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FACTORS RELATED OF COVID-19 IN THE WORK AREA OF THE MAKASAR DISTRICT HEALTH CENTER

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ARTICLE INFO	ABSTRACT

Background: COVID-19 is an infectious disease caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). COVID-19 can be transmitted to all age groups, but the elderly who have previous diseases such as cardiovascular disease, diabetes, hypertension, and chronic obstructive pulmonary disease will worsen the COVID-19 disease. Therefore, factors related to COVID-19 are needed to prevent and control COVID-19. **Purpose:** The purpose of this study was to determine the factors related to the incidence of COVID-19 in the working area of the Makassar District Health Center in 2021. **Methods:** This type of research was descriptive cross-sectional. The population of this study is the community in the Makassar District Health Center with a sample of respondents aged 17-60 years with a total of 140 respondents. The sampling method was using consecutive sampling techniques through an online google form questionnaire. Data collection was carried out on 23 June -1 July. Data analysis used univariate and bivariate analysis. **Results:** The results showed that most of the respondents had good knowledge, family roles, behavior, and lifestyle. There is a relationship between gender (p-value = 0.048), education (p-value = 0.014) and behavior (p-value = 0.040) with the incidence of COVID-19. While the unrelated factors are age, occupation, income, comorbidities, BMI status, knowledge, family roles, and lifestyle. **Conclusion:** It is hoped that the public health center will maximize health promotion and 3T, hold socialization of the distribution of masks, vitamins, and other drugs to increase immunity.

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INTRODUCTION

COVID-19 is an infectious disease caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) (Kemenkes, 2020).

Most patients who are confirmed positive for COVID-19 will experience respiratory problems ranging from mild to severe. The elderly who have previous diseases such as cardiovascular disease, diabetes, hypertension, and chronic obstructive pulmonary disease will worsen the COVID-19 disease. COVID-19 has spread to 223 countries and based on data obtained on March 31, 2021, as many as 127,877,462 people were confirmed positive and of them 2,796,561 died. While in Indonesia, 1,511,712 people were confirmed positive for COVID-19 and 40,858 people died (Gugus Tugas, 2021).

Disease incidence is the result of interactions between host, host, and environmental factors. The agent of COVID-19 is Severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2). The host of this disease is humans, especially vulnerable or at-risk groups with low immunity. Positive confirmed cases of COVID-19 at the Makassar District Health Center from the beginning of the pandemic, namely March 2020 to March 29, 2021, totaled 6,211 cases.

There are still many people who do not comply with the health protocols that have been suggested by the government. This is based on the author's interview with the Makassar District Health Center surveillance officer, who said that there were still many people who were crowding and did not keep their distance from one another. This is very influential from the background of the community itself such as education, work, and the environment, especially the family of the community itself. The purpose of this study was to determine the factors related to the incidence of COVID-19 in the working area of the Makassar District Health Center in 2021 which later could be a reference source related to research on factors related to the incidence of COVID-19 and as information in formulating strategic plans. and development of COVID-19 prevention programs to increase success in preventing COVID-19 transmission.

Therefore, the purpose of this study was to determine the factors related to the incidence of COVID-19 in the working area of the Makassar District Health Center in 2021.

METHODS

This study is an analytical observation using a cross-sectional design. This research was conducted in the working area of the Makassar District Health Center on June 24 – July 1, 2021. The instrument used in this study was a questionnaire conducted online via google form. The population in this study was the entire community in the working area of the Makassar District Health Center, namely 196,046 people. The sampling method used non-random sampling method with consecutive sampling technique.

The sample in this study was 138, 297, namely people aged 17-60 years. Respondents were calculated using the Lemeshow formula. Data collection techniques in this study used primary data and secondary data. The independent variables in this study were gender, age, education, occupation, income, history of COVID-19 disease, history of comorbidities against COVID-19, BMI, knowledge, behavior, family roles, and lifestyle while the dependent variable was the incidence of COVID-19.

RESULTS

The results of the univariate analysis are presented in Table 1 below:

Table 1
Distribution of Respondents in the Working Area of the Makassar District Health Center, East Jakarta 2021

Variables	Frecuency (n)	Percentage (%)
Gender		
Male	47	33.5
Female	93	66.5
Age		
Adolescent	49	35
Adult	35	25
Elderly	56	40
Eduction		
Low	74	52.8
High	66	47.2
Occupation		
Working	77	55
No	63	45
Income		
< UMP	88	62.9
$\geq$ UMP	52	37.1
Co-morbidities		
Yes	26	18.6
No	114	81.4
Obesity		
Normal	109	77.9
Fat	7	5
Obesity	24	17.1
Total	**140**	**100**

Based on Tabel 1, From the analysis conducted on 140 respondents, it was found that 93 people (66.5%) were women, with the elderly age group as many as 56 people (40%), there were still many people with low education as many as 74 people (52.8%) with an average On average, 77 people work (55%), and have an income <UMP DKI Jakarta as many as 88 people (62.9%).

Table 2

Knowledge Questionnaire Frequency Distribution

No	Question	True (%)	False (%)
1	SARS-COV-2 last for	62,9	37,1
2	Incubation period COVID-19	64,3	35,7
3	Risk factors COVID-19	67,9	32,1
4	Isolation period COVID-19	87,1	12,9
5	Prevention COVID-19	77,1	22,9
6	How to relieve symptoms COVID-19	85,7	14,3
7	COVID-19 can't spread through	73,6	26,4
8	CTPS steps	65,0	35,0
9	The function of two vaccinations	88,6	11,4

Based Table 2, the knowledge questionnaire, there are still many people who answer incorrectly and do not understand about COVID-19. 9 out of 20 knowledge questions that still answered incorrectly were questions that did not know how long COVID-19 lasted (37.1%), COVID-19 incubation period (35.7%), COVID-19 risk factors (32.1%) , COVID-19 isolation period (12.9%), COVID-19 prevention (22.9%), how to relieve COVID-19 symptoms (14.3%), COVID-19 spreads through droplets (26.4%), 6 steps of hand washing with soap (35%), and the function of two vaccinations (11,4%).

Table 3

Frequency Distribution of Family Role Questionnaire

No	Statement	Always (%)	Often (%)	Rare (%)	Never (%)
1	My family recommends a PCR test if a family member experiences any of the symptoms COVID-19	45.7	35.7	15	3.6
2	My family helps to feed if a family member is affected COVID-19	32.9	36.4	24.3	6.4
3	My family forbids me from crowding	47.9	35.0	150	2,1
4	My family does not pay attention to PHBS (Clean and Healthy Life Behavior)	7.9	18.6	21.4	52.1
5	My family is willing to pay for a PCR test if I experience symptoms COVID-19	42.1	30.0	19.3	8.6
6	My family advised me about the consequences of not getting vaccinated	42.9	37.1	15.7	4.3

Based on the family role questionnaire, there are still many families who do not remind their family members to prevent COVID-19. 6 of the 15 questionnaire statements, many families still rarely-never take COVID-19 prevention, including "rarely-never suggest a PCR test if a family member experiences any of the symptoms of COVID-19" (15%), "rarely -never help feed if a family member is affected by COVID-19" (24.3%), "rarely-never forbid family members from gathering together" (15%), "often-always not paying attention to PHBS (Life Behavior) Clean

and Healthy)" (18.6%), "rarely-never pay for a PCR test if I experience symptoms of COVID-19" (19.3%), and "rarely-never have any consequences if I do not vaccinate" (15.7%).

Table 4

Behavioral Questionnaire Frequency Distribution

No	Question	Always (%)	Often (%)	Rare (%)	Never (%)
1	I take a shower and change clothes after leaving the house	52.1	30	17,9	0
2	Always wash your hands with soap and running water with 6 steps of hand washing	55.0	30.7	14.3	0
3	Always keep a distance of at least 1 meter	53.6	22.9	22.9	0.7
4	I always shake hands and hug with other people	5.0	15.7	31.4	47.9
5	Always carry hand sanitizer	52.9	30.0	15.7	1.4
6	The cloth mask that has been used is immediately washed	48.6	29.3	15	7.1

Based on the behavioral questionnaire, there are still many people who do not implement COVID-19 prevention behaviors. 6 of the 15 questionnaire statements, there are still many people who rarely-never apply COVID-19 prevention behaviors, including "rarely-never take a shower and change clothes after leaving the house" (17.9%), "rarely-never wash their hands properly. soap and running water with 6 steps of hand washing" (14.3%), "rarely-never maintain a distance of at least 1 meter" (22.9%), "often-always shake hands and hug with others" (15.7 %), "rarely-never bring hand sanitizer" (15.7%), and "rarely-never wash cloth masks that have been used" (15.0%).

Based on the lifestyle questionnaire below, there are still many people whose lifestyles are unhealthy which results in increased weight and decreased immune system, making it easier for diseases such as hypertension, diabetes mellitus, and heart disease to occur. Which disease is a comorbidity to COVID-19 that can exacerbate COVID-19. 6 of the 20 questionnaire statements, there are still many people whose lifestyles are unhealthy, including "dramatically increasing consumption of junk food/fast food and fried foods" (22.1%), "slightly increasing consumption of sugar-sweetened beverages" (11 ,4%), "decreased-significantly decreased in exercise" (9.3%), "dramatically increased-increased time sitting and looking at mobile and computer screens" (26.4%), "decreased-severely decreased sleep time and quality sleep" (24.3%), and "a drastic increase in stress and anxiety levels" (48.6%).

Table 5

Lifestyle Questionnaire Frequency Distribution

No	Question	Increase Drastically (%)	Slightly Increase (%)	Do not change (%)	Slightly Decrease (%)	Very Decrease (%)
1	During the COVID-19 pandemic, how has the consumption of junk food/fast food and fried foods changed?	2.1	22.1	32.1	30.7	12.9
2	During the COVID-19 pandemic, how has the intake of sugar-sweetened beverages changed?	0	11.4	52.1	27.1	9.3
3	During the COVID-19 pandemic, how has your participation in sport changed?	12.9	41.4	31.4	9.3	5
4	During the COVID-19 pandemic, how has your sitting and screen time changed?	7,9	26.4	52.1	11.4	2.1
5	During the COVID-19 pandemic, how has your sleep quality changed?	0	15.7	56.4	24.3	3.6
6	During the COVID-19 pandemic, how have your stress and anxiety levels changed?	15,0	48.6	30	5	1.4

DISCUSSION

Based on the Chi square test that has been carried out, it was found that only 3 of the 11 variables related to the incidence of COVID-19, namely gender, education, and behavior. In the gender variable, the value of p = 0.048, OR = 2.191, meaning that male respondents have twice the chance of getting COVID-19 compared to women. According to Li et al (2020), men are more at risk of contracting COVID-19 due to chromosomal factors and hormonal factors. Women are more protected from COVID-19 than men because they have an X chromosome and sex hormones such as progesterone, which play an important role in innate and adaptive immunity. Men are usually due to work demands that result in leaving the house more often than women, making them vulnerable to COVID-19. In addition, women usually have a higher level of knowledge than men, especially in preventing the transmission of COVID-19, such as understanding the epidemiology and risk factors of COVID-19.

In the education variable, the value of p = 0.014 (p value <α), OR = 0.396, meaning that respondents with higher education can protect someone from becoming a COVID-19 survivor 0.396 times compared to people with low education. Research conducted by Gannika & Sembiring (2020) shows that the level of education also affects a person's knowledge and health knowledge will affect behavior as an intermediate impact of health education, then health behavior will affect the increase in public health indicators as an output of education. health. Keep in mind that COVID-19 does not recognize age, gender, education, social status, and attacks the immune system. This is as revealed by researchers in Shanghai and New York who have reported the discovery that COVID-19 can attack the human immune system. In the behavioral variable, the value of p = 0.040 (p value <α), OR = 2.388, meaning that respondents who behave less have a 2.3 times greater chance of getting COVID-19 than respondents who behave well. Health behavior is influenced by many factors, including knowledge, perception, emotion, motivation, and environment. Exploration of public health behavior can be seen from various components, namely perceptions of disease susceptibility, perceptions of obstacles in prevention efforts, perceptions of benefits, encouragement, and individual perceptions of their abilities to carry out prevention efforts. Attitude is a reaction or response of someone who is still closed to a stimulus or object. Attitude is not the same as behavior and behavior does not always reflect a person's attitude, because it often happens that someone shows actions that are contrary to his attitude. Research by Mujiburrahman et al (2020) shows that most of the respondents' preventive behavior is in the fairly good category (43.2%). The forms of behavior shown include obedience in keeping a distance when outside the house, always washing hands with soap or hand sanitizer before entering the house, shops/minimarkets, ATMs and other facilities, obeying the use of masks when traveling and not touching or shaking hands with other people. Someone who already knows about certain information, then he will be able to determine and make decisions on how he should deal with it. In other words, when a person has information about COVID-19, he will be able to determine how he should behave towards COVID-19.

CONCLUSION

Based on the research, it can be concluded that some people still have low knowledge due to answering questions incorrectly, the role of the family is still lacking, especially in controlling COVID-19, behavior that does not apply health protocols properly to prevent transmission of COVID-19, and has a lifestyle that not good so that it can lead to new and worsening COVID-19 diseases.

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