

# Biopsychosocial health status of Indonesian student nurses on the new normal Jakarta Indonesia



Original article

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**Abstract:** Nursing education in Indonesia experienced a number of changes during the new normal. The biopsychosocial health status reveals how students can complete their studies well at nursing school in the new normal. A quantitative, descriptive correlational study sampled 368 student nurses from 2 universities. This study used a biopsychosocial questionnaire, which included biological, physiological, and social dimensions. In this study, there was no significant demographic student nurse relationship with the biological, psychological, and social dimensions of health, at  $P$ -value 0.05 (Age  $P = 0.70$ ,  $P = 0.27$ ,  $P = 0.93$ ) sex ( $P = 1$ ,  $P = 0.919$ ,  $P = 0.5$ ), as well as grade level ( $P = 0.9$ ,  $P = 0.37$ ,  $P = 0.64$ ). Student nurses were dynamic, such as process input, resulting in coping adaptation and the ability to care for themselves. There was a relationship between both universities with a psychological dimension and a  $P$ -value of 0.049. In terms of Generation Z technology, both universities played a role. Lifestyle influences can lead to intense feelings of isolation and loneliness in some teens, including self-negativity, fear of missing out on information, and shame about not meeting appropriate standards for social media. The influence of an unhealthy lifestyle impacts stress and anxiety. The student nurses assigned considered themselves to be "healthy" in terms of their biopsychosocial health status. Student nurses continued to develop in their biopsychosocial health by utilizing different coping strategies to adapt and adjust to their environment in their school of nursing.

**Keywords:** *biopsychosocial health • new normal • nursing school • student nurses • biological • psychological social*

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## 1. Introduction

Nursing education in Indonesia, during the new normal, has experienced immense changes. Based on observations and experience, researchers see that there are differences that influence the health status, which will of course affect the learning achievements of nursing students later. This research determines the biopsychosocial health status in 2 nursing faculties in Jakarta. Nurses in hospitals already have information about biopsychosocial health. Now is the time to enter into the university. Some universities are selected that still

require health programs for nursing students. Based on the research results, a health program will be created for student nurses and proposed to the institution in which they studied.

Indonesian student nurses were affected by the pandemic due to the biopsychosocial dimension. The July 2023 survey results showed the impact of the pandemic on 21 student nurses, in the following manner: Weight gain, due to lack of exercise, the family's reduced financial situation became the cause for poor Internet

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signals, leading to piling up of coursework, and clinical skills were disrupted due to online lectures. Finally, the pandemic outbreak disturbed mental states, giving rise to anger, anxiety, or sadness, and sometimes a feeling of loneliness. After the pandemic, the preference changed to hybrid learning. Hybrid lectures required them to adapt to friends, lecturers, and lessons and adjust clinical skills so that their anxiety rose, making their muscles tense. The results of interviews with 2 lecturers (V University and N University) show that several student nurses<sup>1,2</sup> experienced mild anxiety after the pandemic, due to being away from school, and hence lacking clinical skills. While the transition period disturbed the condition of student nurses and lecturers, the curriculum also changed, emphasizing on the effectiveness of using learning media and adapting physically, psychologically, and socially to the new normal.

The World Health Organization (WHO) defines health as a condition of complete bodily, mental, and social wellbeing, not only the absence of sickness. The physical and psychological wellbeing of remote student nurses was disproportionately impacted by the pandemic.<sup>1</sup> This condition would affect the quality of student nurses when they began to work.

In this new normal, biopsychosocial health would influence the quality of student nurses in their career. McKune<sup>2</sup> reported that the pandemic resulted in biopsychosocial disturbances for students, such as loss of household income, depression, and anxiety. Being female is associated with being at a higher risk for depression. Mild depression was seen, mainly in females aged between 20 and 30 years, and in those working in the health sector.<sup>3</sup>

Losing jobs or falling sick were the preliminary results indicated in the survey, with effects on families, like grief, negative media impact, headaches, increased food intake and sleep, and physical discomfort; these were the most frequently identified biopsychosocial problems related to instructor and student wellbeing. In line with the findings of this study, a person's social status has a significant impact. In addition, this research sheds light on typical coping mechanisms that educators and student use, such as sleeping more, eating more, and exercising.<sup>4</sup>

Hence students need to be prepared by nurse educators. Student nurses are encouraged to develop positive health behavior, such as physical and psychological fitness.<sup>5</sup> The student nurse in an extensive skills training program is always at risk and they learn the importance of stress and the various types of coping strategies.<sup>6</sup> Comprehensively assessing the stress-health in student nurse relationships in university should take collaborative school policies, practices, and curricula to prepare nurses better in their development.<sup>7</sup>

In Indonesia, as Dian reported, student nurses during the pandemic needed more psychological support owing to fear<sup>8</sup> and emotional support while practicing in the hospital.<sup>9</sup> Hargreaves<sup>10</sup> reported that although telenursing is a satisfying learning, student nurses prefer learning E-learning, in a blended manner, namely, through their presence in the class.<sup>11</sup> In the pandemic, student nurses' social jetlag could lead to depression and affect their quality of life.<sup>12</sup> Nursing school is a combination of academics and hospital practice. Everyone's biopsychosocial response is different. In Indonesia, student nurses need to be introduced to biopsychosocial health in their education. Kox<sup>13</sup> said, "If there is a physical disorder, this will affect nursing students." Research says the majority occurs in Semester 3, among the male sex, and in those who are already in clinical practice. The remote practice location and many friends joining the practice are exacerbated. While in the physical ward, work such as lifting, bending, and making nursing care reports on the screen for a long time add to it.

Physical health is a condition of the human body wherein every organ or part of the body functions properly. A person is said to be healthy if he does not feel pain or have complaints and does not look objectively sick. A physically fit nurse will be a role model. A nurse educator, when developing physical healthcare training programs, can help mental health nurses improve the management of chronic and comorbid mental illness in the patient.<sup>14</sup> Healthy lifestyle activities depend on the gender and type of living. Healthy living activities in this study include diet, physical activity, smoking status, and stress. Male students have a higher score on the Simple Lifestyle Indicator Questionnaire (SLIQ), which is higher than that of female students, which shows that male students practice a healthy lifestyle in terms of diet, physical activity, smoking, and stress.<sup>15</sup> Insomnia due to using old gadgets is a common problem among college students. Improving sleep disorders can minimize the psychosomatic impact.<sup>16</sup> The Student Nurse Stress Index (SNSI) developed by Jones and Johnston is used to measure stress in student nurses. In the new normal, some students are involved in social health issues. The communication style is on full technology, with modification of socialization links and more perfect health teaching aids. The status of extending anxiety, and feelings of being cut off clinically, can weigh on their interprofessional relationships and clinical judgment, which need to be taken care of.<sup>17</sup>

## 2. Methods

This research study determined the biopsychosocial status of student nurses from select public and private universities in Jakarta in the new normal period.

The research was conducted from November 2023 to February 2024. This study has the ethics review board number ERB2024\_0016, 28 February 2024, from Philippine Women's University, Taft Avenue, Manila.

The sampling method used in this research was stratified random sampling. This requires a thorough examination of the entire population. (i.e., the total population that has a particular set of characteristics) to determine Levels 1–3 student nurses. The sample size calculation was a probability statistical technique. The inclusion criteria used during the respondent's selection process were as follows: (1) voluntary participation with signed informed consent and (2) Level 1–3 student nurses, and a student nurse registered as active in university. For the exclusion criteria, student nurses who did not fit the above-mentioned criteria were automatically excluded from participating in the study. It was proposed to use the stratified random sampling, in which elements in the study population were divided into 2 or more groups based on similar characteristics, called strata.<sup>18</sup> Stratification was about the specific characteristics of individuals (e.g., gender—female and male) represented in the sample; the sample reflected the true proportion in the population of individuals with specific characteristics.<sup>19</sup> The number of UP University student nurses was 193, and the number of NS University student nurses was 175. The total sample of this research included 368 student nurses.

This study used a questionnaire on biopsychosocial health. The first part of the instrument includes the respondents' demographic profile, such as age and sex, and the first, second, and third levels. The second part determined the participants' biopsychosocial health status. A 5-point Likert scale response set was used with ratings as: 5—always, 4—often, 3—sometimes, 2—seldom, 1—never. A table with descriptions and references was attached to guide the respondents in answering the survey. The questionnaire was valid, and the Cronbach reliability test was  $\alpha = 0.931$ . Analyses for this study were the new normal student nurse's demographic characteristics and the biopsychosocial health status in universities.

### 3. Results

#### 3.1. Age

In terms of age, the demographic profile of student nurse respondents revealed that most of the respondents were young and <21 years old at 34% ( $n = 126$ ), and those between 21 and 25 years old at 34% ( $n = 242$ ) (Table 1).

#### 3.2. Sex

School nursing is a female-dominated field of study, which is highly evident in the profile of student nurses

in universities. Female respondents comprise 86% ( $n = 316$ ) of the total respondents, compared with 14% ( $n = 52$ ) of male respondents (Table 2).

Table 2 shows the overall results of the biopsychosocial health status of nurses in terms of the 3 dimensions of health namely, biological, psychological, and social.

Based on Table 2 the biological dimension of health got the highest score of 3.88 (healthy) among all the dimensions of health. This is followed by the social dimension which got a mean score of 3.62 (healthy). Among all the dimensions of health, the psychological dimension got the least rated score of 3.60 (healthy). Overall, the biopsychosocial health status of student nurses assigned at universities in new normal got a composite of 3.70, which is overall translated as healthy.

The presented study shows that there is no significant relationship with the biological, psychological, and social dimensions of health.

## 4. Discussion

Based on the demographic result shown in Table 1, the ages ranging from 18 years to 35 years include the early adulthood phase, characterized by the individual's transition from adolescence to full maturity. According to Erik Erikson's theory of psychosocial development, this particular stage, intimacy versus isolation, focused

Items	<i>n</i>	Percentage (%)
<i>Age (years)</i>		
Below 20	126	34
21–25	242	66
<i>Sex</i>		
Male	52	14
Female	316	86
<i>Level years</i>		
First	124	34
Second	124	34
Third	120	33

**Table 1.** Student demographic information.

Biopsychosocial health dimension	<i>M</i> ± <i>SD</i>	Interpretation
Biological dimension	3.88±0.92	Healthy
Psychological dimension	3.6±0.88	Healthy
Social dimension	3.62±0.88	Healthy

Note: SD, standard deviation.

**Table 2.** Biopsychosocial health dimension.

primarily on forming close, meaningful relationships during young adulthood, from 18 to 35 years. During this period, the individual was given the challenge of building their own unique identity while establishing intimate relationships with others.<sup>20,21</sup> Therefore, it was not uncommon for individuals in this age range to experience a sense of loneliness, as well as potential feelings of isolation, loneliness, and fear of rejection in their intimate relationships. The typical circumstances at this stage of life are closely related to the dynamics of opposite-sex relationships, commitment, and various factors greatly influenced by a person's cultural background. Being a nurse requires more than just providing care. Physical attributes not only determine gender but also include socialization aspects such as behavior, roles, and interpersonal relationships. The concept of gender can be influenced dynamically originating from cultural, social, ideological, and occupational factors.<sup>22</sup> Gaps in cognitive processes, managerial perspectives, and levels of proficiency drive males to choose to enroll in nursing school.<sup>23</sup>

Florence Nightingale, in her own right, was a female and regarded the nursing occupation as a markedly appropriate vocation for women due to its inherent domestic function and feminine attributes, thus resulting in the profession primarily comprising females. The domain of academic nursing, job opportunities, and prospects for student nurses, in addition to the present and forthcoming employability as a nurse, as well as the supportive environmental aspects, have been subject to investigation.<sup>24</sup>

Aspiring student nurses function at the forefront of this profession. The pivotal role played by nurses within the healthcare response framework is of paramount significance, given their direct involvement in providing care and treatment to patients. Vitality of health and physical fitness also minimize stress, and provide resilience by encouraging positive psychology and physiologies. This can be done by blunting stress reactivity, protecting against potential adverse behavioral and metabolic consequences of stressful events, and prevention of many chronic diseases.<sup>25</sup> Factors such as education influence mental health in a more positive or negative direction in the general care perspective.<sup>26</sup> Mental health, in general, can be realized by student nurses. They identified it as feeling down, nervous, overwhelmed by sadness, and lacking the enthusiasm for learning. "Nursing school taught me how to care for mental health and identify anxiety disorders." The experiences were, combining various sources (e.g., lecturers, colleagues, and other professionals), types (e.g., formal and informal), and types of social and emotional support.<sup>27</sup> Student nurses understood the function of social interactions. Social interaction helped them find

communication characteristics of each other and learn to understand other people as social humans. Nursing students understood that being a nurse required being physically fit. The nurse showed positive health behavior, also psychologically.<sup>5</sup>

Based on the results shown in Table 2, one's lifestyle can influence psychological stress such as anxiety until depression, insomnia, and psychosomatic illnesses.<sup>16</sup> In the new normal, using hybrid learning methods requires time and preparation, with greater stressors being laboratories and clinical.<sup>6</sup> The stage 19 years–24 years is a critical age for development of reproductive hormones, brain continuity, and development for identity maturity. This phase is accompanied by emotions or decision-making, sometimes impulsive, and they do not understand how to deal with stress and problems.

Table 3 shows gender, age, and grade first, second, and third years, related with the biopsychosocial health model.<sup>28</sup> The demographic profile grows and develops dynamically, such as process input and resulting in coping adaptation.<sup>29</sup> According to the Orem theory model, dynamic people are able to care for themselves—"self-care."<sup>30</sup>

The psychological dimension is developed with the daily use of technology (Table 4). Among some teenagers in Generation Z, student nurses at both universities sometimes underwent intense feelings of isolation and loneliness, including negative self-esteem, fear of losing information, and shame for not meeting the right standards for social media. An unhealthy lifestyle affects stress and anxiety.<sup>15</sup> The difference in the psychological dimension of both universities require support from nursing schools and healthcare providers to reconsider their focus and prioritize the importance of psychosocial care.<sup>31</sup> The psychological dimension of student nurses regarding gadget exposure is a part of lifestyle. Lifestyle can affect psychological stress, such as anxiety, depression, insomnia, and psychosomatic disease.<sup>16</sup> This condition requires student nurses to pay attention to their psychological dimension. The nursing profession is a very demanding one, both physically and emotionally. Student nurses often meet with stressful situations in their academic workload and hospital practice. Mental health optimization is needed to maintain the quality of

Demographic profile	Biological dimension	Psychological dimension	Social dimension
Age (years)	0.707	0.275	0.931
Sex	1	0.919	0.522
Grade level	0.921	0.375	0.641

Note: \*Chi-square value significant at  $P < 0.05$ .

**Table 3.** Biopsychosocial health status of student nurses and demographic profile in new normal.

Dimensions of Universitese	Mean	Mean difference	P.
<i>Biological dimension</i>		-0.064	0.114
UP University	3.58		
UN University	3.65		
<i>Psychological dimension</i>		-0.010	0.049*
UP University	3.5		
UN University	3.6		
<i>Social dimension</i>		-0.076	0.195
UP University	3.74		
UN University	3.82		

**Table 4.** Significant difference in biopsychosocial health status of student nurses in new normal.

nursing services. Students must be taught good empathy management, which helps to feel a connect to their patients. Student nurses need to learn effective coping skills to deal with these feelings and situations when experiencing ongoing psychological disorder. Student nurses need to be taught how to have a good relationship with colleague when interacting as a team. The above condition is for knowledge and development of the psychological dimension.

There was found no significant relationship between universities and the biological and social dimensions of health. There was, however, a relationship between both universities in the psychological dimension, with a *P*-value of 0.049.

## 5. Conclusions

The student nurses who were assigned considered themselves to be “healthy” in terms of their biopsychosocial health status. However, based on the scaled

answer, it was one scale lower, and the psychological dimension was the least-ranked dimension of health. They continued to develop in their biopsychosocial health by utilizing different coping strategies to adapt and adjust to their environment in their school of nursing.

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## Ethical approval

This study was approved by the ethics committee of Philippine Women's University (IRB approval number: ERB2024\_0016).

## Conflicts of interest

All contributing authors declare no conflicts of interest.

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