ADDRESSING THE MENTAL HEALTH CRISIS IN CHINESE HIGHER VOCATIONAL COLLEGES: A SYSTEMATIC REVIEW AND FRAMEWORK FOR SERVICE QUALITY ASSESSMENT

Jie Wei¹, Thada Siththada ¹ and Suttipong Boonphadung ¹ ¹Graduate school, Suan Sunandha Rajabhat University, Thailand; s65584951037@ssru.ac.th; thada.si@ssru.ac.th; suttipong.bo@ssru.ac.th

ARTICLE HISTORY

Received: 9 July 2025 **Revised:** 17 July 2025 **Accepted:** 23 July 2025

Abstract

This systematic literature review synthesizes research on mental health services in Chinese higher vocational colleges, addressing the specific research question: what are the key challenges in delivering effective mental health services to students? The review employed a comprehensive methodology, searching databases with specific inclusion and exclusion criteria to gather relevant studies. Key findings highlight issues such as inadequate service coverage, accessibility challenges, inconsistent service quality, and cultural barriers that impede effective mental health support. The review contributes a novel framework for assessing service quality through the lens of ecological systems theory and the job demands-resources model, identifying essential dimensions such as accessibility, counselor competence, and support level. Ultimately, this study aims to provide actionable recommendations for enhancing mental health service delivery and supporting policy implementation aligned with national goals like 'Healthy China 2030.

Keywords: Mental Health, Mental Health Services, Higher Vocational Colleges, Quality of Mental Health Services, Student Wellbeing, Henan Province

CITATION INFORMATION: W, Jie., Siththada, T., & Bongphadung, S. (2025). Addressing The Mental Health Crisis in Chinese Higher Vocational Colleges: A Systematic Review and Framework for Service Quality Assessment. *Procedia of Multidisciplinary Research*, *3* (7), 107.

Introduction

The accelerating socio-economic development in China and profound changes in the educational environment have led to increasingly complex psychological adaptation challenges for young students. Mental health, thus, has emerged as a pressing issue in both public health and educational governance. In the context of higher vocational education, students are particularly vulnerable to mental health fluctuations due to diverse backgrounds, practice-oriented curricula, and significant employment pressures. According to the China National Mental Health Development Report (2019-2020), the percentage of college students experiencing anxiety, depression, and other emotional disorders continues to rise. This trend is exacerbated in the post-pandemic era, highlighting the urgent need for an effective mental health service system.

This paper addresses the critical need for improved mental health services in Chinese higher vocational colleges. Through a systematic review of existing literature, we seek to answer the following questions:

- 1. What are the key challenges facing mental health service provision in this context?
- 2. What theoretical frameworks are most relevant for understanding and addressing these challenges?
- 3. What are the gaps in the current research landscape, and what directions should future research take?

The review is structured as follows: First, we will explore the existing challenges to mental health service delivery, including service coverage, accessibility issues, and cultural barriers. Next, we will discuss relevant theoretical frameworks, namely ecological systems theory and the job demands-resources model, which provide insights into the dynamics of mental health in this educational setting. Subsequently, we will identify gaps in the current research that need to be addressed for the effective implementation of mental health services. Finally, we will propose a comprehensive framework to enhance service delivery and support the overall well-being of students, facilitating alignment with national objectives like 'Healthy China 2030.'

Research Methods

The methodology for this systematic literature review involved a comprehensive search strategy utilizing multiple academic databases, including Web of Science, Scopus, and CNKI, to ensure a broad coverage of relevant literature. Search terms employed encompassed "mental health services," "higher vocational colleges," "China," and related keywords, combined using Boolean operators for precision. Inclusion criteria specified studies published between 2010 and 2023 that focused on mental health services within Chinese higher vocational colleges, while exclusion criteria ruled out non-peer-reviewed articles and studies not available in English or Chinese. The study selection process entailed an initial title and abstract screening, followed by a full-text review to confirm eligibility. Data extraction was conducted using a standardized form collecting key information such as study design, sample size, and main findings. For quality assessment, a standardized quality assessment tool was employed to evaluate the methodological rigor and reliability of the included studies, ensuring the validity of the review's findings.

Theoretical Foundation

1. Ecological Systems Theory

Bronfenbrenner's ecological theory divides environmental systems into four levels: microsystems (family, school), mesosystems (inter-system connections), ecosystems (social

structures), and macrosystems (cultural values) (Bronfenbrenner, 1979). Recent studies show that 68% of the variance in mental health problems among vocational college students can be explained by the interaction of these systems (Wang et al., 2022). At the microsystem level, family dysfunction (e.g., conflict frequency, $\beta = 0.32$, p < 0.01) and lack of teacher support ($\beta = -0.41$, p < 0.001) have the strongest predictive power for psychological symptoms (Li et al., 2023). At the meso-system level, the quality of home-school collaboration can buffer the effects of family risk factors (OR = 0.57, 95% CI [0.42, 0.78]), but surveys indicate that only 29% of vocational colleges have established regular home-school communication mechanisms (Chen et al., 2021). New changes in the digital age are reflected in: social media use (external system) influencing depressive symptoms through the mediating effect of 'upward social comparison' (indirect effect = 0.15, SE = 0.03), with this effect being 37% higher among vocational college students than among general university students (Zhang et al., 2023). At the macro-system level, vocational education stigma is negatively correlated with attitudes toward seeking psychological help (r = -0.26, p < 0.01) and moderates the effect of professional satisfaction on mental health ($\Delta R^2 = 0.04$, p < 0.05) (Zhou et al., 2022).

2. Job Demands-Resources Model

The JD-R model was originally developed to explain the dynamics of stress and motivation in occupational settings, but its framework is applicable to educational contexts. In this model, 'external resources' refer to supportive conditions provided by external sources that can buffer the effects of stressors and promote positive psychological states. In higher education settings, mental health services (such as counselling, group interventions, and mental health education) are considered key external resources that operate through two mechanisms: first, by providing instrumental support (such as stress management strategies) to directly reduce the negative effects of academic or social stress; second, by offering emotional support (such as empathetic listening) to enhance students' psychological resilience (Lipson et al., 2022). For example, a study of university students found that those who regularly participated in counselling had significantly lower cortisol levels when facing academic stress compared to non-participants (Smith et al., 2021). Additionally, digital mental health services (such as online cognitive behavioral therapy) further lower the barriers to seeking help through their immediacy and anonymity, making them an indispensable regulatory resource in modern educational environments (Lattie et al., 2023).

3. Service Quality Theory (SERVQUAL Model)

The SERVQUAL model was originally proposed by Parasuraman et al. (1988) to assess five key dimensions of service quality: tangibles, reliability, responsiveness, assurance, and empathy. In recent years, this model has been widely applied in the field of mental health services to help evaluate and optimize service provision (Karyotaki et al., 2021). In the context of mental health services: Tangibles refer to the comfort and privacy of the service environment and the usability of digital tools (e.g., the user-friendliness of online counselling platforms) (Andersson et al., 2022); Reliability emphasizes the professionalism of service providers (e.g., counsellors) and the scientific validity of intervention programs (Cuijpers et al., 2023); Responsiveness is reflected in service accessibility (e.g., appointment waiting times) and the timeliness of crisis intervention (Rith-Najarian et al., 2021); Assurance involves the certification and ethical compliance of service providers (Barnett & Kolmes, 2023); Empathy focuses on counsellors' listening skills and cultural sensitivity (Sue et al., 2022). Empirical research indicates that these five dimensions can effectively predict the utilization rate and user satisfaction of mental health services (Garcia et al., 2023).

Ecosystem theory, the job demands-resources model, and the SERVQUAL model form the theoretical basis for analyzing the quality of mental health services in Chinese higher vocational colleges. Ecosystem theory emphasizes that individual mental health is influenced by multi-level environmental factors, including family, school, and society, thus providing a comprehensive perspective for understanding students' mental health problems. However, this theory may pay less attention to the specific operational details of service delivery, so combining it with the job demands-resources model can compensate for this shortcoming. This model focuses on how to alleviate students' stress through the provision of external resources (such as counselling services) while enhancing their psychological resilience. This is crucial for understanding the dynamic role of mental health services in an educational context. The SERVQUAL model provides a practical framework for assessing service quality, emphasizing five key dimensions: reliability, responsiveness, assurance, empathy, and tangibility. However, this model may not fully capture the unique cultural and contextual factors influencing the delivery of mental health services in Chinese higher vocational colleges. Therefore, we integrate the SERVQUAL model with ecosystem theory and the work demand-resource model to enhance cultural sensitivity and the comprehensiveness of the analysis. Such integration not only helps to better understand the structure and dynamics of mental health service quality but also provides an assessment tool suitable for the specific Chinese context, thereby promoting the optimization of mental health services.

Definition of terms

To ensure the clarity of the theory and the practicality of the research, the core concepts related to the quality of mental health services have been clearly defined and explained.

1. Mental Health

Mental health refers to an individual's good state of well-being in terms of emotions, cognition, behavior, and social adaptation. According to the World Health Organization (WHO, 2021), mental health is not merely the absence of mental disorders but also includes an individual's ability to effectively cope with stress, establish good relationships with others, and realize their potential in daily life. In this study, mental health encompasses dimensions such as emotional health, psychological adaptability, well-being, and academic performance.

2. Mental Health Services

Mental health services refer to a range of services provided to promote individual mental health and prevent and intervene in mental health problems. These services include psychological counselling, psychological guidance, emotional regulation training, stress management courses, etc. Mental health services aim to help students cope with academic, life and emotional distress through professional intervention methods, thereby improving their psychological resilience and adaptability.

3. Quality of Mental Health Services

The quality of mental health services refers to the extent to which service providers meet the needs and expectations of service users in the design, implementation, and delivery of services. According to the SERVQUAL model, service quality can be assessed from multiple dimensions, including reliability, responsiveness, assurance, communication, and personalization.

4. Higher Vocational Colleges

Higher vocational colleges are higher education institutions that primarily provide vocational education at the associate degree level. Their primary objective is to cultivate composite technical and skilled talents with practical skills and professional capabilities. Their academic

programmers typically last two to three years, with course offerings emphasizing the integration of theory and practice to meet the specific needs of society and industry. The objective of vocational colleges is to help students acquire professional skills and enhance their employability through vocational education, while also addressing students' mental health and the quality of mental health services to promote their comprehensive development and social adaptability.

Related research

International Research

In recent years, foreign research on the mental health of students at the higher education level has continued to deepen, focusing not only on the current situation of mental health levels, but also emphasizing the role of service models and technological means in promoting the effectiveness of psychological interventions. Developed countries have jointly promoted the optimization and innovation of mental health support mechanisms through comprehensive policies, institutional safeguards, school service systems and technological platforms.

In terms of service models, U.S. universities generally adopt School-Based Mental Health Services (SBMHS), a campus-centered mental health service model that emphasizes a three-tiered response structure of prevention-identification-intervention. Service formats include one-on-one counselling, group counselling, mental health education courses, and teacher collaboration mechanisms, with coverage rates generally exceeding 70%. Eisenberg et al. found that the higher the frequency of college students' participation in counselling and group activities, the higher their psychological resilience, sense of belonging, and well-being indicators.

The UK's SBMHS emphasizes public-private partnerships, with the NHS system providing each university with a mental health therapist through its school mental health services subproject, and implementing individual case management and continuous follow-up. Australia emphasizes a tiered intervention strategy (universal–selective–indicated), matching students of different risk levels with appropriate service resources and technical pathways (Beyond, 2020). The German psychological service system emphasizes community-embedded services, promotes the 'day rehabilitation center + campus counselling + digital platform' linkage mechanism, and provides counselling subsidies and medical insurance reimbursement systems at the policy level. This model enables students to receive community-level intervention at an early stage when psychological problems arise, thereby preventing the problem from worsening.

Domestic Research

With the advancement of the national 'Healthy China 2030' strategy, mental health has gradually become an important issue in the governance of China's education system. Especially in higher vocational colleges, with the increasing complexity of student demographics, intensifying employment pressure, and rising social attention, student mental health levels and the construction of service systems have become important directions for university management and research. Domestically, initial progress has been made in theoretical frameworks, measurement tools, intervention mechanisms, and technical approaches, particularly in terms of cultural adaptability, policy-driven initiatives, and the development of locally tailored models.

Henan, as a major province in vocational education, has also developed certain regional characteristics in mental health research. Some vocational colleges have attempted to establish a 'whole-heart' education service model, integrating mental health education, psychological

assessment, and life guidance into a unified system. This model emphasizes a collaborative approach involving the Student Affairs Office, the Youth League Committee, and parents, and leverages digital platforms to enhance tracking, feedback, and early identification capabilities. However, there is still room for improvement in standardization, assessment models, and talent development.

In summary, a review of domestic and international research on the mental health levels of vocational and higher education students and their service systems reveals that, despite significant differences in background, culture, and educational systems, there are comparable and complementary characteristics in terms of research subject selection, service model construction, intervention methods, and the application of assessment tools, providing important insights and reference pathways for this study. Overseas research places greater emphasis on the positive dimensions of mental health, incorporating variables such as subjective well-being and psychological capital, and focusing on the relationship between students' self-development and social functioning. In contrast, domestic research has traditionally focused on symptomatic indicators but is gradually shifting towards positive psychology, beginning to focus on the development of psychological capital and well-being. In terms of service models, overseas universities have generally established a three-tier intervention mechanism, emphasizing collaboration between on-campus and off-campus resources, while domestic institutions place greater emphasis on resource allocation and institutional design, gradually developing an integrated service logic. In terms of intervention methods and technical pathways, foreign countries have widely adopted information and digital tools to enhance service accessibility, while domestic institutions are rapidly catching up, particularly among vocational college students, where digital services have high acceptance rates. Overall, foreign countries have systematic advantages in institutionalization, technological integration, and theoretical construction, while domestic institutions are more targeted in terms of cultural adaptability and practical implementation. This study aims to integrate the achievements of both to establish a mental health service model tailored to vocational college students in Henan Province, thereby promoting the scientific development of mental health services in regional vocational education.

Key challenges

1. Insufficient Number and Qualification of Professional Staff

In recent years, mental health education in higher vocational colleges in China has faced a serious shortage of qualified personnel. A national survey conducted in 42 vocational colleges revealed that only 78 out of 177 mental health teachers (44.1%) held a background in psychology, while the rest came from political education or student affairs backgrounds (Mo et al., 2024). Similarly, Zhang (2023) noted that most vocational institutions rely heavily on part-time teachers with little systematic training to undertake teaching and counseling tasks. Overall, the number of teachers with formal psychology education and relevant professional certifications remains insufficient.

2. Uneven Resource Allocation and Weak Platform Operation

Mental health education resources in vocational colleges are unevenly distributed. Research indicates that approximately 30.5% of vocational colleges have two or fewer full-time mental health educators, with rural and peri-urban institutions facing particularly severe shortages. Although some schools introduced online psychological screening tools during the COVID-19 pandemic, lack of sustained maintenance and professional oversight resulted in low usage

among students. This reflects a broader issue of insufficient technical and resource investment, leading to weakened platform functionality (Mo et al., 2024).

3. Low Institutionalization of Crisis Intervention Mechanisms

Although many higher education institutions have established mental health crisis warning systems, few have implemented standardized and closed-loop intervention mechanisms. According to Li and Huang (2024), more than half of the surveyed colleges lacked clearly defined job descriptions and performance evaluation systems for full-time mental health educators, with the average weekly working hours for mental health services falling below three hours. Moreover, crisis responses in many institutions still rely on the individual experience of educators rather than systematic procedures, thereby limiting the effectiveness of interventions.

4. Lack of Student Trust and Low Willingness to Participate

Students' trust in and willingness to engage with campus mental health services remain relatively low. Research shows that although most students recognize the importance of mental health education, less than half of institutions have clearly defined the responsibilities of mental health teachers, leading to uncertainty among students about the system's functionality (Li & Huang, 2024). Wang (2022) found that a lack of professional competence among mental health teachers and resource deficiencies significantly undermines student trust in these services, ultimately discouraging their active participation.

Research gaps

Although research on mental health services for students in higher vocational colleges has gradually increased in recent years, there are still obvious gaps in research in several key areas. This study identifies the following specific problems and areas that have not been fully explored, which are important directions for follow-up research.

- 1.Insufficient Number and Capabilities of Professional Staff: The proportion of qualified mental health professionals in Chinese higher vocational colleges is low, often relying on part-time staff or untrained counselors, which impacts the quality of service and undermines student trust in mental health resources.
- 2.Uneven Distribution of Resources and Weakened Platform Operations: There are significant disparities in mental health service resources between institutions and urban-rural areas, with many schools lacking essential facilities and operational support. The deterioration of online platforms used during the pandemic has further decreased student participation due to poor user experience.
- 3.Low Institutionalization of Crisis Intervention Mechanisms: Although some colleges have established processes for early warning and crisis reporting, there is an overall deficiency in operational guidelines, training, and interdepartmental collaboration, leading to ineffective ad hoc responses to crises.
- 4.Lack of Student Trust and Willingness to Participate: The stigmatization of mental health issues in traditional culture leads to students being hesitant to seek help, with only about 30% expressing trust in campus mental health services and a mere 18% understanding how to access them.

Conclusion

Through a systematic literature review, this study thoroughly explores the current status and challenges of mental health services in Chinese higher vocational colleges, focusing on the increasingly serious mental health problems among students, especially the widespread

increase in anxiety and depression amid economic and educational reforms. The study shows that the current mental health service system has significant problems such as insufficient coverage, poor accessibility, inconsistent service quality, and socio-cultural barriers, and provides practical and feasible ways to implement policies. First, priority should be given to optimizing the allocation of mental health resources to narrow the gap between urban and rural areas and between schools, ensuring that every higher vocational college has access to the necessary mental health service support. Second, in response to the shortage of professionals, a systematic mental health talent training and continuing education mechanism should be established to improve the professionalism and reliability of counselling services. In addition, the establishment of a standardized assessment mechanism for the quality of mental health services should be promoted so that service providers can effectively track and provide feedback on students' needs and mental states. Finally, considering the stigmatization of mental health, mental health education and publicity should be strengthened to foster an open and supportive campus culture that encourages students to seek help proactively. The implementation of these measures will have a positive impact on improving the overall quality and effectiveness of mental health services for students.

Future research should focus on validating and deepening the service quality measurement model proposed in this study, exploring its applicability and effectiveness in different higher vocational college environments. At the same time, comparative studies of various service models should be prioritized to promote the comprehensive development of mental health services.

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Data Availability Statement: The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Conflicts of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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