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# A Correlational Study of Academic Burnout and Academic Resilience among Undergraduate Nursing Students in Universities of Ethnic Minority Areas

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## Abstract

**Objective** To investigate the current status of academic burnout and academic resilience among undergraduate nursing students in universities located in ethnic minority regions, and to explore the relationship between academic burnout and academic resilience.

**Methods** From October to December 2024, 701 undergraduate nursing students from two universities—Inner Mongolia Minzu University and Chifeng University—were selected as survey participants. They were surveyed using a general information questionnaire, the Academic Burnout Scale, and the Nursing Students' Academic Resilience Scale.

**Results** The mean score for academic burnout was  $3.00 \pm 0.50$ , with emotional exhaustion showing the largest standard deviation. The mean resilience score was  $3.82 \pm 0.70$ , with communication showing the largest standard deviation. The difference analysis revealed that students of different academic years and genders showed significant differences in both academic burnout and resilience ( $p < 0.05$ ). Ethnicity, place of origin, and only-child status had no significant independent effects on nursing students' academic burnout and resilience ( $p > 0.05$ ). The correlation coefficient between academic burnout and resilience was  $-0.467$  ( $p < 0.01$ ), indicating a significant negative correlation.

**Conclusion** Individual differences exist among undergraduate nursing students regarding academic burnout and academic resilience, and academic resilience scores have a significant negative predictive effect on academic burnout scores. Universities in ethnic minority regions should leverage the multidisciplinary advantages of comprehensive universities, optimize nursing education and teaching, innovate nursing talent cultivation models, and cultivate outstanding nursing

talents in the new era who take the responsibility of maintaining and promoting people's health.

## Full Text

# A Study on the Correlation Between Academic Burnout and Academic Resilience Among Undergraduate Nursing Students in Ethnic Minority Regions

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### Abstract:

**Objective:** To investigate the current status of academic burnout and academic resilience among undergraduate nursing students in ethnic minority regions and to explore their relationship.

**Methods:** A total of 701 undergraduate nursing students from Inner Mongolia Minzu University and Chifeng University were surveyed between October and December 2024 using a general information questionnaire, the Academic Burnout Scale, and the Nursing Student Academic Resilience Scale.

**Results:** The mean academic burnout score was  $3.00 \pm 0.50$ , with emotional exhaustion showing the largest standard deviation. The mean resilience score was  $3.82 \pm 0.70$ , with communication showing the largest standard deviation. Significant differences in academic burnout and resilience were found across different grades and genders ( $p < 0.05$ ). Ethnicity, hometown, and only-child status showed no significant independent effects ( $p > 0.05$ ). The correlation coefficient between academic burnout and resilience was  $-0.467$  ( $p < 0.01$ ), indicating a significant negative correlation.

**Conclusion:** Individual differences exist in academic burnout and academic resilience among undergraduate nursing students. Academic resilience scores significantly negatively predict academic burnout scores. Universities in ethnic minority regions should leverage multidisciplinary advantages, optimize nursing education, innovate talent cultivation models, and develop outstanding nursing professionals dedicated to maintaining and promoting public health in the new era.

**Keywords:** Ethnic minority regions; Undergraduate nursing students; Academic burnout; Academic resilience; Correlation

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## Introduction

The 20th National Congress of the Communist Party of China stated: "When young people thrive, the nation thrives; when young people are strong, the nation is strong" [1]. Universities in ethnic minority regions uphold the mission of cultivating talent for the Party and the country, focus on forging a strong sense

of community for the Chinese nation, fulfill the fundamental task of fostering virtue through education, serve national strategies and local economic and social development needs, and strive to cultivate well-rounded socialist builders and successors capable of shouldering the great responsibility of national rejuvenation. Undergraduate nursing students bear professional responsibility for maintaining and promoting residents' health, making their learning and growth during university crucial.

Academic burnout refers to a negative psychological phenomenon that emerges when students experience excessive learning pressure or lack interest, leading to feelings of weariness toward learning [2]. Academic problems such as failing courses, retaking examinations, and delayed graduation are closely related to academic burnout [2-3].

Academic resilience refers to students' ability to maintain high levels of achievement motivation and performance despite facing stressful events and circumstances that might lead to poor school performance [4]. Differences in how students respond to academic setbacks or challenges, influenced by regional culture and educational foundations, primarily reflect variations in their academic resilience levels [5].

Currently, research on academic resilience among undergraduate nursing students in China remains relatively scarce, and no studies have examined the correlation between academic burnout and academic resilience among nursing students in ethnic minority regions. Therefore, this study aims to investigate the current status of academic burnout and academic resilience among undergraduate nursing students in ethnic minority regions and explore their relationship.

## 1. Subjects and Methods

### 1.1 Research Subjects

A total of 701 undergraduate nursing students from Inner Mongolia Minzu University and Chifeng University were selected as participants.

### 1.2 Research Tools

**General Information Questionnaire:** Developed by the researchers, including items on gender, age, grade, ethnicity, hometown, and only-child status.

**Academic Burnout Scale:** Developed by Lian Rong et al. [2] (2005), comprising 20 items across three dimensions: emotional exhaustion, inappropriate behavior, and low sense of achievement. The scale demonstrates good structural validity, with a Cronbach's coefficient of 0.865 and split-half reliability of 0.880. Using a 5-point scoring system (reverse-scored items reversed), the theoretical range is 20-100, with higher scores indicating greater burnout.

**Nursing Student Academic Resilience Scale:** Developed by Ali-Abadi et al. [6], containing 6 dimensions (optimism, communication, self-esteem, self-

awareness, trustworthiness, and self-regulation) with 24 items. Using a 5-point scoring system from “strongly disagree” to “strongly agree,” scores are converted to standard scores, with values closer to 100 indicating higher resilience levels.

### 1.3 Survey Method

Data were collected via an online questionnaire platform between October and December 2024. A total of 704 questionnaires were collected, with 701 valid questionnaires (99.57% validity rate) and 3 invalid questionnaires.

### 1.4 Data Processing

SPSS 26.0 software was used for data analysis, including descriptive statistics, difference tests, Pearson correlation analysis, and multiple linear regression analysis.

## 2. Results

### 2.1 Descriptive Analysis

Among the 701 valid questionnaires, 185 participants were male (26.39%) and 516 were female (73.61%). Ages ranged primarily from 18-24 years, with a mean age of  $20.23 \pm 1.52$ . Ethnic distribution included 380 Han Chinese (54.21%), 287 Mongolian (40.94%), and other ethnicities (4.85%). Grade distribution: 217 freshmen (30.96%), 114 sophomores (16.26%), 278 juniors (39.66%), and 92 seniors (13.12%). Only-child status: 267 only children (38.09%) and 434 non-only children (61.91%). Hometown distribution: 490 from rural areas (69.90%) and 211 from urban areas (30.10%). Detailed demographic information is presented in and .

The mean academic burnout score was  $3.00 \pm 0.50$ , indicating moderate burnout levels, with emotional exhaustion showing the largest standard deviation, suggesting it has the greatest impact on burnout. The mean resilience score was  $3.82 \pm 0.70$ , indicating moderate-to-high resilience levels, with communication showing the largest standard deviation, suggesting it has the greatest impact on resilience. See and .

### 2.2 Difference Analysis

Independent samples t-tests revealed significant gender differences in optimism, communication, self-esteem, and overall resilience ( $p < 0.05$ ). No significant differences were found between only-child and non-only-child students in academic burnout or resilience ( $p > 0.05$ ). Similarly, no significant differences were observed based on hometown (rural vs. urban) ( $p > 0.05$ ). One-way ANOVA showed no significant ethnic differences in academic burnout or resilience ( $p > 0.05$ ). However, significant differences were found across grade levels for both academic burnout and resilience ( $p < 0.05$ ). Detailed results are presented in through .

### 2.3 Correlation Analysis

Pearson correlation analysis was conducted to examine relationships among variables. Correlation coefficients were interpreted as follows:  $|r|>0.8$  indicates extremely strong correlation; 0.6-0.8 strong; 0.4-0.6 moderate; 0.2-0.4 weak;  $|r|<0.2$  very weak or no correlation.

All dimensions showed significant correlations ( $p<0.01$ ) with coefficients exceeding 0.2. Notably, the correlation between academic burnout and resilience was -0.467 ( $p<0.01$ ), indicating a significant negative relationship where higher resilience scores correspond to lower burnout scores. Detailed correlation results are presented in .

### 2.4 Multiple Linear Regression Analysis

Multiple linear regression analysis (Enter method) was conducted with academic burnout as the dependent variable and resilience as the independent variable (`_entry=0.05, _removal=0.10`). The model summary showed  $R^2=0.218$ , indicating good explanatory power and model fit. The F-test was significant ( $p<0.001$ ), confirming the statistical significance of the regression model. The Durbin-Watson value of 1.482 indicated independent residuals. Collinearity diagnostics showed VIF values below 10, confirming no multicollinearity issues.

Results demonstrated that resilience significantly negatively predicted academic burnout ( $=-0.332, p<0.001$ ), indicating that higher resilience is associated with lower burnout. Regression results are presented in and .

## Discussion

The findings reveal that undergraduate nursing students' academic burnout dimension scores were: emotional exhaustion  $2.86\pm0.80$ , inappropriate behavior  $3.00\pm0.60$ , and low achievement  $3.33\pm0.69$ . According to evaluation criteria [7], moderate burnout is defined when two dimensions exceed 3 points. The current scores indicate moderate burnout, with emotional exhaustion showing the largest standard deviation. This reflects the heavy curriculum and rapid knowledge updates in nursing education that create substantial pressure and emotional distress. Additionally, anticipating future professional pressures in healthcare contributes to burnout.

Resilience scores across all dimensions averaged around 3 points, above the theoretical midpoint of 2.5, indicating moderate-to-high resilience. Communication showed the largest standard deviation, highlighting its importance. Ethnic minority regions have actively promoted Mandarin proficiency, creating a favorable language environment that supports resilience development. Furthermore, nursing practice requires effective patient communication, and clinical experiences help students develop these skills to overcome academic challenges.

Significant grade-level differences emerged: lower-grade students showed lower burnout and higher resilience compared to upper-grade students. Freshmen

maintain enthusiasm for their major with foundational coursework and strong motivation, while upper-grade students face increased pressures from advanced courses, clinical internships, thesis writing, and employment concerns, leading to heightened anxiety, increased burnout, and decreased resilience.

Gender differences were also significant: female nursing students exhibited lower burnout and higher resilience than male students. Influenced by traditional perceptions, male nursing students face external questioning, insufficient professional identity, and lack of support, potentially leading to burnout. Female students, leveraging their attentiveness and patience, demonstrate better resilience in managing academic demands.

Resilience emerged as the primary factor influencing academic burnout, significantly predicting it in a negative direction. Nursing students with strong resilience adopt positive coping strategies such as optimism and self-regulation, effectively mitigating burnout. Conversely, those with weak resilience employ negative coping mechanisms, resulting in learning burnout.

Medical education serves as a crucial foundation for healthcare development. During the COVID-19 pandemic, nurses played vital roles. This study reveals individual differences in academic burnout and resilience among undergraduate nursing students, with resilience scores significantly negatively predicting burnout. Universities in ethnic minority regions should capitalize on multi-disciplinary advantages, optimize nursing education, innovate talent cultivation models, and develop outstanding nursing professionals dedicated to maintaining and promoting public health in the new era.

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