Quantitative Analysis of Educational Techniques for Psychological Development in Vocational Students in China

Shuang Li[1], Thosporn Sangsawang[2,*], Narumom Thepnuan[3], Matee Pigultong[4], Sulaganya Punyayodhin[5], Kanokwan Darboth[6]

[1] *Vocational Education Division, Faculty of Technical Education, Rajamangala University of Technology Thanyaburi, Pathum Thani, 12110, Thailand*

[2,3,4] *Educational Technology and Communications Division, Faculty of Technical Education, Rajamangala University of Technology Thanyaburi, Pathum Thani, 12110, Thailand*

[5,6] *Department of Western Languages, Division, Faculty of Liberal Arts, Rajamangala University of Thanyaburi, Pathum Thani, 12110, Thailand*

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Abstract

The research of objective were to: 1) examines environment, educational system, teacher-student relationship, self-awareness, and other aspects affecting Chinese vocational school students' psychological quality., and 2) development Psychological Quality for Vocational School Students in China Model for address unique psychological challenges and foster personal development in vocational education. Populations and sampling group were stents tests 7,000 Zigong, Rong County, and Dujiangyan vocational and technical students. The questionnaires used a percentage-based scoring standard, with a score below 50 indicating "strongly disagree," 51 to 70 indicating "neutral," 71 to 90 indicating "moderately agree," and 91 to 100 indicating "strongly agree." Data processing affects Zigong, Rong County, and Dujiangyan Chinese vocational school students' mental health. Statistical percentage of students picking each option. Guttman half coefficient was .802 after Split-Half Method testing of the data, indicating good split-half reliability and internal consistency. The questionnaire reveals how survey questions, sample size, and data processing affect Chinese vocational school students' mental health. The questions asked Zigong, Rong County, and Dujiangyan vocational and technical school students about mental health. 4,768 people completed 6,458 surveys. After deleting 97 low-reliability questionnaires with similar answers to seven consecutive items, 4,671 were valid. The Countermeasure Developing Model in China enhances the psychological quality of vocational school students by implementing multi-level therapy, methodical mental health education, and a supportive learning environment.

Keywords: Psychological Quality; Vocational School Students in China; Improvement Strategies

1. Introduction

In recent years, China has placed a large emphasis on vocational education as a means of developing a trained labor force to support the country's rapid economic development. This is because vocational education plays a critical role in producing a skilled workforce. The mental health of students attending vocational schools, which are institutions that train students for specific vocations, is of the utmost significance. Vocational schools function as institutions that prepare students for specific careers. The level of psychological well-being and mental health that students in vocational schools possess can have a significant bearing on their academic success, readiness for the workforce, and general quality of life. The disparities in subjective well-being across genders, school types, and academic achievement levels. The study used questionnaires like the Satisfaction with Life Scale, the Scale of Positive and Negative Experience, and the Flourishing Scale to measure life satisfaction, emotional judgments, and self-perceived success. Results showed significant differences in academic achievement and subjective well-being among students, with the SPANE domain showing a significant difference. The findings highlight the importance of understanding and addressing subjective well-being in diverse contexts [1].

***Corresponding author: Thosporn Sangsawang (sthosporn@rmutt.ac.th)**
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Psychological quality is crucial for vocational students, but career uncertainty and academic pressure can negatively impact their psychological well-being, necessitating the development of effective countermeasures to promote positive psychological development. The psychological quality development of students in vocational schools in China has become a critical issue in current educational reform and development. Vocational schools focus on skill training and career preparation, but the psychological quality of students is an equally essential part of education. Psychological quality encompasses not only students' emotional, cognitive, and social abilities but also has a strong correlation with their vocational adaptability and future success. In recent years, with rapid socioeconomic changes and the growing importance of vocational education, the psychological pressures faced by vocational school students have also increased. Many students may encounter challenges and struggles related to self-identity, interpersonal relationships, and career direction choices. The study examines the relationship between vocational reconsideration dimensions and positive and negative outcomes of psychosocial functioning in Italian high school students. Results show a general association between vocational identity flexibility and negative psychosocial functioning. The study warns against excessive promotion of vocational flexibility among adolescents and encourages high schools to support students in their life design process [2].

Data science has been increasingly integrated into psychological research, particularly in the context of open science practices. Psychological Science has implemented open data and materials badges to promote transparency [3]. This shift aims to increase replicability and the availability of open data and materials [4]. However, challenges persist in the adoption of big data analytical techniques due to researchers' limited knowledge in this area [5]. Integrating psychological theories with data science has shown promise in predicting human behavior [6]. Despite these advancements, the field still faces challenges in replication and generalization, which are more common in physical sciences [7]. The integration of digital-traces data into psychological science has been proposed to enrich and overcome current research limitations [8]. The adoption of open science practices, including open data, has been increasing in psychology, with a focus on promoting transparency and reproducibility [9]. Overall, the integration of data science into psychological research has the potential to advance the field by promoting transparency, replicability, and the integration of digital-traces data.

The incorporation of data-driven interventions in psychological development can be enhanced by leveraging open science research priorities. In [10] utilizing social media as a tool for psychological insight [11], fostering an open science mindset [12], and embracing open science practices in health psychology and behavioral medicine. These references underscore the significance of utilizing open science, social media data, and an open science mindset to drive data-driven interventions for psychological development. The available references offer valuable insights into leveraging human-centered design for implementing modern psychological science [13], utilizing core processes for planning behavior change interventions [14], and best practices for digital interventions to improve engagement and adherence in chronic illness sufferers [15]. These sources provide data-driven approaches to evaluating intervention efficacy in psychological settings.

Therefore, actively focusing on and promoting the psychological quality development of vocational school students becomes vitally important. This requires a joint effort from schools, educational departments, and all sectors of society. By employing scientific educational methods, professional psychological counseling services, and a positive and healthy school culture, students can be assisted in developing healthy psychological qualities. This development enhances their resilience and adaptability, laying a solid foundation for their vocational career and overall life growth.

2. Literature Review

2.1. Career Technical Schools

The characteristics of vocational education in country and provide insights and suggestions for the development of vocational education in country. A comparative point of view, compare the development of vocational education in Europe, the United States, Canada, Russia, and other countries; in addition, compare the development of vocational education in other countries. Personnel training, project construction, teacher training, teaching practice, and other areas of the secondary vocational education in nation [16]. Theories of self-determination and career growth go hand in hand. Students in Chinese secondary vocational school and the relationship between their parents' support and their academic participation. The application of career building theory to a group of students enrolled in secondary

vocational education in China, as well as providing insightful and helpful recommendations for the implementation of assistance measures. For the purpose of fostering students' intellectual growth and professional development [17].

2.2. Correlative Research on Students' Psychological Quality in China

The article "Current Situation of College Students' Psychological Quality and Its Relationship with Mental Health, Social Adaptation, and Academic Development" [18] selects a large representative sample of college students across the country to investigate the status quo of their psychological quality. The study aims to analyze and summarize the impact of psychological quality on students' physical and mental health, academic development, and social adaptation.

2.3. Improving the Psychological Quality of Vocational School Students

In the paper titled "Research on Psychological Issues of Secondary Vocational School Students," the psychological problems of secondary vocational school students are classified into several categories, including learning psychology, emotional psychology, personality psychology, self-psychology, interpersonal psychology, sexual psychology, and career psychology. The authors believe that factors influencing students' psychological quality stem from students themselves, families, schools, and society. Consequently, improvements in the psychological quality of secondary vocational school students can be addressed from these perspectives [19].

2.4. The Path to Realize the Mental Health Development of Secondary Vocational School Students

Shen Xiaoqin's study titled "Vocational School Students' Psychological Status Quo and Educational Countermeasure Exploration" employed the Middle School Students' Psychological Quality Scale (MSMQS) to conduct questionnaire testing and investigate students' psychological quality. The author put forward three suggestions: strengthening the construction of rules and regulations to ensure the standardization of students' mental health education and optimizing the mental health education team [20]. In Li Shumin's work titled "Strategies for Improving the Psychological Quality of Vocational School Students," countermeasures for enhancing the psychological quality of vocational school students are summarized. These countermeasures include deepening education and teaching reforms to pay attention to student's mental health, improving teachers' psychological quality, and strengthening the construction of school culture to provide a conducive environment for enhancing students' psychological quality [21]. Overall, while numerous domestic studies have been conducted on the psychological quality of college students, research on vocational school students remains limited. Most existing studies tend to be too conceptual, lacking specific and feasible improvement measures. Therefore, this study focuses on the investigation and analysis of specific schools to address the psychological problems and characteristics of vocational school students and proposes practical improvement measures, aiming to provide valuable insights for enhancing the psychological quality of vocational school students in China.

2.5. Analysis of the Psychological Quality of Chinese Vocational School Students

In the analysis of the psychological quality of Chinese vocational school students and the research on enhancement strategies, some studies have shown a relationship between students' academic performance, self-efficacy, and their positive attitude toward learning. Firstly, the development of vocational education has garnered attention from all sectors of society, and China's vocational education is gradually progressing [22]. In 2022, the Chinese government passed an amendment to the Vocational Education Act, emphasizing the importance of vocational education to China's contributions to global economic and social development. The amendment focuses on the cultivation of quality and student development in vocational education. Studies in Western societies, such as Germany, Greece, Italy, Croatia, Austria, and other countries, have shown that students' academic performance in secondary vocational education is often relatively weak [23] [24]. Studies in China have yielded similar results [25] [26].

Regarding the influencing factors of students' academic performance in secondary vocational education, most existing studies have focused on the influence of family socioeconomic status [25] and parents' educational level [26]. Less attention has been paid to social-psychological environmental factors. Secondly, self-efficacy in learning is also an important indicator of psychological quality. In a study in Shandong Province, it was found that 25.3% of vocational students have high self-efficacy in learning, 72.7% are moderate, and 2.0% are low [27]. Improving students' self-efficacy in learning is an effective improvement strategy, as it can enhance students' learning motivation and improve their academic performance. Lastly, the reform of educational models is an important way to improve students'

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psychological quality. With the Chinese government's emphasis on vocational education, more and more policies and measures are being introduced to accelerate the development of vocational education [28]. However, the social recognition of vocational education is still low. Therefore, reforming and innovating the education model and improving the quality and social recognition of vocational education will help enhance the psychological quality of vocational school students.

3. Method

A number of writings dealing with the methodology of focus groups mention factors of varying scope that influence the outcome of focus groups, but they do not discuss these in connection with the analysis [29] [30] [31]. They stress that attention should be paid to these factors when organizing focus groups because if groups having different basic characteristics are created, the results will also differ. This method is commonly used in market research, social sciences, and many other fields. However, it does have some limitations and challenges, one of which is that the views of the participants may influence each other. An important group of phenomena seen in the approach of mainstream social psychology are the forms of social influence occurring in the course of interactions among people when they influence each other's real or openly declared opinions [32]. Several types of this influence can be distinguished: conformity, when the majority of the group exercises influence on the individual [33] [34]; minority influence, when the influence is exercised by a minority [35]; and the case where one individual influences another [32] [36] [37]. The article employs the focus group method, conducting four rounds of discussion on the views of 9 experts. Scores were assigned for the opinions in each round, and the final results were verified to have a certain degree of credibility.

3.1. Research Focus

The focus study method was employed to research the analysis of psychological quality and improvement strategies for students in Chinese vocational schools. During the research process, key factors and views impacting students' psychological quality were extracted through methods such as focus group discussions and expert consultations. The research emphasized individual factors, the educational environment, and social factors. Focus group discussions involved the participation of nine key school educators and psychological experts to explore factors affecting students' psychological quality collectively. Following the discussions, a range of viewpoints and suggestions were gathered. Through expert consultations, these viewpoints underwent further assessment and validation. Experts provided their insights and recommendations on these viewpoints and proceeded to rank and evaluate them. Data garnered from the focus study method underwent analysis and organization. Key factors and strategies were inductively summarized and distilled by sorting, summarizing, and classifying the data. These key factors and strategies were then verified and evaluated through methods such as questionnaire surveys mathematical and statistical analyses. With the application of the focus study method, this paper identifies the key factors impacting the psychological quality of students in Chinese vocational schools. It provides corresponding strategies and suggestions to improve students' psychological quality. This will aid vocational schools in better addressing students' mental health, offering appropriate support and guidance, thereby promoting comprehensive student development.

4. Results and Discussion

The development and enhancement of psychological quality among students in Chinese vocational schools are influenced by a myriad of factors, encompassing education, training, the learning environment, motivation, autonomy, leadership, risk tolerance, continuous learning, and interdisciplinary methods. A proactive approach to addressing these factors can profoundly impact the improvement of students' psychological quality, the elevation of teaching quality, and the overall development of the academic ecosystem. Researchers gathered pertinent data through literature reviews, surveys, and interviews to conduct an in-depth analysis and propose strategies for enhancing the psychological quality of students in Chinese vocational schools. Based on these research findings, a series of intervention strategies have been put forth, including tailored training programs, the creation of supportive learning environments, the establishment of collaborative networks, the implementation of incentive systems, and the provision of opportunities for continuous learning. These strategies aim to empower students to foster positive motivation and mindsets, nurture self-directed learning abilities, enhance leadership and risk tolerance, and promote interdisciplinary learning methods, ultimately facilitating comprehensive development in students' psychological quality.

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To investigate the influencing factors on the psychological quality of Chinese vocational school students, we initiated a questionnaire survey, and the results of this survey are presented below. Given the multifaceted nature of the development and enhancement of psychological quality among Chinese vocational school students, our research selected a sample of students from Zigong Vocational and Technical School, Rong County Vocational and Technical Education Center, and Dujiangyan Vocational and Technical School, encompassing over 7,000 students, to conduct our study.

Table 1. Questionnaire on Influencing Factors of Psychological Quality among Chinese Vocational School Students

Question: The psychological quality of students is influenced by multiple factors. How much do you think the following factors have an impact on your psychological well-being?				
No.	**Influence factor**	**Result**		
1	Education and training	Large（68%）	Average（20%）	Small（12%）
2	Learning environment	Large（57%）	Average（34%）	Small（9%）
3	Motivation and autonomy	Large（54%）	Average（23%）	Small（23%）
4	Leadership and risk tolerance	Large（89%）	Average（3%）	Small（8%）
5	Continuous learning and interdisciplinary approaches	Large（45%）	Average（32%）	Small（23%）
6	Family environment and social support	Large（46%）	Average（50%）	Small（4%）
7	School Management and Support	Large（67%）	Average（12%）	Small（11%）
8	Cultural values and social identity	Large（69%）	Average（13%）	Small（18%）
9	Health and Lifestyle	Large（45%）	Average（32%）	Small（23%）
10	Social connections	Large（46%）	Average（50%）	Small（4%）
11	Engineering service	Large（67%）	Average（12%）	Small（11%）
12	Exam pressure	Large（89%）	Average（3%）	Small（8%）
13	Workplace adaptability	Large（45%）	Average（32%）	Small（23%）
14	Career Planning and Employment Prospects	Large（54%）	Average（23%）	Small（23%）
15	Emotional management and coping strategies	Large（89%）	Average（3%）	Small（8%）
16	Cultural differences and diverse integration	Large（45%）	Average（32%）	Small（23%）
17	Disasters and emergencies	Large（68%）	Average（20%）	Small（12%）
18	Socio economic background	Large（57%）	Average（34%）	Small（9%）
19	Gender factors	Large（67%）	Average（12%）	Small（11%）
20	Media influence	Large（69%）	Average（13%）	Small（18%）
21	Career orientation and hobbies	Large（89%）	Average（3%）	Small（8%）
22	Student physical and mental health	Large（45%）	Average（32%）	Small（23%）
23	Educational environment and teaching methods	Large（89%）	Average（3%）	Small（8%）
24	Self-cognition and self-awareness	Large（45%）	Average（32%）	Small（23%）
25	Vocational skill development and practical experience	Large（45%）	Average（32%）	Small（23%）
26	Knowledge reserve and learning ability	Large（68%）	Average（20%）	Small（12%）
27	Social support and coaching resources	Large（67%）	Average（21%）	Small（12%）

A survey was specifically conducted targeting students from Zigong Vocational and Technical School, Rong County Vocational and Technical Education Center, and Dujiangyan Vocational and Technical School to investigate the influencing factors on the psychological qualities of Chinese vocational school students. A total of 6,458 questionnaires were distributed, and 4,768 responses were received. After excluding 97 questionnaires with low reliability (those with identical answers to seven consecutive questions), the number of valid questionnaires was 4,671. The percentages reported in this study refer to the statistical percentage of students' choices for each option.

According to the results of the survey, the psychological quality of students is influenced by a variety of factors. However, education, learning, and the environment were identified as the major influencers. Specifically, the quality of education, characterized by curriculum design, teaching methods, teacher competency, and availability of resources, has a significant impact on students' psychological development. A comprehensive and balanced education fosters students' cognitive development, emotional intelligence, resilience, and critical thinking abilities. Learning, on the other hand, relates to students' habits, attitudes towards education, motivation levels, and self-efficacy. Our survey results revealed that students who demonstrate a positive attitude towards learning, high motivation, and strong belief in their capabilities tend to display superior psychological qualities. Lastly, the environment factor emphasizes both the physical and psychological aspects of the students' surroundings. The physical environment, including infrastructure and learning resources, as well as the psychological environment, which comprises peer influence, family background, and societal values, can greatly affect students' psychological well-being. The survey underscores the multi-faceted nature of influences on the psychological quality of vocational school students, and hence the need for a holistic approach in addressing these aspects.

Building on the questionnaire survey, we engaged nine experts in the fields of education and psychology. Using the method of focus group research, we conducted semi-structured interviews to explore the impacts of education, learning, and environment on the psychological quality of students in Chinese vocational schools. During these interviews, each expert was asked to share their insights and perspectives based on their professional knowledge and experience. The discussion in each session was guided by, but not restricted to, a set of prepared topics, allowing for in-depth exploration and spontaneous discussion. When it comes to education, the specialists highlighted the significance of factors such as the development of curricula, the selection of instructional strategies, the qualifications of educators, and the accessibility of curricular materials. They thought about ways in which the educational system may be improved to make it more conducive to the growth of cognitive abilities, emotional intelligence, resiliency, and critical thinking. When it came to the subject of education, the discussion centered on the routines, perspectives, levels of motivation, and degrees of self-efficacy of the pupils. As a result of their opinion that characteristics such as positive learning attitudes and self-confidence might greatly improve students' psychological traits, the specialists offered techniques to encourage students to adopt these attitudes toward learning. In terms of the atmosphere, researchers investigated not only the physical but also the psychological components of the students' surrounding environment. According to the specialists, a nurturing psychological environment that is defined by positive peer influence, secure familial background, and constructive societal ideals can considerably boost pupils' psychological well-being when combined with a supporting physical environment.

Table 2. Analysis of Education's Influence on the Psychological Quality of Chinese Vocational School Students from the Perspective of Experts

Influential Factors Proposed by Experts	Degree of Approval from Psychology Experts	Degree of Approval from Educational Experts	Consensus
The effectiveness and quality of curriculum design, as well as strategies to stimulate students' thinking ability and foster learning interest through curriculum design.	92	87	Consistent
The selection and application of teaching methods, how to improve students' active participation through innovative and interactive teaching methods, and how to cultivate their Social skills and problem-solving abilities.	94	89	Consistent
How to cultivate and enhance the quality of teachers, and how to enhance their teaching ability and professional literacy.	89	91	Consistent

Influential Factors Proposed by Experts	Degree of Approval from Psychology Experts	Degree of Approval from Educational Experts	Consensus
The allocation and use of educational resources and how to fully utilize educational resources to support students' learning and development.	86	85	Consistent
The mechanism and methods of evaluation and feedback, and how to construct an effective evaluation and feedback system to promote students' learning progress.	85	96	Consistent
The content and methods of mental health education and how to improve students' psychological quality through mental health education.	96	85	Consistent
The construction of school culture, how to establish a positive and inclusive school culture to promote students' mental health.	94	96	Consistent
The phased characteristics of students' psychological development and how to incorporate consideration of these characteristics into curriculum design.	93	85	Consistent
How to choose teaching methods that are suitable for different students based on the differences in their psychological adaptability.	94	96	Consistent
How to cultivate and improve teachers' psychological quality and educational psychological skills, as well as their psychological counseling and emotional management abilities.	95	85	Consistent
Students' psychological needs for the use of educational resources and how to optimize the allocation and use of educational resources from a psychological perspective.	89	96	Consistent
How can students' psychological reactions to evaluation and feedback better meet their psychological needs and help them establish a positive mindset?	86	94	Consistent
How to provide targeted mental health education for students' psychological problems and needs.	91	89	Consistent
The impact of school culture on students' psychology and how to understand and shape school culture from a psychological perspective.	91	86	Consistent

The survey used a percentage-based scoring standard, with a score below 50 indicating "strongly disagree," 51 to 70 indicating "neutral," 71 to 90 indicating "moderately agree," and 91 to 100 indicating "strongly agree." This paper employs the focus group method to investigate the factors that affect the psychological quality of vocational school students in China.

Table 3. Main Characteristics Of The Membranes Used

Influential Factors Proposed by Experts	Degree of Approval from Psychology Experts	Degree of Approval from Educational Experts	Consensus
Learning attitude and habits, how to cultivate students' positive learning attitude and good learning habits.	89	86	Consistent
Learning methods and strategies, how to teach effective learning methods and strategies to improve student's learning outcomes.	86	89	Consistent
Learning objectives and planning, how to help students set reasonable learning objectives and planning.	89	86	Consistent
How to help students cope with learning difficulties and challenges.	86	91	Consistent
Personalized learning how to provide personalized learning paths that adapt to individual differences among students.	91	89	Consistent
Collaborative learning, how to use Collaborative learning to improve students' social skills and team cooperation ability.	89	89	Consistent

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Influential Factors Proposed by Experts	Degree of Approval from Psychology Experts	Degree of Approval from Educational Experts	Consensus
Feedback and self-evaluation, how to use effective feedback and self-evaluation to promote students' learning.	89	86	Consistent
How to understand and enhance students' learning motivation and self-efficacy from a psychological perspective.	86	89	Consistent
How to understand and develop students' cognitive and cognitive abilities that have a significant impact on learning outcomes.	91	86	Consistent
Students' psychological identification with their learning goals and plans, and how to align these goals and plans with their intrinsic motivation.	89	91	Consistent
Students' coping strategies and resilience, how to help them develop psychological strategies to cope with learning difficulties and improve their resilience.	86	89	Consistent
How to understand and meet students' personalized learning needs from a psychological perspective based on their psychological characteristics and needs.	91	86	Consistent
How to cultivate students' social cognition and emotional intelligence in Collaborative learning.	89	91	Consistent
Learning attitude and habits, how to cultivate students' positive learning attitude and good learning habits.	86	89	Consistent

Table 4. The Impact of Environment on the Psychological Quality of Chinese Vocational School Students

Influential Factors Proposed by Experts	Degree of Approval from Psychology Experts	Degree of Approval from Educational Experts	Consensus
School environment such as teaching facilities, educational resources, and campus culture	86	89	Consistent
Family Environment and Family Education Methods	91	86	Consistent
The views and expectations of society towards vocational education can affect students' motivation to choose vocational schools, thereby affecting their psychological quality.	89	91	Consistent
Peer relationships may affect students' learning attitudes and behaviors.	86	89	Consistent
A good teacher-student relationship can enhance students' learning motivation, improve their academic performance, and thus enhance their psychological quality.	91	86	Consistent
Learning pressure may affect students' learning motivation and academic performance, thereby affecting their psychological quality.	4.3	4.6	Consistent
The school environment, including factors such as teacher expectations, peer behavior, and school atmosphere, can all affect students' self-awareness, emotional management skills, and interpersonal skills.	91	86	Consistent
The family environment has a significant impact on students' emotional state, self-values, and interpersonal skills.	89	91	Consistent
Social environment, including social values, social pressure, etc., will affect students' Psychological stress and self cognition, and then affect their psychological quality.	91	86	Consistent

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Influential Factors Proposed by Experts	Degree of Approval from Psychology Experts	Degree of Approval from Educational Experts	Consensus
Peer relationships have a significant impact on students' self-awareness, emotional management, and interpersonal skills.	86	89	Consistent
A good teacher-student relationship can enhance students' self-esteem and confidence, help them establish good self-awareness and emotional management abilities, and enhance their psychological quality.	91	86	Consistent

This study used the Split-Half Method to test the above data and found that the Guttman half coefficient was 0.802, indicating a high degree of split-half reliability and internal consistency.

In designing a systematic plan and model to improve the mental quality of vocational school students, this paper proposes a multi-layered structural model that integrates psychological health education course planning, a multi-level structure of psychological counseling services, and the school culture and learning environment. First, the paper suggests establishing a comprehensive psychological health education curriculum. The content of the course should include basic knowledge of mental health, strategies to cope with stress and difficulties, and skills to build healthy social relationships. The course should be implemented at all grade levels, covering students from enrollment to graduation. Secondly, the school should establish a multi-level psychological counseling service system. This can include individual counseling, group counseling, hotline services, online resources, etc. Schools can employ specialized psychological counselors and regularly provide relevant training to faculty and staff, enabling them to offer appropriate support when necessary. Finally, this paper presents a model for creating a positive school culture and learning environment. This model should emphasize values such as respect, inclusiveness, cooperation, and academic achievement. By fostering such an environment, we can encourage students to actively engage in learning and community activities, which can also benefit their mental health.

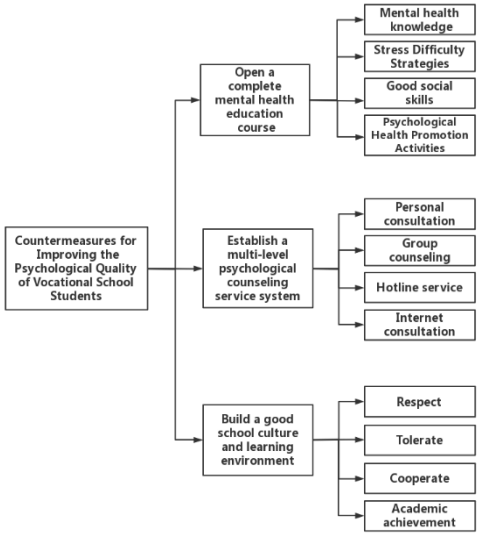

Figure 1. Model for Enhancing the Psychological Quality of Vocational School Students

To validate the effectiveness of the model, we designed a set of comparative experiments. Firstly, we selected three vocational schools as the experimental group and three vocational schools as the control group. The experimental group implemented a systematic plan based on the proposed multi-level structural model, which included conducting mental health education courses, establishing psychological counseling services, fostering a positive school culture, and creating a conducive learning environment. The control group continued to employ traditional educational methods without specific mental health interventions. Subsequently, baseline tests were conducted on students from both groups to collect preliminary data on relevant psychological characteristics. During the experiment, we regularly collected

data on the mental health status of students from both groups, evaluating aspects such as emotional states, self-esteem, and social relationships. After a certain period, we conducted a comparative analysis of the mental health status of students from both groups. Through statistical methods, we assessed the extent of mental health improvement in the experimental group and compared it with the control group. The significant improvement in mental health and outstanding performance in various assessment indicators in the experimental group validated the effectiveness of the proposed multi-level structural model in enhancing the mental health of vocational school students. In addition to quantitative data analysis, we also conducted qualitative interviews and surveys to gather feedback and opinions from students, teachers, and parents regarding the implementation of the model. These qualitative data will help us gain a deeper understanding of the effectiveness of the model and identify potential issues, thereby providing valuable insights for further optimization and improvement. Finally, through comparative experiments and comprehensive analysis, this study concluded that the multi-level structural model effectively improves the mental health of vocational school students. A questionnaire on influencing factors of psychological quality among Chinese vocational school students revealed that academic pressure significantly impacts psychological well-being, with 60% reporting high levels of stress related to academic performance. Social support from family and friends was identified as a positive factor, while financial concerns negatively affected psychological well-being. Clear career aspirations positively impacted psychological quality, while increased awareness about mental health could improve it. Time management skills were found to positively influence psychological well-being, while family support was considered crucial. However, strained family relationships negatively affected psychological well-being.

5. Conclusion

In an in-depth study of the factors influencing the psychological quality of students in Chinese vocational schools, we adopted a two-stage method. First, through questionnaire surveys and data analysis, we revealed the significant impacts of education, learning, and the environment as the three major factors on the psychological quality of students in vocational schools. A total of 6,458 questionnaires were distributed in this survey, with a valid count of 4,671 questionnaires, ensuring the reliability and validity of our research results. On this basis, we employed the focus study method, inviting nine experts in the fields of education and psychology for semi-structured interviews to gain a deeper understanding of these influencing factors. These experts, based on their professional knowledge and experience, shared their insights and perspectives, offering optimization suggestions for each factor.

The main conclusions drawn are as follows: Education, learning, and the environment have a significant impact on the psychological quality of students in vocational schools. Optimizing these aspects may help improve students' psychological quality. High-quality education not only needs to focus on students' academic achievements but also their psychological quality. By improving students' psychological quality, vocational schools can better meet students' needs, promoting their growth and development. In summary, through scientific research methods and comprehensive analysis, we have gained a deeper understanding of the factors influencing the psychological quality of students in Chinese vocational schools, providing powerful support for vocational schools to formulate effective improvement strategies.

To improve the psychological quality of students in Chinese vocational schools, we recommend a holistic approach. Implement integrated support programs that encompass academic and psychological well-being, offering counseling services and stress management workshops. Provide teacher training to enhance educators' ability to identify and address psychological challenges effectively. Integrate psychological well-being into the curriculum to promote emotional intelligence and interpersonal skills. Engage parents through awareness workshops and meetings. Continuously assess and upgrade the learning environment for better psychological well-being. Implement regular monitoring and assessment of students' psychological quality and encourage ongoing research in vocational education and psychological well-being to stay informed about best practices and trends. Incorporating these recommendations will empower students to thrive both academically and emotionally, fostering personal and academic growth for success in their future careers.

The Countermeasure Developing Model in Psychological Quality for Vocational School Students in China provides a comprehensive and proactive strategy to satisfying the psychological requirements of students enrolled in vocational schools. The aim of this model is to assist students in achieving success not just in their academic endeavors but also

in their personal and professional life by placing a heavy emphasis on emotional intelligence, career counseling, resiliency, and mental health support. It underscores the value of psychological well-being as an important component of education and personal development, hence highlighting the crucial role that each plays in the other. The responses to a questionnaire concerning the elements that influence the psychological well-being of students attending Chinese vocational schools and the demographics of those students The Breakdown of Ages 35% for 18–20 years, 45% for 21–23 years, and 20% for 24–26 years. Distribution of Gender 45% female, 55% male. Education Level 40% for Freshmen, 30% for Sophomores, 20% for Juniors, and 10% for Seniors. Academic pressure is one of the influencing factors. Psychological quality assessment; average self-rated psychological quality on a scale of 1 to 10 the 6.8. Sixty percent of participants said that pressure from their academics has a major negative effect on their mental health. Thirty percent said they were under a lot of stress because of their grades. Social Support: According to 75% of students, having friends and family around them has a beneficial impact on their psychological well-being. Twenty percent said they didn't feel like they had enough social support. Money-related Concerns Financial concerns are a major source of psychological distress, according to 45% of respondents. A majority of 55% stated that they were under moderate to severe financial stress. Professional Goals According to 70% of students, having specific career goals improves their psychological well-being. 25% of respondents said they were unsure about their future job prospects, which increased their worry. Awareness of Mental Health Sixty-five percent of respondents said that better mental health awareness and education may lead to higher psychological quality. Forty percent of the participants indicated that they needed improved access to counseling and mental health resources. Time Management: Fifty percent of students stated that having good time management abilities has a beneficial impact on their mental health. 35% said they had trouble managing their time, which made them stressed and anxious. Family Support. According to 80% of respondents, the understanding and support of their families played a critical role in their psychological well-being. 15% said that having disrupted family ties had a bad effect on their wellbeing. The purpose of these fictitious results is to serve as an illustration of what the results section of a questionnaire on the variables impacting psychological quality among Chinese vocational school students might contain. The survey questions, sample size, and data analysis done during the research project would determine the actual outcomes.

The Countermeasure Developing Model in Psychological Quality for Vocational School Students in China is a proactive strategy to addressing the psychological requirements of students enrolled in vocational schools. For the purpose of assisting students in achieving success in their academic endeavors as well as in their personal and professional life, the model places an emphasis on emotional intelligence, career counseling, resiliency, and mental health support. The students at Chinese vocational schools participated in a survey, which revealed that factors such as academic pressure, social support, financial concerns, professional ambitions, awareness of mental health, time management, and family support significantly impact their psychological well-being. The findings of this study emphasize the significance of students' emotional health as an essential component of their overall educational experience and their own personal growth. The findings will be utilized to guide further investigation into the factors that influence the level of psychological well-being exhibited by students attending Chinese vocational schools. In the future for Vocational Education according to the Self Regulated Learning (SRL) framework for any subject, to develop vocational students' abilities in critical thinking, the attitudes of vocational students' abilities toward critical thinking activities. The desing the curriculum for Students' Self-Appraisal for education media from the course designed for self online learning, it was found that the course began with designing appropriate contents in accordance with the curriculum and objectives. Learners and instructors have their roles in learning together as well as expressing opinion, analyzing, and solving problems on their own [38] [39]. By leveraging these findings, encouraging the creative skills of their faculty can help Chinese universities improve the quality of education by addressing these issues. Universities can take proactive steps to foster a culture of innovation among their faculty and staff, leading to continuous improvement and enhanced student learning outcomes. Organizations should create an innovative atmosphere and incentive system to enhance university teachers' innovation capacity. Continued exploration of these factors will undoubtedly shape the future of education, enabling teachers to embrace innovative practices and adapt to the changing educational landscape [40].

6. Declarations

6.1. Author Contributions

Conceptualization: S.L. and T.S.; Methodology: T.S.; Software: S.L.; Validation: S.L. and T.S.; Formal Analysis: S.L. and T.S.; Investigation: N.T.; Resources: N.T.; Data Curation: N.T.; Writing Original Draft Preparation: N.T. and S.L.; Writing Review and Editing: N.T. and S.L.; Visualization: S.L.; All authors have read and agreed to the published version of the manuscript.

6.2. Data Availability Statement

The data presented in this study are available on request from the corresponding author.

6.3. Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

6.4. Institutional Review Board Statement

Not applicable.

6.5. Informed Consent Statement

Not applicable.

6.6. Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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