking behavior seen from various points of view is very detrimental, both for oneself (active) and those around them (passive). From the perspective of the individual concerned, there are several studies that support this statement. From a health perspective, the effects of chemicals in cigarettes such as nicotine, CO (Carbon monoxide) and tar will stimulate the work of the central nervous system and sympathetic nervous system, resulting in increased blood pressure and faster heart rate, stimulating cancer and various other diseases. such as constriction of blood vessels, high blood pressure, heart, lung, and chronic bronchitis (Prasetya, 2016).

Smoking habits are considered bad for the health of the human body, both acute and chronic. Diseases triggered by smoking can occur in various organ systems in the human body, such as the respiratory, cardiovascular, reproductive, nervous, genitourinary, and skin systems. Smoking habits are associated with high-risk lung diseases such as asthma, pneumonia, chronic obstructive pulmonary disease, emphysema, lung cancer and pulmonary tuberculosis and bronchitis (Wijayakusuma, 2017).

Bronchitis is caused by a viral or bacterial infection, indeed not all cases of this disorder are caused by viral and bacterial infections, an unhygienic environment/pollution and an unhealthy lifestyle that continues to be carried out can reduce the body's immunity so that it is susceptible to various diseases including diseases. this (Ikawati, 2017). According to Soeparman, (2018) the etiology of bronchitis is smoking and is the single most important causal cause. The increased risk of mortality due to bronchitis is almost directly proportional to the number of cigarettes smoked every day. Continuous air pollution also predisposes to recurrent infections because pollution slows ciliary activity and fatocytosis. Chemical substances that can also cause bronchitis are O₂, N₂O, hydrocarbons, aldehydes, ozone. Alpha-1 antitrypsin deficiency is a recessive disorder that occurs in about 5% of emphysema patients and about 20% of cholestasis neonates because this alpha-1 antitrypsin protein plays an important role in preventing alveolar damage by neutrophil elastase.

According to the Centers for Disease Control (CDC), smoking causes the death of nearly 174,000 women in the United States each year. On average, women who smoke die 14.5 years earlier than non-smokers. A recent Centers for Disease Control (CDC) survey showed that more than 1 in 6 American women over the age of 18 smoke. In general, the lower a woman's educational level, the more likely she is to smoke. Overall women are more likely to smoke than men. Smoking is more popular among young women than older women. Nearly 20% of women aged 25 to 44 years smoked, 16.4% of women aged 18 to 24 years smoked, and 7.1% of women 65 years and over. If young women continue to smoke,

The World Health Organization (WHO) in 2015 stated that Indonesia is the country with the third largest cigarette consumption after China 300 million, India 120 million, and Indonesia itself 82 million and the adult population in Indonesia who consumes cigarettes is 34.8%. The survey conducted by the Indonesian Heart Foundation cited by Saifuddin Azwar (2016) showed data on children aged 10-16 years as follows: the number of smokers < 10 years (9%), 12 years (18%), 13 years (23 years). %), 14 years (22%), and 15-16 years (28%). Those who become smokers because they are influenced by their friends are 70%, 2% of them are just experimenting, the number of active smokers in Indonesia reaches 75% or 141 million people.

The results of research conducted by Riyadi (2016) showed that most of the respondents (65.4%) had a smoking habit and almost most of the respondents (29.4%) were exposed to pollution. Chi square test analysis on the relationship between smoking and the incidence of bronchitis obtained p value = 0.000 which means that there is a significant relationship between smoking and the incidence of bronchitis at the Pulmonary Polyclinic of RSUD Dr. Yunus Bengkulu.

The research above is in line with the research conducted by Juniar et al. (2016) with the title of the relationship between the degree of smoking with the prevalence of COPD and bronchitis. Chi square test analysis obtained a p value of 0.032 which means that there is a significant relationship between the degree of smoking and the prevalence of COPD and bronchitis. The results of a preliminary study/preliminary survey conducted by researchers at the Sawit Hulu Health Center, Sawit Seberang District in 2019 obtained data on bronchitis for the last one year with the percentage of men as much as 52.3% and women as much as 47.7%. While the data on bronchitis for the last one year in Sawit Hulu, Sawit Seberang District, with the percentage of men as much as 75.5% and women as much as 24.5%. And the results of interviews conducted by researchers with 10 people with bronchitis, 7 of them due to smoking and 3 of them due to air pollution. Based on the events or phenomena mentioned above, the researchers are interested in conducting research on the Relationship of Smoking Behavior to Bronchitis Incidence in Sawit Hulu Village, Sawit Seberang District in 2019.

2. Method

2.1. Conceptual Framework and Research Variables

The conceptual framework in this study was compiled based on a literature review where researchers wanted to know the relationship between smoking behavior and bronchitis incidence in Sawit Hulu Village, Sawit Seberang District in 2019 with the aim of research, the variables can be described as follows.

Independent Variables Dependent Variables

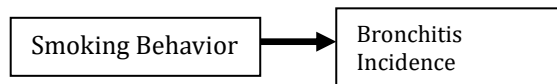


Image 1. Research Concept Framework

2.2. Research Hypothesis

The hypothesis is a temporary answer that must be tested for truth in the research the proposed hypothesis is

- a. H_0 : There is no relationship between smoking behavior towards the incidentlan Bronchitis
In Sawit Hulu Village, Sawit Seberang District

- b. Ha : There is a Relationship between Smoking Behavior and the Incidence of Bronchitis in Indonesia

Sawit Hulu Village, Sawit Seberang District

2.3. Types of research

This type of research is a descriptive correlative research using a cross sectional study design.

The purpose of the research is to determine the relationship between smoking behavior and the incidence of bronchitis in Sawit Hulu Village, Sawit Seberang District in 2019.

2.4. Place and time of research

The research will be carried out in Sawit Hulu Village, Sawit Seberang District and the research will be carried out starting in September 2019.

2.5. Population and Sample

The population taken in this study were patients with bronchitis in Sawit Hulu Village, Sawit Seberang District as many as 192 people and according to Arikunto (2016) if the number of subjects was large, it could be taken between 10-15% or 20-25%, in this study a 20% sample was taken. of the total population with the following formula:

$$n = 20\% \times N$$

$$n = 192 \times \frac{20}{100}$$

$$n = 38.4$$

$$n = 38$$

So the number of samples in this study amounted to 38 people. The sample criteria include inclusion criteria and exclusion criteria, where these criteria determine whether or not the sample can be used. The inclusion and exclusion criteria in this study are:

- a. Inclusion criteria are criteria where research subjects can represent in research samples that meet the requirements as samples (Notoatmodjo, 2016), namely:

- 1) Residents who live in the village of upstream palm oil sub-district across and are diagnosed with bronchitis
- 2) Willing to be a respondent.
- 3) Can speak Indonesian

- b. Exclusion Criteria

Exclusion criteria are criteria where the research subject cannot represent the sample because it does not meet the requirements as a research sample (Notoatmodjo, 2016). The exclusion criteria for this study are as follows:

- 1) Residents who do not live in the upstream oil palm village of the opposite palm sub-district and are not diagnosed with bronchitis
- 2) People who are not diagnosed with bronchitis
- 3) Not willing to be a respondent.
- 4) Can't speak Indonesian

2.6. Method of collecting data

- a. Data source

The source of data used in this study is primary data, namely data obtained by researchers directly from first hand. Obtained by the results of the visit survey and the results of interviews with respondents.

- b. Consent to Become a Researcher Respondent

The method of collecting data is carried out through two stages, namely the stage of preparing and the stage of implementing. The preparation stage begins with preparing instruments for data collection in the form of a questionnaire. The next stage is in the form of an administrative procedure, namely submitting an application to the Head of STIKes Putra Abadi Langkat Stabat to issue an application for permission to take data to the research site. If the application letter for permission to collect data has been given, the researcher submits an application for permission to carry out research in Sawit Hulu Village, Sawit Seberang District. If the research permit has been given, the next researcher asks for permission from Sawit Hulu Village, Sawit Seberang District, then conveys the intent and purpose and then tells how long the research will take.

The next stage is the implementation stage, which is when the author will take research data. Next, the writer will meet the respondents in Sawit Hulu Village, Sawit Seberang Dis-

trict and introduce themselves while explaining the purpose of the study, the benefits of the research, and the technique of filling out the questionnaire. The next step is the author asks nurses to sign an informed consent as evidence of their willingness to cooperate and be involved during the research process.

3. Results and Discussion

3.1 Univariate Analysis

The results of data collection from respondents through this study regarding the Relationship of Smoking Behavior to Bronchitis Incidence in Sawit Hulu Village, Sawit Seberang District with a total of 38 respondents can be presented in the form of a table as follows:

TABLE 1
FREQUENCY DISTRIBUTION OF RESPONDENT'S SMOKING BEHAVIOR IN PALM VILLAGE HULU SUB-DISTRICT PALM ORANGE IN 2019 (N=38)

No	Category	Total (n)	Percentage (%)
1	Bad	13	34.2
2	Well	25	65.8
Total		38	100

In table 1 it can be seen that from 38 respondents the majority of good behavior were 25 respondents (68.5%) and the minority was bad as many as 13 respondents (34.2%).

TABLE 2
FREQUENCY DISTRIBUTION OF THE EVENT OF RESPONDENT BRONCHITIS IN PALM HULU VILLAGE PALM ORANGE DISTRICT IN 2019 (N=38)

No	Variable	Total (n)	Percentage (%)
1	Chronic	14	36.8
2	I	24	63.2
	Total	38	100

In table 4.2, it can be seen that from 38 respondents the majority of acute bronchitis incidence were 24 respondents (63.2%) and chronic minority were 14 respondents (36.8%).

3.2 Bivariate Analysis

TABLE 3
FREQUENCY DISTRIBUTION OF THE RELATIONSHIP OF SMOKING BEHAVIOR TO THE EVENT BRONCHITIS IN PALM HULU VILLAGE, SAWIT SEBERANG DISTRICT IN 2019 (N=38)

No	Smoking Behavior	Bronchitis Incidence				Total	p.value	df	
		Chronic		I					
		N	%	n	%				
1	Bad	5	53.7	8	33.3	13	34.2	0.000	1
2	Well	9	64.3	16	66.7	25	65.8		
	Total	14	100	24	100	38	100		

Based on table 4.3, it can be seen that of the 38 respondents the majority of the incidence of acute bronchitis were 16 people (66.7%) and the chronic minority were 8 respondents (33.3 %). The results of hypothesis testing to see the relationship between variable X and variable Y are with a significant level (α) = 5% (0.05) and $df = 1$, the results are $p.value = 0.000$ at $df = 1$ where $sig < (0.000 < 0.05)$, it can be seen that there is a relationship between smoking behavior and bronchitis incidence in Sawit Hulu Village, Sawit Seberang District in 2019.

3.3 Discussion

The results showed that from 38 respondents the majority of good behavior were 25 respondents (68.5%) and bad minority were 13 respondents (34.2%) and the majority of the incidence of Acute bronchitis were 24 respondents (63.2%) and chronic minority were 14 respondents (36.8%). The results of statistical tests showed that using a significant level of 0.05 and the statistical test results showed that there was a relationship between smoking behavior and the incidence of bronchitis in Sawit Hulu Village, Sawit Seberang District, which could be seen from a significant value of $0.000 < 0.05$.

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$< 0.000 < 0.05$), it can be seen that there is a relationship between smoking behavior and bronchitis incidence in Sawit Hulu Village, Sawit Seberang District in 2019. Smoking is a habit that is difficult to break. Moreover, currently smoking has become a national problem, and even internationally. Smoking behavior seen from various points of view is very detrimental, both for oneself (active) and those around them (passive). From the perspective of the individual concerned, there are several studies that support this statement. From a health perspective, the effects of chemicals in cigarettes such as nicotine,

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Researchers in this case are interested in seeing smoking behavior has a very important role in factoring the incidence of bronchitis that attacks the respiratory tract and can cause death in patients. Based on this, it is expected that health workers in the surrounding environment should always provide information about the dangers caused by smoking behavior, one of the diseases that can be caused by smoking is bronchitis.

4. Conclusion

The majority of good behavior as many as 25 respondents (68.5%) and bad minority as many as 13 respondents (34.2%). The majority of the incidence of acute bronchitis were 24 respondents (63.2%) and the chronic minority were 14 respondents (36.8%). There is a Relationship between Smoking Behavior and Bronchitis Incidence in Sawit Hulu Village, Sawit Seberang District.

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