

Original Research

STRESS COPING STRATEGIES OF HEALTH STUDENTS AT TAY NGUYEN UNIVERSITY

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ABSTRACT: To assess the level of stress and describe the coping strategies of health students at Tay Nguyen University. A cross-sectional descriptive study was conducted on 424 students of General Medicine, Bachelor of Nursing, and Bachelor of Medical Laboratory Technology at Tay Nguyen University. The stress rate among health students at Tay Nguyen University is 84.0%. Of these, mild stress accounts for 34.9%, moderate stress for 40.1%, and severe stress for 9.0%. Stressed students often use the coping strategy of "cognitive restructuring" with an average score of 2.22 ± 0.63 , and "problem-solving" with an average score of 2.37 ± 0.64 . The rate of stressed students is relatively high. The majority of students use active coping strategies. However, inappropriate strategies still exist, so it is necessary to provide timely support interventions to improve students' physical and mental health.

Keywords: Stress, coping, students.

1. INTRODUCTION

In recent years, the mental health of students, especially health science students, has received increasing attention due to academic pressure, clinical practice, and high career expectations. Students in Medicine, Nursing, Laboratory Technology... often face a large volume of knowledge, high study intensity, and a highly stressful practical environment, leading to stress. Studies on students at universities in Asia show high stress prevalence rates: 53.3% at Shifa University in Pakistan and 75% in Saudi Arabia [15], [14]. In Vietnam, research results, particularly on students at medical universities and colleges, indicate a relatively high prevalence of student stress, ranging from 47% to 77%. Prolonged stress not only affects academic performance but also negatively impacts mental health and quality of life. Coping strategies play an important role in mitigating the negative effects of stress and helping students maintain psychological stability and adapt effectively to a challenging learning environment. There are many coping strategies such as avoidance, substitution, optimism, problem-solving... Coping strategies focused on problem-solving or emotions are frequently applied by students [5], [8], [10], [11]. However, students also tend to respond with negative avoidance strategies [2], [16], [17], [18].

Objective

To assess the level of stress and describe the stress coping strategies of health students at Tay Nguyen University.

2. SUBJECTS AND METHODS

2.1. Research subjects, location, and time

Research subjects: Full-time students majoring in Medicine, Nursing, and Medical Laboratory Technology.

Inclusion criteria: Full-time students of Medicine, Nursing, and Medical Laboratory Technology who agreed and voluntarily participated in the research.

Exclusion criteria: Students absent during the research period, students who reported having or being treated for mental disorders, and students who did

not complete the survey questions.

Time and location: The research was conducted at Tay Nguyen University from January 2024 to May 2024.

2.2. Research methods

Research design: Cross-sectional descriptive study.

Sample size: The sample size was calculated using the formula for estimating a proportion in a population.

$n =$

With $Z = 1.96$ ($\alpha = 0.05$); $d = 0.05$; $p = 0.499$ (Stress rate of medical students at Ho Chi Minh City University of Medicine and Pharmacy and Can Tho University of Medicine and Pharmacy [4]). Thus, $n = 385$. Adding 10% for potential sample loss, the final research sample size was 424 subjects.

Sampling method: Stratified random sampling.

- Step 1: Select students currently enrolled in: Medicine, Nursing, Medical Laboratory Technology.

- Step 2: Based on the student list from the Student Affairs Office, there were 2128 full-time students across all academic years in the majors: Medicine (1778 students), Nursing (150 students), Medical Laboratory Technology (200 students).

- Step 3: Calculate the number of students needed from each major:

- + Medicine: $(1778 / 2128) * 424 = 354$

- + Nursing: $(150 / 2128) * 424 = 30$

- + Medical Laboratory Technology: $(200 / 2128) * 424 = 40$

- Step 4: Calculate the number of students from each academic year within each major:

- + Medicine has 6 academic years, so select about 60 students per year on average.

- + Nursing has 4 academic years, so select about 8 students per year on average.

- + Medical Laboratory Technology has 4 academic years, so select about 10 students per year on average.

- Step 5: Determine the number of

students from classes within each major:

- Students from classes in each major were selected by random drawing. Medicine: Randomly select 1 class per academic year, randomly select 70-80 students. Nursing: Sample from Nursing classes in each academic year, randomly select 10-15 students. Medical Laboratory Technology: Sample from Medical Laboratory Technology classes in each academic year, randomly select 15-20 students. After collecting the total sample, exclude incorrectly filled, incomplete, or improperly completed questionnaires.

Data collection method: Information was collected through a self-administered questionnaire adapted from the questionnaire by author Nguyen Thi Thanh Thao [6].

Data collection tool: The research questionnaire included 2 parts:

Part 1: General information of the research subjects.

Part 2: Using the Perceived Stress Scale PSS-10 and the Coping Strategy Indicator CSI-40 questionnaire.

Data analysis: Data after collection were entered and analyzed using SPSS 20.0 software.

3. RESULTS

3.1. Students’ stress levels

Health students at Tay Nguyen University have a relatively high stress rate according to the PSS-10 scale, accounting for 84.0%. Of these, mild stress: 34.9%, moderate stress: 40.1%, and severe stress: 9.0%.

Table 1. Stress levels among students (n=424)

Stress (PSS-10)	Frequency	Percentage (%)
No stress <14	68	16,0
Stress ≥ 14		
Mild: 14-19 points	148	34,9
Moderate: 20-25 points	170	40,1
Severe: 26-40 points	38	9,0

3.2. Students’ stress coping strategies

Table 2. Stress coping strategies of students (n=356)

Coping Method	Stress	
	Mean	Standard Deviation
Positive	2,25	0,64
Problem Solving	2,37	0,64
Cognitive Restructuring	2,22	0,63
Emotional Expression	2,13	0,70
Seeking Social Support	2,07	0,57
Negative	2,13	0,71
Avoidance	2,06	0,65
Wishful Thinking	2,19	0,73
Self-Blame	2,22	0,69
Self-Isolation	2,07	0,75

The results show that students used the group of positive coping strategies with an average score of 2.25 ± 0.64 , higher than the group of negative coping strategies (2.13 ± 0.71). Within the positive coping group, the strategy with the highest average score was "Cognitive Restructuring" with 2.22 ± 0.63 , followed by "Problem Solving" with an average score of 2.37 ± 0.64 . Meanwhile, "Self-Isolation", "Avoidance", and "Seeking Social Support" were the coping strategies in the negative group with the lowest average scores. In other words, stressed students often used "Cognitive Restructuring" and "Problem Solving" coping strategies, while "Self-Isolation", "Avoidance", and "Seeking Social Support" were used less frequently.

4. DISCUSSION

The results in Table 1 show that the proportion of students experiencing stress is relatively high, at 84.0%, of which mild stress is 34.9%; moderate stress 40.1%; and severe stress 9.0%. Compared to studies using the same PSS-10 scale, our results are similar to the study by Tran Thi Hoang Yen et al. (2022), which reported a stress rate of 78.2% (mild: 35.2%; moderate: 32.6%; severe: 10.5%) [7].

However, this rate is higher than the study by Nguyen Thi Thanh Thao et al. (2022) on 2,515 students at Can Tho University of Medicine and Pharmacy in General Medicine, Preventive Medicine, Pharmacy, and Nursing, with a stress rate of 69.5% (mild: 51.5%; moderate: 14.7%; severe: 3.3%), as well as the study by Ebrahim (2024) at Helwan University [6], [13]. The differences may stem from the selection of research subjects, environmental characteristics, and the timing of the survey. Some studies using different scales also show different results. For example, the study by Le Thi Vu Huyen et al. (2021) using the DASS-21 scale showed a stress rate of 42.6% (mild: 17.1%; moderate: 13.9%; severe and very severe: 11.6%) [1]. Additionally, the study by Tran Thi Ly et al. (2021) on 862 final-year full-time students at Thai Nguyen University of Medicine and Pharmacy reported a stress rate of 38.5% (mild: 11.7%; moderate: 12.8%; severe and very severe: 14%). Distribution by major showed that Pharmacy students had the highest stress rate (57.3%), followed by Odonto-Stomatology (47.4%), General Medicine and Bachelor of Laboratory Technology (37.8%), Bachelor of Nursing (34.3%), and the lowest was Preventive Medicine (18.6%) [3]. Stress assessment is relative and depends on the measurement tool and sample characteristics, hence the variation in results between studies. However, our results emphasize the urgent need to develop and implement stress management programs to support health science students in effectively coping with stressors.

The study identified eight key factors in students' stress coping strategies, including: problem-solving, cognitive restructuring, seeking social support, emotional expression, avoidance, wishful thinking, self-isolation, and self-blame. These factors have been mentioned in many previous studies. The CSI scale used in the study consists of 40 items, divided into eight coping strategies. The results show that the strategy with the highest average score was Cognitive Restructuring (2.22 ± 0.63), followed by Problem Solving (2.37 ± 0.64). Conversely, strategies such as Self-Isolation, Avoidance, and Seeking Social Support had the lowest average scores. This indicates that stressed students tend to use positive confrontation strategies, especially cognitive restructuring and problem-

solving, while avoidance strategies are used less. This is a positive result, reflecting a trend towards choosing effective coping methods focused on addressing the causes of stress. The current results are consistent with the study by Nguyen Thai Sang (2020), where cognitive restructuring was the most chosen strategy (32.0%), followed by problem-solving (26.8%) [5]. Similarly, the study by Al-Dubai et al. (2011) in Malaysia also noted that students tend to choose positive coping strategies to deal with stress [11]. Furthermore, the study by Kowalska & Szwamel (2022) in Poland showed that in stressful situations, students often use positive strategies (2.0 ± 0.5) and seek emotional support (2.0 ± 0.7) [10]. The study by Alkhawaldeh et al. (2023) found that nearly two-thirds of students (75.3%) chose problem-solving, 61.7% sought social support, while only 37.9% applied avoidance methods [8].

Some other studies report different results. For example, Verenna and Steiner-Hofbauer & Holzinger (2020) found that medical students prioritized recreational activities and seeking social support, while the use of stimulants was very rare [9]. Studies in the UK report that the use of alcohol, tobacco, and drugs seems to be a fairly common coping strategy [16], [17], [18]. Additionally, the study by Salih (2023) at Jazan University (Saudi Arabia) showed that students often choose recreational activities such as watching movies, reading books, or sleeping to reduce stress [12]. Overall, the results of this study show that students tend to use positive coping strategies, focusing on confronting stress. This reflects a relatively good adaptive capacity and is an important basis for building psychological support programs and developing effective stress management skills for students in the future.

5. CONCLUSION

The stress rate among health students at Tay Nguyen University is relatively high at 84.0%. Of these, mild stress accounts for 34.9%; moderate stress for 40.1%; and severe stress for 9.0%. Students primarily choose positive confrontation strategies such as "Cognitive Restructuring" and "Problem Solving" with the highest average scores. Conversely, strategies such as "Self-Isolation", "Avoidance", and "Seeking Social Support" are used less frequently.

6. RECOMMENDATIONS

For the University: Develop and implement stress management programs: Organize training sessions on stress management skills, soft skills, and coping skills for academic pressure for students. Integrate stress management and mental health care content into the curriculum or extracurricular activities. Strengthen the activities of mental health clubs, create healthy playgrounds to help reduce stress.

For Lecturers: Early identification of signs of stress in students, optimize teaching methods.

For Students: Continue to maintain and develop "Problem Solving" and "Cognitive Restructuring" methods as these are effective strategies in reducing stress. Proactively seek support from friends, family, or psychological professionals when feeling stressed.

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