

The Relationship between Academic Stress with Coping Mechanism of PSSKPN Students of Udayana University

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Abstract The academic education process faced by nursing students is a source of considerable stressors to trigger academic stress. Academic stress would affect the way they deal with the stressors that called coping mechanism response. The purpose of this study was to determine the relationship between academic stress with coping mechanism on PSSKPN students of Udayana University. This study was correlative research with cross sectional approach. This study consisted of 57 respondents obtained by total sampling technique. The data collection was used academic stress questionnaire and ways of coping questionnaire to identified respondent characteristics, academic stress and coping mechanism. This study showed there was a significant correlation between academic stress with the coping mechanism ($p < 0.05$; $r = 0.517$). The correlation was negative and had a medium strength, which means when the academic stress gets higher, the coping mechanism gets lower. This study is expected to be an evaluation for students, education institutions, and nurses as health workers. Actions to reduce academic stress and improve adaptive coping mechanism also expected could be carried out.

Index Terms— Academic Stress, Coping Mechanism, PSSKPN students

I. INTRODUCTION

Education is an important part of human life. Indonesia's government has set a 12 years education program (for elementary, junior high school, and senior high school) and 3.5-4 years program for bachelor's degrees for better future of Indonesia's society [1]. Education in the university consisted of academic and non-academic activity. Academic activity can be a massive stressor source for the student. This is due to various factors, such as inability to adapt, too many tasks, and high academic demand or expectation [2]. An academic-demand related stress is termed as academic stress.

A study conducted by Gupta, et al. [3] showed that the academic stressor highly contributed to medical student's stress in Kolkata India with a percentage of 94.4%. A study was done by Purwati [4], also shows that 43.3% of Indonesia University's nursing students experiencing moderate stress and 11.5% were experiencing severe stress. These findings indicated that stress is a common

phenomenon happened to medical students because of their academic demand.

The level of academic stress is a factor that affected the ability to choose an appropriate coping mechanism [5]. Stuart [6] defined coping mechanisms as an effort to deal with stress and could play a role as individual defense mechanisms. Coping mechanism was classified into adaptive and maladaptive coping mechanism Adaptive coping mechanism is coping mechanism that supported the function of integration, while maladaptive coping mechanism is coping mechanism that blocks the function of integration [7].

The nursing student is a future nurse who is going to provide nursing care to clients. Professional nurses produced by high-quality academic processes in nursing school. This academic process can be a major stressor source for the nursing students because it demanded critical-thinking, memorizing, and accuracy ability for the student [8].

A pilot study done among the nursing student in the Nursing Department, Faculty of Medicine, Udayana University found that there were only 15 students (13.3%) with normal stress levels, and the rest of it were

experiencing severe stress and extremely severe stress. Stress could impact negatively on student's academic performances and the ability to make proper decisions [9]. To deal with the stress, nursing students need to use adaptive coping mechanisms. This study aimed to know the relationship between the academic stress with coping mechanism on PSSKPN Students of Udayana University.

II. METHOD

This was a quantitative study using a cross-sectional approach. Statistical analysis was done by using Pearson Product Moment test because the data were distributed normally.

The study population was the entire 3rd year nursing student in the Nursing Study Program, Faculty of Medicine, Udayana University. Based on the total sampling technique the participants needed were 57 students. This study was conducted in the second week until the third week in May 2019 in the Nursing Department, Faculty of Medicine, Udayana University.

This is consisted of two variables, academic stress as the independent variable and coping mechanism as the dependent variable.

The researcher and two enumerators did the data collection. After the Faculty of Medicine of Udayana University granted the study, the data collection was done on the participant. The data collection was done using the questionnaire Academic Stress Questionnaire which already modified by Purwati [4] and Ways of Coping Questionnaire which also already modified by Kamas [10]. Based on the validity test there were 42 valid questions in the Academic Stress Questionnaire and 23 valid questions on the Ways of Coping Questionnaire. The reliability test also showed that the entire valid questions item was reliable. The data that had been collected then analyzed using a computer program. This study fulfilled the ethical aspects of informed consent, autonomy, anonymity, confidentiality, justice, beneficence, non-maleficence, and veracity. The Ethical Committee of Faculty Medicine of Udayana University also already granted this study.

III. RESULT

Based on the demography data, the majority of the students who participated in this study were aged 21 years old (45.6%), female (86%), and having a very good grade point (GPA) average (82.5%).

The participant's academic stress distribution is shown in Table 1.

TABLE 1. PARTICIPANT'S ACADEMIC STRESS

Variable	Median	Minimum-Maximum	CI 95%
Academic Stress	44	24-81	42.30 – 49.49

*data wasn't distributed normally

Table 1 shows that the median on the academic stress data is 44 with a variability of 183.17. Ninety-five percent of the academic score was in the range of 42.30-49.49. The lowest score was 24 and the highest score was 81. There were 36 participants (63,1%) having moderate level of academic stress. The categorization of the academic stress is shown in Table 2.

TABLE 2. PARTICIPANT'S ACADEMIC STRESS

Category	Score	Number (n)	Percentage (%)
Normal	0 - 23	0	0%
Mild Stress	24 - 33	7	12.3%
Moderate Stress	34 - 52	36	63.1%
Severe Stress	53 - 74	11	19.3%
Extremely Severe Stress	≥75	3	5.3%

The distribution of participant's coping mechanisms is shown in Table 3.

TABLE 3. PARTICIPANT'S COPING MECHANISM

Variable	Mean ± SD	Minimum-Maximum	CI 95%
Coping Mechanism	58.88 ± 4.71	45 – 72	57.63 – 60.13

*normal data distribution

The mean data of the coping mechanism was 58.88 (SD = 4.71) with the lowest score was 45 and the highest score was 72. We estimated that 95% of the data was in the range of 57.63 until 60.13.

After categorization, there were 34 participants (59,6%) having an adaptive coping mechanism. The categorization of the participant's coping mechanism is shown in Table 4.

TABLE 4. PARTICIPANT'S COPING MECHANISMS

Category	Score	Number (n)	Percentage
Maladaptive	≤ mean	23	40.4%
Adaptive	≥ mean	34	59.6%

The correlation between the academic stress and coping mechanism was done using Pearson Product Moment test with confidence of interval of 95%.

TABLE 5. CORRELATION BETWEEN THE ACADEMIC STRESS AND COPING MECHANISM

Variable	N	Coping Mechanism	
		R	p value
Academic Stress	57	-0.517	0.001

Table 5 shows that the correlation coefficient (r) was -0.517 with a p -value of 0.001 ($p < 0.05$). This result indicated that there was a moderate and negative correlation between academic stress and coping mechanism. Higher level of academic stress correlated with a low level of adaptive coping mechanism.

IV. DISCUSSION

Academic stress can be defined as academic-demand related stress which emerged because of the pressure to get a satisfying score, doing tasks, and the study duration [11]. Internal and external factor is affected academic stress.

The analysis showed that most participants were having a moderate level of stress (63,1%). Some manifestation of moderate stress are cranky, over-reacted to a condition, and getting tired of anxious feeling [12]. Academic stress on this level need to be anticipated. A study done by Khan [13] found that the student's academic stress affected their academic performances. Reddy, Menon, and Thattil [14] also stated that academic stress which continuously happens can affect psychological health, physical health, and wellness of the student.

Each student needs to choose a coping mechanism to adapt to the stressors [15]. Stuart dan Laraia [7] mentioned that coping mechanism is classified into two types: adaptive coping mechanism (constructive) and maladaptive coping mechanism (destructive). The coping mechanism chosen by each individual is different, depends on the stressors and individual perception [16].

This study showed that there was a moderate and negative correlation ($r = -0.517$) between academic stress and coping mechanism. The negative correlation showed that the high level of academic stress correlated with a low level of coping mechanism (maladaptive coping strategy). This result is parallel with a study conducted by Anelia [17] which showed that a high level of stress correlated with more destructive coping mechanisms.

A study done by Aris [18] concluded that there was a correlation between stress and coping mechanisms. Moderate stress can affect different methods of coping mechanisms and usually affected maladaptive coping strategies, for example extending their sleeping time and consuming alcohol [19], binge-eating, over-working, crying, denied the problems, and self-isolation [20].

This study also found that there were three participants with extremely severe stress and maladaptive coping mechanism. The GPA's profile of those students was in the lower range of a very good GPA. Donoghue et al. [21] stated that a maladaptive coping strategy can affect academic performances. Study done by Simarmata, Lestari, and Setiawan [22] also found that destructive coping mechanism is correlated with poor academic performances. Rachmah stated that an adaptive coping mechanism helps the students to improve their academic performances.

Some variables possibly affected the student's coping mechanism which didn't investigate in detail on the study.

Some variables that correlated with the academical stress and coping mechanisms are social support, financial support, and individual health status.

V. CONCLUSION

Based on the Pearson Product Moment correlation test, we concluded that there moderate and negative correlations between academic stress and coping mechanism. This result indicated that the higher level of academic stress correlated with the lower level of adaptive coping mechanisms.

We suggest to use the result of this study as a reference to reduce the academic stress and improving adaptive coping mechanism on the nursing student. The further study needs to find the correlation between other variables which not investigated in detail in this study.

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