

Research Article

Identifying COVID-19 Prevention Practices among Health Students

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Abstract.

This study aimed to discover how health students practice COVID-19 prevention methods, particularly hand washing, wearing masks and social distancing. This study was a non-experimental quantitative descriptive research. Data was collected using a COVID-19 prevention practice questionnaire distributed to students. The population in this study were regular and professional health students at the University of Muhammadiyah Malang. The sampling technique used was accidental sampling and included 208 students. 76% of students were found to have preventive practices in the low-risk category, 21% moderate risk, and 3% high risk for transmission. 98% of the practice of wearing masks answered YES. Hand washing practices are 90% in the good category, 10% moderate, and 0% low. The social distancing practice is 55% good, 37% moderate, and 8% low.

Keywords: preventive practices, COVID-19, health students

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1. INTRODUCTION

A new type of coronavirus that emerged and was found in humans in the Wuhan area, China was later named SARS-COV2 (Severe Acute Syndrome Coronavirus 2) and caused the disease COVID-19 (Corona virus Diseases-2019) (1). Transmission of this virus can occur through direct or indirect contact, as well as having close contact with other infected humans through saliva and respiratory tract secretions (droplets) that come out when an infected person sneezes, coughs, or talks. In addition, the transmission of this virus can occur through the air, the spread of infectious droplet nuclei (aerosols) while floating in the air and moving over long distances (2). The existence of the COVID-19 virus also has an impact on several sectors including the economy, education, health of course and social life (3).

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The number of confirmed cases of COVID-19 infection in the world reached 39,596,858 positive cases with a death rate of 1,107,374 people recorded on October 18, 2020. The highest cases were in the United States with 7,966,729 positive cases with 217,071 deaths, while India occupied the the country with the highest confirmed cases in Asia with 7,494,551 positive cases (2). Indonesia, the number of cases of COVID-19 continues to increase. As of October 18, 2020, positive confirmed cases reached 361,867 with 12.51 deaths. As for East Java, the positive number reached 48,452 and in the city of Malang, there were 1,929 confirmed cases with 190 deaths (4).

Practice is one of the factors that can affect the health of individuals, groups/communities, or society with the second largest factor after environmental factors (5). The community considers that health students can be role models in carrying out practices to improve health (6). Health students as individuals with the lives they lead have high health impacts and risks, it will be very important for them to consistently increase their self-awareness of practices that improve their health (7). Researchers are encouraged to research "Identification of COVID-19 prevention practices in health students".

2. MATERIALS AND METHODS

This study uses a descriptive research design using a survey research design.

2.1. Sample

The subject of this research was the health students at the University in Malang class of 2017 and 2018 which consisted of students from the nursing study program, students from the pharmacy study program, students from the physiotherapy study program, and students from the doctor education study program. As for the 2020 professional students consist of professional nursing students, pharmacist profession students, physiotherapist professional students, and medical professional students. Inclusion criteria (1) regular active students' class 2017-2018, (2) professional students' class 2020, (3) willing to fill out a questionnaire. As for the exclusion criteria (1) students who are on leave, (2) students who are not willing to fill out the questionnaire.

2.2. Instrument

The research instrument used in this study were 20 questions about the practice of preventing COVID-19 with YES and NO answer choices. Then for the scoring category, low-risk practices are given 1 point, while high-risk practices are given a score of 0. The total practices are calculated and converted into percentages. The practices were further categorized as follows: high-risk practices (<60% of the total score), moderate-risk practices (60.01 - 80% of the total score), and low-risk practices (>80% of the total score) (8).

2.3. Data analysis

The research data used descriptive analysis, a procedure for processing data in graphs or tables and described in frequency, percentage, mean or median. The research ethics permit was obtained from the UMM Ethics Commission from the University of Muhammadiyah Malang (No. E.5. a/047/KEPK-UMM/IV/2021).

3. RESULTS

3.1. Sample Characteristics

In this section, the results of research regarding the characteristics of a sample presented which consist of several categories related to age, gender, and majors of the respondents.

Based on table 1 about the characteristics of a sample of 208 health students in this study, it can be concluded that the lowest age range is 18 years and the highest is 26 years with an average age of 20.49 years. Then the sex of female students is more with details of 170 students (82%) compared to 38 male respondents (18%).

Referring to table 2 of the distribution of COVID-19 prevention practices for health students, the highest frequency of low-risk categories is from the medical profession majors with a percentage of 100% followed by doctor education as much as 82% of low-risk practices. Then for the highest high-risk category, namely in the regular nursing department with 3% or 3 students.

TABLE 1: Characteristics of Respondents.

Characteristic of Respondents	Category	Frequency	%	Min	Max	Mean
Age (y.o)	18 – 20	25	13	18	26	21,5
	21 – 23	170	82			
Gender	Male	38	18			
	Female	170	82			
Major Profession	Nursing	107	22	51	11	
	Pharmacy	20	10	10	12	
	Physiotherapy	19	5	2	5	9
	Doctor	2	1			
	Pharmacist					

TABLE 2: Distribution of COVID-19 Prevention Practices.

No	Major	Category	Risk Category						Total
			Low		Fair		High		
			F	%	F	%	F	%	
1.	Nursing	Reguler	85	81	17	16	3	3	105
		Profession	7	78	2	22	0	0	9
2.	Pharmacy	Reguler	13	65	6	30	1	5	20
		Profession	15	79	4	21	0	0	19
3.	Physiotherapy	Reguler	12	63	5	26	2	11	19
		Profession	3	60	2	40	0	0	5
4.	Doctor	Reguler	18	82	3	14	1	4	22
		Profession	2	100	0	0	0	0	2

TABLE 3: COVID-19 Prevention Practices.

Students	Risk Category			Total
	Low	Fair	High	
Health students	158 (76%)	43 (21%)	7 (3%)	208

3.2. Identify COVID-19 prevention practices

Based on table 3 diagrams of COVID-19 prevention practices in health students, it was found that 7 (3%) students carried out prevention practices with a high risk of COVID-19 transmission, furthermore 43 (21%) students carried out preventive practices with moderate risk, and as many as 158 (76%) students carried out prevention practices with low risk of virus transmission.

TABLE 4: Practice wearing masks.

Practice	Answer	
	Yes	No
Wearing Masks	205 (98%)	3 (2%)

From table 4, it was found that the practice of wearing masks among health students who answered yes was 205 students or 98% of the total sample.

TABLE 5: Distribution of hand washing practice identification.

No	Hand washing practice	Answer		%	
		Yes	No	Yes	No
1.	After the toilet	202	6	97%	3%
2.	After touching the item	163	45	78%	22%
3.	After meeting people sneezing and coughing	172	36	83%	17%
4.	Before touching eyes and nose	136	72	65%	35%
5.	After shaking hands	186	22	89%	11%
6.	After touching door handles or elevator buttons	177	31	85%	15%
7.	Before eating and sleeping	205	3	98%	2%
8.	When back home	204	4	98%	2%
9.	Wash hands with soap and water	204	4	98%	2%
10.	Washing hands -+20 seconds	166	42	80%	20%
11.	Wash hands with hand sanitizer	206	2	99%	1%

Based on table 5 the distribution of hand washing practices, it was found that the most frequently applied practice was washing hands using a hand sanitizer with a percentage of 99% or as many as 206 students.

TABLE 6: Hand washing practice.

Students	Category						Total
	Good		Fair		Poor		
	f	%	f	%	f	%	
Health students	199	96	9	4	0	0	208

From these results, it was found that the practice of using hand washing in health students was 199 (96%) students in the good practice category, 9 (4%) students in the moderate practice category, and no students in the low practice category. The least application is washing hands before touching the eyes and nose with a percentage of 65% (See table 6)

TABLE 7: Distribution of identification of social distancing practices.

No	Social distancing practices	Answer		%	
		Yes	No	Yes	No
1.	Avoid the crowd	176	32	85%	15%
2.	Maintain 1-meter distance from other people	153	55	74%	26%
3.	Avoid people who are confirmed positive for COVID-19	207	1	99%	1%
4.	Avoid shaking hands	157	51	75%	25%
5.	If you experience symptoms, avoid contact with other people	191	17	92%	8%

Based on table 7 the distribution of social distancing practices that are most widely applied is to avoid people who are confirmed positive for COVID-19 with a percentage of 99% or as many as 207 students.

TABLE 8: Identify social distancing practices.

Students	Category						Total
	Good		Fair		Poor		
	f	%	f	%	f	%	
Health students	144	55	77	37	17	8	208

From these results, it was found that the practice of social distancing in health students was that as many as 144 (55%) students were in the good practice category, 77 (37%) students were in the moderate practice category, and 17 (8%) were in the low practice category. The least practice is to keep 1 meter where 75% of the total sample is doing it (see table 8).

4. DISCUSSION

4.1. Identification of COVID-19 Prevention Practices in Health Students

The results show that in the COVID-19 prevention practices carried out by health students, 158 students (76%) carried out prevention practices with a low risk of transmission, 43 (21%) moderate risk prevention practices and 7 (3%) high risks. Preventive practices such as wearing masks and washing hands are often carried out by health students with an average frequency of 98% including practices in the form of keeping a distance, especially with people who are confirmed positive for COVID-19 with the number of students doing as many as 207 of the total sample or 99%. However, regarding the

practice of keeping a distance of at least 1 meter in general, there are still around 55 (26%) who do not apply this practice. While the practice that the students did the least was washing their hands before touching their nose and eyes, it was found that there were still 72 (36%) students who did not practice in the form of washing their hands before touching their eyes and nose. Then the other practices are in the low-risk category with an average implementation of 88.8% of the total respondents.

This is in line with the research of (8) which states that student practices in preventing the transmission of COVID-19 are included in the low-risk category with an average score of 84.3%. These practices include covering the nose with a tissue when coughing or sneezing followed by throwing away used tissue, avoiding contact with an infected person or shaking hands, practicing physical distancing, seeking medical advice when experiencing symptoms of COVID-19, and washing hands with water and soap in different situations. However, about two thirds (66.8%) of students wash their hands for 20 seconds, and exactly 64.9% of students wash their hands before touching their eyes or nose.

4.2. Identification of the Practice of Wearing a Mask

In the aspect of wearing masks, health students have carried out this practice very obediently, as evidenced by the results of the question of wearing masks, as many as 205 students or 98% have carried out the practice, only 3 students or 2% of them do not apply preventive practices in the form of wearing masks. This has indeed become one of the practices that are often applied when leaving the house to places visited by many people, especially some respondents, namely professional students who are also practicing in hospitals, which means that wearing masks is an absolute obligation for professional students. to avoid transmission. This is also in line with research conducted by (9) explaining the habit of using masks when leaving the house, 95.8% of respondents answered that they always use masks. During a pandemic, it is very important to wear a mask. Currently, wearing masks is recommended for people who travel outside the house to anticipate the transmission of the Corona virus.

4.3. Identification of Handwashing Practices

From these results, 206 (99%) students used soap when washing their hands and 204 (98%) used hand sanitizer. However, not a few students also did not apply the practice of washing their hands before touching their eyes and nose with a frequency of 35% or

as many as 72 students. As many as 42 (20%) students did not wash their hands for + 20 seconds. Regarding the time in washing hands, students tend to not pay too much attention, only washing hands with soap. The activity of washing hands after doing activities outside the home is very important considering that during the trip a person must be exposed to air pollution and touch various things. Washing hands with soap before eating is also necessary. One of the steps to prevent the spread of the Corona virus is to wash your hands before eating or doing any activity using soap and running water for 20 seconds.

These results are also in line with the research by (10) which illustrates that the behavior of the people of Yogyakarta City regarding hand washing with soap/hand hygiene in preventing COVID-19 is mostly in the good category, namely 98 people (98%), and in the category not good 2 people (2%). Then for the category of community behavior that is not good (2%) about washing hands with soap / hand hygiene in preventing covid-19.

4.4. Identify social distancing practices

The practice of keeping a distance by health students is at a good level, including avoiding crowds, keeping one meter, shaking hands, and avoiding people who are confirmed positive for COVID-19. The majority of students have implemented good practice by 55% or 114 students. However, there are still around 55 students or 26% who neglect the practice of maintaining a distance of at least 1 meter from other people. This could be caused by students who often carry out activities outside the home only focusing on prevention in the form of wearing masks or washing hands. The large crowds in several social places frequented by students made this practice not too noticed by them. There are also results showing that other COVID-19 prevention practices such as throwing away tissue after using a sneeze, seeking medical advice when experiencing complaints are also in the low-risk category. Furthermore, in (11) it was also found that the Physical Distancing Behavior of UIN Syarif Hidayatullah Jakarta Students during the COVID-19 Pandemic was in the good category of 55.9%. Physical distancing is a call from the government that is highly emphasized in breaking the chain of transmission of Covid-19.

5. CONCLUSION

Based on the results of the research and discussion on the identification of COVID-19 prevention practices in health students, it can be concluded that the overall COVID-19 prevention practices carried out by health students are in the low risk category. The practice of wearing masks is also applied very well by health students. In the practice of washing hands, the majority of students have applied it in several activities including after shaking hands, touching objects, and others. Although there are some students who neglect the practice of keeping a distance, the practice of social distancing according to the results of this study also shows that the practice is in the good category.

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