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ABSTRACT

Covid-19 is an infectious disease that attacks the respiratory system. A person who smokes will be more susceptible to contracting Covid-19 due to a decrease in lung function caused by prolonged smoking activity. Studies in some cases have shown a negative correlation between Covid-19 and cigarettes, where smokers will have a higher risk of Covid-19 severity than nonsmokers. The method used in this research is a literature study using secondary data that can be obtained from articles, textbooks, journals, and previous research on the relevant topic. Some research results reveal that during the Covid-19 pandemic there was a mixed reaction from smokers. Some smokers decided to quit smoking after the Covid-19 pandemic based on personal awareness about the adverse effects of smoking, especially during this period when we have the pandemic to deal with. While not a few people increase cigarette consumption. This happens due to various factors, one of which is due to a lack of public knowledge of the adverse effects of smoking. So that there is a need for public awareness of the importance of a healthy lifestyle by stopping or reducing smoking.

Keywords: Covid-19, Pandemi, Kebiasaan Merokok, Perokok

INTRODUCTION

Smoking is an activity that is found in Indonesia. According to WHO, Indonesia is one of the countries with the most cigarette consumption in the world. Smoking habits in Indonesia are not only limited to one circle but have expanded throughout society. The number of cigarette industries that are also one of the big contributors to the country’s economy and easy access to get it also affects the high number of smokers in Indonesia (Gobel, Pamungkas, Abdurrasyid, Safitri, & Samran, 2020).

According to the Center for Disease Control and Prevention, smoking can damage almost any organ in the body, cause many diseases, increase the risk of death, and generally lower the health of those smokers (Ibrahim, Al-Humaish, & Al-Obaide, 2018). Smoking can increase the risk of lung cancer, throat cancer, chronic asthma, chronic bronchitis, and emphysema. Awareness about the increased severity of COVID-19 for people who smoke has been linked to greater smoking cessation intentions in cross-sectional studies (Elling & Dichtel, 2020) (Klemperer, West, Peasley-Miklus, & Villanti, 2020) (Kowitt et al., 2020).

Coronavirus Disease 19 or commonly known as Covid-19 is an infectious disease caused by a new type of coronavirus, SARS-CoV-2 that attacks the respiratory system (Conti & Younes, 2020) (Wulandari, Ali, & Wardianto, 2021). The virus, which was initially discovered and developed in Wuhan, China, in a short time managed to spread widely throughout the country, including Indonesia. The disease is transmitted by inhalation or contact with infected droplets and the incubation period...
ranges from 2 to 14 days. Symptoms are usually fever, cough, sore throat, shortness of breath, fatigue, and others. The disease has mild symptoms in most people, while in some others, usually the elderly and people with congenital diseases, it may develop into pneumonia, acute respiratory distress syndrome, and multi-organ dysfunction (Singhal, 2020). An interesting aspect of COVID-19 is the role comorbidities play in the risk of infection. Patients with severe psychiatric illness, particularly adults with a schizophrenia spectrum disorder diagnosis, have been described as a population at high-risk of infection including its more severe forms.

Unlike the flu in general, clinical studies show the most common symptoms of a COVID-19 sufferer are fever, fatigue, and dry cough. Other symptoms include muscle pain, tightness of the chest and respiratory tract, nausea, vomiting, and diarrhea. A computerized chest tomography (CT) scan shows a typical sign of a virus that indicates pneumonia (Dong et al., 2020).

There are similarities between diseases caused by smoking and the symptoms shown by COVID-19 disease, both of which have an impact primarily on the respiratory system. The risk of experiencing severe Covid-19 is twice that in smokers compared to nonsmokers (Vardavas & Nikitara, 2020). Based on Daniel et al.’s research from 2020 to January 2021, it was found that there was a significant difference between patients treated and died from Covid-19 who had a history of smoking and patients who had no history of smoking at all. This is also supported by research conducted on the Chinese population, patients infected with COVID-19 and smoking have a higher risk for the development of the virus in the body, other than if the patient has never smoked (Sabrina & Ichsan, 2021).

The concept of research that studies the influence of the COVID-19 pandemic on people’s smoking behavior patterns has been carried out by several previous researchers in different locations with different approaches, either by conducting direct surveys of cigarette distributors to determine the level of cigarette consumption in the local community, conducting surveys conducted on health applications, as well as online surveys on smokers about the relationship between the COVID-19 pandemic and the dangers of smoking and the public’s willingness to reduce cigarette consumption. However, so far there has been no literature study that examines the relationship between the COVID-19 pandemic and smoking behavior by analyzing several studies sourced from these studies that were conducted previously.

From some of the descriptions above, it can be concluded that the problem of smoking habits and the transmission of COVID-19 disease has a relationship with one another. The smoking habit of the community which has been known in advance can cause various types of diseases, especially those that attack the respiratory tract, and cause a decrease in lung function, making them more susceptible to COVID-19, which is an acute disease that attacks the respiratory system. Therefore, this study wants to prove whether smokers are aware of these dangers and whether they have or have plans to change their smoking habits during the COVID-19 pandemic. This study aims to analyze the impact of the COVID-19 pandemic on smoking behavior.

**METHODS**

The method used in this research is literature study (Muslim & Perdhana, 2017). Literature study is a series of research method activities carried out by researchers systematically by collecting library data from various sources, such as books, articles, journals, archives, and other documents related to research objectives.

The type of data used is secondary data, where the data to be analyzed in this study is data derived from the literature that discusses the topics studied such as data from government agencies, scientific articles, textbooks, journals, and previous research. The authors compiled this paper using several different sources. These sources include several articles that can be found on scientific websites by including the right keywords, government regulations, previous research published in public health journals, and others. Articles are compiled by collecting and filtering data from previous articles accessed from various databases, such as PubMed and Google Scholar by entering keywords relevant to the topics to be discussed, including "Covid-19", "pandemic", "smoker", and "smoking..."
habit”. From the search results, several research articles were found that examined the influence of the COVID-19 pandemic on people’s smoking behavior. However, after going through the process of grouping and screening articles, the authors set four articles as the main sources of discussion in accordance with the topic being discussed (Darmalaksana, 2020).

As well as looking at the research time; Based on the order of years of research, starting from the most recent research then continued until the oldest research. The analysis process is also continued by reading a summary of the literature used and recording important parts relevant to the problems raised in the study. Any sources of information used in literature studies should also be included to avoid any form of plagiarism if the information comes from someone else’s idea.

RESULTS AND DISCUSSION

Based on studies that have been conducted using several sources of literature about previous research on the relationship of the Covid-19 pandemic with people’s smoking behavior, it was found that there is a negative association where a person’s smoking habit can be a factor that increases the severity of symptoms when the person is infected with Covid-19. Covid-19 sufferers who have a history of cigarette consumption have the potential to experience 2 times the worsening clinical symptoms caused by decreased lung function and Covid-19 virus infection that manifests especially in the digestive tract (Atmojo, Arradini, Darmayanti, Widiyanto, & Handayani, 2021).

In smokers, the virus becomes easier to multiply and cause more damage to the airways and lungs. If smokers have decreased lung function, Corona virus infection will certainly make this condition worse. This is what causes smokers to be more at risk of complications and death from the coronavirus. Smoking habits can increase worse outcomes in patients with Covid-19 and smoking habits in people with Covid-19 can influence sufferers to reduce or even stop smoking. The various reactions of smokers to the COVID-19 pandemic which also attacks the respiratory system have made several researchers interested in examining the issue of the COVID-19 pandemic which affects smoking habits which both have related health impacts.

Table 1. Research Results

<table>
<thead>
<tr>
<th>No</th>
<th>Author</th>
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<th>Result</th>
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<tbody>
<tr>
<td>1</td>
<td>Ilana R Azulay Chertok</td>
<td>2020</td>
<td>Perceived risk of infection and smoking behavior change during COVID-19 in Ohio</td>
<td>There has been a change in smoking behavior among current smokers and those who quit since COVID-19, with 36.7% trying to quit smoking since the outbreak</td>
</tr>
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<td>2</td>
<td>Shihoko Koyama, Takahiro Tabuchi, et al.</td>
<td>2021</td>
<td>Changes in smoking behavior since the declaration of the COVID-19 state of emergency in Japan: a cross-sectional study from the Osaka health app</td>
<td>Of all respondents studied, there was an increase in the number of cigarettes smoked by 32.1% and 11.9% of other respondents quit smoking</td>
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<tr>
<td>3</td>
<td>Pasquale Caponnetto, Luscio Inguscio, et al.</td>
<td>2020</td>
<td>Smoking behavior and psychological dynamics during COVID-19 social distancing and stay-at-home policies: A survey</td>
<td>According to a survey conducted in Italy, there was a decrease in cigarette consumption during the lockdown period which was influenced by several factors</td>
</tr>
<tr>
<td>4</td>
<td>Avinda Dea Narisewari,</td>
<td>2020</td>
<td>Analisis pengguna rokok di masa pandemi</td>
<td>There was an increase in cigarette sales in some stores,</td>
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</tbody>
</table>
According to the research results mentioned above, Chertok, in his study entitled "Perceived risk of infection and smoking behavior change during COVID-19" (Chertok, 2020) conducted by surveying 810 respondents with various backgrounds, said that most participants (75.4%) think that smoking increases the risk of COVID-19 infection and most (93.0%) think that smoking increases the severity of infection. In his research, Chertok revealed that there has been a change in smoking behavior among current smokers and those who quit since COVID-19, with 36.7% trying to quit smoking since the outbreak occurred. There was a significant difference in risk perception between people who had no desire to quit smoking and those who said there was a desire to quit smoking, namely that those who wanted to quit felt a higher risk of Covid-19 infection. Thus, it can be concluded that most respondents have high self-awareness of the negative correlation between smoking habits and the severity of the manifestation of COVID-19 disease, but it seems that not many respondents actually quit smoking even though they know the impact.

(Koyama et al., 2021) revealed in their study that of all respondents studied, there was an increase in the number of cigarettes smoked by 32.1% and 11.9% of respondents quit smoking. Based on the characteristics of smokers themselves, smokers under 35 years, 43.2% increased the number of cigarettes smoked, while 12.3% stopped smoking. Of smokers aged over 65 years, 10.6% increased the number of cigarettes smoked, and 29.9% quit. The number of increases or decreases in cigarette consumption observed in respondents in this study was not influenced by knowledge about the dangers of smoking associated with COVID-19. It was reported that most of the respondents were aware of the risk of increasing the severity of COVID-19 disease manifestations in smokers. The problem is that there is a trend that people tend to increase their cigarette consumption in case of an emergency, such as what happened after the Great East Japan Earthquake in 2011, which shows an increase in cigarette consumption. From the study, it can be known that the group of respondents of the male ketamin type and the older age group tend to prefer to quit smoking. While respondents who worked from home or lived alone experienced a much higher increase in cigarette consumption. This is possibly because they were less likely to receive complaints from family members or co-workers about smoking or were not governed by workplace smoking restrictions.

According to a survey conducted by (Caponetto, 2020) that discussed changes in smoking behavior during the pandemic in Italy, it was found that there was a decrease in cigarette consumption during the lockdown period. This aspect may be related to several factors including 1) the opportunity for smokers to undergo the habits associated with cigarette consumption such as cigarettes smoked during daily socialization activities in the gathering place of young people; 2) Variations in the lifestyle habits of each smoker's family; for example, spending more time at home and reducing cigarette consumption out of respect for their families; 3) fear of the development of COVID-19 because the cough is common in smokers and people who are COVID-19 positive.

In his research on cigarette consumption during the pandemic in one of the regions in Indonesia, (Nareswari, Wijayanti, Oktaviani, & Santoso, 2020) said that there was an increase in cigarette sales in some stores, and the majority of cigarette enthusiasts during the pandemic period also increased. Research conducted on several stores in the Nogosari area stated that there was a decline in sales at stores located in areas that were once the COVID-19 quarantine area. Meanwhile, in other areas, it was found that 64% of stores experienced an increase in cigarette buyers. Those who consume cigarettes are many teenagers the reason of wanting to try, fill their free time and others without knowing the negative impact and effect on Covid-19 transmission. From this study, it is stated that, in most stores, almost half of the shoppers are teenagers. This is due to the lack of knowledge that many teenagers do not know, including the gases contained in cigarette smoke, which are able to bind to blood hemoglobin (97.9%), the dangers of cigarette smoke to active and passive smokers (69.8%) and other substances. toxins contained in cigarettes (65.6%). Lack of knowledge about this is because

| Eny Wijayanti, et al. | COVID-19 Kecamatan Nogosari | and the majority of cigarette enthusiasts during the pandemic period also increased. |
many teenagers have not received in-depth knowledge about the chemicals contained in cigarettes and their mechanisms in causing negative impacts on the body.

The control of smoking habits to prevent the increased severity of manifestations of Covid-19 disease is also strongly influenced by public knowledge about the reciprocal relationship between smoking and Covid-19 disease itself. Therefore, it is necessary to disseminate information in general so that the public can know the dangers of smoking, especially when amid a pandemic. Research from (Grummon et al., 2020) which examined the public’s reaction to messages regarding the dangers of smoking and Covid-19, states that the results of smoking messages with a higher risk of Covid-19 severity lead to a higher perception of the effectiveness of preventing smoking than messages without mentioning it. Messages linking smoking to Covid-19 may be promising for preventing smoking and may have additional benefits as well as preventing e-cigarettes.

Although the dissemination of information is only one of the many factors that influence the rise and fall of cigarette consumption in the community during this pandemic, in fact from the many surveys conducted on the research mentioned above, several authors have stated that public awareness of the effect of cigarette consumption on COVID-19 is still low and is one of the factors that causes an increase in cigarette consumption in the community during the pandemic. Most of them are aware of the dangers of smoking itself, but there are still many who do not know its relationship with the severity of COVID-19 infection.

According to (Atmojo et al., 2021) having a healthy physical condition is one of the efforts to protect yourself from Covid-19 attacks. Regular exercise, maintaining a healthy diet, thinking about positive things, and maintaining a healthy environment are all efforts to keep yourself healthy. Therefore, efforts to stop smoking habits, reduce smoking intensity, and avoid cigarette smoke during the pandemic are one of the steps that will have a positive effect during the Covid-19 pandemic.

CONCLUSION

The main problem with COVID-19 is the respiratory system, so smoking and cigarette use can put people at high risk for severe lung infections. The era of the COVID-19 pandemic is an era where there are many changes, both big and small, in people's lifestyles, especially in terms of health. In its effect on the health of the respiratory system, which is one of the most important things to take care of in these times, cigarettes and people's smoking habits have been under a lot of attention lately. There are various trends in changing people's smoking habits during different pandemic times. Some smokers have realized the negative correlation between smoking and the severity of Covid-19 transmission, so they decided to quit. However, in some groups there is still an increase in cigarette consumption during the pandemic caused by various factors, one of which is the lack of knowledge or information about the impact of smoking which can increase the risk of transmission of the Covid-19 disease. Therefore, it is necessary to disseminate information widely related to Covid-19 and smoking habits. Having a prime health condition is the most important thing to keep away from the COVID-19 infection which spreads very quickly. Therefore, all negative things that have the potential to reduce health levels must be avoided, and that during a pandemic, people must maintain their physical condition to avoid Covid-19 attacks, one of which is by quitting smoking.
BIBLIOGRAPHY


