

ORIGINAL ARTICLE

Mental Health and Coping Strategy of Nursing Students During the Covid-19 Pandemic in Indonesia

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ABSTRACT

Introduction: During this COVID-19 pandemic, being a nurse is one of the most stressful jobs a person can have. The purpose of this study was to determine the relationship between stress and coping strategy among nursing students during the COVID-19 pandemic in Indonesia. **Methods:** A cross-sectional study was conducted to students from higher education institutions. Closed web-based surveys were used to collect data. The instrument used the Beck Depression Inventory (BDI) and Ways of Coping (Revised). Linear regression was used to analysed the data. **Results:** The mean stress score was 24.18 (SD=4.744). About 64.6% of participants were having moderate stress during their online learning process and 33.3% of them were reported to have severe stress level. The mean score of coping strategy was 48.83 (SD=9.980), ranged from 7 to 84. Stress was associated with coping strategies (B=0.171, 95% CI: 0.119-0.223, p-value=0.000) with R square was 0.168. **Conclusion:** This study can be used as important data for each institution to develop an intervention to overcome mental health problems in students, especially when an outbreak or disaster occurs.

Keywords: Nursing students, Mental health, Stress, Coping strategy

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INTRODUCTION

As of April 12th, 2020, the Indonesian government reported 4,241 COVID-19 cases in at least 17 provinces and 373 deaths associated with COVID-19, while 359 patients had recovered from illness. In response to the World Health Organization's early instructions on the novel coronavirus, the Indonesian Ministry of Health has taken steps to boost up response activities for COVID-19. In order to prevent the spread of COVID-19, the Indonesian government has mandated that all educational establishments begin their work and study at home on March 17, 2020.

In nursing education, students are not only expected to know the facts but also be able to put those

facts into practice, which is why practicum is an essential element of the educational process (1). The educational process can be a very stressful time in student life (2,3), such as a lot of academic task and pressure (4). Stress can be identified as a multi-dimensional phenomenon that is focused on the dynamic relationship between individuals and the environment (5). However, a certain amount of stress is necessary to energize and inspire people to achieve their goals (6), for example stress can interfere with a student's ability to concentrate, solve problems, and make decisions (5).

During their studies, nursing students are subjected to stressful events that have a negative impact on their academic, professional, and personal lives (7-9). In addition to classroom instruction, students must complete hands-on training in laboratories and clinics, as well as a rigorous evaluation procedure that includes both theoretical and practical assessments, all of which contribute to the overall complexity of the educational experience. Nursing

students' clinical performance and ability to provide quality patient care appear to be negatively correlated with their level of stress, according to research (7).

The relationship between stress, anxiety, and depression has long been documented, as has the link between stress and the onset of these mental health issues (2,3,10). According to the (11), emotional distress is the sum total of these three issues. As a result of these issues, learning is hindered and academic achievement is hampered. (12–14) and lower productivity, increasing suicidal thoughts. and minimizing the quality of life (2,3). In addition, sociodemographic characteristics such as gender, place of upbringing, educational attainment of fathers, line of work of fathers, and grades from the previous year have been found to be predictive (14,15), different pressures such as worry of the future might cause students to lose interest in their studies, anxiety and depression in one's own words, increasing the amount of work students must do in the classroom, situations of conflict with colleagues, lack of access to expert mental health care, death of family members or close people, a rise in the number of family arguments, and negative emotional symptoms are linked to a lack of contact with loved ones. (6,7,15,16). There is a direct correlation between mental and physical health and stress, according to research: a person's ability to sleep at night is affected, as is their appetite, their psychomotor speed, and their body weight, as well as their libido (17,18). The purpose of this study was to determine the relationship between stress and coping strategy among nursing students during the COVID-19 pandemic in Indonesia.

MATERIALS AND METHODS

Sample

The current descriptive cross-sectional study recruited students from higher education institutions who agreed to participate. All schools are registered with the Ministry of Education of the Republic of Indonesia. Closed web-based surveys were used to collect data. The inclusion criteria were student registered at the universities in all grade and willing to participate in this study. Participation is completely voluntary and anonymous. Before the survey, permission to take part was secured. Given the online aspect of the survey, all participants must tick a certain box to ensure they have read and understood all the details on the introduction page in order to participate. The Institutional Review Board of STIKep PPNI Jawa Barat was approved (III/065/KEPK/STIKep/PPNI/Jabar/2020). The survey can be accessed in a special and secure web link for three weeks from April to May 2020. Two reminders

for participation were sent to students by email according to the study protocol.

Instruments

The BDI was used to assess depressive symptoms (11). The BDI consists of 21 questions, with symptoms ranging from 0 to 3. A higher total score indicates more depression. The BDI has four cut-off points: 0 to 9, 10 to 18, 19 to 29, and 30 to 63 for major depression. The BDI had an internal consistency of 0.81 (12).

Coping strategies is assessed using the 66-item Ways of Coping (Revised) questionnaire (13). The responses range from not applicable or not used (0) to a lot (3). Cronbach's alpha ranges from 0.59 to 0.88.

Data collection

Throughout the Google process, anonymous data is collected. There are distinct servers for data storage, and only the data manager has access to those systems. This program takes care of the risk of two respondents automatically by blocking two or more access to the survey from the same email address, once the survey is complete. A codebook is used to transform the data. The data is exported and extracted after the collection phase.

Data analysis

Data were analyzed by an independent statistician who was unaware of protocol analysis. Findings were expressed in point estimates and 95% confidence intervals (CIs). Arithmetic mean, standard deviation, rate, scale, interquartile and median scale were used. Using the chi square scale, binary data were measured and continuous data were analyzed using Student's t scale. Linear regression was used to determine the key factors associated with mental health status and coping strategies. The level of significance was set at an alpha point below 0.05.

RESULTS

Table I show that the mean age of participants was 20.05 (SD=1.453) and ranged from 18 to 25 years old. The majority of them (77.1%) were female, on second semester (47.2%), and diploma III in nursing (87.5%). The mean stress score was 24.18 (SD=4.744), with minimum score was 8 and higher score was 36. This study found that about 64.6% of participants were having moderate stress during their online learning process and 33.3% of them were reported to have severe stress level. Then, for coping strategies, the mean score was 48.83 (SD=9.980), ranged from 7 to 84, which is indicated having moderate coping strategies.

Table I : Demographic characteristics (n=268)

Variable	Total n (%)	Range (Min-Max)	Skewness	Kurtosis	Alpha (α)
Stress (Mean \pm SD)	24.18 \pm 4.744	28 (8-36)	-0.389	0.119	0.643
Low Stress	6 (2.1)				
Moderate Stress	186 (64.6)				
High Stress	96 (33.3)				
Coping Strategy (Mean \pm SD)	48.83 \pm 9.980	77 (7-84)	-0.231	1.931	0.849
Age (Mean \pm SD)	20.05 \pm 1.453	7 (18-25)			
Gender					
Male	66 (22.9)				
Female	222 (77.1)				
Study Program					
Diploma 3	189 (65.6)				
Bachelor	9 (3.1)				
Profession (ners)	82 (24)				
Profesi Ners	13 (4.5)				
Others	8 (2.8)				
Semester					
1	3 (1)				
2	136 (47.2)				
4	43 (14.9)				
5	2 (0.7)				
6	90 (31.3)				
8	12 (4.2)				
10	2 (0.7)				
Education level					
D III	252 (87.5)				
S1	25 (8.7)				
Ners	11 (3.8)				

Table II : Relationship between coping strategies, demographic characteristics with stress

Variables	Stres	
	p-value	r
Coping Strategy	0.000	0.355**
Age	0.011	-0.149*
Gender	0.006	5702
Study program	0.598	2.766
Semester	0.051	12.546
Education level	0.908	0.193

Table III : Factors associated with stress

Variables	Beta Unstandardized (SE)	95% CI		P-value
		Lower Bound	Upper Bound	
Coping Strategy	0.171	0.119	0.223	0.000
Age	-0.407	-0.924	0.110	0.122
Gender	0.739	-0.551	2.028	0.260
Study program	-0.051	-0.602	0.500	0.855
Semester	-0.060	-0.363	0.242	0.695
Education level	0.332	-1.255	1.918	0.681

R²= 0.168

Table II shows the relationship between coping strategy and stress (r=0.355, p-value=0.00). While, we did not find any correlation between age, gender, study program, semester or grade and education level with stress.

Table III show factors associated with stress among nursing student during pandemic COVID-19. This study found that only coping strategies having a significant association with stress (B=0.171, 95% CI: 0.119-0.223, p-value=0.000) with R square was 0.168

DISCUSSION

This study found high proportion of moderate level of stress among nursing students during COVID-19 pandemic. According to these studies, stress, anxiety, and depressive symptoms are extremely common among people (2,3,14,15,19). Concerns have been raised about the impact of high levels of stress in nursing education on student retention (20). According to a number of researchers, the stress of being a student does not automatically equate to being a nursing student (20)(12,21). Students in

nursing programs were found to have higher levels of stress, depression, and anxiety if they perceived their lives to be more stressful than those who did not pursue a career in nursing. Nursing students' well-being may be influenced by a variety of stressors, according to a new study (22). According to their findings, coping avoidance was a significant predictor of negative well-being, as was a lack of self-efficacy, disposition control, and social support. To help students cope, they found that there was a benefit to having and using support.

This study also found moderate level of coping strategies. Coping strategies are also defined as both mental and behavioural efforts to control, tolerate, reduce, or minimize a stressful situation or event. Or it can also be said as problem-solving behaviour, is a tendency of behaviour used by individuals in dealing with and managing a problem that causes stress in avoiding, staying away from, and reducing stress or by solving and seeking social support. And how does it solve a problem (problem solving), namely the process involved in finding the correct sequence and alternative answers, leading to an answer, leading to one goal or towards an ideal solution (23).

CONCLUSION

There was a significant correlation between coping strategies and stress. Individual resources, such as physical health or energy, problem-solving skills, social skills, and social and material support, all play a role in how people respond to stressful events. These abilities include the ability to gather information, analyse situations, and pinpoint issues in order to generate potential solutions, which are then weighed against the desired outcomes, before being put into action. Maladaptive coping mechanism is a coping mechanism that inhibits the function of integration, breaks growth, reduces autonomy and tends to control the environment. The categories are: overeating or overwork and avoidance. This study can be used as important data for each institution to develop an intervention to overcome mental health problems in students, especially when an outbreak or disaster occurs. In addition, it is hoped that the results of this research can be presented in national and international forums and can be used as references in the development of nursing methods in Indonesia.

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