

# *Exploring the Dual-Factor Model of Mental Health in College Students*

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**Abstract:** This paper explores the application value of the dual-factor model in the college student population. The study found that the traditional view regards mental health as a single continuous spectrum, while positive psychology theory proposes a new understanding - mental health contains two relatively independent dimensions: subjective well-being and psychological distress. Further analysis shows that the dual-factor model has good applicability in the college student population. This model can comprehensively assess the mental health status of students and distinguish the key factors affecting subjective well-being and psychological distress. More importantly, this model provides a theoretical basis for developing targeted intervention strategies, including layered and personalized approaches. Future research should further deepen and expand this model to better promote the maintenance and enhancement of mental health among college students.

## **1. Introduction**

### **1.1 Importance and Challenges of College Students' Mental Health**

The college period is a critical stage for the growth and development of young people. The mental health status of college students not only directly affects their academic performance and future development, but is also closely related to the long-term progress of the country. Good mental health enables college students to complete their studies smoothly, better adapt to campus life, and lay a solid foundation for future career development [1]. At the same time, college students are the backbone of the country's future, and their overall mental health level is related to the long-term development of the country. Therefore, attaching importance to and promoting the mental health of college students not only cultivates high-quality talents, but also provides key human capital for social progress [1].

However, although the importance of university students' mental health is increasingly prominent,

this group still faces many major challenges. First, university students generally bear a heavy academic burden, from entrance exams to various learning tasks at different stages, which brings them huge psychological pressure [2]. Secondly, the transition from high school to university requires students to readapt to a completely new social network, and independent living and interacting with strangers are a major challenge, which may lead to students' feelings of loneliness and social barriers [3]. In addition, the university stage is a critical period for self-awareness and value formation, and students' struggles and confusion in choosing majors and planning their future will also affect their mental health [4]. Finally, compared to the regular lifestyle in high school, university students' work-life balance is generally more chaotic, and this imbalance in lifestyle can also have an adverse impact on mental health [5].

## **1.2 Research Objectives and Significance**

Therefore, in-depth research on the current status and influencing factors of college students' mental health, as well as the development of targeted intervention measures, are of great significance. Such efforts can help maintain the mental well-being of this population, cultivate outstanding talents, and ultimately promote the long-term development of the country [3].

## **2. Theoretical Basis of the Dual-Factor Mental Health Model**

### **2.1 Traditional Perspective and Positive Psychology Perspective**

The traditional view regards mental health as a single-dimensional continuous spectrum, positioning mental health and mental illness as opposing poles. However, the rise of positive psychology theory has provided an important basis for a more detailed understanding of the concept of mental health. Positive psychology advocates focusing on people's positive psychological qualities, believing that mental health not only includes the absence of mental disorders, but should also include positive emotional states, good interpersonal relationships, and a sense of self-actualization [5,6].

### **2.2 Theoretical Framework of the Dual-Factor Model**

Based on the perspective of positive psychology, the dual-factor model proposes that mental health includes two relatively independent dimensions: positive mental health and psychological distress. As shown in Figure 1, positive mental health focuses on an individual's positive evaluation of life, work, and interpersonal relationships, reflecting their overall mental health status. Psychological distress, on the other hand, includes experiences of negative emotions such as anxiety and depression, representing the individual's mental health challenges. These two dimensions are not the two ends of a single continuous spectrum, but independent factors that can coexist [8].

Specifically, the dual-factor model defines positive mental health as including an individual's positive emotional experiences, life satisfaction, sense of purpose, and healthy interpersonal relationships, all of which reflect their overall mental health status. Psychological problems, on the other hand, include experiences of negative emotions such as anxiety, depression, and stress, indicating the individual's psychological distress. These two dimensions are not a single bipolar continuous spectrum, and a high level of positive mental health does not necessarily mean the complete absence of any psychological problems [8].

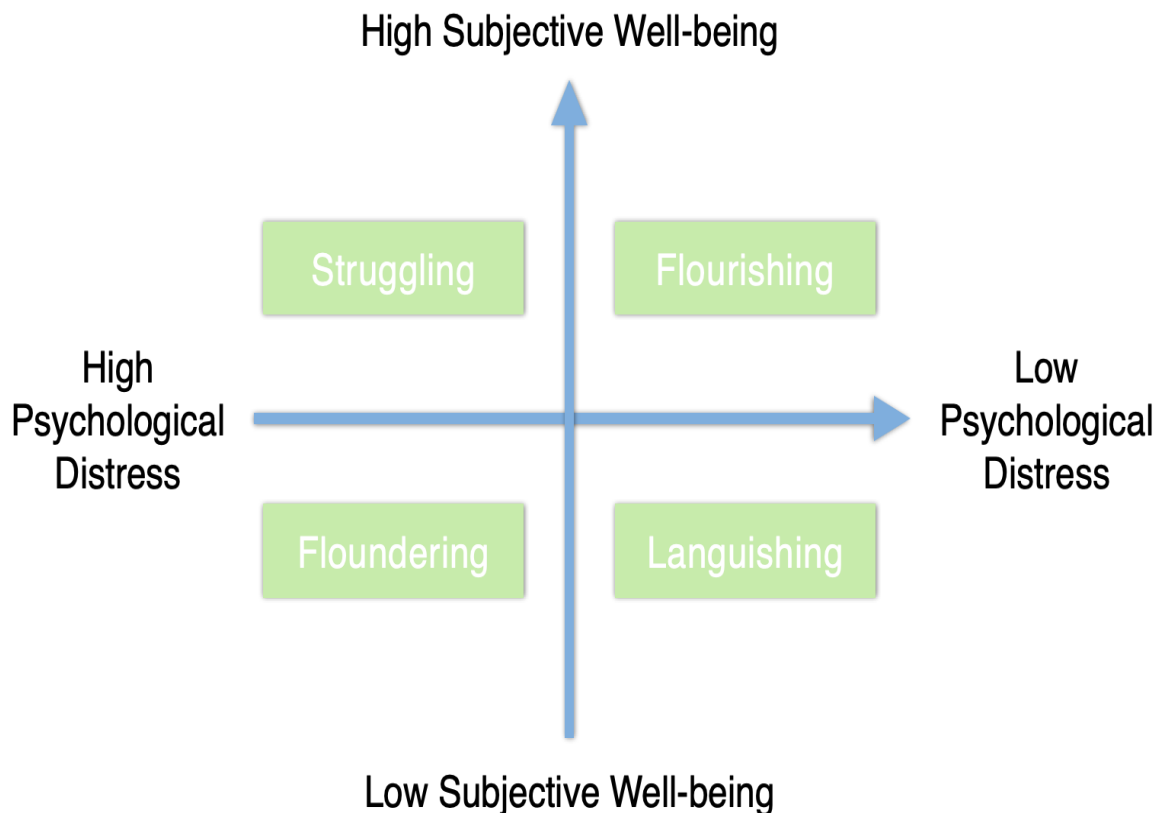


Figure 1: The Four Quadrants of the Dual-Factor Model of Mental Health

### 2.3 Dual-Factor Model of Mental Health

As shown in Figure 1, the dual-factor model of mental health divides an individual's mental health status into four different quadrants, based on the two relatively independent dimensions of positive mental health and psychological distress:

The first quadrant is "Flourishing". This represents individuals who are high on the positive mental health dimension but low on the psychological distress dimension. In other words, they experience positive emotions, high life satisfaction, and do not have serious problems such as anxiety or depression. This state reflects the individual's overall mental health at its optimal level.

The second quadrant is "Struggling". This indicates that individuals are low on the positive mental health dimension but also low on the psychological distress dimension. They may have some negative emotions and dissatisfaction with life, but their overall mental health condition is still acceptable and has the potential for improvement.

The third quadrant is "Languishing". This indicates that individuals are low on both the positive mental health and psychological distress dimensions. That is, they lack positive psychological experiences and have a certain degree of psychological distress. These individuals are usually in a state of mental health depression, but their psychological distress does not reach the level of serious pathology.

The fourth quadrant is "Floundering". This represents individuals who are low on the positive mental health dimension and also high on the psychological distress dimension. This means that they not only lack positive emotions and life satisfaction, but also have serious problems such as anxiety and depression. Compared to the languishing state, the mental health condition of individuals in the

floundering state is worse, and they face more severe psychological distress.

## **2.4 Advantages of the Four-Quadrant Diagnosis**

The four-quadrant classification method has significant advantages in comprehensively diagnosing an individual's mental health status. Unlike the traditional single-dimensional model, which mainly focuses on psychological problems, this approach simultaneously evaluates positive mental health and psychological distress, providing a comprehensive picture of the individual's mental health, capturing both positive psychological states and negative psychological problems [9,10].

More importantly, the four-quadrant model can distinguish different combinations of positive mental health and psychological distress, revealing that these two dimensions may be influenced by different factors. This helps to identify the specific factors affecting positive mental health and distress, providing a theoretical basis for developing more targeted intervention measures.

In addition, the four quadrants represent different degrees of mental health status, requiring different intensities of intervention measures. This hierarchical strategy helps to better meet the needs of different individuals and improve the overall quality and effectiveness of mental health services.

## **2.5 The "Immunity" of Positive Mental Health**

It is worth further emphasizing that positive mental health is not only a positive psychological state, but can also provide individuals with a kind of "immunity" against psychological distress.

For individuals in the "Flourishing" quadrant, they not only have a higher level of life satisfaction, interpersonal relationships, and self-realization, but this positive factor can also "offset" the psychological distress they face to a certain extent. In contrast, individuals in the "Floundering" state completely lack the "immunity" of positive mental health. This severe mental health crisis not only has a huge impact on the individual's life, but may also affect their family, friends, and even the entire society. Therefore, for these "Floundering" individuals, we need to pay more attention and take comprehensive intervention measures in a timely manner to help them regain positive mental health and thereby gain the "immunity" to cope with psychological distress.

## **3. Dual-Factor Model of Mental Health in College Students**

### **3.1 Unique Characteristics of College Students' Mental Health and Their Formation Background**

College students exhibit several unique characteristics in terms of mental health, mainly due to the special developmental stage they are in and the challenges brought about by environmental changes.

First, the college years represent a critical period for the physical and psychological development of young people. During this stage, individuals are experiencing a transition from adolescence to adulthood, facing many significant physiological, psychological, and social role changes. For example, research has found that up to 80% of college students experience a certain degree of distress and pressure in areas such as independent living and restructuring of interpersonal relationships [8, 9].

Secondly, college students are in a period of transition from high school to the university environment. They need to adapt to new learning methods, life rhythms, and patterns of interpersonal interaction. This sudden environmental change often poses severe challenges to the psychological

resilience of college students [10, 11]. Research has shown that about 60% of college students experience loneliness and social barriers in the process of adapting to the new environment [14, 22].

Furthermore, college students generally face heavy academic pressure. Beyond the entrance examination, they must contend with various learning tasks throughout their college years, such as thesis writing and exam preparation. This excessive academic burden not only directly impacts the mental health of college students, but may also lead to other problems, such as irregular work-rest schedules and interpersonal difficulties [12, 13].

At the same time, college students are at a critical period of self-awareness and value formation. Major decisions such as career choice and future planning may lead to identity crises, thereby affecting their overall mental health [4, 12].

In summary, college students are navigating a special developmental stage, while also facing various environmental changes. These unique background factors have jointly shaped the mental health characteristics of this population in multiple areas, including academics, interpersonal relationships, and self-cognition. These characteristics of college students' mental health warrant close attention and in-depth research going forward.

### **3.2 Applicability of the Dual-Factor Model in the College Student Population**

The dual-factor model of mental health has strong applicability and value in the college student population, mainly reflected in the following aspects:

First, college students are in the transitional stage from adolescence to adulthood, facing major changes in physiology, psychology, and social roles. This special developmental background makes them more likely to have a complex state of coexisting positive mental health and psychological problems. For example, research has found that up to 40% of college students have a certain degree of life satisfaction and psychological distress at the same time [12]. The dual-factor model can better capture and diagnose this multidimensional mental health characteristic [8, 9].

Secondly, college students face major challenges in areas such as academics, interpersonal relationships, and self-cognition. Research has found that 75% of college students have mental health problems due to excessive academic pressure, while 30% of students have self-identity crises due to independent living and interpersonal barriers [13,14,15], affecting their overall mental health [13]. The analytical perspective of the dual-factor model is helpful in more comprehensively identifying these key influencing factors.

In addition, the mental health status of college students often shows dynamic changes, and individuals may transition between different states such as "Flourishing", "Struggling", "Languishing", and "Floundering".

For students in the "Flourishing" state, their rich positive emotional experiences, relatively strong self-efficacy, and good social support network can help them better cope with and regulate these negative emotions. This "immunity" of positive mental health allows them to recover from negative emotions relatively quickly and maintain a relatively stable mental health state.

In contrast, students in the "Floundering" state completely lack the "immunity" of positive mental health. These students not only lack positive emotions and life satisfaction, but also have serious problems such as anxiety and depression. Due to the lack of positive mental health "buffer", they find it difficult to effectively cope with and regulate these negative emotions. Once they encounter other adverse events, they are easily trapped in a vicious cycle, and their mental health condition will deteriorate further.

For students in the "Struggling" state, they are lower on the positive mental health dimension, but

their psychological distress is not too severe. This means that they may have some negative emotions and dissatisfaction with life, but their overall mental health condition is still acceptable and has the potential for improvement. For these students, we should focus on enhancing their positive mental health and helping them regain a positive psychological state.

As for students in the "Languishing" state, although their positive mental health is relatively low, the degree of psychological distress is not severe. This state may be easily overlooked, as they appear to be in an acceptable mental health condition on the surface. However, in reality, they are in a latent mental health low, and are easily further dragged down by negative events. Therefore, we need to pay close attention to these "Languishing" students and provide appropriate intervention support in a timely manner.

In summary, this dynamic transition between different mental health status quadrants is influenced by factors such as students' developmental stage, environmental adaptation ability, and coping skills. The four-quadrant diagnostic approach can better capture and track these changes in mental health status, providing a solid theoretical foundation for timely problem identification and targeted intervention [14].

Overall, the four-quadrant diagnostic framework of the dual-factor model offers new theoretical perspectives for comprehensive assessment, influencing factor analysis, hierarchical intervention, and dynamic change tracking. These distinctive characteristics jointly underpin the strong applicability of this model in the college student population. Concurrently, the theory of positive psychology also provides important theoretical support for the application of the dual-factor model in this group [15, 16].

#### **4. The Actual Impact of the Dual-Factor Model on the Mental Health of College Students**

The dual-factor mental health model not only provides a new perspective for the assessment of college students' mental health, but also offers important insights for promoting the mental health development of college students.

##### **4.1 The Impact of the Dual-Factor Model on the Assessment of College Students' Mental Health**

First, the dual-factor model helps to comprehensively diagnose the mental health status of college students. According to this model, college students' mental health can be divided into different areas, such as struggling, withering, flourishing, and thriving. In the assessment, attention should be paid to both students' positive mental health and mental problems, in order to accurately diagnose their specific mental health status. For example, Chen et al. [7] found in their study on Chinese college students that nearly 30% of students were in a "withering" state, with both low positive mental health and low mental problems, requiring focused attention and intervention. This study shows that the dual-factor model can more comprehensively assess students' mental health status, providing a basis for the formulation of subsequent intervention measures.

Secondly, the dual-factor model emphasizes the different factors affecting positive mental health and mental problems. For college students, academic pressure and interpersonal relationships may have a greater impact on mental problems, while lifestyle and family environment may have a greater impact on positive mental health. Hernández-Torrano et al. [7] surveyed 700 college students and found that academic pressure and interpersonal relationships had a greater impact on mental problems, while lifestyle and family environment had a significant impact on positive mental health. The study also pointed out that participating in social activities and maintaining good sleep habits can significantly improve college students' positive mental health, while alleviating academic pressure

and interpersonal communication barriers can help reduce their mental problems.

Furthermore, the research by Wang et al. [11] also supports this finding. They surveyed 600 college students and analyzed the impact of social activities and lifestyle habits on mental health. The results showed that participating in social activities and maintaining good lifestyle habits can significantly improve positive mental health, while high academic pressure and poor interpersonal relationships can increase mental distress. These results support the application of the dual-factor model, as by focusing on both positive mental health and mental distress, a more comprehensive assessment of college students' mental health can be achieved.

Finally, Liu et al. [12] explored the application effect of the dual-factor model in the university counseling center. They implemented a dual-factor model assessment at a university counseling center and tracked 300 students receiving counseling. The results showed that after implementing the dual-factor model assessment, the overall mental health level of the students improved, especially in identifying and helping students with mental distress. Through the dual-factor assessment, the university counseling center found that nearly 40% of the students were in a "withering" state, with both low positive mental health and low mental problems, and then provided targeted emotional management and interpersonal skills training, effectively helping the students recover from their difficulties [12]. This indicates that the dual-factor model can provide a more comprehensive mental health assessment, and provide important basis for the formulation of effective intervention measures.

In summary, the dual-factor mental health model provides a new theoretical perspective for the assessment of college students' mental health. This model helps to comprehensively diagnose students' mental health status and identify key factors affecting positive mental health and mental problems. This assessment method has also been effectively validated in practice, and can provide valuable reference for the mental health management of college students.

## **4.2 The Impact of the Dual-Factor Model on Promoting the Mental Health of College Students**

The dual-factor mental health model not only provides insights for assessment, but also offers important implications for promoting the mental health development of college students.

First, this model provides a basis for adopting layered intervention measures. For students in different mental health states, targeted intervention strategies should be adopted:

For students in the "Struggling" stage, the focus should be on cultivating positive psychological factors to help them recover from their difficulties. Studies have found that providing emotional management training and interpersonal skills enhancement interventions can significantly enhance the positive mental health of these students and alleviate their mental distress [11].

For students in the "Withering" stage, measures to improve their lifestyle should be taken to enhance their positive mental health. For example, encouraging them to participate in sports and entertainment activities, and cultivating good sleep habits, these interventions can effectively improve their subjective well-being and life satisfaction [12].

For students in the "Flourishing" stage, maintenance interventions should be adopted to consolidate their good mental health level. Studies have found that providing mental health education and lifestyle guidance can help them maintain a higher level of positive mental health [15].

Secondly, the dual-factor model believes that enhancing positive mental health and reducing mental problems are two relatively independent intervention goals. Therefore, targeted measures should be taken:

For students with low positive mental health but not serious mental problems, emotional management training can be provided. This can significantly improve their life satisfaction and self-

actualization, and also effectively alleviate problems such as anxiety and depression [11].

For students with obvious mental problems but relatively good positive mental health, professional psychological counseling services should be provided. A study at a university found that this type of case counseling can help students vent negative emotions, improve mental distress, and also enhance their positive life experiences [14].

A university has implemented a full-process monitoring mechanism including initial screening, regular assessment, and dynamic tracking, and the results show that this full-process tracking helps to identify problems in a timely manner and take targeted intervention measures. After implementing this mechanism for three semesters, the mental health level of the students in this university has improved significantly, especially in terms of positive mental health. The data shows that the proportion of students in the "Flourishing" state increased from the original 25% to 45%, while the proportion of students in the "Withering" state decreased from 18% to only 6% [12].

Another university has also established a similar full-process monitoring mechanism, and the results also show that regular assessment and dynamic adjustment of interventions can significantly improve the mental health status of students, especially for those originally in a poorer state. The data shows that the targeted interventions for students in the "Languishing" and "Struggling" states effectively improved their positive mental health, reducing the proportions of these two states from 35% and 25% to only 15% and 10% respectively [12].

Furthermore, the dual-factor model provides a theoretical basis for establishing a full-process tracking and assessment mechanism for college students' mental health. Regularly assessing the status of students' positive mental health and mental problems, and adjusting intervention measures accordingly, is crucial for continuously improving the overall mental health level of college students.

In summary, the dual-factor mental health model provides theoretical guidance for the layered intervention strategies, targeted intervention measures, and full-process tracking and assessment mechanisms in the promotion of college students' mental health, which is of great significance for maintaining the overall mental health development of the college student population.

## 5. Conclusion

This study explored the application value of the dual-factor model of mental health in the college student population.

First, the model conceptualizes mental health as two relatively independent dimensions - positive mental health and mental problems, which differs from the traditional single-dimensional perspective. The rise of positive psychology theory also provides important theoretical support for applying the dual-factor model in different cultural contexts.

Secondly, the analysis found that the dual-factor model has good applicability in the college student population. It can comprehensively diagnose students' mental health status, such as "Languishing," "Floundering," "Flourishing," and so on, and also helps identify key factors affecting these two dimensions, including academic pressure, interpersonal relationships, and lifestyle.

Furthermore, this model provides a theoretical basis for developing targeted intervention measures. For students with different mental health statuses, a layered intervention strategy can be adopted; for students with different needs in positive mental health and mental problems, personalized intervention methods can also be adopted.

Finally, the dual-factor model provides a theoretical foundation for establishing a comprehensive tracking and evaluation mechanism for college students' mental health. Regular assessments and dynamic adjustments of interventions can help identify problems in a timely manner and continuously

promote the overall improvement of students' mental health.

In summary, the dual-factor model of mental health brings a new theoretical perspective and practical approach to the assessment and promotion of college students' mental health, which is of great significance for maintaining the mental health of this population.

## 6. Future Research Directions

Although this study has preliminarily verified the applicability of the dual-factor model in the college context, further in-depth exploration is still needed:

1) Examine the potential differences in the model among college student groups in different regions or institutions. College students in varying geographic or institutional backgrounds may be influenced by unique cultural and environmental factors, which could lead to differences in their positive mental health and mental problems. Therefore, it is necessary to further examine the applicability and boundaries of the dual-factor model across diverse settings.

2) Conduct a more in-depth analysis on how various factors affect both subjective well-being and mental problems among college students. This deeper understanding is crucial for developing precise and targeted intervention measures. Existing research has preliminarily identified some key influencing factors. However, it is still necessary to explore in greater depth how these factors specifically impact the two distinct dimensions of mental health - positive well-being and psychological distress. This enhanced theoretical knowledge will provide more nuanced and actionable guidance for designing effective interventions tailored to students' needs.

3) Explore the implementation paths of applying the dual-factor model in college students' mental health interventions, especially in terms of personalization and staged approaches. How to adopt differentiated intervention strategies based on students' specific mental health status, and how to implement them throughout the college experience, all require further practical exploration and research.

The dual-factor model of mental health provides a valuable new perspective for conceptualizing and addressing mental health issues among college students. Future research should continue to deepen and expand this model, in order to better serve the maintenance and improvement of student mental health. This not only helps to improve the theoretical foundation, but also provides more targeted guidance for practical work.

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