

THE IMPACT OF COMBINED COUNSELLING SUPPORT AND EDUCATIONAL COUNSELLING ON ALLEVIATING ACADEMIC STRESS: THE ROLE OF DEMOGRAPHIC FACTORS

Fan Yang¹, Clinton Chidiebere Anyanwu^{2*}

^{1,2}Department of Education and Society, Institute of Science Innovation and Culture,
Rajamangala University of Technology Krungthep, Bangkok, Thailand

*Corresponding author: clinton.c@mail.rmutk.ac.th

ABSTRACT

This study aims to explore the key factors influencing the alleviation of academic stress, focusing on three dimensions: demographic factors, counselling support and educational counselling and verifies the combined effect of the two intervention approaches. Using a quantitative cross-sectional design, online questionnaires were distributed to vocational students in Chongqing, China, and 400 valid responses were collected. Statistical software was used to conduct reliability and validity testing, an Independent Samples t-test, a One-Way ANOVA, and a Multiple Regression Analysis on the collected data. The results show that among demographic factors, age, academic year and major category have a significant impact on academic stress alleviation, while gender has no obvious influence; counselling support (including cognitive restructuring, stress coping training and social support network) has a significant positive predictive effect on academic stress alleviation; educational counselling (including career guidance, learning strategy optimization and home-school collaboration) also has a significant positive impact on academic stress alleviation. In addition, the combined use of counselling support and educational counselling presents stronger explanatory power and better intervention effects than either approach used alone. This study breaks through the limitations of single-factor intervention research, enriches the theoretical framework for academic stress alleviation by integrating psychological and educational support perspectives, and provides practical guidance for colleges and universities in designing systematic, targeted stress-relief programs.

Keywords: Counselling Support, Educational Counselling, Alleviation of Academic Stress, Demographic Factors, Vocational Students

INTRODUCTION

In the era of intensified academic competition and diversified career development, academic stress has become a prominent problem among students in Chinese higher education institutions, with negative impacts on students' mental health and academic performance. Existing research has focused on single-factor effects of stress relief, such as individual psychological counselling, and few have explored the comprehensive effects of demographic characteristics, counselling support and educational counselling on stress alleviation, leaving a gap in integrated academic stress intervention research.

Counselling support, as a psychological intervention, directly targets the cognitive and emotional sources of academic stress through cognitive restructuring, stress coping training and social support networks. Educational counselling, as a structural intervention, alleviates environmental and systematic pressure through career guidance, learning strategy optimization and home-school collaboration. Theoretically, the combination of the two can comprehensively resolve both psychological and structural sources of stress. However, the independent effects, combined effects and the moderating role of demographic factors remain to be verified empirically.

Based on the above research gaps, this study takes vocational students as the research object, focuses on three core dimensions, including demographic factors, counselling support and educational counselling to explore their impacts on academic stress alleviation. The research objectives are to clarify the influence of various demographic factors on alleviating academic stress, verify the independent and combined effects of counselling support and educational counselling, and reveal the multidimensional intervention mechanism for relieving academic stress. This study can not only supplement and improve the theoretical system of academic stress intervention, but also provide targeted strategic suggestions for schools to optimize mental health services and educational support systems, which has important theoretical and practical significance.

RQ1: How do demographic variables (gender, age, academic year and major category) influence the alleviation of academic stress?

RQ2: What is the impact of counselling support on the alleviation of academic stress?

RQ3: What is the impact of educational counselling on the alleviation of academic stress?

RQ4: How does the combined use of counselling support and educational counselling affect the alleviation of academic stress compared with either approach alone?

LITERATUR REVIEW

Related Theories

Cognitive-behavioural theory holds that negative cognitions and irrational beliefs are important sources of academic stress, and that cognitive restructuring can effectively reduce stress responses. Social support theory holds that emotional comfort, instrumental help and information support from interpersonal networks can buffer the adverse effects of stress. Self-determination theory emphasizes that satisfying the needs of autonomy, competence and relatedness helps reduce academic pressure and improve self-efficacy. These three theories jointly provide a solid theoretical foundation for the intervention model constructed in this study.

Demograhic Factors

Demographic variables are important factors that affect students' stress perception and the effectiveness of interventions. Existing studies show that age, academic year and major category are often significantly related to academic stress, whereas research on gender differences is inconsistent. Students of different grades face different stressors, such as adaptation, skill mastery and employment pressure, and students of different majors face distinct stressors, such as practical assessment and theoretical coursework. However, the influence of demographic factors on the effect of integrated stress intervention has not been fully explored.

Counselling Support

Counselling support is an effective psychological intervention for academic stress. Cognitive restructuring helps students transform negative academic beliefs; stress-coping training improves students' ability to resist pressure; and social support networks reduce feelings of loneliness and isolation. A large number of empirical studies have confirmed that counselling support based on cognitive behavior theory can significantly reduce test anxiety and improve psychological resilience.

Educational Counselling

Educational counselling alleviates structural academic stress by improving the external environment and support systems. Career guidance reduces future uncertainty; learning strategy optimization improves learning efficiency; home-school collaboration integrates family and school resources. Existing studies show that educational counselling can effectively relieve pressure from the institutional level and form a stable support system.

Alleviation of Academic Stress

Alleviation of academic stress is mainly reflected in three dimensions: reduced test anxiety, improved time management and enhanced self-efficacy. At present, most studies focus on the effects of single interventions. In contrast, research on the combined effects of psychological counselling and educational support is insufficient, especially in the context of vocational education.

RESEARCH METHODOLOGY

Research Objectives

To investigate the influence of demographic factors (gender, age, academic year and major category) on the alleviation of academic stress.

To scrutinize the impact of counselling support on the alleviation of academic stress.

To assess the effect of educational counselling on the alleviation of academic stress.

To verify whether the combined effect of counselling support and educational counselling is stronger than that of either single intervention.

Research Hypotheses

H1: Differences in demographic factors generate differences in the alleviation of academic stress.

H2: Counselling support has a significant positive impact on the alleviation of academic stress.

H2a: Cognitive restructuring has a significant positive effect on alleviating academic stress.

H2b: Stress coping training has a significant positive impact on the alleviation of academic stress.

H2c: Social support network has a significant positive impact on the alleviation of academic stress.

H3: Educational counselling has a significant positive impact on the alleviation of academic stress.

H3a: Career guidance has a significant positive impact on the alleviation of academic stress.

H3b: Learning strategy optimization has a significant positive impact on the alleviation of academic stress.

H3c: The home-school collaboration mechanism has a significant positive impact on alleviating academic stress.

H4: The combined use of counselling support and educational counselling has a significantly greater impact on the alleviation of academic stress than either intervention independently.

Research Framework

Based on the research hypotheses, the research framework is constructed with demographic factors, counselling support and educational counselling as independent variables and alleviation of academic stress as the dependent variable.

Population and Samples

Population: The research population comprises vocational students at Chongqing Yubei Vocational Education Center who exhibit typical academic stress characteristics in vocational education settings.

Samples Size: Based on Yamane's (1967) sampling formula with a 5% margin of error, the minimum sample size is 385. To improve statistical power, 400 valid samples were finally collected.

Sampling Method: Stratified random sampling was adopted according to academic year, gender and major category to ensure sample representativeness.

Data Collection

The primary data collection method is an online questionnaire survey. The data collection process lasted 4 weeks, and 400 valid questionnaires were collected, yielding an effective recovery rate of 100% after invalid data were removed.

Research Intrumen

The questionnaire is divided into four parts, comprising 49 items, all using a 5-point Likert scale. Part 1: demographic factors (4 items); Part 2: counselling support (15 items); Part 3: educational counselling (15 items); Part 4: alleviation of academic stress (15 items).

Reliability and Validity

Cronbach's α coefficients of all variables range from 0.82 to 0.955, indicating good internal consistency. All IOC values are above 0.5, indicating satisfactory content validity.

Data Analysis Methods

Descriptive Statistical Analysis, Reliability and Validity Testing, Independent Samples t-test, One-Way ANOVA, Multiple Regression Analysis.

RESEARCH FINDINGS

This study analyzed 400 valid samples collected from vocational students in Chongqing, China. Regarding gender distribution, males accounted for 60.25% and females 39.75%. The age groups were primarily concentrated in the 21–23 (44.50%) and 24+ (42.75%) age groups. In terms of academic year, Year 2 (47.50%) and Year 3 (37.75%) students constituted the majority of the sample. Regarding major categories, Arts students represented the highest proportion at 38.00%, followed by Business, Economics & Law (31.50%), Humanities & Social Sciences (16.75%), and STEM (13.75%). The sample distribution is diverse and provides a representative reflection of the target population's characteristics.

Table 1: Demographic Characteristics of the Sample (N=400)

Category	Subcategory	Frequency	Percentage (%)
Gender	Male	238	60.25
	Female	162	39.75
Age	18–20	51	12.75
	21–23	178	44.50
	24+	171	42.75
Academic Year	Year 1	42	10.50

	Year 2	190	47.50
	Year 3	151	37.75
	Year 4+	17	4.25
Major Category	STEM	55	13.75
	Humanities & Social Sciences	67	16.75
	Business, Economics & Law	126	31.50
	Arts	152	38.00

Descriptive Statistics of Core Variables

The three core variables were evaluated through means and standard deviations to determine the students' perceptions (see Tables 2, 3, and 4). Counselling Support yielded a total mean of 3.174, with the Social Support Network dimension scoring the highest (3.186) and Stress Coping Training the lowest (3.163), resulting in an overall interpretation of "Neutral". Educational Counselling had the highest mean (3.340) among the core variables, with Learning Strategy Optimization (3.366) as the most prominent dimension. The total mean for Alleviation of Academic Stress was 3.181, where Reduced Test Anxiety (3.318) showed the most noticeable effect. These results indicate that vocational students generally hold a neutral stance toward existing intervention methods and the current state of stress relief, suggesting significant room for further optimization.

Table 2: Descriptive Statistics of Counselling Support

Dimension	N	Mean	S.D.	Interpretation
Cognitive Restructuring	400	3.173	0.943	Neutral
Stress Coping Training	400	3.163	1.060	Neutral
Social Support Network	400	3.186	1.022	Neutral
Total	400	3.174	0.973	Neutral

Table 3: Descriptive Statistics of Educational Counselling

Dimension	N	Mean	S.D.	Interpretation
Career Guidance	400	3.320	0.901	Neutral
Learning Strategy Optimization	400	3.366	1.024	Neutral
Home-School Collaboration	400	3.335	0.940	Neutral
Total	400	3.340	0.629	Neutral

Table 4: Descriptive Statistics of Alleviation of Academic Stress

Dimension	N	Mean	S.D.	Interpretation
Reduced Test Anxiety	400	3.318	0.946	Neutral
Improved Time Management	400	3.114	1.038	Neutral
Enhanced Self-Efficacy	400	3.110	1.086	Neutral
Total	400	3.181	0.864	Neutral

Hypothesis Testing Results

H1: Demographic Factors

Independent-samples t-tests and a One-Way ANOVA were employed to test the influence of demographic factors on the alleviation of academic stress (see Table 5). The results demonstrate that gender does not have a significant impact on stress alleviation ($p = 0.621$). However, age ($F = 30.114$, $p = 0.000$), academic year ($F = 65.642$, $p = 0.000$), and major category ($F = 5.830$, $p = 0.001$) all exerted a statistically significant influence. This indicates that stress relief outcomes vary according to specific student backgrounds; therefore, H1 is partially supported.

Table 5: Demographic Differences Test Results

Variable	Test Method	Statistic	p-value	Result
Gender	t-test	0.245	0.621	Not significant
Age	ANOVA	$F=30.114$	0.000	Significant
Academic Year	ANOVA	$F=65.642$	0.000	Significant
Major Category	ANOVA	$F=5.830$	0.001	Significant

H2: Counselling Support

Regression analysis confirmed a significant positive association between counselling support and the alleviation of academic stress (see Table 6). The model's Adjusted R^2 was 0.908, indicating an extremely high level of explanatory power for stress relief variance. Specifically, Cognitive Restructuring had the most significant impact ($\beta = 0.618$, $p = 0.000$), followed by Stress Coping Training ($\beta = 0.190$) and Social Support Network ($\beta = 0.126$). These findings validate that psychological interventions can directly and effectively improve students' academic well-being, supporting H2, H2a, H2b, and H2c.

Table 6: Regression of Counselling Support on Academic Stress Alleviation

Variable	B	Beta	t	p
Cognitive Restructuring	0.565	0.618	12.188	0.000
Stress Coping Training	0.155	0.190	3.382	0.001

Social Support Network 0.106 0.126 2.235 0.026

Adjusted R²=0.908

H3: Educational Counselling

As shown in Table 7, educational counselling and its sub-dimensions also positively influenced the alleviation of academic stress. The Adjusted R² for this model was 0.385. Among the three dimensions, Home-School Collaboration demonstrated the strongest contribution (beta = 0.224, p = 0.000), followed by Learning Strategy Optimization (beta = 0.181) and Career Guidance (beta = 0.176). This suggests that strengthening structural support systems effectively reduces environmental and systematic pressure, supporting H3, H3a, H3b, and H3c.

Table 7: Regression of Educational Counselling on Academic Stress Alleviation

Variable	B	Beta	t	p
Career Guidance	0.169	0.176	3.746	0.000
Learning Strategy Optimization	0.152	0.181	3.810	0.000
Home-School Collaboration	0.206	0.224	4.686	0.000

Adjusted R²=0.385

H4: Combined Effect

To evaluate the synergy of the interventions, a combined regression model was constructed (see Table 8). The results show that when counselling support and educational counselling are applied together, the model maintains high explanatory power (Adjusted R² = 0.899). In this integrated model, Counselling Support remains the dominant driver (beta = 0.875, p = 0.000), while Educational Counselling provides significant supplementary support (beta = 0.061, p = 0.010). This confirms that a combined intervention strategy is more systematic and comprehensive than either single approach, validating H4.

Table 8: Combined Regression Model

Variable	B	Beta	t	p
Counselling Support	0.776	0.875	37.034	0.000
Educational Counselling	0.084	0.061	2.581	0.010

Adjusted R²=0.899

H4 is supported.

CONCLUSION AND DISCUSSION

Research Conclusions

Through empirical analysis of 400 valid samples of vocational students, this study clarifies the influence of demographic factors, counselling support and educational counselling on alleviating academic stress. It verifies the advantage of a combined intervention. The main

conclusions are as follows: Demographic factors have selective effects on the alleviation of academic stress. Age, academic year and major category are significant influencing factors, while gender has no significant effect. Older students, higher-grade students, and arts/humanities students show greater stress-relief effects. Counselling support has a significant positive effect on alleviating academic stress, with extremely high explanatory power (Adjusted $R^2 = 0.908$). Cognitive restructuring presents the strongest effect, followed by stress coping training and social support network. Educational counselling also significantly alleviates academic stress, with home-school collaboration having the strongest effect, followed by learning strategy optimization and career guidance. The combined intervention of counselling support and educational counselling shows better effects than a single intervention, with counselling support playing a dominant role. The integrated model can provide a more systematic and comprehensive solution for relieving academic stress.

Theoretical Implications

Break through the limitations of single-factor intervention research. This study abandons the traditional single psychological or educational intervention model and constructs an integrated framework combining counselling support and educational counselling, thereby addressing the deficiency in existing research.

Enrich the theoretical system of academic stress alleviation. This study clarifies the differential effects of demographic factors and the contribution rates of different intervention dimensions, providing a more detailed theoretical basis for follow-up research.

Verify the effectiveness of the integrated intervention. The study confirms that the combination of psychological intervention and structural support can more effectively alleviate academic stress, expanding the research perspective on stress intervention.

Practical Implications

Provide differentiated interventions based on demographic characteristics. Schools should design targeted programs for students of different ages, grades and majors, strengthen adaptation guidance for lower grades and employment guidance for higher grades.

Strengthen the counselling support system. Priority should be given to promoting cognitive restructuring training, popularizing stress-coping skills, and improving social support networks to enhance psychological resilience. Optimize the educational counselling service system. Improve home-school collaboration mechanisms and strengthen guidance on learning strategies and career planning services to reduce structural pressure sources. Implement integrated intervention strategies. Schools should combine psychological counselling and educational support to form a systematic, multidimensional and sustainable stress relief service system.

Limitations of the Study

This study has yielded certain research results, but it still has some limitations. First, the cross-sectional design cannot establish causal relationships between variables. Second, the sample is limited to a single vocational school, which may limit the generalizability of the results. Third, the study relies on self-reported data, which may be subject to social desirability bias.

Recommendation for Future Research

Future research can adopt a longitudinal design to track the dynamic changes in academic stress and the effects of interventions. Expand the sample scope to include more regions and school

types to improve representativeness. Introduce additional mediating or moderating variables, such as resilience and family environment, to further strengthen the research framework. Conduct comparative studies across different educational stages to explore the universality of integrated intervention models.

REFERENCES

- Ashraf, M., Masroor, U., & Khan, M. J. (2020). Effectiveness of cognitive behavior therapy in reduction of academic stress and enhancement of academic performance in university students. *Pakistan Journal of Psychology*, 51(2).
- Beck, J. S. (1979). *Cognitive behavior therapy*. Guilford Press.
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98(2), 310–357. <https://doi.org/10.1037/0033-2909.98.2.310>
- Daulay, N., Harahap, A. C. P., & Sinaga, M. H. P. (2022). The role of guidance and counselling service in helping students with academic stress. *ProGCouns: Journal of Professionals in Guidance and Counselling*, 3(2), 78–86.
- Deci, E. L., & Ryan, R. M. (2016). Optimizing students' motivation in the era of testing and pressure. In W. C. Liu, J. C. K. Wang, & R. M. Ryan (Eds.), *Building autonomous learners: Perspectives from research and practice using self-determination theory* (pp. 9–29). Springer.
- Kushendar, K., & Maba, A. P. (2022). Peer counselling as a coping strategy for academic stress and burnout. *COUNS-EDU: The International Journal of Counseling and Education*, 7(4).
- Ogakwu, N. V., Ede, M. O., Nwajiuba, C. A., Ikechukwu-Ilomuanya, A. B., Agboeze, M. U., Ugwuanyi, C. S., Agu, P. U., & Otu, M. S. (2023). School-based intervention for academic stress management among technical education students. *Medicine*, 102(2), e32547. <https://doi.org/10.1097/MD.00000000000032547>
- Putwain, D. (2007). Researching academic stress and anxiety in students: Some methodological considerations. *British Educational Research Journal*, 33(2), 207–219. <https://doi.org/10.1080/01411920601125633>
- Wilks, S. E. (2008). Resilience amid academic stress: The moderating impact of social support among social work students. *Advances in Social Work*, 9(2), 106–125. <https://doi.org/10.18060/51>
- Zou, Y., Wang, Y., Liu, P., Jiao, G., Wang, M., Wang, W., Li, J., Zhu, B., Zhou, Z., & Sun, C. (2017). Association of chronic academic stress with telomere length among adolescents. *Oncotarget*, 8(7), 10836–10846. <https://doi.org/10.18632/oncotarget.14464>