

KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS COVID-19 AMONG NURSING STUDENTS DURING PANDEMIC

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ABSTRACT

As the future of health care providers, nursing students need to have the quality of knowledge and respond to rapid changes in every situation such as in the COVID-19 pandemic, in which these students' condition reflects the readiness of nursing students to face the increasing cases in the country. The purpose of this study was to evaluate the level of knowledge, attitude, and practice among nursing students in a private university during the pandemic. This research applied a descriptive quantitative design. A total sampling technique was conducted. The sample of this study was 290 nursing students who had experience in the clinical practice and agreed to participate in the study. The instrument consisted of 53 survey questions that have been adapted and modified from World Health Organization guidelines related to COVID-19. Data collection was carried out in November 2020, using a self-administered online questionnaire. A univariate analysis was used to analyze the variables using frequency distribution. This study revealed that students' knowledge about COVID-19 was 55.9% in high level, the student's attitude towards COVID-19 reported 63.8% in moderate level and 79% of the students practice moderately in preventing COVID-19 during the pandemic. Therefore, there is a need to provide a follow-up program to support the knowledge, attitude, and practice of nursing students during the pandemic.

Keywords: Attitude, COVID-19, Knowledge, Nursing Student, Practice,

INTRODUCTION

COVID-19 is a virus (SARS-COV-2) that primarily attacks the human respiratory system and can spread rapidly and massively (Shereen et al., 2020). The global pandemic has been declared as a response to the increasing number of infections and suddenly become a global crisis and a heavy burden for health care workers as the front liners (Papoutsi et al., 2020). While struggling with finding the vaccine and exact treatment, prevention is the best option to fight the disease (Shin, 2020). Infection prevention, early viral detection, and identification of successful treatment protocols may provide the best approach in

controlling disease spread (Lotfi et al., 2020; Mputu Kanyinda, 2020).

The health care workers and community should be familiar with COVID-19 in general as well as the need to understand regarding prevention protocols to raise awareness of prevention during the pandemic (Abdelhafiz et al., 2020; Kaushik et al., 2020). Knowledge, attitudes, and practices related to the mode of transmission of COVID-19, the application of social distancing, the use of appropriate masks, and the principles of proper handwashing are required to reduce the spread of COVID-19 (Al-Dmour et al., 2020; Erfani et al., 2020).

Nurses as health care workers have a vital role in fighting the COVID-19 pandemic due to their direct caring for patients infected with COVID-19. Nurses also have a role in preventing and controlling pandemic conditions (Elhadi et al., 2020; Modi et al., 2020; Zhang et al., 2020). In this pandemic time, the sudden shortage of healthcare workers urges nursing students to become part of health care workers.

As the future of health care providers, nursing students need to have the quality of knowledge and respond to rapid changes in the COVID-19 pandemic in which reflects the readiness of nursing students to face the increasing cases in the country (Bhagavathula et al., 2020; K. P. Joshi et al., 2020). During the COVID-19 pandemic in Indonesia, nursing students who are still at the academic level have not been allowed to involve in clinical practice. However, it is planned that students will return to join clinical settings if the pandemic situation improves.

Therefore, it is important to explore the knowledge, attitudes, and practices in the COVID-19 pandemic of nursing students for their readiness in this current pandemic condition.

The purpose of this study was to describe the level of knowledge, attitude, and practice among nursing students at a private university during the COVID-19 pandemic.

METHODS

This study used a descriptive quantitative design. The population of the study is the 3rd year nursing students. This study applied a total sampling technique with 290 respondents agreeing to participate. The research instrument was a Survey Questionnaire containing 53 statements developed by Erfani et al. (2020) from the WHO (World Health Organization) material related to Knowledge, Attitudes, and Practices towards COVID-19.

Information to respondents and informed consent were included in the questionnaire. The respondents should read and fill it out before taking the research questionnaire. A univariate analysis was used to report the descriptions of students' knowledge, attitudes, and practices towards COVID-19. Each of the variables is categorized into three levels: low, moderate, and high. Ethical clearance of this study was approved by the Ethical Committee of the Mochtar Riady Institute for Nanotechnology (Ethical Clearance No. 024 / MRIN-EC / ECL / IX / 2020).

RESULTS

The results of this study are as follows. The characteristics of respondents were 86.2% women with an average age of 20 years. Most of the respondents (78.3%) used social media or the internet as a source to look for information about COVID-19. Also, 71.4% of respondents stated that they had joined education related to health and safety in the COVID-19 pandemic. The following is the table of the results of the study.

Table 1. Nursing Students' Level of Knowledge related to Characteristics, Symptoms and Prevention of COVID (n = 290)

Level of Knowledge	n	%
Characteristics, Symptoms and Prevention of COVID		
Low	53	18.3
Moderate	75	25.9
High	162	55.9
Transmission of Disease COVID-19		
Low	4	1.4
Moderate	225	77.6
High	61	21.0

Table.2 Nursing Students' attitude towards COVID-19 (n = 290)

Level of Attitude towards COVID-19	n	%
Low	72	24.7
Moderate	185	63.8
High	33	11.4

Table 3. Nursing Students' Practice towards COVID-19 (n = 290)

Level of Practice towards COVID-19	n	%
Low	7	2.4
Moderate	229	79
High	54	18.6

Table 1 shows that 55.9% (162 respondents) had a high level of knowledge about the characteristics, symptoms, and prevention of COVID-19 and 225 respondents (77.6%) had moderate knowledge about the transmission of COVID-19. Table 2 shows that 185 respondents (63.8%) were in the moderate category for attitudes towards COVID-19. Table 3 shows that student practices against COVID-19 were 79% (229 respondents) in the moderate category.

DISCUSSION

Since the pandemic hit in 2020, Indonesia has been implementing large-scale social restrictions to reduce the spread of the COVID-19 virus. During this period, all the 290 respondents were at their home and faculty dormitory. There was no formal training or orientation to the students regarding COVID-19. The student's knowledge and awareness were possibly gained through previous education during the course study and presently by social media, the internet, news channels, and official websites.

In this cross-sectional study with 290 respondents, many responses were on the moderate-high level of knowledge, attitude, and practice towards COVID-19. Half of

the students shows a high level of knowledge about the characteristics of the disease such as etiology, incubation period, symptoms, and treatment. However, the knowledge related to transmission routes and vulnerable groups is at a moderate level. A study conducted by Joshi et al. shows the same result as this study, the level of knowledge at moderate to high levels (K. P. Joshi et al., 2020).

The difference in the moderate and high levels of the students' knowledge, might be influenced by the ability of each student to access information, especially since the students were in many different regions in Indonesia, so the ability to access internet networks may differ. In addition, the quality of the knowledge related to COVID-19 may depend on the source of information that students used (A. Joshi et al., 2020), in which most of the students used social media or the internet as their source. These sources could lead to misinformation. The misinformation fueled by rumors, stigma, and conspiracy theories might have implications for the individual and community negatively (Islam et al., 2020).

The students' attitude shows a positive attitude in moderate level. Most students have a positive attitude and agree with city

quarantine, restrictions on access to travel, and the closure of schools and religious centers. A positive attitude is obtained from adequate knowledge regarding COVID-19, thereby increasing confidence to face the pandemic (Erfani et al., 2020; Huynh et al., 2020). According to Babore et al (2020) in their research about the impact of the COVID-19 outbreak on healthcare professionals, a positive attitude towards the stressful situation is found as the main protective factor for psychological health (Babore et al., 2020).

Nursing student practice shows the same level of knowledge that is at a moderate level. Having clear instructions from health agencies and governments helps improve understanding and skills to combat the pandemic (Sibley et al., 2020). Health protocol has become a standard of practice in which everyone should obey to break the chain of transmission of COVID-19 (Wang et al., 2020). Based on the results of this current study, most students applied health protocols, especially for washing hands, maintaining distance, and using masks.

Erfani et al. support that people obey health protocols due to their adequate knowledge regarding the high rate of infection by viruses and their rapid transmission through

droplets could trigger awareness to protect themselves and others (Erfani et al., 2020). Adequate knowledge, attitude, and practice towards COVID-19 of individuals can help reducing the spread of the virus (Puspitasari et al., 2020). Therefore, awareness and practice toward the COVID-19 that are growing each day, will lead to positive impacts in managing the pandemic. Due to the pandemic conditions, the distribution of questionnaires was carried out through online surveys. Thus, it is possible of network disruptions could occur during the study. However, this study provides new information regarding students' condition during the pandemics.

CONCLUSION

The level of student's knowledge, attitude, and practice towards COVID-19 are at a moderate level. Thus, it may need improvement to raise awareness towards pandemics. It is recommended that students may be provided with adequate access to trustworthy educational information about pandemic COVID-19 so that they can keep updated with the latest knowledge and further implement health protocols.

ACKNOWLEDGEMENT

Acknowledgments are addressed to the Center for Research and Community Development Universitas Pelita Harapan (LPPM UPH) which has funded this COVID-19 research with number: P-014-K / FON / X / 2020.

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