RISK FACTORS FOR PHBS APPLICATION TO COVID-19 EVENTS IN THE WORKING AREA OF PUSKESMASLEPO-LEPO

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ABSTRACT

Coronavirus is an RNA virus that has a particle size of 120-160 nm. Coronavirus disease-19, abbreviated as Covid-19, can be transmitted through droplets or certain media contaminated with the virus and then move to the eyes, nose, or mouth. Based on the map of the distribution of Covid-19 in Kendari City from May to September 2020, the highest cases were in Baruga District with a total of 60 cases. This study aims to determine the risk factors for household PHBS against the incidence of Covid-19. This type of research is analytically using a Case-Control Study approach. The population is 60 respondents with the Simple Random Sampling technique. With a total sample of 80 people consisting of 40 case samples and 40 control samples. Analysis using Odds Ratio. This study indicates that the behaviour of not washing hands with soap is a risk factor for the incidence of Covid-19 with a value of OR = 4.394; LL = 1.709; UL = 11.295. Lack of physical activity is a protective factor against the incidence of Covid-19 with a value of OR = 0.706; LL = 0.221; UL = 2.259. Lack of consumption of fruits and vegetables is a protective factor against the incidence of Covid-19 with a value of OR = 0.500; LL = 0.192; UL = 1.300. Smoking behavior is a risk factor for the incidence of Covid-19 with a value of OR = 1.232; LL = 0.503; UL = 3.018. It is hoped that the Lepo-Lepo Health Center agency will improve health promotion regarding the Covid-19 Protocol by regularly washing hands with soap and reducing smoking behaviour.

Keywords: Hand washing, Physical activity, Fruits and Vegetables, Smoking, Covid-19

I. INTRODUCTION

In early 2020, a new pneumonia outbreak has shocked people around the world. The outbreak originated in Wuhan, Hubei Province, China. More than 190 countries and territories, including Indonesia, have contracted the virus. This virus is called Coronavirus Disease 2019 (Covid-19), allied with Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2). This outbreak has had a vast influence, both socially and economically.1 (1).

This virus's spread transmission is generally transmitted from human to human and can occur through droplet splashes released when coughing or sneezing. Pathogenesis Covid-19 is thought to resemble SARS-CoV, which has found first.2(2). In humans, this virus attacks and infects cells in the respiratory system, especially in alveoli cells or lung organs which further cause humans difficulty breathing. In addition, a weak immune system can make the body more susceptible to infection with Covid-19.3 (3).

In August 2020, the number of positive cases worldwide reached 24 million. The country with the most patients is the United States with 5.9 million cases; Brazil with 3.6 million cases; and India with 3.1 million cases.4 (4).

In Southeast Asia, in October 2020, the number of positive cases was as many as 719,093 cases. The number of patients in the Philippines with the number of cases as many as 322,497 positive cases. While the country with the lowest cases is Laos, where the number of positive cases is as many as 23 cases. (4)

Based on the data obtained, Indonesia in October accounted for at least 42.2% of positive cases of Covid-19 in Southeast Asia, with 303,498 cases. As of November 2020, there was an increase in the number of issues. The Indonesian Covid-19 Task Force recorded at least 425,796 confirmed positive cases originating from 502 regencies/cities from a total of 34 provinces. (4).
Meanwhile, according to data obtained from the Covid-19 Task Force Team of Southeast Sulawesi Province in October 2020, at least 2,906 confirmed positive cases, with the highest number of cases in Kendari City. One thousand three hundred ninety-nine cases or 48.14% of the total number of positive cases of Covid-19 in Southeast Sulawesi.\(^{(5)}\)

Based on the Covid-19 distribution map in Kendari City, from May to September 2020, the highest cases were in Baruga District. The number of cases is 60 in Kambu District, followed by as many as 43 instances, Poasia District as 42 cases, and Mandonga and Wua-Wua districts each as many as 38 cases.\(^{(6)}\)

One of the tips given to the community in fighting this pandemic is to carry out clean and healthy living behaviours (PHBS) in their daily lives. Clean and healthy living behaviour (PHBS) of the household is one of the programs aimed at a group (household) to create awareness about various health behaviours to make People play an active role and help themselves improve their health. This study aims to determine the risk factors for applying Household PHBS to the incidence of Covid-19 in the Lepo-Lepo Health Center Work Area.

II. MATERIALS AND METHODS

The type of research used is analytical research using a case-control study approach that is an analytical study that concerns how risk factors are studied using a retrospective approach.

This research was conducted in the Working Area of Puskesmas Lepo-Baruga Subdistrict. The population comes from the number of cases of Covid-19 sufferers in Kendari city as many as 60 cases, then obtained a large sample of 40 samples as a group of cases and 40 samples as a control group. The sampling technique uses a simple random sampling technique in 4 villages in Baruga Subdistrict, namely Baruga Village, Wundodopi, Lepo-Lepo, and Watubangga. Data collection using questionnaires and then the results using risk factor tests analyzed using SPSS.

III. RESULT

The characteristics of respondents in the study consisted of age groups, education, gender, and occupation. The frequency of age groups in Table 1 shows that, out of 80 respondents, the most age group is 30-39 years old, as many as 27 respondents (34%), and the minor age group is in the age group of 50-59 years as many as three respondents (4%).

The distribution of the frequency of respondents based on the level of education in Table 1 shows that the most group is respondents with a college education level of 47 respondents (59%). The last group is elementary as many as three respondents (4%).

The distribution of respondent frequency by gender in Table 1 shows that respondents are male as many as 40 respondents (50%) and women as many as 40 respondents (50%).

The distribution of respondent frequency based on work in Table 1 shows that respondents worked the most as civil servants / TNI / POLRI as many as 22 respondents (27.5%). The fewest jobs were as traders, as many as eight respondents (10%).

The distribution of respondent frequency based on CTPS behaviour in Table 2 showed that of the 80 respondents, 44 respondents (55%) were in the risk category, and 36 respondents (45%) were in the non-risk class. The distribution of respondents' frequency based on physical activity in Table 2 showed that of the 80 respondents, 14 respondents (17.5%) were in the risk category, and 66 respondents (82.5%) were in the non-risk class.

The frequency of respondents based on fruit and vegetable consumption in Table 2 showed that of the 80 respondents, 54 respondents (67.5%) were in the risk category, and 26 respondents (32.5%) were in the non-risk class. The distribution of respondent frequency based on smoking behaviour in Table 2 showed that of the 80 respondents, 32 respondents (40%) were in the risk category, and 48 respondents (60%) were in the non-risk class.

Based on Table 3, bivariate analysis shows the CTPS behaviour of 40 case respondents. There are 29 respondents of risk categories and 11 respondents of non-risk categories. While from 40 control respondents, there were 15 respondents with risk categories and 25 respondents with non-risk categories. The statistical test result obtained the odds ratio (OR) = 4.394 > 1. It suggests that CTPS behaviour is a risk factor for Covid-19 events.

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Based on Table 3 of the bivariate analysis, physical activity behaviour showed that out of 40 case respondents, there were six respondents with risk categories and 34 respondents with non-risk types. While from 40 control respondents, there were eight respondents with risk categories and 32 respondents with non-risk classes. The statistical test result obtained the odds ratio (OR) = 0.706 < 1. It suggests that physical activity is a protective effect (protection) of risk factors against independent factors.

Based on Table 3 bivariate analysis, fruit and vegetable consumption behaviour showed that out of 40 case respondents, there were 24 respondents with risk categories and 16 respondents with non-risk categories. While from 40 control respondents, there were 30 respondents with risk categories and ten respondents with non-risk categories. The statistical test result obtained the odds ratio (OR) = 0.500 < 1. It suggests that fruit and vegetable consumption behaviour is a protective effect (protection) of risk factors against independent factors.

Smoking behaviour based on Table 3 showed that out of 40 case respondents, there were 17 respondents with risk categories and 23 respondents with non-risk categories. While from 40 control respondents, there were 15 respondents with risk categories and 25 respondents with non-risk categories. The statistical test result obtained the Odd Ratio (OR) value = 1.232> 1. s indicates that smoking behaviour is a risk factor for Covid-19 events.

IV. DISCUSSION

Handwashing behaviour is the most dominant variable for predicting a person's chances of being exposed to Covid-19. It is because of the Covid-19 virus that can tighten on various media and not escape the touch of the human hand. At first, droplets released through coughing or sneezing by someone who has contracted Covid-19 attach to multiple media are then touched by other human hands.

The bivariate analysis results in Table 3 showed that using soap in the case group with more risk categories than the category was not at risk with an Odd Ratio value = 4.394. It happens because respondents ignore hand hygiene when moving in public places, unaware of making contact with the eyes, nose, ears, or mouth as sensitive organs that cause exposure.

It was not the case during the interview. Some respondents admitted to paying less attention to the cleanliness of their hands when on the move in public places such as shopping centres, offices, and other public facilities and a lack of attention to hand hygiene. This study is similar to research conducted by RendiAriyantoSinanto and SittiNurDjahann in 2015. Obtained research results show hand washing using soap is very effective for infection prevention, and this is proven hand washing using soap can reduce the risk of infection. Also, in its implementation, an essential factor influencing handwashing behaviour is good knowledge and attitude to avoid disease. 7(7)

In addition, handwashing facilities using water taps commonly used in public places allow hands to be re-exposed to the virus. This study is similar to research conducted by FajarArdiDesianto and SittiNurDjahann in 2013. The study results found a difference in the number of germs after washing hands using soap with antiseptics that contain anti-germs and without soap that does not have anti-microbial. 8(8).

In research conducted by FitriYanti and KomangAyisukma in 2020 showed different results where the picture of behaviour that includes knowledge, attitudes, and actions by the people of Kendari City is good enough. It can be caused by differences in the characteristics of study respondents where the entire population is all students of Kendari City. 9(9). Furthermore, the category is not at lower risk this happens because respondents are quite vigilant in activities in public places by always paying attention to hand hygiene. Respondents also realized that hand washing facilities in public areas could become a place to transmit the virus due to water taps touched by many people.

A physically active person can help improve physical fitness, tighten muscles, reduce stress, and have several other benefits. Physical activity such as exercising is often considered trivial because the body does not directly feel the impact on health.

Based on the study results in Table 3, the group of cases with fewer risk categories than those not at risk with an odds ratio = 0.706. Based on the interview results, it is known that respondents who do less physical activity are caused because they are busy with work, so the intensity of physical activity is reduced. In addition, one of the causative factors is excessive social media use resulting in respondents tending to do less physical activity. Furthermore, the category is not risky. It is quite a lot consists of respondents whose daily activities are enough to
do physical activities such as exercising, doing office activities, being happy to clean the yard, and other physical activities.

The results align with Sebastian Chendra and Susy Olivia Lontoh’s research on the 2019 relationship of exercise to lung capacity. His study obtained a Risk Prevalence (PR) value of 18.07 which means those who are lazy to exercise are at risk of 18.07 times more extraordinary have poor par-lung capacity.¹⁰ (10).

Consuming fruits and vegetables is an indicator of clean and healthy living behaviour (PHBS). According to the WHO, fruit and vegetable consumption is highly recommended to the community because it can regulate the growth and maintenance of the body to keep the body healthy and not easily sick. Under-eating fruits and vegetables have been the cause of death by 1.7 million (2.8%) deaths worldwide. Therefore, consumption of fruits and vegetables is one of the indicators in knowing its relationship with the incidence of Covid-19.¹¹ (11)

Based on the results of the bivariate analysis in Table 3, it can be seen that the number of respondents in the case group with a risk category is more than the group with the typethat is not at risk. Respondents consisted of people who regularly consume vegetables but still less following enough portions, namely 150 grams of vegetables and 150 grams of fruits per meal that data affect nutritional balance. According to research conducted by Kristiawan in 2018 about the picture of nutritional status of undernourished and the incidence of ispa pneumonia in toddlers. There is a relationship between parents' smoking behaviour in the nutritional status of toddlers is related to the body's ability to survive disease attacks. (11)

Furthermore, some other risky respondents are status as students/students who have busyness, so they are more fond and tend to eat instant food that has a dose of vegetables is less enough. The bivariate analysis results that show the value of Odd Ratio = 0.500 means that fruit and vegetable consumption is a protective factor against the incidence of Covid-19. So that respondents who consume enough fruits and vegetables are at little risk of exposure to Covid-19. Smoking behaviour is one of the factors causing public health problems in Indonesia. Based on data from Basic Health Research (Riskesdas) in 2018, Indonesia became the third-largest number of smokers below China and India. Smoking behaviour seems to have become a necessity even lifestyle by the community. Some of the factors that cause a person to smoke are psychological factors, environment, to family support.

Based on the results of bivariate analysis, it is known that the group of cases with a high-risk category is dominated by male respondents who are heads of families and students/students. Factors that affect respondents having a smoking habit are being in a work environment where the majority are smokers, which affects the patterns of respondents. Another factor is that respondents have been addicted to cigarettes early on.

Then, in the control group, were respondents in this group had the same factors as the case group, the dominant factor, so they smoked was the environment, including family support. The control group with the category was not at risk as many as the other 25 respondents were female.

These results are similar to research conducted by Reni Riyanto and AnisKusmawati in 2016 on parents' smoking behaviour with ispa pneumonia in toddlers. There is a relationship between parents' smoking behaviour in the house and the incidence of pneumonia toddlers by 2,348 times than in toddlers who do not have smokers in the house.

V. CONCLUSIONS AND SUGGESTIONS

This study concludes that handwashing behaviour using soap is a risk factor for the occurrence of Covid-19. Physical activity is a protective effect (protection) or reduced risk factors against independent factors. Consumption of fruits and vegetables is a protective effect (guardian) or reducing risk factors against independent factors. Smoking behaviour is a risk factor for the occurrence of Covid-19.

The advice of this study is in addition to information on household clean and healthy living behaviour (PHBS) as a risk factor for Covid-19 events in particular to develop further research on other PHBS indicators such as the availability of clean water exclusive breastfeeding related to the incidence of Covid-19.

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REFERENCE


