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Original Research Article

The Correlation of Knowledge and Attitudes towards Reducing Mobility Behavior during COVID-19 Pandemic on Students of the Faculty of Medicine Universitas Nusa Cendana

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Abstract: *Background:* Covid-19 is officially acknowledged by WHO as a case of pandemic. The number of Covid-19 confirmed cases in Indonesia is significantly fast due to people's high mobility and dense population. Hence, the government adjusted and enforced new health protocols, specifically added a policy of reducing mobility. Research Objective: This study aims to knowing the correlation of knowledge and attitudes towards reducing mobility behaviour during Covid-19 pandemic on pre-clinical students of the Faculty of Medicine of Universitas Nusa Cendana. Settings and Design: This is a cross-sectional observational analytic study at Faculty of Medicine Universitas Nusa Cendana. *Method and Material*: There are 158 respondents who met the inclusion criteria that were chosen through the stratified random sampling method using validated and reliable questionnaires to assess knowledge, attitudes, and behaviour related to their mobility reduction during Covid-19 pandemic. *Statistical analysis used*: The research was analyzed univariately using a frequency distribution table and bivariate analysis using the Spearman Rank Test $\alpha=0.05$. 64.6% (102 respondents) have sufficient knowledge about reducing mobility. A total of 93.7% (148 respondents) have a good attitude about reducing mobility and as many as 57.6% (91 respondents) have a good attitude about reducing mobility. Knowledge and behavior have no significant relationship; there is a significant relationship between attitudes and behavior. *Conclusion:* Based on data analysis, there is no correlation (p=0.875) between knowledge and behavior of mobility reduction. Meanwhile there is a correlation (p=0.04) between attitudes and behavior of mobility reduction.
Keywords: Attitude, behavior, Covid-19, knowledge, mobility.

INTRODUCTION

Health workers and non-health workers played a role in educating and building public confidence in the safety of the COVID-19 vaccination program, primarily related to AEFI. China Country Office of The World Health Organization (WHO) reported a case of pneumonia of unknown etiology in Wuhan City, Hubei Province, China on December 31, 2019. Later on, WHO called it as the coronavirus disease that was first discovered in Wuhan and tagged earlier as Novel Coronavirus 2019 (2019-nCoV) which is caused by the Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV2) which has not previously been identified in humans [1, 2]. As the virus continues to spread, WHO has officially declared it as a Covid-19 and as a case of pandemic on March 9, 2020 [3].

As of November 5, 2021, Indonesian official data recorded that there were 4,247,320 confirmed cases of Covid-19 with 4,092,586 people recovered, and 143,519 people died [4]. The rapid escalation of confirmed cases of Covid-19 in Indonesia mainly caused by the high mobility of Indonesian people and the density of the population [6]. Indonesia Covid-19 handling committee then enforce new public policy that it is mandatory to improve the discipline of its 3M health protocols (*Memakai masker*–wearing masks, *Menjaga jarak*– social distancing and *Mencuci tangan*– washing hands with soap) to 5M with the addition of

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Mengurangi mobilitas–reducing mobility and *Menghindari kerumunan*–avoiding crowds [8]. The changing of the 3M policy to 5M is reinforced by Indonesian's regulations regarding restrictions on public and community activities (–called PPKM). Accordingly, all forms of mobility are it the mobility of people, goods or, services is now limitedly regulated [7].

A United States virologist noted that stopping travel or reducing mobility is the best way to stop the spread of the virus [7]. With the implementation of PPKM up to the micro stage, several regions have experienced a decrease in confirmed positive cases of Covid-19, for example, West Java Province which experienced a decrease in cases from 28,000 cases to 10,000 weekly cases. (10) In addition, the positivity rate in Indonesia by the end of January 2021 was at 36.19% which then on March 2, 2021, down to 18.6% [11].

The prevention of the transmission of Covid-19 can be done with good knowledge, attitude, and community behavior, one of which is about reducing mobility [6, 16]. As part of the society, health students, in this case, medical students, during the study process have been equipped with sufficient knowledge and understanding on health topic including about Covid-19. Along with that provision and the existing stimulus in the form of the Covid-19 pandemic and the policies to reduce mobility, it is hoped that medical students will have good attitudes and play a role to prevent and control Covid-19 in the community and be an example in implementing health protocols. Things that can be done include communicating the risks of Covid-19 to their families and communities to increase awareness in practicing the health protocols [17]. As they will later work in the health care system, this is also a practice of how to play a role in tackling ongoing health problems [18].

Based on those considerations, researchers are interested in examining "The correlation between knowledge and attitudes towards reduced mobility behavior during the Covid-19 pandemic in students of the Faculty of Medicine, Univeritas Nusa Cendana".

RESEARCH METHODOLOGY

This was a cross-sectional observational analytical study conducted online using Google Forms on health and non-health professionals. Between July and August of 2021, the research was conducted. The study was conducted after institutional ethical clearance (reference no. 61/UN15.16/KEPK/2021). The purpose of this study was to compare the knowledge and behaviour of health workers and non-health workers about the handling of COVID-19 vaccine AEFIs. Non-probability sampling was used, with 118 respondents meeting the inclusion criteria. The study was evaluated univariately using the frequency distribution table, and bivariately using the chi-square test.

This research is an analytical observational with a cross-sectional design. The research subjects are the preclinical students of the Faculty of Medicine, Universitas Nusa Cendana batch 2018, 2019, and 2020. The research was conducted online through zoom meetings and filling out questionnaires on knowledge, attitude, and behavior about reducing mobility using google form, held from July 28, 2021 to August 10, 2021 to 158 respondents who met the inclusion criteria.

The analysis used in this research is a univariate analysis and bivariate analysis. The univariate analysis is to identify the distribution of each variable of knowledge, attitude, and behavior about reducing mobility. Meanwhile, bivariate analysis is used to identify the correlation between two variables, namely the correlation between knowledge and behavior about reducing mobility and the correlation between attitudes and behavior about reducing mobility. H_0 will represent if there is no correlation between two variables, whereas H_1 represents otherwise. The statistical test used is the Spearman correlation test at =5%. If the statistical test results show $p < 0.05$, then H_0 is declined and H_1 is accepted.

RESULT
Respondents Characteristics

Tabel-1: Respondents Characteristic from the Faculty of Medicine, Universitas Nusa Cendana batch of 2021

No	Variable	Frequency	Percentage
1	Sex		
	Men	47	29,7
	Women	111	70,3
	Total	**158**	**100**
2	Age (yo)		
	17	1	0,6
	18	28	17,7
	19	47	29,7
	20	40	25,3
	21	36	22,8
	22	6	3,8
	Total	**158**	**100**

3	Class of		
	2018	60	38
	2019	42	26,6
	2020	56	35,4
	Total	**158**	**100**
4	Tipe of residence		
	Dormitory	67	42,4
	Living with parents	68	43
	Living with relative	20	12,7
	Others	3	1,9
	Total	**158**	**100**

According to Table 1, the characteristics of the obtained research sample 70.3% (111 respondents) are women; more than the number of male respondents. This finding is in accordance with the publication issued by the Indonesian Institute of Sciences (LIPI) that more women works in the field of science including being doctors and nurses than men [15]. The age of respondents in the study ranged from 17-22 years old with 43% (68 respondents) still live with their parents. Their age is included in the adolescent group category, namely the group accommodating the age transition of children to adults. There are 29.7% (47 respondents) being at the age of 19 years, which was the age of most respondents of this research [16].

Univariate Analysis

Table-2: Knowledge About Reducing Mobility of Students of the Faculty of Medicine, Universitas Nusa Cendana 2021

Knowledge	Frequency	Percentage (%)
Good	29	18,4
Moderate	102	64,6
Poor	27	17,1
Total	**158**	**100**

The distribution of knowledge of the students of the Faculty of Medicine, Universitas Nusa Cendana shows that the majority, namely 64.6% (102 respondents) have sufficient knowledge about reducing mobility during Covid-19.

Table-3: Attitudes about Reduction Mobility of Students of the Faculty of Medicine, Universitas Nusa Cendana 2021

Attitude	Frequency	Percentage (%)
Good	148	93,7
Moderate	10	6,3
Poor	0	0
Total	**158**	**100**

Table 3 shows that attitudes about behavior of reducing mobility in students of the Faculty of Medicine, Universitas Nusa Cendana, a total of 93.7% (148 respondents) have a good attitude, as many as 6.3% (10 students) are included in the criteria for moderate attitudes and there are no students who have poor attitudes about reduced mobility behavior.

Table-4: Behavior about Reducing Mobility in Students of the Faculty of Medicine, Universitas Nusa Cendana 2021

Behavior	Frequency	Percentage (%)
Good	91	57,6
Moderate	55	34,8
Poor	12	7,6
Total	158	100

Based on the table 4, the research finds that most students practice good behavior on reducing mobility with 57.6% (91 respondents).

Bivariate Analysis

Table-5: Correlations Analysis between Knowledge and Mobility Reduction Behavior in Students of the Faculty of Medicine, Universitas Nusa Cendana 2021

Knowledge	Mobility Reduction Behavior						Total		*p*	*r*
	Good		Moderate		Poor					
	n	%	n	%	n	%	n	%		
Good	16	10,1	10	6,3	3	1,9	29	18,4		
Moderate	58	36,7	39	24,7	5	3,2	102	64,6	0,875*	-0.13
Poor	17	10,8	6	3,8	4	2,5	27	17,1		
Total	91	57,6	55	34,8	12	7,6	158	100		

Spearman statistic, **p>0, 05*

The results of the statistical test showed that there is no correlation between knowledge and reduced mobility behavior during Covid-19 in students of the Faculty of Medicine, Universitas Nusa Cendana, with a value of p = 0.875 (p>0.05).

Table-6: Correlations Analysis between Attitudes and Mobility Reduction Behavior in Students of the Faculty of Medicine, Universitas Nusa Cendana 2021

Atittude	Mobility Reduction Behavior				Total		*p*	*r*
	Moderate		Poor					
	n	%	n	%	n	%		
Good	26	16,5	3	1,9	29	18,4		
Moderate	97	61,4	5	3,2	102	64,6	0,04*	0,226
Poor	23	14,6	4	2,5	27	17,1		
Total	146	92,4	12	7,6	158	100		

Spearman statistic, **p<0,05*

The results of the statistical test showed that there is a correlation between attitudes and reduced mobility behavior during Covid-19 in students of the Faculty of Medicine, Universitas Nusa Cendana, with a value of p = 0.04 (p <0.05). The calculated r-value is r = 0.226, thus the correlation between the two variables belongs to the low criteria. However, it shows a positive relationship which means that the higher the altitude, the more positive the behavior about reducing mobility. It can be seen in as many as 61.4% (97 respondents) who are included in the category of attitude enough to have sufficient mobility reduction behavior as well.

DISCUSSION

Studies about Covid-19 is among the learning materials received by students of the Faculty of Medicine, Universitas Nusa Cendana. The material taught is about the description of the Coronavirus, its pathogenesis, modes of transmission, management and prevention. The knowledge about reducing mobility is not taught in-depth during lectures, it is only mentioned in general in the topic of the prevention of Covid-19, hence the moderate distribution of knowledge among the respondents.

According to the SOR theory, attitude is a covered reaction from a person to the existing stimulus; the stimulus being the Covid-19 pandemic [16]. As the

Covid-19 pandemic is a new and on-going global challenge, the Indonesian government continues to adjust its policies in the context of prevention and handling of Covid-19. As a part of society, students of the Faculty of Medicine are expected to have a good attitude towards any prevention efforts. The research concludes there were no (0%) students with poor attitudes criteria.

Meanwhile, there are 6.3% (10 students) with moderate attitude. This can be interpreted that the students of the Faculty of Medicine, Universitas Nusa Cendana have a positive attitude towards the behavior of reducing mobility; in other words, the stimulus of Covid-19 is acceptable and effective in influencing students to participate in reducing their mobility.

During the Covid-19 pandemic to prevent the spread of the virus, the Indonesian government has implemented many policies, some of which is the implementation of large-scale social distancing (-namely PSBB) and restrictions on public and community activities (-namely PPKM). As the result, the daily activities mobilization will be reduced. Online lecturing is one of many ways to reduce mobility. However, there are still some task need to be done in person and offline, so despite all the prevention policies

and the knowledge, some mobilization is necessary to be done.

Meanwhile, as medical students who are a part of health students who have been provided with sufficient knowledge and understanding during the lecture process, it is expected for them to be able to become role models in implementing health protocols in the society [17]. They are also actively participating in the development of health problems that arise. Thus, it is crucial for the students to update their information especially in the prevention and handling of on-going health problems, such as Covid-19.

This is in accordance with the results of this study because despite the results of knowledge are classified as poor; most respondents still practice moderate or good behavior to reduce mobility. In other words, there is no correlation between the two variables but another factor may pose as a confounding factor to the behavior, but not covered by this research.

According to the Stimulus Theory of Organisms, the response to behavioral changes depends on the quality of the stimuli (stimulus) that communicate with the organism. If the stimulus has been received, it will be continued in the stimulus processing process so that there is a willingness to act (behave). In the end, with the support of facilities and encouragement from the environment, the stimulus affects the actions of the individual (behavior change) [16].

The results of statistical tests show the value of r count = 0.226, which means that there is a positive correlation despite its low significance. The existence of this positive correlation can be interpreted that the higher the attitude value, the more positive the behavior in reducing mobility. This may be due to the stimulus received, namely the Covid-19 case along with policies or regulations issued by the government to prevent the spread of Covid-19, including the behavior of reducing mobility that can be accepted by students. This behavior is reflected in the form of closed reactions, namely attitudes, and in the form of open reactions in the form of behavior. This behavior is a response from students that can be observed by other people from outside [16]. In addition, the low correlation between these two variables may be caused by other factor which was not investigated by researchers that could be either endogenous or exogenous factors.

CONCLUSION

This research concludes that there is no correlation between knowledge and behaviour of reduced mobility during Covid-19 in students of the Faculty of Medicine, Universitas Nusa Cendana, with a value of p = 0.875 (p>0.05). Meanwhile, there is a correlation between attitudes towards behaviour of reduced mobility during Covid-19 in students of the

Faculty of Medicine, Universitas Nusa Cendana, with a value of p = 0.04 (p <0.05).

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