

A Study of Mental Health Strategies Affecting Students at Vocational Colleges in Hubei Province

Wang Kangqi ¹, Sutthiporn Boonsong^{2*}, Benjarat Ratchawang³
Education Faculty, Pathumthani University ^{1, 2*, 3}
Corresponding author's e-mail: benjara.rt@ptu.ac.th

Abstract

This study investigates mental health management strategies and their influence on students' mental health in vocational colleges in Hubei Province. The study focuses on examining the level of students' mental health, analyzing institutional mental health management strategies, and exploring the relationship between these strategies and students' psychological well-being. A quantitative correlational research design was employed. The population consisted of vocational college students in Hubei Province, and a sample of 400 students was selected using probability sampling techniques.

The research instrument was a structured questionnaire covering mental health management strategies and students' mental health dimensions. Data were analyzed using descriptive statistics, including frequency, percentage, mean, and standard deviation, as well as inferential statistics such as t-test, one-way ANOVA, Pearson correlation, and multiple regression analysis.

The findings revealed that both mental health management strategies and students' mental health were at a high level. Among the management strategy dimensions, practice was identified as the strongest predictor of students' mental health, followed by changing, process, and organizing. Significant differences in students' mental health were found based on gender, age, and academic level. The results also confirmed significant positive relationships between mental health management strategies and students' mental health. The study concludes that effective institutional strategies play a crucial role in promoting psychological well-being among vocational college students.

Keywords: Mental Health Management, Vocational Education, Hubei Province, Student Wellbeing, Institutional Strategy

Introduction

In recent years, the mental health of vocational college students has become an increasingly significant concern within Chinese educational policy and global public health discourse. The World Health Organization (2022) emphasizes that institutional environments play a critical role in shaping young adults' psychological wellbeing, particularly in transitional educational stages. Vocational students often encounter unique stressors, including employment uncertainty, financial pressure, academic workload, and perceived social stigma, all of which may contribute to anxiety and depressive symptoms (Li & Wang, 2020; Wang & Chen, 2021; Zhang & Liu, 2020).

Empirical studies indicate that vocational students may experience higher levels of employment-related anxiety compared to students in traditional academic tracks (Gao & Lin, 2022). Additionally, financial stress and limited family resources have been significantly associated with reduced psychological wellbeing among vocational populations (Wang & Chen, 2021). These structural and socio-economic factors highlight the necessity of institutional mental health management strategies that go beyond reactive counseling and instead adopt systematic preventive frameworks.

Institutional management has been increasingly recognized as a determinant of student mental health outcomes. Leadership practices, resource allocation, and coordinated support systems directly influence the accessibility and effectiveness of psychological services (Nguyen, 2021). Moreover, research suggests that teacher support, peer mentoring programs, and extracurricular engagement significantly contribute to emotional stability and resilience among vocational students (Rahman & Sulaiman, 2021; Smith & Brown, 2021; Zhou & Huang, 2021).

Intervention-based studies further demonstrate that structured counseling services, resilience training, mindfulness programs, and digital counseling platforms positively impact students' mental health indicators (Chen & Xu, 2020; Kim & Lee, 2021; Wang et al., 2022). These findings suggest that institutional "Practice" elements may exert stronger influence on wellbeing than formal policies alone.

Therefore, this study examines five operational dimensions of mental health management Process, Organizing, Resourcing, Practice, and Changing to determine how institutional strategies influence students' mental health outcomes in vocational colleges in Hubei Province. By grounding the analysis in both management theory and empirical mental health research, this study aims to strengthen evidence-based policy recommendations for vocational education.

Research Methodology

This study employed a quantitative correlational research design to examine the relationship between mental health management strategies and students' mental health.

Population and Sample

The target population consisted of vocational college students enrolled in three public vocational colleges in Hubei Province, China, during the academic year 2023–2024, with an estimated total population of 4,500 students across institutions. A sample of 400 students was selected using stratified random sampling to ensure proportional representation across gender, age groups, and academic levels (Year 1, Year 2, and Year 3). The minimum required sample size was calculated using Taro Yamane's formula at a 95% confidence level and a margin of error of 5%, yielding a minimum of 369 respondents. To account for potential incomplete responses, 420 questionnaires were distributed, of which 400 were returned complete and valid, yielding a response rate of 95.2%.

Research Variables

1. Independent Variable: Mental health management strategies (organizing, process, changing, practice)
2. Dependent Variable: Students' mental health

Research Instrument

A structured questionnaire was used as the main research instrument. The questionnaire consisted of two main sections:

1. Demographic information (gender, age, academic level)
2. Mental health management strategies and mental health measurement, rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree)

The questionnaire was developed based on the theoretical framework of mental health management proposed by Nguyen (2021) and adapted from established mental health assessment tools used in East Asian vocational education contexts. Section 1 comprised 5 demographic items. Section 2 comprised 50 items measuring five dimensions of mental health management strategies (Process, Organizing, Resourcing, Practice, and Changing; 10 items

each) and 20 items measuring students' mental health across four sub-dimensions (emotional wellbeing, psychological functioning, social relationships, and stress coping).

Content validity was assessed through expert evaluation by five specialists in educational psychology, mental health counseling, and vocational education management. The Item-Objective Congruence (IOC) index was computed for each item; all items scored between 0.60 and 1.00, with items scoring below 0.50 removed or revised accordingly. Reliability was established through a pilot study with 30 students (not included in the main sample), yielding an overall Cronbach's alpha coefficient of 0.92 for the management strategy scale and 0.89 for the mental health scale, both exceeding the acceptable threshold of 0.70 (Hair et al., 2010), confirming strong internal consistency.

Data Collection

Data were collected over an eight-week period (October–November 2023) through self-administered questionnaire distribution conducted in classrooms at the three participating institutions, following prior coordination with college administrators and department heads. Participants were briefed on the purpose of the study before completing the questionnaire. Ethical considerations were strictly observed: participation was entirely voluntary, written informed consent was obtained from all respondents, anonymity and confidentiality of responses were guaranteed, and no personally identifiable information was recorded. Completed questionnaires were collected on-site to maximize the return rate.

Data Analysis

All data were coded and entered into SPSS Version 26.0 for analysis. The following statistical procedures were applied:

- Descriptive statistics (frequency, percentage, mean, S.D.) to describe the distribution of demographic variables and summarize the level of mental health management strategies and students' mental health across all dimensions
- Independent samples t-test and one-way ANOVA to examine statistically significant differences in students' mental health by gender, age group, and academic level (significance level $\alpha = .05$); post-hoc comparisons were performed using Scheffe's test where ANOVA results were significant
- Pearson product-moment correlation to assess the direction and strength of relationships between each dimension of mental health management strategies and students' mental health
- Stepwise multiple regression analysis to identify the relative contribution and predictive power of each management strategy dimension on students' mental health, with variance inflation factor (VIF) checked to confirm absence of multicollinearity

Results

The findings are presented according to the five research objectives. Descriptive and inferential statistics are reported for each theme, with mean scores interpreted using a 5-point scale: 1.00–1.80 = very low; 1.81–2.60 = low; 2.61–3.40 = moderate; 3.41–4.20 = high; 4.21–5.00 = very high

Theme 1: High Level of Mental Health and Management Strategies

The results indicate that both students' mental health and institutional management strategies were rated at a high level overall. The overall mean score for mental health management strategies was $\bar{X} = 3.89$ (S.D. = 0.61), and students' overall mental health mean score was $\bar{X} = 3.74$ (S.D. = 0.58), both classified as "High" on the five-point interpretation scale. Among management strategy dimensions, Practice recorded the highest mean ($\bar{X} = 4.02$,

S.D. = 0.57), followed by Changing ($\bar{X} = 3.95$, S.D. = 0.60), Process ($\bar{X} = 3.82$, S.D. = 0.63), and Organizing ($\bar{X} = 3.77$, S.D. = 0.65). This suggests that vocational colleges in Hubei Province have established relatively effective systems to support students' psychological well-being, with practical implementation activities being perceived as most effective by students.

Theme 2: Practice as the Strongest Predictor

Stepwise multiple regression analysis revealed that all four management strategy dimensions were significant predictors of students' mental health ($F(4, 395) = 47.83$, $p < .001$), collectively explaining 32.7% of the variance ($R^2 = .327$, Adjusted $R^2 = .320$). Among the dimensions, **Practice** was identified as the strongest predictor ($\beta = .38$, $t = 8.12$, $p < .001$), followed by Changing ($\beta = .27$, $t = 5.63$, $p < .001$), Process ($\beta = .19$, $t = 4.01$, $p < .001$), and Organizing ($\beta = .14$, $t = 2.98$, $p = .003$). No multicollinearity issues were detected (all VIF values < 3.0). These findings indicate that the practical implementation of mental health programs, including counseling sessions, resilience workshops, and peer support activities, has the most measurable impact on student psychological well-being compared to structural or planning dimensions alone.

Theme 3: Positive Relationships between Strategies and Mental Health

Pearson product-moment correlation analysis confirmed significant positive relationships between all five dimensions of mental health management strategies and students' mental health. The overall management strategy composite score showed a strong positive correlation with students' mental health ($r = .57$, $p < .001$). At the dimension level, Practice showed the strongest correlation ($r = .54$, $p < .001$), followed by Changing ($r = .49$, $p < .001$), Resourcing ($r = .45$, $p < .001$), Process ($r = .42$, $p < .001$), and Organizing ($r = .38$, $p < .001$). All correlations were statistically significant at the .001 level, confirming that more robust institutional mental health management strategies are consistently associated with higher levels of student psychological well-being.

Theme 4: Significant Differences Based on Demographic Factors

Significant differences in students' mental health were found across all three demographic variables examined. Regarding gender, female students reported significantly higher mental health scores than male students ($t(398) = 3.47$, $p = .001$, Cohen's $d = 0.35$), suggesting that female students may benefit more from existing institutional support programs or may be more willing to engage with them. One-way ANOVA revealed significant differences in mental health scores by age group ($F(2, 397) = 6.82$, $p = .001$, $\eta^2 = .033$); Scheffe's post-hoc test indicated that students aged 20 years and above reported significantly better mental health than those aged 17–18 years ($p = .004$), possibly reflecting increased adaptive coping capacity with age and academic experience. Significant differences were also found by academic level ($F(2, 397) = 9.14$, $p < .001$, $\eta^2 = .044$), with third-year students demonstrating significantly higher mental health scores than first-year students ($p < .001$), suggesting that longer institutional exposure may strengthen access to and utilization of mental health support services.

Theme 5: Importance of Systematic Institutional Support

The descriptive results across all five management dimensions—Process ($\bar{X} = 3.82$, S.D. = 0.63), Organizing ($\bar{X} = 3.77$, S.D. = 0.65), Resourcing ($\bar{X} = 3.85$, S.D. = 0.59), Practice ($\bar{X} = 4.02$, S.D. = 0.57), and Changing ($\bar{X} = 3.95$, S.D. = 0.60)—were all rated at the “High” level. Notably, no single dimension scored at a “Very High” level, suggesting room for further improvement across all strategic areas. The regression findings further reinforce that mental

health outcomes cannot be attributed to any single organizational factor; rather, all dimensions contribute uniquely to student wellbeing. These results underscore the necessity of a systems-level approach in which organized structures, clearly defined processes, adequate resource allocation, consistent practical implementation, and adaptive policy refinement function in concert to sustain and improve student psychological health.

Discussion and conclusions

The findings of this study reinforce the growing body of literature emphasizing the institutional responsibility for student mental health promotion (World Health Organization, 2022). The overall high level of reported mental health suggests that vocational colleges in Hubei Province have implemented supportive frameworks consistent with national and international recommendations.

Most notably, the dominance of “Practice” as the strongest predictor aligns with intervention-based research demonstrating that tangible services such as counseling programs, resilience training, and mindfulness workshops produce measurable improvements in psychological wellbeing (Chen & Xu, 2020; Kim & Lee, 2021). Similarly, digital counseling platforms have been shown to expand accessibility and reduce stigma among vocational students (Wang et al., 2022), reinforcing the importance of operational implementation over symbolic policy formulation.

The significant role of the “Changing” dimension further supports management research indicating that institutional adaptability enhances organizational effectiveness in addressing evolving student needs (Nguyen, 2021). In rapidly changing socio-economic contexts, vocational students face dynamic pressures related to employment markets and social expectations (Gao & Lin, 2022). Therefore, institutions that regularly update mental health strategies demonstrate greater alignment with students’ lived realities.

The positive correlations across all five management dimensions confirm that mental health support must be systemic rather than fragmented. Teacher support systems and peer mentoring initiatives, identified in previous studies as protective factors for emotional stability (Smith & Brown, 2021; Zhou & Huang, 2021), are most effective when embedded within coordinated institutional structures. Likewise, extracurricular participation and family engagement have been associated with improved mental health outcomes (Rahman & Sulaiman, 2021; Zhao & Sun, 2021), suggesting that multi-layered intervention models are necessary.

These findings collectively suggest that student mental health is not merely an individual psychological issue but an organizational outcome shaped by leadership, resource allocation, and continuous policy refinement. Consistent with resilience and recovery frameworks in mental health systems (Anthony, 1993; Bellack, 2006), institutions that prioritize active implementation and adaptive management create environments conducive to long-term student wellbeing.

In conclusion, this study confirms that vocational colleges can significantly enhance students’ mental health through systematic and dynamic management strategies. While policy structures provide foundational direction, it is the consistent practice of counseling, adaptive policy change, and coordinated support networks that produce the strongest measurable impact. Strengthening institutional agility and ensuring sustained resource commitment will be essential for maintaining and further improving mental health outcomes among vocational students.

Suggestion

1. Recommendations for Practice and Institutional Management:

Prioritize Practical Intervention: Vocational colleges should move beyond theoretical policy-making and focus on increasing the frequency and accessibility of mental health practices. This includes organizing regular stress-reduction workshops, mindfulness training, and ensuring that counseling services are visible and non-stigmatized.

Agile Policy Adaptation: Administration teams should implement a "Continuous Feedback Loop" where student feedback is used to regularly update and "change" mental health strategies. This ensures that support programs remain relevant to the specific challenges faced by different cohorts of students.

Strengthen Peer Support Networks: Given the high impact of practical activities, establishing peer support or "Mental Health Ambassador" programs can provide an immediate and less formal layer of support that complements professional counseling.

Inter-departmental Cooperation: Management should improve the "Organizing" dimension by fostering closer cooperation between academic teachers and professional counselors. Teachers, who interact with students daily, should be trained to identify early signs of distress and refer students to appropriate services.

2. Recommendations for Future Research:

Qualitative Exploration: Future research should utilize qualitative methods, such as in-depth interviews with students who have utilized mental health services, to understand the specific "Practice" elements they found most helpful.

Comparative Studies: A comparative study between vocational colleges in Hubei and other provinces, or between vocational and traditional academic universities, could reveal how different institutional cultures affect the efficacy of mental health management.

Impact of Digital Health Tools: Given the technological trends in China, future studies should investigate the role of mobile apps and online counseling platforms as part of the "Resourcing" and "Practice" dimensions in vocational education.

Longitudinal Studies: Research tracking the mental health of students from their first year through graduation would provide insights into how institutional strategies impact long-term resilience and career transition success.

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