MODEL OF BEHAVIOR IN IMPROVING ACADEMIC RESILIENCE IN NURSING STUDENTS

Indonesian Nursing Journal of Education and Clinic (INJEC)
IN PRESS
Volume 9 Issue 2, December 2024
DOI: 10.24990/injec.v9i2.628
injec.aipni-ainec.org/index.php/INJEC/index
Received : 2023-09-04
Accepted : 2024-12-31
The Association of Indonesian Nurse Education Center (AINEC)

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Abstract

Introduction: *Academic resilience was identified as a means of overcoming the educational and practical challenges nursing students face. Information on increasing academic resilience in nursing students has not been widely studied. Therefore, the relationship between academic resilience and other constructs must be assessed to propose an appropriate approach. This study aimed to determine the behavioral model for increasing the academic resilience of nursing students.*
Methods: *The research method used is a cross-sectional quantitative research method. The population in this study consisted of nursing students at two nursing education institutions in Indonesia, with as many as 300 respondents who were taken using the Proportionate Stratified Random Sampling technique. The instruments used in this research are The Academic Resilience Scale-24, Self-Compassion Scale Short Form, Perfectionism Scale, and Perception Of Academic Stress Scale. Data analysis using Partial Least Square.*
Results: *The behavioral model in increasing the academic resilience of nursing students is formed from self-compassion, perfectionism, and academic stress with a T statistics value> 1.96 and a p-value <0.05.*
Conclusions: *Self-compassion (consisting of Self-Kindness, Self-Judgment, Common Humanity, Isolation, Mindfulness, and Over-identified), Perfectionism (consisting of Self-Oriented Perfectionism, Other-Oriented Perfectionism, and Socially Prescribed Perfectionism), and academic stress (consisting of from academic expectations, assignments and exams, and students' academic self-perception) can directly affect academic resilience (consisting of Perserverance, Reflecting and Adaptive Help-seeking and Negative Affect and Emotional Response). Furthermore, self-compassion can indirectly affect academic resilience through the mediation of perfectionism and academic stress.*

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Keywords: *stress, perfectionism, compassion, resilience, academic*

INTRODUCTION

College students frequently experience stress and psychological trauma during their studies. However, nursing students, in particular, encounter more stress than students in other fields. Clinical training is often challenging due to various factors, such as high emotional commitment, challenging exams, responsibility for health and life, a grueling workload, negative clinical experiences, and a shortage of time (Shahidi Delshad et al., 2023).

Academic resilience is crucial for nursing students to overcome academic stress and adapt to their clinical environment while engaging in learning and clinical practice (Shahidi Delshad et al., 2023). Academic resilience is a strategy that nursing students can utilize to overcome obstacles and develop the skills necessary for future professional roles. (Hughes et al., 2021).

Self-compassion involves recognizing and alleviating suffering in oneself and others, and it is strongly linked to positive mental health outcomes for many healthcare students (Kotera et al., 2021). Self-compassion is crucial for nurses to provide optimal patient care. Nursing students must manage academic and clinical responsibilities. (Alquwez et al., 2021).

Perfectionism is a personality trait characterized by setting unattainable standards for oneself or others (Shahidi Delshad et al., 2023). People who exhibit high levels of moral perfectionism often possess elevated levels of moral reasoning, which is commonly considered to be a predictor of social behavior (Zeng et al., 2020).

Academic stress is stress caused by conditions in the learning process that may hinder academic success. This stress can be caused by interpersonal, intrapersonal, or social factors (Adom, Chukwuere and Osei, 2020). Academic stress is a problem that includes students' views of several field demands that must be mastered and include views about the time to complete these demands. Academic demands can generate negative physical, behavioral, cognitive, and emotional responses (Siregar and Putri, 2020).

Academic resilience was identified as a means of overcoming the educational and practical challenges nursing students face. There is limited research on ways to enhance academic resilience among nursing students. To address this, it is important to explore the relationship between academic resilience and other related factors and develop an appropriate strategy. The objective of this study is to establish a behavioral model that can be used to improve the academic resilience of nursing students

METHODS

Study Design

For this study, an explanatory survey with a cross-sectional approach was utilized in the design.

Population, Samples, and Sampling

The population in this study consisted of nursing students at two nursing educational institutions in Indonesia. Determining the sample size in this study used the rule of thumb, namely, 5-10 times the number of indicators studied. There are 15 indicators in this study. So, the number of samples in this study is 15x10 = 150

respondents. The sampling technique used in this study was Proportionate Stratified Random Sampling, so the number of samples required was 300 respondents, with the inclusion criteria being 2nd, 4th, and 6th-semester students willing to become respondents. The exclusion criteria were respondents who did not fill out the questionnaire completely. The variables of this study consist of independent variables, namely Self-Compassion (Self-Kindness, Self-Judgment, Common Humanity, Isolation, Mindfulness, and Over-identified), perfectionism (Self-Oriented Perfectionism, Other-Oriented Perfectionism, and Socially Prescribed Perfectionism), and academic stress (academic expectations, assignments and exams, and students' academic self-perception). The dependent variable is academic resilience (Perseverance, Reflecting and Adaptive Help-seeking, Negative Affect, and Emotional Response)

Instruments

Academic resilience was measured using The Academic Resilience Scale-24 questionnaire developed by Cassidy, translated into Indonesian, and validated through exploratory and confirmatory factor analysis by Dewi Kumalasari, Azmi Luthfiyani and Grasiawaty, (2020). This questionnaire consists of 24 statement items consisting of three factors, namely perversion (individual behavioral response in facing academic difficulties), reflecting and adaptive help-seeking (cognitive response in facing academic difficulties), and negative affect and emotional response (individual emotional response in facing academic difficulties). The measurement scale in this questionnaire is a 6-point Likert scale from Strongly Agree (score 6) to Disagree Strongly (score 1).

Self-compassion is measured using the Self-Compassion Scale Short Form (SCS-SF) questionnaire developed by Raes and translated into Indonesian by Lestari, (2020), which consists of 12 statement items consisting of six factors (self-kindness, self-blame self, common human experience, isolation, mindfulness, and extreme identification) with a reliability value of 0.725. The measurement scale in this questionnaire is a 5-point Likert scale from Always to Never.

Perfectionism is measured using the Perfectionism scale questionnaire developed by Hewitt, and translated into Indonesian by Septiani et al., (2019), comprising 15 statement items with a reliability value of 0.877. The measurement scale in this questionnaire is a 5-point Likert scale from Strongly Agree to Disagree Strongly.

Academic stress was measured using the Perception Of Academic Stress Scale questionnaire developed by Bedewy and translated into Indonesian and modified by Murdhiono and Vidayanti, (2022). This questionnaire consists of 18 statement items consisting of 3 factors, namely academic expectations, assignments and exams, as well as students' academic self-perceptions, with a reliability value of 0.7 and using a Likert scale with five answer choices, ranging from strongly disagree to agree strongly.

Procedure

*D*ata was collected from June to July 2023 using a questionnaire created on Google form and sent to respondents using the WhatsApp application

Data Analysis

The data collection results were analyzed using a structural equation model analysis technique based on variance or component-based called PLS (Partial Least Square). PLS allows testing a series of relationships between variables that are

relatively complicated simultaneously.

Ethical Clearance

This research has received ethical feasibility from the Health Research and Development Ethics Commission (KEPPK) Sint. Carolus Number 086/KEPPKSTIKSC/VI/2023 on June 13, 2023. Sampling and activities will be carried out after obtaining consent from respondents by filling out informed consent.

RESULTS

In this study, an outer model evaluation test was carried out to evaluate the validity and reliability of a construct. The validity of the model test can be seen from the outer loading values Table 1 Table 1 Validity Test Results shows that all indicators produce a loading factor and Average Variance Extracted (AVE) value greater than 0.5, so that based on convergent validity all of these indicators are declared valid to measure the variable.

Table 1 Validity Test Results

Construct variable	Parameter	Outer Loading	AVE
Self-Compassion (X1)	Self-Kindness (X1.1)	0.801	0.564
	Self-Judgment (X1.2)	0.605	
	Common Humanity (X1.3)	0.780	
	Isolation (X1.4)	0.760	
	Mindfulness (X1.5)	0.787	
	Over-identified (X1.6)	0.755	
Perfectionism (X2)	Self-Oriented Perfectionism (X2.1)	0.882	0.711
	Other-Oriented Perfectionism (X2.2)	0.854	
	Socially Prescribed Perfectionism (X2.3)	0.790	
Academic stress (X3)	Academic Expectations (X3.1)	0.866	0.666
	Assignments And Exams (X3.2)	0.836	
	Students' Academic Self-Perceptions (X3.3)	0.741	
Academic resilience (Y1)	Perserverance (Y1.1)	0.944	0.799
	Reflecting and Adaptive Help-seeking (Y1.2)	0.951	
	Negative Affect and Emotional Response (Y1.3)	0.776	

Table 2 shows the results of the reliability test of the model. Based on Table 2, it can be seen that each variable produces a Chronbach alpha value greater than 0.6 or a composite reliability value greater than 0.7. This shows that all indicators are declared reliable in measuring their variables.

Table 3 shows the results of direct hypothesis testing. Based on Table 3, it can be seen that the T-statistics value ≥ T-table (1.96) or the P-Value <significant alpha 5% or 0.05, it is stated that there is a significant influence of exogenous variables on

Table 2 Construct Reliability Test Results

Variable	Cronbach's Alpha	Composite Reliability
Self-Compassion (X1)	0.846	0.885
Perfectionism (X2)	0.797	0.880
Academic stress (X3)	0.753	0.856
Academic resilience (Y1)	0.874	0.922

endogenous variables.

Table 3 Direct Hypothesis Testing Results

Influence	T Statistics (|O/STDEV|)	P Values
Self-Compassion (X1) ->Perfectionism (X2)	5.558	0.000
Self-Compassion (X1) -> Academic stress (X3)	3.898	0.000
Self-Compassion (X1) -> Academic resilience (Y1)	4.585	0.000
Perfectionism (X2) -> Academic stress (X3)	9.356	0.000
Perfectionism (X2) -> Academic resilience (Y1)	3.593	0.000
Academic stress (X3) -> Academic resilience (Y1)	5.597	0.000

Table 4 shows the results of indirect hypothesis testing. Based on Table 4, it can be seen that the variables Perfectionism (X2) and Academic Stress (X3) can significantly mediate the effect of Self-Compassion (X1) on Academic Resilience (Y1). This is evidenced by the value of T statistics> 1.96 and p-value <0.05. Based on the hypothesis testing results, the researcher recommended model construct can be seen in Figure 1.

Table 4 Indirect Hypothesis Testing Results

Influence	T Statistics (|O/STDEV|)	P Values
Self-Compassion (X1) ->Perfectionism (X2)-> Academic stress (X3)	4.788	0.000
Self-Compassion (X1) ->Perfectionism (X2)-> Academic resilience (Y1)	2.918	0.004
Self-Compassion (X1) -> Academic stress (X3)-> Academic resilience (Y1)	2.810	0.005
Perfectionism (X2)-> Academic stress (X3)-> Academic resilience (Y1)	4.658	0.000
Self-Compassion (X1) ->Perfectionism (X2)-> Academic stress (X3)-> Academic resilience (Y1)	3.467	0.001

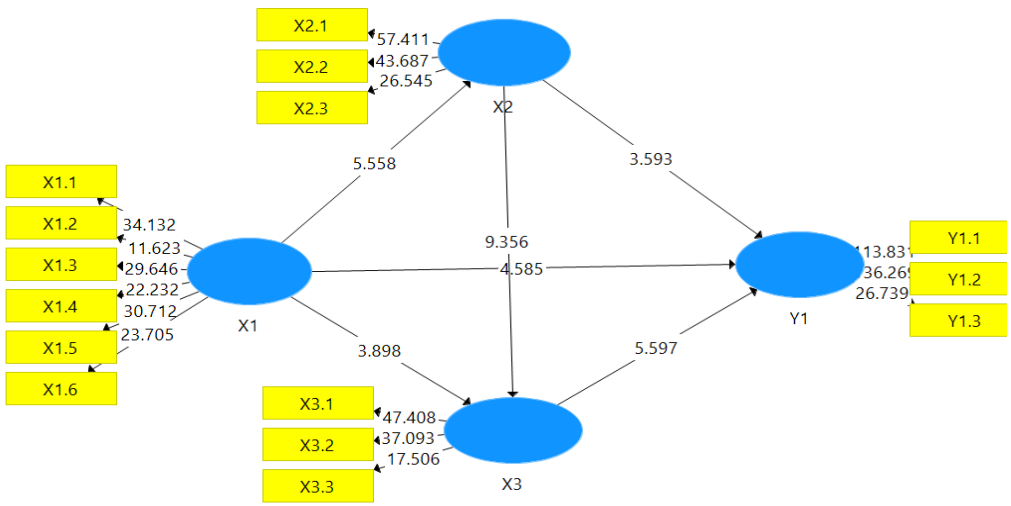
DISCUSSION

The results showed that Self-compassion (consisting of Self-Kindness, Self-Judgment, Common Humanity, Isolation, Mindfulness, and Over-identified), Perfectionism (consisting of Self-Oriented Perfectionism, Other-Oriented Perfectionism, and Socially Prescribed Perfectionism), and Academic stress (consisting of academic expectations, assignments, and exams, and students' academic self-perception) could directly affect academic resilience (consisting of Perseverance, Reflecting and Adaptive Help-seeking and Negative Affect and Emotional Response). This aligns with research from Kotera et al., (2021), which shows that self-compassion has a significant relationship with academic resilience. In nursing education, the resilience of nursing students develops as they successfully overcome adversity through relevant coping mechanisms. Therefore, cultivating self-compassion is necessary to encourage students to understand better and recognize themselves (Kotera et al., 2021). Increasing self-compassion can positively affect student academic resilience to benefit student welfare and student transitions in facing the world of work and in coping with the demands of the challenges of the nursing profession (Mckiddy, 2021). The results of this study are also in line with the research of Choo and Prihadi, (2019), which shows a relationship between perfectionism and academic resilience. Perfectionists have low

resilience due to rumination, pessimism, a perceived lack of compassion, and a reluctance to engage in resilience-building activities. Individuals with high perfectionism lack sensory experience in completing tasks because of fear of the task, affecting their emotional level and their resilience (Huang et al., 2022). Individuals who exhibit high levels of adaptive perfectionism tend to adjust their goals based on self-knowledge, which leads to increased self-confidence and resilience. In contrast, individuals with high levels of maladaptive perfectionism often experience stress as a result of their excessively high learning standards, leading to negative emotions and reduced resilience levels (Wan et al., 2023). Research from Septiana, (2021) shows that academic stress is related to academic resilience. According to Berdida, (2023) academic stress has a negative impact on the ability of nursing students to cope with the demands of nursing school, which can damage the resilience and motivation of nursing students. Nursing students are often expected to perform all tasks flawlessly and must not make any mistakes as they could be life-threatening. As a result, nursing students can experience stress because they are afraid of failure, so if it continues continuously, it can negatively influence student academic resilience (Si and Lee, 2022).

Furthermore, the research results also show that self-compassion can indirectly affect academic resilience through the mediation of perfectionism and academic stress. This aligns with research from Shahidi Delshad et al., (2023), which shows that, there is a significant relationship between self-compassion and perfectionism. Students who strive for moral perfection can increase self-compassion by focusing on personal values (Shahidi Delshad et al., 2023). According to, Tobin and Dunkley, (2021) cultivating self-compassion will reduce excessive pressure in life and the emergence of anxiety symptoms in perfectionists, so it is hoped that this will reduce their level of perfectionism. In particular, increased self-compassion will reduce rumination tendencies by helping perfectionist individuals be more open to their imperfections, so they can accept them and strengthen and calm themselves (Tobin and Dunkley, 2021). According to research by Widyastuti, (2017) which explains that students with high self-awareness can withstand academic stress, allowing them to adjust well and, as a result, have good psychological well-being too. A significant negative relationship exists between self-compassion and perceived stress, indicating

Figure 1 The Structure of a Behavioral Model in Increasing Academic Resilience in Nursing Students



that self-compassion acts as a buffer against stress. Stressed students who practice self-compassion are kinder to themselves and better able to cope with failures and difficulties (Martínez-Rubio et al., 2023). Therefore, by increasing self-compassion, it is hoped that it can reduce levels of anxiety and depression and can increase students' capacity to manage the emotional demands of the lecture process (Dreisoerner, Junker and van Dick, 2021). Research by Leha, Razak and Ridfah, (2022) shows that perfectionism has a significant relationship with academic stress, where the high standards aspect of perfectionism correlates significantly with academic stress. People who have high perfectionism tend to trigger their stressors to activate their perfectionist cognitions, (eg someone will feel like a failure if they don't do something perfectly) so that it can lead to maladaptive efforts. This maladaptive process will exacerbate stress and hinder recovery from stress (Kahn et al., 2023). In addition, according to Damian et al., (2017) Students who doubt their abilities may experience anxiety due to feelings of inadequacy and a focus on mistakes.

The study's results hold theoretical significance and practical value in increasing nursing students' academic resilience. To increase academic resilience in students, several things can be suggested, including, first of all, students need to increase self-awareness by understanding and accepting themselves as they are, not demeaning and criticizing aspects of themselves, and facing reality without having to judge what happened. Then, nursing students also need to develop good study habits and improve time management skills to assist students in completing all the assignments given. In addition, students also need to avoid stress by listening to music, sports, and other positive activities that are fun for students. To reduce perfectionism among nursing students, educators should help them develop a greater sense of coherence by setting realistic goals and evaluating progress based on their own standards. It's important to avoid setting unreasonably high standards for students' performance during the course, as this can contribute to negative self-evaluation and hinder their learning process. Nursing educators need to look holistically at students' mental health development by counseling students through individual and group counseling. Individual counseling can provide a private space for students to talk about their feelings, worries, and anxieties openly so that they can help overcome the fear of mistakes or failure. Group counseling, on the other hand, can be a forum where students can interact with other students who may be experiencing similar feelings and find solutions to overcome challenges in learning and practicing nursing. In addition, regular psychology training by psychologists can benefit nursing students. With the help of experts, students can build good self-control skills and increase their resilience. Overall, this approach reflects the widespread concern for the mental health of nursing students and creates a supportive, caring, and positive educational environment. With the proper guidance and support, nursing students can feel more confident in facing challenges and pursuing their careers with the confidence and skills required. The limitation of this study is that the questionnaire used in this study was subjective, without any observation of respondents' behavior

CONCLUSION

Self-compassion (consisting of Self-Kindness, Self-Judgment, Common Humanity, Isolation, Mindfulness, and Over-identified), Perfectionism (consisting of Self-Oriented Perfectionism, Other-Oriented Perfectionism, and Socially Prescribed Perfectionism), and academic stress (consisting of academic expectations, assignments and exams, and students' academic self-perception) can directly affect academic resilience (consisting of Perseverance, Reflecting and Adaptive Help-seeking and Negative Affect and Emotional Response). Furthermore, self-compassion can also affect academic resilience indirectly through the mediation of perfectionism and academic stress. Based on this study's findings, nursing students need guidance to

increase academic resilience, with significantly more emphasis on aspects of self-compassion, perfectionism, and academic stress levels. Therefore, for further research, it is necessary to prepare guidelines to increase nursing resilience based on the results of this study.

ACKNOWLEDGMENT

The researchers would like to thank all respondents who participated in this research and AIPNI for funding this research through the AINEC Research Award grant scheme for the 2023 fiscal year

CONFLICT OF INTEREST

There is no conflict of interest in this study.

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