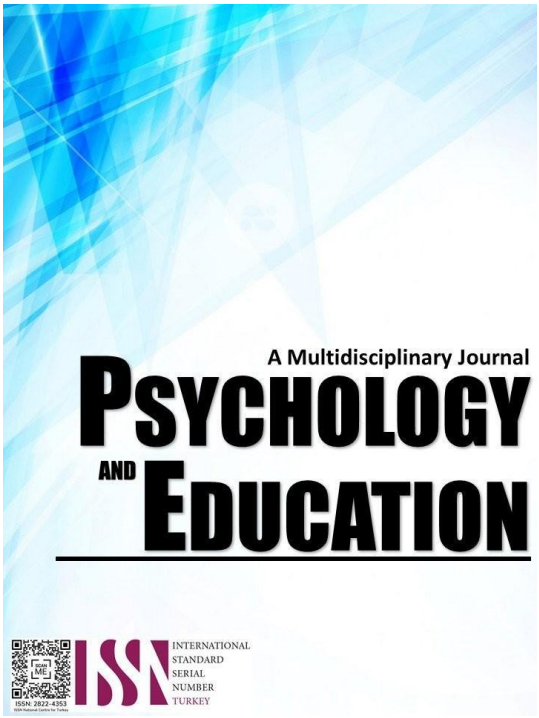
STRESS, SELF-EFFICACY, AND MOTIVATION TO LEARN: A CAUSAL MODEL ON ACADEMIC BURNOUT OF STUDENT NURSES



PSYCHOLOGY AND EDUCATION: A MULTIDISCIPLINARY JOURNAL

Volume: 35
Issue 2
Pages: 166-177
Document ID: 2025PEMJ3354
DOI: 10.70838/pemj.350208
Manuscript Accepted: 03-05-2025

Psych Educ, 2025, **35**(2): 166-177, Document ID:2025PEMJ3354, doi:10.70838/pemj.350208, ISSN 2822-4353

Research Article

Stress, Self-Efficacy, and Motivation to Learn: A Causal Model on Academic Burnout of Student Nurses

Christian V. Villan,* Gloria M. Cunanan, Nenita I. Prado
For affiliations and correspondence, see the last page.

Abstract

Attending nursing school is challenging. Students enrolled in a nursing program often complain of being academically burned out. As an educator, seeing, interacting with, and teaching learners suffering from burnout is tough. Nurse educators must be aware of this issue and act toward its resolution. Hence, this study aims to create a causal model on academic burnout, academic stress, self-efficacy, and learning motivation among student nurses. The inquiry was participated in by 719 nursing students from 4 private and state universities in the Philippines, utilizing modified standardized questionnaires and a 5-point Likert scale. Structural equation modeling (SEM) was also used to analyze the data. The best-fit model of the study revealed that students' academic burnout is positively influenced by stress from personal inadequacy, fear of failure, inadequate study facilities, poor teaching methods, and external motivation and negatively impacted by resilience. Recognizing the factors causing academic burnout among student nurses is a crucial step toward enhancing the quality of education and improving the learner's well-being. Furthermore, by understanding students' challenges at school, policymakers and administrators can develop and implement regulations that advocate for a healthier school life for the students. By addressing the concerns of lack of classrooms for studying and ineffective teaching strategies, students' academic burnout may lessen. Moreover, providing counseling to learners and discussing the mentally harmful outcomes of fear of failure, personal inadequacies, and being burdened by external motivations may reduce the effects of academic burnout. Educators may focus on enhancing the student nurses' resilience through better classroom management and adequate mental and emotional support to overcome the damaging effects of academic burnout. Lastly, student nurses may take full advantage of the universities' mental health services, wellness programs, and support systems to reduce feelings of stress and burnout.

Keywords: *academic stress, self-efficacy, learning motivation, academic burnout, nursing students, causal model*

Introduction

Attending nursing school is demanding, often leading students to experience fatigue, exhaustion, and even academic burnout. Academic burnout is a state of physical, emotional, and mental exhaustion resulting from prolonged academic stress. It arises when the demands of coursework and clinical rotations exceed a student's coping ability. Contributing factors include heavy workloads, strict deadlines, and high academic expectations from clinical instructors. Nurse educators must recognize and address this growing issue as burnout affects learning and well-being.

Studies highlight the prevalence of burnout and academic stress among nursing and medical students. Ma et al. (2022) found that 36.1% of nursing students in China experienced emotional exhaustion, with 85.3% reporting moderate to high-stress levels. Similarly, Aghajani Liasi et al. (2021) discovered that 16.3% of medical students experienced burnout, while Haile et al. (2019) reported that 34% of Ethiopian medical students suffered from academic burnout, with 79.9% citing dissatisfaction with their courses.

Despite these challenges, student nurses may develop coping mechanisms aided by their knowledge of stress management. Self-efficacy and motivation play critical roles in mitigating burnout. Academic self-efficacy refers to students' confidence in their ability to achieve educational goals, while academic motivation drives their engagement and success. Research shows that higher self-efficacy reduces burnout (Kong et al., 2021; Lopes & Nihei, 2020), and internal motivation decreases its occurrence (Zalts et al., 2021).

In the Philippines, nursing students in Central Luzon reported high academic stress but remained motivated to succeed (Cabaluna et al., 2022). Other studies revealed that healthcare students experienced significant anxiety and burnout (Di Mario et al., 2024; Pedroso et al., 2023). However, self-efficacy was found to buffer against these effects (Gonzaga & Oblianda, n.d.; Compuesto et al., 2022).

Although past studies have explored relationships between academic stress, burnout, and self-efficacy (Fariborz et al., 2019; Yusoff et al., 2021), research integrating all these variables into a unified model remains limited, particularly in nursing education. Most existing studies focus on public universities in European and Asian contexts. This study aims to bridge this gap by developing a causal model linking academic stress, self-efficacy, motivation, and academic burnout among nursing students. The findings will contribute to nursing, education, and psychology, providing insights for educators to support students' mental, emotional, and psychological well-being.

Research Questions

This study examined how stress and learning motivation correlate with academic burnout among student nurses. This report aims to address the subsequent research inquiries:

1. What is the level of academic stress among student nurses in terms of:
    1.1. fear of failure;
    1.2. interpersonal difficulties with teachers;
    1.3. personal inadequacy;
    1.4. teachers' poor teaching methods; and
    1.5. inadequate study facilities?
2. What is the level of self-efficacy among student nurses in terms of:
    2.1. perceived control;
    2.2. competence;
    2.3. resilience; and
    2.4. self-regulated learning?
3. What is the level of motivation to learn among student nurses in terms of:
    3.1. internal motivation; and
    3.2. external motivation?
4. What is the level of academic burnout among student nurses?
5. Which variables, singly or in combination, best predict academic burnout on student nurses?
6. What causal model best fits academic burnout on student nurses?

Methodology

Research Design

This study employs a descriptive-correlational causal-comparative research design to construct a model of academic burnout, stress, self-efficacy, and motivation to learn. Descriptive research examines the characteristics of a population, identifies existing problems, and explores variations across institutions or regions (Siedlecki, 2020). Correlational design, a non-experimental approach, helps predict and explain relationships between variables (Seeram, 2019). Causal-comparative research, meanwhile, identifies cause-effect relationships by studying differences among groups retrospectively (Schenker & Rumrill, 2004). By adopting this approach, the present study seeks to achieve its objectives and contribute to understanding academic burnout in nursing education.

Respondents

The study participants comprised Level 3 and 4 nursing students from multiple campuses of the College of Nursing. These students were specifically selected as they had undergone extensive academic and clinical experiences, making them more susceptible to academic stress and burnout (Valero-Chilleron et al., 2019).

Participants were required to have regular academic status, meaning they followed the prescribed curriculum without failing grades, incomplete coursework, or withdrawn subjects. Irregular students and transferees were excluded to maintain consistency in academic exposure. Additionally, students with documented mental or psychological conditions were omitted, as participation required cognitive clarity and critical thinking skills.

A proportionate stratified random sampling method was used to determine the sample size. The student population was divided into four strata based on university campuses. From a population of 1,446 students, the Raosoft sample size calculator determined a required sample size 719. The exact distribution of participants across the campuses is detailed in the corresponding table.

Table 1. *Distribution of Participants from Each University*

Participants	*Population*	*Sample Size*	*Percentages (%)*
University A	549	227	31.6
University B	450	208	29.0
University C	236	147	20.4
University D	211	137	19.0
Total	1446	719	100

Instrument

This research employed four adapted and modified questionnaires to align with the study's objectives.

The first component of the survey instrument is the Academic Stress Scale, initially developed by Rajendran and Kaliappan (1990), which has 40 items designed to assess academic stress. The researcher refined the scale, reducing the number of items to 25 to ensure a more precise evaluation of the variable. This section includes five subsections: fear of failure (7 items, reduced from 8 due to insufficient reliability), interpersonal difficulties with educators (9 items), personal inadequacy (8 items), ineffective teaching methods (7 items), and insufficient study resources (9 items). The scale was recently used in a study by Berdida (2023) to examine the relationship between academic stress and self-directed learning among nursing students.

The second section of the questionnaire is the Self-Efficacy Scale by Dullas (2018), initially a 62-item scale measuring self-efficacy.

The researcher selected the most relevant statements, reducing the scale to 32 items. This section is divided into four subcategories: perceived control (5 items), competence (10 items), resilience (9 items), and self-regulated learning (8 items). This scale was previously employed in a longitudinal study by Green (2022), highlighting self-efficacy's critical role in enhancing online education for university students during the COVID-19 pandemic.

The third part of the questionnaire is the Academic Motivation Scale, initially developed by Vallerand et al. (1992) and later adapted by Ardenska et al. (2019). Initially, a 28-item scale was used to assess motivation to learn, and the researcher modified and grouped similar statements to better align with the study's objectives. This section includes intrinsic motivation (10 items) and extrinsic motivation (10 items). The reliability and validity of this instrument were later assessed by Souza et al. (2021) among undergraduate nursing students, who proposed a three-factor model consisting of intrinsic motivation, extrinsic motivation, and demotivation, providing a condensed alternative to the original seven-factor structure.

The final survey component is the Academic Burnout Scale, developed by Maslach (2018) and Maslach et al. (1997). Initially, a 16-item instrument measuring academic burnout, the researcher reduced it to 10 items by omitting statements about diminished academic performance. Additionally, based on an in-depth examination of the concept, the researcher developed 20 additional statements to assess academic burnout, including its physical and physiological indicators. Maslach's Burnout Inventory/Scale has been widely utilized in recent studies to measure academic burnout among nursing students (Chen et al., 2023; Ghods et al., 2023; Batista et al., 2021; Wang et al., 2021; Lopes & Nihei, 2020; Sharififard et al., 2020; Valero-Chilleron et al., 2019).

To ensure the validity and reliability of the survey instrument, the dissertation adviser evaluated content and face validity. Additionally, three experts in nursing education, psychology, and research reviewed the questionnaire to assess its relevance to the study's objectives. A pilot test was conducted with 30 second-year nursing students to evaluate the instrument's reliability. Cronbach's alpha was used to measure internal consistency, yielding values above 0.70, as follows: fear of failure (0.824), interpersonal difficulties with educators (0.849), personal inadequacy (0.881), ineffective teaching methods (0.846), insufficient study resources (0.821), perceived control (0.817), competence (0.901), resilience (0.876), self-regulated learning (0.830), intrinsic motivation (0.943), extrinsic motivation (0.848), and academic burnout (0.956).

Procedure

The following procedures were implemented to facilitate data collection:

First, the researcher sought permission to conduct the study and obtained an approval letter from the Deans of the College of Nursing at the respective universities. The survey questionnaire and informed consent form were transcribed into Google Forms and distributed online via email. This method was chosen due to the participants' varying class and clinical duty schedules, which made in-person data collection challenging. The online format also allowed participants to complete the survey at their convenience without time constraints.

The informed consent form detailed the study's purpose, ethical considerations, and measures to protect participants from data misuse or abuse. To ensure voluntary participation, the consent form was presented on a separate page before the questionnaire, allowing participants to withdraw by choosing not to proceed.

Data collection commenced after securing the university's confirmation of participation. Once all responses were gathered, the researcher compiled the data and submitted it to the university statistician for thorough processing and analysis, ensuring accuracy and reliability.

Data Analysis

This study adhered to established ethical standards. The survey instrument and participant consent letters were included in the research protocol and submitted to the Liceo Research Ethics Board (LREB) for review. The ethics board's approval confirmed that the study's procedures and methodologies complied with ethical guidelines.

The informed consent form clearly explained the study's objectives and the anticipated data collection period (October to November 2024). Participants were informed of the potential benefits and risks, including privacy and security concerns. The investigator assured participants their data would remain secure by adhering to the safety protocols outlined below. It was emphasized that participation was entirely voluntary, and participants could withdraw or decline to continue at any time, mainly if they were unwell or unable to complete the survey. Anonymity was guaranteed, and all information provided was treated with strict confidentiality.

All data files containing participant information and responses were stored securely on the investigator's computer to protect participant privacy further. Emails containing these files were deleted immediately after the investigator received them. The researcher maintained transparency throughout the study and declared no bias or conflicts of interest. Additionally, participants were not offered any incentives, as their participation was purely voluntary.

Results and Discussion

The tables below present, analyze, and interpret the data gathered, addressing the specific problems of the study.

Level of Academic Stress among Student Nurses

Table 2. *Summary of Mean Scores for the Level of Academic Stress among Student Nurses*

Academic Stress	*Mean*	*SD*	*Description*	*Interpretation*
Fear of failure	4.25	0.829	Agree	High
Interpersonal difficulties with teachers	3.82	0.976	Agree	High
Personal inadequacy	3.89	0.940	Agree	High
Teachers' poor teaching methods	3.87	0.991	Agree	High
Inadequate study facilities	3.55	1.142	Agree	High
Overall Mean	3.88	0.976	Agree	High

Legend: 4.51-5.00 = Strongly Agree (Very High Academic Stress) | 3.51-4.50 = Agree (High Academic Stress) | 2.51-3.50 = Neutral (Moderately High Academic Stress) | 1.51-2.50 = Disagree (Low Academic Stress) | 1.00-1.50 = Strongly Disagree (Very Low Academic Stress)

Table 2 summarizes mean scores on academic stress among student nurses. The data shows that Fear of Failure had the highest mean score (M = 4.25, SD = 0.829), followed by Personal Inadequacy (M = 3.89, SD = 0.940), Poor Teaching Methods (M = 3.87, SD = 0.991), Interpersonal Difficulties with Teachers (M = 3.82, SD = 0.976), and Inadequate Study Facilities (M = 3.55, SD = 1.142). The overall mean score of M = 3.88 (SD = 0.976) suggests high academic stress among student nurses. The total standard deviation (SD = 0.977) indicates a relatively dispersed data distribution around the mean.

Student nurses experience significant academic stress, primarily due to fear of failure. The prospect of failing exams or courses is a significant source of anxiety, as highlighted by Alabduljabbar et al. (2022), who link fear of failure to heightened stress levels. High-pressure academic tasks such as return demonstrations, case presentations, and examinations reinforce the need to avoid failure, which is often unacceptable in their professional journey.

Conflicts with professors or clinical instructors also contribute to academic stress. Wang and Xian (2024) emphasize that strained student-instructor relationships can negatively impact motivation, engagement, and well-being. Nursing students highly value their educators' approval, and those who excel academically tend to establish more positive professional relationships.

Feelings of personal inadequacy further intensify academic stress, especially when students struggle to focus during study sessions—Ghods et al. (2023) associate self-doubt with increased psychological distress. Aghajani Liasi et al. (2021) link personal inefficacy to reduced concentration, negatively affecting learning and performance. The rigorous demands of nursing education—including literature reviews, frequent academic submissions, return demonstrations, and clinical interactions—can heighten stress, particularly for students who find it challenging to stay focused.

Ineffective teaching methods are another stressor. Inadequate time for completing requirements and inflexible teaching strategies exacerbate anxiety, as noted by De la Fuente et al. (2021). Their research underscores the need for adaptive, interactive instructional approaches, as rigid methods hinder students' cognitive development and academic performance.

Limited study facilities and resources also contribute to academic stress. A shortage of classrooms and study spaces for group discussions and research activities creates challenges, aligning with findings by Jagodics and Szabó (2023). They highlight that inadequate academic resources negatively impact student engagement and mental well-being. Sufficient learning spaces can help students concentrate and manage academic demands more effectively.

Given the high academic stress among nursing students, targeted interventions are essential, particularly for those in demanding clinical programs. Support strategies can help mitigate stress-related challenges and improve student well-being (Hwang & Kim, 2022; Ma et al., 2022).

Level of Self-Efficacy among Student Nurses

Table 3. *Summary of Mean Scores for the Level of Self-Efficacy among Student Nurses*

Self-Efficacy	*Mean*	*SD*	*Description*	*Interpretation*
Perceived control	4.42	0.758	Agree	High
Competence	4.10	0.81	Agree	High
Resilience	4.21	0.812	Agree	High
Self-regulated learning	4.14	0.825	Agree	High
Overall Mean	4.22	0.801	Agree	High

Legend: 4.51-5.00 = Strongly Agree (Very High Academic Stress) | 3.51-4.50 = Agree (High Academic Stress) | 2.51-3.50 = Neutral (Moderately High Academic Stress) | 1.51-2.50 = Disagree (Low Academic Stress) | 1.00-1.50 = Strongly Disagree (Very Low Academic Stress)

Table 3 presents the summary of mean scores for the level of self-efficacy among student nurses. As shown in the table, students obtained the highest mean score of M=4.42, SD=.758 for Perceived control, followed by Resilience (M=4.21, SD=.812), Self-regulated learning (M=4.14, SD=.825). Last is competence (M=4.10, SD=.81). The overall mean score is M=4.22, SD=.801, which is described as agreeable and can be interpreted as high self-efficacy among student nurses. Meanwhile, the overall mean SD=.801 implies that the data are scattered around the mean.

The results indicate that student nurses exhibit high self-efficacy, primarily due to their belief in having control over their lives and future. This aligns with Singh et al. (2021) and Nazri et al. (2023), who define perceived control as a crucial psychological factor influencing mental health, academic performance, and coping strategies. As young adults, student nurses recognize the challenges of their chosen careers and make informed decisions about their future, whether pursuing opportunities abroad or committing to the profession's demands.

Additionally, self-efficacy is reinforced by students' competence in academic and clinical settings. Confidence in managing patient care according to legal and ethical standards strengthens their engagement, as supported by Ariani (2019), who found that competence directly enhances academic success. Nursing competence extends beyond high grades to include clinical proficiency—such as effective bedside care, accurate medication administration, and teamwork—further boosting self-efficacy.

Resilience also plays a critical role in maintaining self-efficacy. Student nurses demonstrate determination in overcoming academic and personal challenges, supporting Smith and Emerson's (2021) claim that resilience reduces vulnerability to stress in demanding environments. Wang et al. (2021) further link resilience to higher academic engagement, as students persevere through pressures while staying focused on their long-term goals.

Moreover, self-regulated learning contributes to student nurses' high self-efficacy, as they actively seek feedback to improve study habits. Poorgholamy et al. (2020) highlight that self-regulated learning fosters motivation and academic success, emphasizing the importance of aligning learning strategies with achievement goals. Student nurses embrace constructive criticism, using it to refine their skills and decision-making, ultimately enhancing their professional growth.

Level of Motivation to Learn among Student Nurses

Table 4. *Summary of Mean Scores for the Level of Motivation to Learn among Student Nurses*

Academic Motivation	*Mean*	*SD*	*Description*	*Interpretation*
Internal Motivation	4.19	0.782	Agree	High
External Motivation	4.35	0.812	Agree	High
Overall Mean	4.27	0.797	Agree	High

Legend: 4.51-5.00 = Strongly Agree (Very High Academic Stress) | 3.51-4.50 = Agree (High Academic Stress) | 2.51-3.50 = Neutral (Moderately High Academic Stress) | 1.51-2.50 = Disagree (Low Academic Stress) | 1.00-1.50 = Strongly Disagree (Very Low Academic Stress)

Table 4 summarizes mean scores for motivation to learn among student nurses. As presented in the table, students obtained the highest mean score of M=4.35, SD=.812 for external motivation, and a mean score of M=4.19, SD=.782 for internal motivation. The overall mean score is M=4.27, which is described as agreeable and can be interpreted as high academic motivation among student nurses. Meanwhile, the standard deviation of .797 implies that the data are scattered around the mean.

The results indicate that student nurses are primarily driven by intrinsic motivation. They find joy in expanding their knowledge and studying subjects that interest them. This aligns with Mannerström et al. (2024), who found that students with intrinsic motivation experience better identity formation, particularly in professional fields. Nursing students are internally motivated to become registered nurses and are eager to deepen their healthcare knowledge to excel in their future careers.

External factors also drive student nurses' motivation, particularly the desire to secure prestigious jobs. Zalts et al. (2021) found that extrinsic motivation is linked to academic standing and quality of life. Given the competitive job market—especially in the Philippines, where thousands of nurses graduate semi-annually—students recognize the need for strong academic performance and advanced skills to stand out and secure employment in top medical institutions.

Level of Academic Burnout among Student Nurses

Table 5. *Level of Academic Burnout among Student Nurses*

Variable	*Mean*	*SD*	*Description*	*Interpretation*
Academic Burnout	3.71	1.12	Agree	High

Legend: 4.51-5.00 = Strongly Agree (Very High Academic Stress) | 3.51-4.50 = Agree (High Academic Stress) | 2.51-3.50 = Neutral (Moderately High Academic Stress) | 1.51-2.50 = Disagree (Low Academic Stress) | 1.00-1.50 = Strongly Disagree (Very Low Academic Stress)

Table 5 illustrates the extent of academic burnout among student nurses. The table indicates an overall mean score of M=3.71, SD=1.12, which is characterized as agreeable and interpreted as significant academic burnout among student nurses. Meanwhile, the total mean standard deviation of 1.12 indicates that the data are more dispersed around the mean.

The findings indicate that student nurses were undergoing significant academic burnout due to excessive academic pressure and emotionally taxing circumstances.

Student nurses frequently experience academic burnout, emotional exhaustion, depersonalization, and reduced personal achievement (Sharififard et al., 2020; Aguayo et al., 2019). Burnout stems from persistent academic stress and is influenced by individual, institutional, and contextual factors. Bauernhofer et al. (2019) found that excessive workload and high academic engagement intensify

burnout symptoms. Given their demanding schedules, student nurses must balance academic tasks and clinical responsibilities, often leading to overwork and an inability to manage personal obligations. Similar patterns have been observed among medical students, with burnout peaking near graduation due to excessive workloads (Kilic et al., 2021; Shadid et al., 2020).

Studies in China revealed that many nursing students suffer from emotional exhaustion due to prolonged stress and ineffective coping strategies (Ma et al., 2022; Wang et al., 2021; Kong et al., 2021). In Spain, burnout symptoms worsened as the academic year progressed, affecting students from their first to third years (Valero-Chilleron et al., 2019).

Similarly, research in Brazil found that 36.3% of students across five state colleges exhibited significant burnout, particularly emotional exhaustion. These findings highlight nursing students' ongoing challenges in managing heavy workloads and emotionally demanding academic environments.

Predictors of Academic Burnout among Student Nurses

Table 6. *Regression Analysis of Predicting Academic Burnout of Student Nurses by Academic Stress, Self-Efficacy, and Motivation to Learn*

Predictors	*Stand. Coeff. (B)*	*P-value*	*Remarks*
(Constant)	--	.002	Significant
Fear of Failure	.175	.000	Significant
Interpersonal difficulties with teachers	.051	.200	Not Significant
Personal inadequacy	.324	.000	Significant
Teachers' poor teaching methods	. .069	.094	Not Significant
Inadequate study facilities	.144	.000	Significant
Perceived control	-.073	.101	Not Significant
Competence	.055	.286	Not Significant
Resilience	-.247	.000	Significant
Self-regulated learning	.050	.359	Not Significant
Extrinsic motivation	.125	.101	Not Significant
Motivation to learn	-.032	.703	Not Significant

Note:R = .616 Adjusted R2=.379 ANOVA for Regression: F=39.24, P=.000
Dependent Variable: Academic Burnout

According to the results of the multiple regression analysis (Table 6). The table shows that the R-value is .616, signifying a strong positive relationship between student nurses' academic burnout and the independent variables used. The R2 value of .379 implies that the significant predictor variables, namely Fear of failure ($p<.05$), Personal Inadequacy ($p<.05$), Inadequate study facilities ($p<.05$), and Resilience ($p<.05$) explained 37.9% of the variability of students' academic burnout. The probability value p=00.00 of F=39.24 indicates a statistically significant relationship between the student's academic burnout and the independent variables used.

Meanwhile, the variable that significantly best predicted or influenced students' academic burnout is Personal inadequacy ($p<.05$, Beta=.324), followed by Resilience ($p<.05$, Beta=-.247), Fear of failure ($p<.05$, Beta=.175), and Inadequate study facilities ($p<.05$, Beta=.144) while the rest of the variables statistically failed to predict or influence students' academic burnout. The findings imply that student nurses with personal inadequacy, Fear of failure, inadequate study facilities, and low Resilience are more susceptible to academic burnout.

These findings align with Ghods et al. (2023), who identified feelings of inadequacy as a key factor in academic burnout among nursing students. Their study also highlighted the impact of incompatible learning styles, emphasizing that mismatches between teaching methods and student preferences can heighten feelings of inefficacy. Similarly, Smith and Emerson (2021) explored resilience in accounting students, demonstrating its role as a protective factor against psychological distress and burnout. Their findings suggest that resilience independently predicts better mental health outcomes in high-stress academic environments.

Additionally, Çam and Öğülmüş (2021) identified fear of failure as a significant predictor of school burnout, alongside GPA, perceived social support, and maladaptive perfectionism, underscoring its broader implications in education. Likewise, Jagodics et al. (2023) applied the demand-resource framework to secondary students, revealing that inadequate school resources strongly contribute to burnout. While excessive workload correlated with higher burnout levels, access to sufficient academic resources and supportive faculty

helped mitigate these effects.

Causal Model on Academic Burnout of Student Nurses

Table 7 presents the Regression Weights of Causal Model 3 on Academic Burnout of Student Nurses. As shown in the table, the three variables, namely, ISF (p<05), FF (p<.05), and PTM (p<.05), have a positive significant influence on PI while R (p<.05) has a negative significant effect on PI. On the other hand, the variables PI (p<.05), FF (p<.05), EM (p<.05), ISF (p<.05), and PTM (p<.05) have a positive significant impact on students' academic burnout whereas R (p<.05) has a negative significant effect on academic burnout.

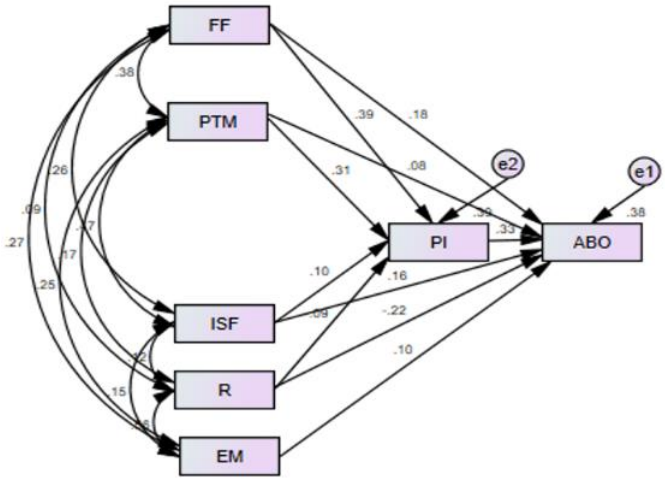


Figure 1. *Causal Model 3 on Academic Burnout of Student Nurses*

Table 7. *Regression Weights of Causal Model 3 on Academic Burnout of Student Nurses*

PATH			*B*	*S.E.*	*C.R.*	*Beta*	*P*	*Interpretation*
PI	<---	R	-.094	.029	-3.179	-.094	.001	Significant
PI	<---	ISF	.076	.026	2.939	.097	.003	Significant
PI	<---	FF	.449	.036	12.427	.393	***	Significant
PI	<---	PTM	.295	.033	8.978	.312	***	Significant
ABO	<---	PI	.385	.045	8.620	.326	***	Significant
ABO	<---	FF	.241	.049	4.960	.179	***	Significant
ABO	<---	EM	.130	.048	2.719	.101	.007	Significant
ABO	<---	R	-.257	.042	-6.074	-.219	***	Significant
ABO	<---	ISF	.151	.031	4.853	.164	***	Significant
ABO	<---	PTM	.093	.042	2.226	.083	.026	Significant

Legend: FF - Fear of Failure | PI - Personal Inadequacy | PTM - Poor Teaching Methods | ISF - Inadequate Study Facilities | R - Resilience | EM - Extrinsic Motivation | ABO - Academic Burnout

Moreover, as portrayed in Figure 1, Causal Model 3 on Academic Burnout of Student Nurses, inadequate study facilities, fear of failure, and teachers' poor teaching methods positively influence personal inadequacy, implying that these factors amplify the feelings of inadequacy in student nurses. Conversely, resilience negatively impacts personal inadequacy, denoting that student nurses' resilience in their studies lessens the feelings of deficiency in the students. Furthermore, personal inadequacy, fear of failure, extrinsic motivation, inadequate study facilities, and teachers' poor teaching methods positively affect academic burnout, indicating their aggravating effects on the burnout of student nurses. However, resilience negatively affects academic burnout, suggesting its mitigating attribute on the effects of burnout on the students.

In addition, the model also portrays personal inadequacy as mediated by the positive significant relationship between fear of failure, teachers' poor teaching methods, inadequate study facilities, and academic burnout and the negative significant relationship between resilience and academic burnout. This finding implies how personal inadequacies play a role in the indirect connections of fear of failure, poor teaching methods, inadequate study facilities, and resilience toward student nurses' academic burnout.

Fear of failure is a key predictor of burnout across various populations. Yıldırım et al. (2023) found that resilience and extrinsic motivation mediate this relationship, suggesting that enhancing resilience while managing extrinsic motivators can help reduce burnout risks in students with high fear of failure. Similarly, Molinari and Grazia (2023) linked a lack of stimulating teaching practices to lower student engagement and increased academic burnout. Also, Lesener et al. (2020) introduced the Study Demands-Resources (SD-R) framework, highlighting that study demands (e.g., inadequate library facilities, lack of technological support) contribute to burnout, while study resources (e.g., supportive learning environments, peer networks) promote engagement and well-being.

On the other hand, Romano et al. (2021) found that academic resilience inversely correlates with burnout, with positive teacher and peer relationships strengthening resilience. Lastly, Rahmatpour et al. (2019) identified interest in the field of study, GPA, and study habits as key factors influencing burnout, with disengaged or underperforming students more likely to experience feelings of inadequacy and exhaustion.

Table 8 presents the Standard of Fit Indices of Causal Model 3 on Academic Burnout of Student Nurses. As shown in the table, the model fit value of CMIN/DF is .556, which is lesser than 2; the p-value is .452, which is greater than .05; the Normed Fit Index-NFI is 1.0, which is greater than 95 Tucker-Lewis Index-TLI is 1.0 which is more significant than .95, Comparative Fit Index-CFI is 1.000 which is more significant than .95, Goodness of Fit Index-GFI is 1.00 which is more significant than .95. Root Mean Square Error of Approximation-RMSEA is .000 which is less than .05.

Table 8. *Standard of Fit Indices of Causal Model 3 on Academic Burnout of Student Nurses*

Standard Indices	*Standard Value Per Criterion*	*Model Fit Value*
CMIN/DF	<2	.556
P-Value	>.05	.452
NFI	>.95	1.00
TLI	>.95	1.00
CFI	>.95	1.00
GFI	>.95	1.00
RMSEA	<.05	.000

Legend: CMIN/DF - Chi-Square Minimum/Degrees of Freedom | CFI - Comparative Fit Index | RMSEA – Root Mean Square Error of Approximation | NFI - Normed Fit Index | TLI - Tucker-Lewis Index | GFI - Goodness of Fit Index

The data revealed that the model fit value of the seven standard indices conforms to the standard value of the seven indices; thus, this model is the best-fit model for Student Nurses' Academic Burnout. This model is called Villan's Model on Academic Burnout of Student Nurses. However, investigators should consider multiple fit indices and theoretical considerations when evaluating the adequacy of a causal model.

Conclusions

The study illustrates that student nurses had significant academic stress due to elevated fear of failure, interpersonal challenges with instructors, feelings of personal inadequacy, ineffective teaching techniques, and insufficient study resources. However, nursing students have high levels of self-efficacy, as portrayed by their high perceived control, competence, resilience, and self-regulated learning. Furthermore, high internal and external motivation enhanced student nurses' motivation to learn. Nonetheless, nursing students continued to experience significant academic burnout.

Additionally, personal inadequacy, resilience, fear of failure, and inadequate study facilities were discovered to influence academic burnout among student nurses, signifying these factors as crucial in shaping the students' well-being. Lastly, the causal model that best fits the academic burnout of student nurses explains the role of fear of failure, teachers' poor teaching methods, personal inadequacy, inadequate study facilities, resilience, and extrinsic motivation in influencing academic burnout, and the function of personal inadequacy in mediating the connections between fear of failure, teachers' poor teaching methods, inadequate study facilities, and resilience, and academic burnout of student nurses.

The following suggestions were put out in light of the study's findings and conclusions:

The Commission on Higher Education (CHED) may integrate stress and academic burnout subjects to promote awareness and early intervention. Alternatively, it can encourage universities to implement mental health programs focused on counseling, reducing stigma, and enhancing self-efficacy through resilience-building activities.

Policymakers may adopt frameworks that address academic stressors such as fear of failure, personal inadequacy, and teacher-student conflicts. Providing adequate classrooms, study areas, and teaching resources can alleviate stress and improve learning. Regular faculty performance monitoring and training in effective teaching strategies can also enhance student engagement and motivation.

Administrators may train faculty to recognize and manage academic stress and burnout while fostering positive teacher-student relationships. Investing in classrooms, study spaces, and teaching facilities can support student learning. Expanding mental health services, including counseling, self-efficacy workshops, and motivation programs, can further enhance student well-being.

Nursing colleges may monitor faculty performance, provide training in effective teaching, and promote healthy teacher-student relationships. Faculty should identify early signs of stress and coordinate with counseling services to support students facing burnout.

Guidance and Counseling departments may offer targeted mental health support, collaborate with nursing faculty in identifying at-risk students, and develop self-efficacy workshops and motivation programs to strengthen student resilience.

Educators may prioritize teaching stress management techniques and burnout prevention. Training in effective teaching strategies and fostering a supportive academic environment can help build student resilience and motivation.

Students experiencing burnout may seek counseling, connect with peers for support, and participate in university-led resilience and motivation programs. Self-efficacy workshops can enhance their ability to manage stress and improve academic performance.

Future studies may validate the proposed model, explore the long-term effects of self-efficacy and motivation on professional success, and conduct experimental research on stress-reduction and motivation programs in nursing education.

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Affiliations and Corresponding Information

Christian V. Villan, RN, MAN, CRS, DM(c)
Liceo de Cagayan University – Philippines

Dr. Gloria M. Cunanan, RN
Liceo de Cagayan University – Philippines

Dr. Nenita I. Prado
Liceo de Cagayan University – Philippines