

The Influence and Countermeasures of Trait Mindfulness on College Students Mental Health Quality

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Abstract: Through the study of the impact of trait mindfulness on college students' mental health quality, cognitive quality, emotional quality, personality quality and adaptive quality, this study analyzed the factors to improve college students' mental health quality, and put forward targeted countermeasures with school as the carrier, which is conducive to the improvement of college students' mental health level. The snowball random sampling method was used to conduct a questionnaire test on 561 college students. The results showed that trait mindfulness had a significant positive impact on the mental health quality of college students and could positively predict the degree of mental health quality of college students.

1. Introduction

Mental health refers to all aspects of psychology and activity process in a good or normal state, its ideal state is to maintain good character, normal intelligence, correct cognition, appropriate emotion, reasonable will, positive attitude, appropriate behavior, good adaptation, so as to play their own potential and promote the perfection of personality. College students are in the age of rapid psychological changes, in the increasing pressure of life, the increasingly complex social environment, the increasingly interwoven network information today, psychological problems are very easy to occur^[1]. According to the National Mental Health Development Report of China (2021-2022), young people are at high risk for depression and anxiety. The detection rate of depression risk in the 18-24 age group is 24.1%, which is significantly higher than other age groups. The age difference of anxiety risk detection rate shows a similar trend. The suicide behavior of college students caused by mental health problems is increasing year by year. Therefore, school mental health education is particularly important for college students.

Mental health education refers to the education in which teachers, according to the laws of students' physiological and psychological development, use psychological education methods to cultivate students' good psychological quality and promote the overall improvement of students' overall quality. With the development of The Times, more and more attention is paid by individuals, families, schools and society. Mental health education is the key to train college students in the new era. Seventeen departments, including the Ministry of Education, in the Special Action Plan for Comprehensively Strengthening and Improving the Mental health of Students in the New Era (2023-2025) ^[2], put forward requirements for comprehensively strengthening and improving the

mental health of students in the new era and enhancing their mental health literacy. We must adhere to the educational concept of health first, adhere to the unity of learning knowledge and improving overall quality, and take health as the premise and basis of students' all-round development, combine quality education with mental health education, and promote the development of college students' mental health through the simultaneous development of the five disciplines^[3].

Quality is the basic element of individual survival and development, including physical quality, psychological quality and social and cultural quality^[4]. Mental health quality is a new concept derived from quality education and mental health education. Mental health quality refers to some internal and relatively stable mental qualities formed by an individual under the combined effect of heredity and environment. These mental qualities affect or determine the psychological, physiological and social functions of an individual, and further affect the mental health status of an individual^[5], including four dimensions: cognitive quality, emotional quality, personality quality and adaptive quality. A large number of studies have shown that psychological activities, community activities^[6], use of new media^[7], physical activity^[8] and sports^[9] can effectively help college students improve positive emotions and relieve negative emotions. Emotional stability^[10] has a positive impact on college students' mental health and can improve their mental health quality.

Trait mindfulness is a positive personality trait in which individuals are focused on the current thinking and emotions without judgment or overreaction. It can not only directly predict mental health^[11], but also indirectly affect mental health through psychological needs satisfaction, self-compassion and emotional regulation ability^[12]. As a new element in the field of psychological activities, clinical practice and positive psychology, mindfulness can effectively improve the level of individual trait mindfulness, so as to promote the development of individual mental health.

2. Object and Method

A total of 593 samples were collected by using the snowball random sampling method to test the questionnaires of college students. Based on the answering time and the regularity of options, 561 valid samples remained after the invalid samples were eliminated, with an effective rate of 94.60%.

3. Program and measurement

Mindfulness attention awareness scale (Mindful Attention Awareness Scale, MAAS) this scale includes 15 cases, compiled by Brown and Ryan, a Chinese version revised by Chen reporting etc^[13], is used to measure the quality level of mindfulness of teenagers, scoring scale using likert 6 (1 = almost always, 2= very frequent, 3= somewhat frequent, 4= somewhat infrequent, 5= very infrequent, 6= almost never). According to their actual life learning situation in the past half a month, the subjects self-reported the most suitable option in each item. The higher the scale score is, the higher the level of mindfulness traits reflected in the individual's daily life is.

The Questionnaire for Adolescence Mental Health Diathesis, compiled by Shen Deli et al.^[14] and revised by Gu Song^[15], is used to measure the level of adolescents' mental health diathesis. The scale included 89 questions, consisting of 4 subscales of adaptive quality, personality quality, emotional quality and cognitive quality, with a total of 15 dimensions. 5-point Likert scoring method was adopted. The higher the score on this scale is, the higher the level of psychological health quality of the subject is.

4. Results

4.1 Analysis of demographic variables

The demographic variables of this study are shown in Table 1.

Table 1: Demographic variable (N=561)

Variable	Dimension	Frequency	Percentage
Sex	male	60	10.70%
	female	501	89.30%
grade	freshman	217	38.68%
	Sophomore	44	7.84%
	junior	291	51.87%
	senior	9	1.60%
Source of students	city	107	19.07%
	Counties and towns	101	18.00%
	village	353	62.92%
Whether they are only children or not	Yes	126	22.46%
	no	435	77.54%
Major type	Normal university student	499	88.95%
	Not a normal university student	62	11.05%
Personal expenses/per month	500 yuan and below	11	1.96%
	501-1000 yuan	133	23.71%
	1001-1500 yuan	301	53.65%
	1501-3000 yuan	112	19.96%
	3001-5000 yuan	4	0.71%
	5001 yuan and above	0	0%

4.2 Descriptive statistics

The descriptive statistics of trait mindfulness and mental health quality of college students and its four dimensions are shown in Table 2.

Table 2: Descriptive Statistics of Variables (N=561)

	least value	crest value	mean	standard deviations
Feature mindfulness	32	90	67.88	12.48
Mental health quality	200	438	694.9	339.29
Cognitive quality	46	100	74.81	10.96
Emotional quality	27	81	56.30	8.92
Personality quality	58	140	107.19	15.59
To adapt to the quality	57	130	100.99	13.80

4.3 Common method deviation test

Using the Harman univariate test method, the results showed that there were 26 factors with eigenvalue greater than 1, the maximum eigenvalue was 26.80, and the maximum explanatory percentage was 25.519, less than 40%. There was no factor with excessive explanatory force,

indicating that there is no serious common method bias problem.

4.4 Correlation analysis

The correlation between trait mindfulness and college students mental health quality and its four dimensions are shown in Table 3.

Table 3: Variable correlation analysis (N=561)

	Feature mindfulness	Mental health quality	Cognitive quality	Emotional quality	Personality quality	To adapt to the quality
Feature mindfulness	1					
Mental health quality	0.611***	1				
Cognitive quality	0.522***	0.918***	1			
Emotional quality	0.586***	0.904***	0.777***	1		
Personality quality	0.596***	0.955***	0.832***	0.823***	1	
To adapt to the quality	0.576***	0.952***	0.834***	0.830***	0.873***	1

Note: * $p < 0.05$, *** $p < 0.001$.

4.5 Regression analysis

The aim of this study was to explore the effect of trait mindfulness on the mental health quality of college students, thus including trait mindfulness as an independent variable and the whole as the dependent variable. The regression analysis was performed by SPSS software, and the whole regression equation was significant, with the measurement coefficient $R^2=0.372$, that is, the independent variable trait mindfulness could explain 37.2% of the variation of the dependent variable mental health quality. In the regression equation test, $F(1,559)=332.533$, $p < 0.001$, so the regression equation was significant. In the regression coefficient test, $t=18.235$, $p < 0.001$, so the regression coefficient is significant. In conclusion, trait mindfulness has a significant positive impact on college students' mental health quality and can positively predict the degree of college students' mental health quality.

In the four sub-dimensions of mental health quality, regression analysis was carried out respectively, and the results were as follows: In terms of cognitive quality dimension, $R^2=0.271$, that is, trait mindfulness can explain 27.12% of the variation of cognitive quality, $F(1,559)=209.346$, $p < 0.001$, the regression equation is significant, $t=14.469$, $p < 0.001$, therefore, trait mindfulness has a significant positive impact on cognitive quality of college students, Can positively predict the degree of cognitive quality; In the dimension of emotional quality, $R^2=0.342$, that is, trait mindfulness can explain 34.2% of the variation of emotional quality, $F(1,559)=292.25$, $p < 0.001$, the regression equation is significant, $t=17.095$, $p < 0.001$, therefore, trait mindfulness has a significant positive impact on emotional quality of college students, Can positively predict the degree of emotional diathesis; In the dimension of personality quality, $R^2=0.354$, that is, trait mindfulness can explain 35.4% of the variation of personality quality, $F(1,559)=307.708$, $p < 0.001$, the regression equation is significant, $t=17.542$, $p < 0.001$, therefore, trait mindfulness has a significant positive impact on the personality quality of college students. It can positively predict

the degree of personality quality; In terms of adaptive quality dimension, $R^2=0.331$, that is, trait mindfulness can explain 33.1% of the variation of adaptive quality, $F(1,559)=278.026$, $p < 0.001$, the regression equation is significant, $t=16.674$, $p < 0.001$, therefore, trait mindfulness has a significant positive impact on adaptive quality of college students. The degree of adaptive quality can be positively predicted.

5. Conclusions

The results showed that trait mindfulness had positive predictive effect on the mental health quality and its four dimensions. The higher the level of mindfulness among college students is, the higher their level of psychological health is. Therefore, in terms of how to improve the mental health quality of college students, the perspective can be shifted to improve the mental health level of college students.

In terms of improving cognitive quality, mindfulness meditation training can enhance the attention and control of college students, help them concentrate better and improve learning efficiency; In terms of improving emotional quality, on the one hand, through mindfulness exercises such as emotional labeling and emotional observation, college students can learn to observe their emotional changes with a non-judgmental attitude, reduce the impulsiveness of emotional responses, and improve their emotional self-perception ability. On the other hand, learning mindfulness-based emotional regulation techniques, such as mindful breathing and walking, can help students stay calm in the face of stress and challenges and manage negative emotions effectively; In terms of improving the quality of personality, firstly, through mindfulness education, guiding students to develop self-acceptance and self-compassion helps to enhance self-esteem and self-confidence. Second, the idea of "living in the moment" in mindfulness practice can help students reduce regret over past mistakes and anxiety about future uncertainties, promoting the formation of more peaceful, open personality traits. In addition, through the practice and sharing of team mindfulness, it can enhance the mutual understanding and support among students, cultivate students' spirit of cooperation and social responsibility, and improve students' personality quality. In terms of improving adaptive quality, one is to use mindfulness skills to reduce the physical and mental burden and improve students' ability to resist pressure. The second is to carry out mindfulness-oriented career planning education to guide students to explore their own and professional interests and enhance their ability to adapt to future changes. Through these strategies, we can effectively improve the mental health quality of college students and promote their all-round development.

6. Study Limitations and Outlook

There are several limitations in this study. The mental health quality of college students is a complex concept. This study mainly adopts the sampling method of convenient sampling, and there may be deviations in sample selection. In future studies, quantitative data research and qualitative analysis can be combined to explore together.

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