

ORIGINAL ARTICLE

Readiness of Nursing Students in Mitigating Corona Virus 2019

Sehabudin Salasa, Upik Rahmi, Septian Andriyani, Mega Nurrahmawati

Departement of Nursing, Faculty of Sport and Health Education, Universitas Pendidikan Indonesia, 40154 Bandung, Indonesia

ABSTRACT

Introduction: The COVID-19 pandemic has become a major public health challenge globally with countries in the world. Indonesia has also been badly affected by COVID-19. As student nurses feel the need to participate in facing this pandemic. The purpose of this study was to see the readiness and attitudes of nursing students in the face of the coronavirus 19 disaster. **Methods:** A cross-sectional online survey with a semi-structured questionnaire using the random sampling technique was conducted during the national lockdown. The collected data were analyzed using descriptive statistics and analysis corelasi with dengan Chi Square. Of the total 72 responses received, came from respondents aged 16–21 years, male, with a diploma education and residing in urban areas. **Results:** Around (88.9%) of respondents showed a positive attitude about Covid which includes awareness of the causes, signs and symptoms, prevention of transmission, providing health information, maintaining distance, maintaining environmental health, and maintaining mental health. Positive attitude is closely related to age and gender. While the education level factor in general did not really influence the positive attitude that was produced, but in particular the data showed that the final year students had more influence on the positive attitude produced. **Conclusion:** Attitudes are formed from precursor factors, including age, gender, and education level.

Keywords: Public helath, Pandemics, Students nursing;, Covid-2019, Readiness

Corresponding Author:

Sehabudin Salasa, S.Kep.,Ners.,M.Kep
Email: kang_sehab@upi.edu
Tel: +62 812 5754 6969

INTRODUCTION

Coronavirus 2019 (COVID-19) is the latest infectious disease that is growing rapidly worldwide, becoming a global pandemic. The etiology of COVID-19 is coronavirus2 (SARS-CoV-2) severe acute respiratory syndrome, which appeared in Wuhan, China, According to the World Health Organization (WHO), from December 2019 to mid-April 2020, more than 2 million cases of COVID-19 and more than 100,000 deaths worldwide. The first cases of COVID-19 were identified on 25 February 2020, after which the number of confirmed cases continues to rise (1). Indonesia is also adversely affected by COVID-19 where the death rate reached 8.9% at the end of March 2020 and 136 deaths related to the disease, the country's case fatality rate (CFR) is also much higher than in the People's Republic of China (8.9% vs. 4%) (2).

COVID-19 has had a huge impact on health around the world. According to data from the Indonesian Doctors Association (IDI), in a period of one year, more than 718 health workers died from COVID-19. This causes the effectiveness of health services to be disrupted, apart from treating general patients, health workers must take turns caring for COVID-19 patients. In these conditions the presence of additional health workers is highly expected, but during a pandemic all health workers concentrate on handling COVID-19 efforts in their respective institutions and regions (3). One of the efforts that can be done to deal with this is to involve health students to assist the nursing process during the COVID-19 pandemic (4).

Activities involving students that have been tried by the Indonesian Ministry of Health who are placed in the Wisma Atlet Jakarta Emergency Hospital COVID-19, on this occasion the Ministry of Health asked for student volunteers from Poltekkes-Poltekkes under the Ministry of Health, of course with the authority and assistance of supervisors. The presence of a supervisor or senior nurse can be done to provide emotional support in

a crisis situation is key for health workers who are inexperienced in dealing with stressful emotions. Previous education, training and experience can help future novice nurses feel more confident about their duties and responsibilities (5). The current conditions experienced by students' state the need for practice that can improve their competence during the pandemic because the online learning experience is not as expected (6).

Therefore the importance of special education for students about covid 19 (7). However, the response from the University has not prepared additional education for nursing students to handle covid 19 patients which will be able to accommodate the needs of health workers (8,9). Meanwhile, to meet the needs of health workers, at least the students involved will have the readiness to face COVID-19, according to the International Strategy for Disaster Reduction (ISDR). The most important indicator of preparedness is knowledge and attitudes towards disaster and emerging threats, apart from other indicators. such as having an emergency response plan, having self alerts, supporting resources, and social capital (10,11). The condition of handling outbreaks involving students was carried out during the MERS outbreak in Saudi Arabia. The results of the study students have a good knowledge and ability about the MERS outbreak and are willing if the epidemic control policy is adequate (12).

This research is very important to do because of the increasing cases of COVID-19 infection, the increasing demand for nursing students as volunteers. On this basis, this study aims to determine the extent of nursing students' readiness to help Covid 19 handlers in health services from the aspects of knowledge and attitudes.

MATERIALS AND METHODS

Respondents

Research participants came from Nursing students at the Indonesian Education University nursing study program with a total population of 90 people. sampling size was determined using isaac and michael tables with an estimated error of 5% so that a sample of 72 people was obtained, and the sampling technique used random sampling.

Data collection was carried out online easy-to-use questionnaire tools, for example, Google Form. The survey was conducted from 5 October to 24 October 2020, when the general public was ordered to live in isolation homes as the outbreak escalated. To ensure the validity and accuracy of the data collected, the researcher produced detailed instructions about the study which were addressed to all students. The survey tool automatically verifies that all questions must be filled in completely before submission and cannot be asked twice. All subjects were informed of

the survey's objectives and signed written consent was obtained online before they start answering questions (as described in the Ethics Agreement and Agreement to Participate).

Assessment tools and methods

The research tool used was in the form of a questionnaire including 7 demographic variables (gender, age, hometown, class, and department) and affective variables which included 6 indicators of attitudes towards the COVID-19 outbreak (causes of human-to-human transmission, prevention of transmission, transmission health information, mental health, pandemic control measures). The research instrument used has been tested for content validity to the nursing management expert, Dr. Linda Amalia.

Processing and Data analysis

Data were analyzed using SPSS 18.0 software, analisis univariat dilakukan untuk mengetahui distribusi frekuensi dari variable yang diteliti. Sedangkan untuk mengetahui hubungan antara sikap mahasiswa terhadap karakteristik demografi data di analisis menggunakan chi square.

Ethical Clearance

This study was approved by the institute of research and community engagement Universitas Pendidikan Indonesia No. 060/1534/V-2020/BPKP. The respondents were first explained the objectives and procedure of the study. Then the researcher asked for their content online through the data collection form.

RESULTS

Demographic characteristics of the subject

All Respondents are students of the State University in Bandung, Indonesia (n = 72). Among them Ages 16-18 Years 39 from n = 72, 66 out of 72 (91.7%) were female and 47 out of 72 (65.3%) were at the final level of Diploma nursing education.

Table I: Demographic characteristics (n=72)

Characteristics	Frequency (n=72)	Percentage(%)
Age		
16-18 Year	39	54.2
19-21 Year	33	45.8
Total	72	100
Sex		
Male	6	8.3
Female	66	91.7
Total	72	100
Class		
Elementary	47	65.3
Mid Class	9	12.5
Final Class	16	22.2
Total	72	100

Attitude towards COVID-19

Questions about the attitude of COVID-19 cover six categories. Each question and answer choice is explained by a stratified score. In Table II, among the answers submitted, (88.9%) showed a positive attitude. In table II, almost all elements show a positive attitude response (100%), while in A2 and A3 elements, there is a non-positive attitude response of A2 (1.4%) and A3 has (11.1%).

Table II: Affective of nursing students towards COVID-19

Af- fec- tive	Variable		n=72		100 %
			Good	Non	
A1	Knowing, understanding, the symptoms of the disease and how the coronavirus is transmitted 19	Good	72	100	
		Non	0	0	
A2	The spread of Coronavirus disease or covid-19 is transmitted through droplets when coughing, sneezing or talking, physical contact with infected people (touching or shaking hands)	Good	71	98.6	
		Non	1	1.4	
A3.	The public needs to know about the symptoms of coronavirus or covid-19 such as mild & moderate symptoms (fever equal to or > 38 c) or there is a history of fever, in certain cases, there is no fever, cough / runny nose / sore throat), shortness of breath	Good	68	88.9	
		Non	8	11.1	
A4.	Perform physical distancing Maintain distance between people and avoid crowd points, stay at home, try not to leave the house.	Good	72	100	
		Non	0	0	
A5	Maintain environmental health in the place of residence and provide health information to the immediate family and the surrounding community	Good	72	100	
		Non	0	0	
A6	Maintain mental health by only receiving information about covid-19 from trusted sources and ensuring its correctness. Avoid news that is not clear that makes panic ! maintain health and cleanliness, breathe the morning air and give yourself peace	Good	72	100	
		Non	0	0	

The relationship between variables can be seen in table III. The results showed that there was a positive relationship between the attitude score and age and gender, which was (p 0.001), while it did not have a close relationship with education level.

Table III: Correlation between affective and demographic characteristics (P<0.05)

(Demo- graphic	Affective				Total		P-val- ue
	Good		Non		N	%	
	N	%	N	%			
Age							0.001
16-18 year	35	89.7	4	10.3	39	100	
19-21 year	29	87.9	4	12.1	33	100	
Total	64	88.9	8	11.1	72	100	
Sex							0.001
Male	5	83.3	1	16.7	6	100	
Female	59	89.4	7	10.6	66	100	
Total	64	88.9	8	11.1	72	100	
Class							0.979
Elementary	42	89.4	5	10.6	47	100	
Mid Class	8	88.9	1	11.1	9	100	
Final Class	14	87.5	2	12.5	16	100	
Total	64	88.9	8	11.1	72	100	

DISCUSSION

Since the outbreak at the epicenter of Wuhan in December 2019, COVID-19 has rapidly become a threat to global public health and caused substantial socio-economic damage worldwide Including in Indonesia. Plague cases in Indonesia since exposure in March 2020 to October continue to increase, the number of sufferers continues to increase, the number of victims who died from health workers has reached 228 health workers including nurses based on information from the Indonesian National Nurses Association (PPNI) stated that until September 2020 there were 92 the nurse has passed away. Nurses who work in Government Hospitals (RS) who are the referral for the care of Covid-19 patients who work directly in the isolation room. Strict health protocols have been implemented firmly including locking the city of Bandung and work from home for the community, health education for the community has been recognized as an effective step for the prevention and response to public health emergencies for community preparedness to face this situation.

The high number of cases of nurses who died caused the government to collaborate with the Ministry of Health and Hospitals to require assistance from health students, both medical and nursing personnel, in conducting public examinations and providing health education to the community to prevent the spread of the plague. This will lead people to get the right knowledge, reduce panic, and seek a positive attitude. All elements of

this attitude are considered crucial to ensure effective prevention, control, and can help nurses deal with the COVID-19 disaster mitigation.

A cross-sectional study of 72 nursing students found that most of them displayed positive attitudes during the outbreak, suggesting that effective health education is provided by massive public education campaigns (especially over the Internet), so that the level of education is not so related to the knowledge and attitudes of nursing students, because information can be accessed from various sources and by anyone. This result is by many other reports on attitudes related to H1N1 among students in Japan, England, China, and Hong Kong (13-16). The positive attitude generated by student nurses will have a positive impact on practice in the field if asked as medical assistance personnel and medics to cope with the outbreak. Moreover, final year students are offered to help in the field for rapid test examinations, providing health education as is done in Denmark for final year medical students (3,4). In carrying out their duties by still paying attention to the health protocols that have been issued by the Indonesian Ministry of Health.

In fact, preparedness is identical to the actions that have been taken, but from an attitude point of view, if someone has the thoughts and beliefs to take a step, it can be said that someone already has preparing. The positive readiness of students could have arisen because various information related to Covid-19 was so massively received. The amount of information in the early stages does make students or the public afraid of COVID-19, even some studies have shown an increase in the level of anxiety experienced by students or the community. However, according to so much positive information, including the patient's recovery, it can change the anxiety with the spirit to get through this epidemic.

In accordance with the theory put forward by Douglas Paton, there are precursor factors which are the factors that trigger a person's intention to carry out disaster preparedness in general. These factors consist of individual perceptions of disaster risk in their area (risk perception), critical awareness, and decreased anxiety (17). The perception of the magnitude of risk is closely related to disaster preparedness, because individuals will be motivated to take preparedness actions. The individual's previous experience in hazardous threats can increase the perception of risk and promote preparedness measures (18).

Risk perception is the basis for individuals or groups in taking preparatory steps. In addition, risk perception plays a role in directing interventions to individuals or groups to increase their capacity. As with some approaches to preparedness models. This model describes several factors that influence an individual's intention to seek information about danger or the intention to prepare for

events that may occur. This model was adapted from the previous development regarding the proposed risk perception-preparation model in developing a model to predict the adoption of natural hazard risk reduction and preparation adjustments (17).

When viewed from other aspects, the results show that the older a person is, the more he will have a positive attitude (19,20). Although in general the data shows that the level of education of students does not really affect attitudes, but in particular students at the final level have a more positive attitude towards disaster mitigation, namely final year students, which means that they are more prepared to face disasters than first and second year students. This is in line with the last year medical students who are offered to help hospital medical personnel (1,3).

This positive attitude can be caused by external factors, one of which is the environmental factor. It is in line with the social cognitive model theory that the behavior, environment, and internal factors of each individual have interactions in constructing each other's knowledge and attitudes. Besides that, various forms of mass media such as television, radio, newspapers, magazines, and others have a major influence on the formation of opinions and people's beliefs (21). In the theory of planned behavior, it is said that perception can influence the control of behavior which will later change norms subjectively to a problem so that it will stimulate the intention or effort to do something so that it becomes a new habit or culture. In addition, adolescent preparedness can also be influenced by the support of the family environment so that adolescent behavior can adapt to changes in their respective ideals during puberty (21-22). Increased preparedness efforts are based on increased precursor factors, intention formation, and preparation planning (22).

Nursing education has a major role in developing and creating a professionalization process for nurses because education can provide forms and patterns of personnel which in turn have a level of ability and can facilitate the formation of the nursing community in providing voice and contribution to the profession and society as leaders, educators, advocates, , facilitator, coordinator, and consultant during pandemic Covid-19 (23-27).

This research is a new study in assessing student attitudes in mitigating COVID-19 which can reflect the current condition of students if needed to assist health services for COVID-19 patients. While the limitations of this study lie in the characteristics of the respondents studied, which have not been able to fully represent the readiness of students in terms of the skills of nursing students in handling COVID-19.

This research can provide an overview so that educational institutions can prepare additional material in the curriculum related to Handling COVID-19

CONCLUSION

In this study it can be concluded that the attitude of students in mitigating against COVID-19 is good. This shows that students have sufficient knowledge if needed to be a COVID-19 relief team. However, according to their authority and capacity as nursing students, they still need assistance from senior nurses in carrying out their authority while dealing with patients with COVID-19.

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