

Original Article

Comparative Study of Covid-19 Prevention Behavior in Health and Non-Health Students

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ABSTRACT

Background: Covid-19 has become a pandemic. Indonesia is the second highest prevalence number in Southeast Asia (as of mid-September 2020). Prevention behaviors become the key strategy to block the spread of the disease because there is no vaccine ready yet. This study aims to compare the prevention behavior of Covid-19 between health students and non-health students

Methods: This was an observational study with a cross-sectional approach in Banyumas. The variables of this study are preventive behavior, knowledge, vulnerability, severity, cost and benefit perception, community leader and health worker support. Data was collected using structured questionnaire electronically. It is involved 271 students from health and non-health students. Wilcoxon test used to compare means of results. Study was approved ethically by health sciences ethical committee, Jenderal Sudirman University.

Results: There was no different behavior between health students and non-health student, however it was found that there was a different of the perception cost related to behavior prevention and perception on community leader support between two groups.

Conclusions: There was a different in perception cost related to behavior prevention and perception on community leader support between health and non-health student. It is an alarm for the sustainability of behavior.

Keywords: covid-19, Indonesia, prevention behavior, students

INTRODUCTION

Currently, COVID-19 is a global health problem. This case began with information from the World Health Organization (WHO) on December 31, 2019 which stated that there were cluster cases of pneumonia with unclear etiology in Wuhan City, Hubei Province, China. As of September 22, 2020, Indonesia became the country with the second largest Covid-19 prevalence in Southeast Asia after the Philippines, with the number of cases 252,923. Judging from the death rate, Indonesia is ranked third in Asia¹.

Covid-19 is transmitted through droplet contact. The people most at risk of infection are those who are in close contact with COVID-19 patients or who care for COVID-19 patients. Efforts to prevent and control COVID-19 must continue to be carried out considering the increasing number of cases. The high rate of spread due to the unavailability of a COVID-19 vaccine makes prevention the best effort. Prevention activities will be effective if the public at large knows how to prevent COVID-19 disease. Prevention activities will be effective if carried out by the right people and in the right way².

The Ministry of Health together with the national Covid-19 acceleration group described behavioral messages

to prevent the spread of COVID-19, including maintaining distance, using masks, washing hands with soap, exercising, maintaining nutrition and rules/ethics when coughing and not crowding².

People's behavior in implementing the prevention of COVID-19 is different. There are many factors that influence it. Based on L. Green's theory, behavior is influenced by predisposing factors such as knowledge, attitudes, reinforcing such as support from community leaders, support for health workers and enabling such as the availability of facilities and infrastructure. Meanwhile, Rosenstock developed a theory that looked at behavioral factors from the internal side, namely the HBM (Health Belief Model). In this theory behavior is influenced by perceived susceptibility / perceived vulnerability, perceived severity, perceived benefits, perceived cost, cues to action and self-efficacy³.

Past research describes people's behavior related to the prevention of COVID-19 which is influenced by their knowledge and attitudes. The encouragement of community leaders to invite prevention is one of the keys to success⁴. One of the community groups that are expected to be able to quickly adopt COVID-19 prevention behaviors are students, because students can easily access information. However, based on current research, there are still many students (49,1%) at a public university in Jakarta who have not implemented COVID-19 prevention behavior⁵. Based on the above background, this study aims to look at the behavior of preventing COVID-19 in health and non-health students.

METHODS

This study is an observational study, which was conducted with a cross-sectional approach in Banyumas. It is involved 271 students from health and non-health students. Data was retrieved electronically by using a google form using a structured questionnaire during 1-30 June 2020. The variables in this study include COVID-19 prevention behavior, student demographic characteristics, knowledge and attitudes related to covid-19, perception of vulnerability, perception of severity, perception of benefits, perception of cost, self-efficacy and cues to act to prevent COVID-19. Instrument of study, the data were analyzed using the Wilcoxon test to compare the mean value of the variables between health and non-health students. This research was ethically approved by the ethics committee of the Faculty of Health Sciences, Jenderal Sudirman University, with No. 123/EC/KEPK/VI/2020.

RESULTS

From this study, table 1, it is known that most of the respondents are female students, with an age range of 18-25 years, with a monthly allowance of < 1,000,000, and living with their parents, with parental income > UMK (1, 9 million rupiah). Demographic characteristics are known to influence a person's behavioral compliance. Another research with respondents from various countries explained that women tend to be easier to comply with COVID-19 prevention behavior than men, while age is not related to preventive behavior⁶.

Most of respondents from health faculty are 23 years old, female 68.7%, have pocket money of 1,000,000 - 3,000,000 66.4%, most of them live with their parents 64.1% and most of parents' income above the regional minimum wage 62.5%.

Variable preventive behavior carried out by the majority of health faculty students was 63 %. Respondents from health faculty have good knowledge of 60%, have perceptions of vulnerability of 62.6%, perceptions of severity 64%, perceptions of costs 67.4%, perceptions of benefits 63.3%, support leaders 58.9%, support health workers 58.3%.

Cost perception in preventing Covid 19 between health and non-health students has a significant difference (p-value 0.013). In addition, the perception of benefits in preventing Covid 19 between health and non-health students has a significant difference (p-value 0.047). Other variables such as pocket money, knowledge, perceived vulnerability, perceived severity, leader support, health worker support and preventive behavior between there was no significant difference between health and non-health students.

Table 1. Characteristics of Research Subjects Based on Age, Gender, Department, Pocket Money, Status of Residence and Parent's Income

Characteristic	Frequency			
	Health (N=170)		Non-Health (N=101)	
	n	%	n	%
Age				
18	5	83,3	1	16,7
19	25	92,6	2	7,4
20	41	65,1	22	34,9
21	44	55,0	36	45
22	45	61,6	28	38,4
23	8	53,3	7	46,7
24	2	33,3	4	66,7
25	0	0	1	100
Gender				
Male	23	40,4	34	59,6
Female	147	68,7	67	31,3
Pocket Money Per Month				
< 1,000,000	88	59,9	59	40,1
1,000,000-3,000,000	81	66,4	41	33,6
> 3,000,000	1	50	1	50
Status of Residence				
With parents	127	64,1	71	35,9
Cost	40	60,6	26	39,4
Other	3	42,9	4	57,1
Parent's Income				
< UMR (1,900,000)	50	63,3	29	36,7
> UMR (1,900,000)	120	62,5	72	37,5

Table 2. Severity Perception, Cost Perception, Benefit Perception, Community Leader Support, and Health Worker Support Among Health Student & Non-health Student.

Variable	Student Background				Total	
	Health		Non-health			
	n	%	n	%	N	%
Preventive Behavior						
Well	112	63.3	65	36.7	177	100
Not Good	58	61.7	36	38.3	94	100
Knowledge						
Well	90	60	60	40	150	100
Not Good	80	66.1	41	33.9	121	100
Vulnerability Perception						
Well	97	62.6	58	37.4	177	100
Not Good	73	62.9	43	37.1	94	100
Severity Perception						
Well	103	64	58	36	161	100
Not Good	67	60.9	43	39.1	110	100
Cost Perception						
Well	95	67.4	46	32.6	141	100
Not Good	75	57.5	55	42.7	130	100
Benefit Perception						
Well	107	63.3	62	36.7	169	100
Not Good	63	61.8	39	38.2	102	100
Community Leader Support						
Well	96	58.9	67	41.1	163	100
Not Good	74	68.5	34	31.5	108	100

Health Worker Support						
Well	88	58.3	63	41.7	151	100
Not Good	82	68.3	38	31.7	120	100

Table 3. Bivariat Analysis

No.	Variable	Mean Rank		p value	Information
		Health	Non-health		
1.	Pocket money	139.24	130.54	0,308	No Difference
2.	Status of residence	133.53	140.15	0,384	No Difference
3.	Knowledge	131.05	144.33	0,169	No Difference
4.	Vulnerability Perception	134.54	138.46	0,689	No Difference
5.	Severity Perception	137.67	133.19	0,647	No Difference
6.	Cost Perception	145.04	120.79	0,013	There's a difference
7.	Benefit Perception	134.89	137.86	0,758	No Difference
8.	Community Leader Support	129.10	147.62	0,047	There's a difference
9.	Health staff support	131.06	144.31	0,136	No Difference
10.	Preventive Behavior	138.15	132.38	0,549	No Difference

DISCUSSION

Covid-19 prevention behavior, as can be seen in table 2, most of the respondents from both health and non-health students behaved well. However, there are still many who behave less well (> 30%). The number of obedient behavior for prevention is smaller than other surveys where the respondents are all ages in several provinces in Indonesia, where good preventive behavior is found (> 90%)⁷. This difference in numbers is possible because the research was conducted at different times. Yanti's research was conducted when the PSBB (Large-Scale Social Restrictions was implemented) so that people tend to be more obedient, compared to this study which was conducted when the PSBB was relaxed, so that community compliance also decreased.

The differences in perceptions related to perceptions of costs and perceptions of benefits for health and non-health students are one of the reasons for the difference in information obtained between health and non-health students. In addition, in this study, it can be seen that between health and non-health students in Banyumas has some similarities and has some differences.⁸ Seen from demographic characteristics, age in general has an age structure Which is almost the same where the adult age group dominates both in health and non-health, as well as gender Not much different. Based on the results of the study, there was no significant difference in the variables of COVID-19 prevention behavior in health and non-health students. The results of the independent t-test obtained a p-value of 0.549 which means p value >0.05.

According to Thoha internal perception is influenced by several factors things, namely feelings, individual personalities, experiences, desires or expectations, learning

process and motivation. This happens because of Stimulus that comes from within the individual becomes an internal object himself. The external perception of health students is better than non-medical students. According to Thoha external perception influenced by several factors, namely the information obtained, knowledge and familiarity of an object.¹⁰ External perception because of stimuli that come from outside the individual, and this is what makes students' perceptions of health and non-health students are different. There is a difference in perception between health students and non-health students caused by various factors namely; knowledge, acceptance, experiences and situations. The first factor that influences perception is knowledge, because according to Azwar the knowledge that possessed will make it easier for someone to perceive something so that you can judge directly from what seen to manifest in an action.¹¹

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