

The Effect of Self-Efficacy on Students' positive Mental Health During the COVID-19 Pandemic

Hua Wang^{1*}, Sharifah Muzlia Syed Mustafa¹, Siti Zuraida Maarof¹,
Muhamad Nur Fariduddin¹

¹ Faculty of Education, Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia

*Corresponding Author: muzlia@uitm.edu.my

Received: 25 August 2024 | Accepted: 20 September 2024 | Published: 1 November 2024

DOI: <https://doi.org/10.55057/ijares.2024.6.3.63>

Abstract: *The COVID-19 pandemic led to a notable rise in the worldwide incidence of anxiety and depression, primarily attributed to social isolation. A key takeaway from this experience is the importance of fostering resilience and adaptability among individuals. Given the established significant relationship between self-efficacy and resilience, this study seeks to confirm the influence of self-efficacy on the positive mental health status of China students during the COVID-19 pandemic. The study findings indicated that self-efficacy, an internal psychological resource, had a positive impact on students' positive mental health (well-being) during the COVID-19 pandemic ($P < 0.05$). Therefore, it is suggested that when carrying out positive mental health education under the epidemic situation, colleges and universities should pay attention to the cultivation of college students' sense of self-efficacy, to improve their positive mental health level, enhance their positive psychological quality and internal psychological resources to cope with similar public health emergencies, effectively relieve pressure and enhance well-being.*

Keywords: Positive Mental Health Education, Self-Efficacy, Well-Being

1. Introduction

In the beginning of 2020, China and the entire world were severely affected by the rapid spread of the COVID-19 pandemic. On March 13, 2020, the World Health Organization (WHO) officially declared novel coronavirus (COVID-19) as a pandemic (Cucinotta & Vanelli, 2020). This global crisis has significantly impacted people's lifestyles and work patterns, leading to changes in their psychological well-being. College students, whose personalities and psyches are still developing, have been particularly affected by these shifts.

2. Literature Review

A study by Aristovnik, Keržič, Ravšelj, Tomažević & Umek (2020) found that the COVID-19 pandemic significantly affected the academic and personal lives of higher education students. This impact included shifts to online learning and counseling, closure of libraries, changes in communication methods with faculty and administration, new evaluation techniques, altered workloads and performance levels (Abelskamp & Santamarinam, 2020; Bezerra, 2020; Kamarianos et al., 2020). Additionally, it influenced their social lives by forcing some to move

back home due to dormitory closures or restricting interactions with friends and family members as well as limiting social activities like parties and travel.

In the context of China, data from an online survey conducted by Huazhong University of Science and Technology (2020) indicates that a significant number of college students experienced stress-related reactions, including horror, tension, and fear, during the COVID-19 outbreak. Notably, fewer than 5% of these students managed to adapt effectively to the situation. The pandemic has disrupted normal life and work routines to varying extents, potentially exacerbating feelings of anxiety, fear, and panic among individuals. Although the COVID-19 situation in China has been largely brought under control, the psychological challenges faced by college students have become particularly pronounced, especially during the initial phases of pandemic prevention and control when they were isolated at home, as well as during their reintegration into communal life upon returning to school.

Research has identified several issues stemming from the COVID-19 pandemic that have affected students: emotionally, they have reported feelings of tension, fear, and anxiety; in terms of social interactions, there has been a noticeable decline in communication and an inclination towards social withdrawal; academically, students have experienced cognitive disruptions, diminished motivation for learning, and reduced achievement drive; and regarding their overall life perspective, many have expressed feelings of helplessness, insecurity, a lack of meaning in life, and a sense of alienation from their values and outlook on life (Chang, Yuan & Wang, 2020).

The pandemic coincided with the winter vacation, and the prolonged isolation at home, coupled with the delay in the resumption of classes, intensified psychological responses such as panic, anxiety, and depression among college students (Tian, Li, Tian, et al., 2020). Furthermore, college students are navigating a unique phase characterized by a complex interplay of various emotional factors. When faced with unforeseen circumstances, their emotional, cognitive, and behavioral responses can lead to a cascade of negative reactions, resulting in significant psychological issues and disorders (Ma, Wang, Liao, 2020). The psychological challenges experienced by Chinese college students during the epidemic can manifest in both cognitive and emotional dimensions.

Owing to the impact of the COVID-19 pandemic on students' academic pursuits, daily lives, and psychological well-being, it is imperative to closely monitor each student's circumstances, comprehensively assess their mental health status, and offer psychological guidance and intervention to foster a positive mindset. Consequently, amidst the ongoing efforts in pandemic prevention and control, it becomes pivotal for higher education institutions to consistently evaluate the mental well-being of college students and provide psychological support. In this context of pandemic management, educators must devise effective strategies for delivering proactive mental health education to college students while nurturing their capacity for rationality and composure in facing similar public health crises and pressures.

The negative impact of the COVID-19 pandemic on mental health is clear, however, there has been relatively little research on the positive effects of the pandemic on mental health and the protective factors that enhance mental health, especially among college students. This also highlights the importance and necessity of this study. Previous studies have focused on the manifestation of mental health issues such as anxiety and depression in the context of COVID-19 (a negative psychological perspective), rather than positive definitions and the presence of health (a positive psychological perspective). While it's important to identify the factors

associated with mental health problems such as anxiety and depression, it's equally important to study the factors that increase positive mental states and well-being. This contributes to a better understanding of human potential, the factors that promote our growth, and the protective factors associated with positive psychology and well-being (Tan et al., 2021).

The concept of self-efficacy was initially introduced by the American psychologist Albert Bandura and serves as a fundamental element of his social cognitive theory (Bandura, 1977). Bandura defines self-efficacy as an individual's assessment of their capability to effectively execute a specific behavior (Bandura, 1986). This assessment may encompass beliefs regarding both physical and mental competencies, as well as more intricate beliefs concerning perceived challenges or obstacles (Bandura, 1997). Research conducted during the COVID-19 pandemic has indicated a correlation between general self-efficacy and mental health issues across various populations (e.g., Bidzan et al., 2020; Mo et al., 2021). Zhou et al. (2021) highlighted the significant role of general self-efficacy in influencing coping strategies and mental well-being during the pandemic of infectious diseases. Furthermore, a study by Mak et al. (2009) found that elevated levels of self-efficacy were linked to a reduction in mental health issues during the SARS outbreak. Additionally, Wei et al. (2014) identified gender disparities in the general self-efficacy of college students, noting that male students exhibited significantly higher levels than their female counterparts, a difference potentially attributable to societal gender roles and expectations. Concurrently, a notable positive relationship was observed between the general self-efficacy of college students and their use of positive coping mechanisms.

The concept of self-efficacy serves as a valuable cognitive appraisal tool, empowering individuals to effectively regulate stress and enhance their resilience against adversity (Bandura, 1992; Bisschop et al., 2004). The purpose of this study was to determine the impact of self-efficacy on students' positive mental health status during the COVID-19 epidemic, and to further explore how to cultivate students' self-efficacy in positive mental health education to help them form positive attitudes and good psychological quality, to relieve psychological pressure.

3. Research Materials and Method

3.1 Research Samples

The online questionnaire survey was conducted among Chinese students from colleges and universities in Shaanxi Province by random sampling, including freshmen to seniors, aged 18 to 22. A total of 843 students returned a completed survey.

3.2 Questionnaires

The MHC-SF, an adult version of the Mental Health Continuum Short Form developed by Keyes, was utilized to measure the positive mental health status of the Chinese college students in this study. This scale demonstrates effective evaluation of positive mental health status following research testing and exhibits strong reliability and validity (Yin & He, 2012). What sets MHC apart is its incorporation of three dimensions of well-being (WB) as indicators for assessing positive mental health. The Adult Edition of MHC-SF encompasses emotional well-being (EWB), social well-being (SWB), and psychological well-being (PWB), comprising a total of 14 items. Participants were requested to indicate the frequency with which they experienced each issue within the past two weeks to one month on a scale ranging from 0 (never) to 5 (every day). In this study, all three dimensions exhibited internal consistency

coefficients exceeding 0.80, and the Cronbach's alpha coefficient for the overall scale is 0.86, indicating good reliability of the questionnaire.

The General Self-Efficacy Scale (GSES) developed by Schwarzer et al. was used to measure self-efficacy in this study. GSES has been translated into at least 25 languages and is widely used internationally (Schwarzer, Born, Iwawaki & Lee, 1997). The Chinese version of GSES has high reliability and validity and meets the requirements of psychometrics (Wang, Hu & Liu, 2001). In this study, participants were requested to rate their perceived self-efficacy status during the pandemic on a scale from 0 (strongly disagree) to 5 (strongly agree). GSES demonstrated good questionnaire reliability with internal consistency coefficients exceeding 0.80 ($\alpha = 0.89$) in this study.

4. Research Findings

4.1 Positive mental health (well-being)

The results of the SPSS data analysis are shown in the Table 1, indicating the level of well-being as indicated by emotional, social and psychological well-beings (EWB, SWB and PWB).

Table 1: Mean of WB

	N	Mean	Std. Deviation
EWB	843	3.9075	1.05566
SWB	843	4.0809	.78329
PWB	843	3.7807	.90024
Overall WB	843	3.9151	.72991

The mean scores were recategorized into three groups: low WB (below $3.9151 - 0.7299 = 3.1852$), median WB (between 3.1852 and 4.645), and high WB (above $3.9151 + 0.7299 = 4.645$). From the Table 2, it was found that there are 1.1% of the students in the high level of positive mental health, 84.2% of the students in the middle level, and 14.7% of the students in the state of negative decadence.

Table 2: Mean of WB

	Frequency	Percent
low WB	124	14.7
median WB	710	84.2
high WB	9	1.1
Total	843	100.0

In summary, the results of the study found that during the COVID-19 epidemic, the overall level of positive mental health of Chinese college students was moderate, and with a small percentage in the low group and needed to be improved.

4.2 Self-Efficacy

From Table 3 below, the average self-efficacy score is around 3.84, indicating that the participants' self-efficacy is moderate.

Table 3: Mean of Self-Efficacy

	N	Mean	Std. Deviation
Self-Efficacy	843	3.8437	.91117

Including self-efficacy as the independent variable and mental well-being as the dependent variable, the regression analysis showed that the Adjusted R Square was 78%, indicating that the independent variable can explain the dependent variable.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.883a	.780	.780	.34270

a. Predictors: (Constant), Self-Efficacy

Table 5: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	349.819	1	349.819	2978.661	.000b
	Residual	98.769	841	.117		
	Total	448.588	842			

a. Dependent Variable: Well-Being

b. Predictors: (Constant), Self-Efficacy

From the table below we found that self-efficacy has a positive impact on students' well-being.

Table 6: Coefficients a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	1.196	.051		23.362	.000
	Self-Efficacy	.707	.013	.883	54.577	.000

a. Dependent Variable: well-being

In summary, the results of the study found that during the COVID-19 epidemic, self-efficacy, an internal psychological resource, has a positive impact on students' positive mental health (well-being) ($P < 0.05$).

5. Conclusion

First, the results of this study show that the overall level of positive mental health of Chinese college students during the epidemic prevention and control period is not high, and the overall well-being of students is moderately low, which needs to be improved. This finding highlights the importance and necessity of strengthening students' positive mental health education. In the context of epidemic prevention and control, it is very necessary and of special significance to integrate positive psychology into psychological education in colleges and universities. Positive psychology is helpful to improve students' overall mental health level and cultivate positive personality. Mental health refers to a positive, optimistic, happy and adaptable mental state. As a contradictory unity, people's psychological state is either positive or negative (Zhang, 2018). Traditional psychological education attaches great importance to the prevention and treatment of psychological problems to alleviate students' psychological plight, but the lack of in-depth development and exploration of students' positive psychological quality leads to the unsatisfactory teaching effect of mental health education.

Positive psychology is oriented to cultivate positive psychological quality and guide students to establish healthy psychological characteristics. Help students develop a positive attitude, resist negative mental states, prevent their occurrence, and comprehensively promote the improvement of mental health (Wu, 2019). Positive psychology is dedicated to the study and exploration of

individual development potential and virtues, advocating individuals to live in a happy, dedicated, meaningful way. It is particularly instructive for relieving negative emotions, anxiety, panic, depression, helplessness and other negative psychological problems.

Secondly, another important finding of this study is that there is a significant positive correlation between self-efficacy and college students' positive mental health (happiness) during the epidemic prevention and control period students with higher self-efficacy have higher positive mental health. The results are consistent with previous research. Bai, K., Kohli, S., & Malik, A. (2017) concluded that self-efficacy is positively correlated with mental health and is A strong predictor of happiness/mental health. It is also pointed out that self-efficacy is a positive psychological response to mitigate the negative effects that young people may experience. Improving individual self-efficacy will lead to higher psychological well-being and better adaptability to life.

The results of this study suggest that high self-efficacy is a protective factor for students' positive mental health and well-being during COVID-19. This finding could be explained by the fact that students with high self-efficacy were more likely to view the difficulties and challenges they faced positively during the COVID-19 pandemic. When encountering various aspects of pressure caused by the epidemic, compared with students with low self-efficacy, they believe more in their ability to deal with pressure and overcome difficulties through self-adjustment, and their well-being is also higher. Therefore, when conducting positive mental health education for students, attention should be paid to exploring students' inner psychological resources and cultivating students' sense of self-efficacy, so as to enhance students' confidence and positive psychological quality in dealing with similar public health emergencies, effectively relieve pressure and improve well-being.

References

- Aristovnik, A., Keržič, D., Ravšelj, D., Tomažević, N., & Umek, L. (2020). Impacts of the COVID-19 pandemic on life of higher education students: A global perspective. *Sustainability*, 12(20), 8438.
- Abelskamp, G.E.; Santamarinam, J.C. *Academia During the COVID-19 Pandemic: A Study within the Geo-Science and Engineering Field*. Available online: http://alertgeomaterials.eu/data/posts/Abelskamp_and_Santamarina_2020_Academia_During_COVID19Pandemic.pdf (accessed on 15 June 2020).
- Bai, K., Kohli, S., & Malik, A. (2017). Self-efficacy and hope as predictors of mental health. *Indian Journal of Positive Psychology*, 8 (4), 631-635.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1992). Self-efficacy mechanism in psychobiologic functioning. In R. Schwarzer (Ed.), *Self-efficacy: Thought control of action*. (pp. 355---394). Washington: Hemisphere.
- Barrera, M. (2000). *Social Support Research in Community Psychology*. Springer US, Boston, MA. https://doi.org/10.1007/978-1-4615-4193-6_10
- Bisschop, M. I., Kriegsman, D. M., Beekman, A. T., & Deeg, D. J. (2004). Chronic diseases and depression: The modifying role of psychosocial resources. *Social Science & Medicine*, 59, 721---733. <http://dx.doi.org/10.1016/j.socscimed.2003.11.038>
- Chang J H, Yuan Y X, Wang D. (2020). Mental health status and influencing factors of college students under the novel coronavirus pneumonia epidemic. *Journal of Southern Medical University* (02),171-176.
- Cucinotta, D.; Vanelli, M. (2020). WHO declares COVID-19 a pandemic. *Acta Bio-Medica Atenei Parm*, 91, 157–160.

- Kamarianos, I.; Adamopoulou, A.; Lambropoulos, H.; Stamelos, G. (2020). Towards and understanding of university students' response in times of pandemic crisis (COVID-19). *Eur. J. Educ. Stud.*7, 20–40.
- Ma, L., Wang, X., Liao, Q.Y. (2020). Influence of stress events on college students' mental health in novel coronavirus pneumonia. *Health Research*, 40 (3): 257-260.
- Mo, Y., Deng, L., Zhang, L., Lang, Q., Pang, H., Liao, C., Wang, N., Tao, P., & Huang, H. (2021). Anxiety of nurses to support Wuhan in fighting against covid-19 epidemic and its correlation with work stress and self-efficacy. *Journal of Clinical Nursing*, 30 (3–4), 397–405.
- Schwarzer, R. , Born, A. , Iwawaki, S. , & Lee, Y. M. . (1997). The assessment of optimistic self-beliefs: comparison of the chinese, indonesian, japanese, and korean versions of the general self-efficacy scale. *Psychologia*, 40(1), 1-13. — 392.
- Tan, Y., Huang, C., Geng, Y., Cheung, S. P., & Zhang, S. (2021). Psychological well-being in Chinese college students during the COVID-19 pandemic: Roles of resilience and environmental stress. *Frontiers in Psychology*, 12, 671553. <https://doi.org/10.3389/fpsyg.2021.671553>
- Tian, H., Liu, Y., Li, Y., Wu, C., Chen, B., Kraemer, M.U.G., Li, B., Cai, J., Xu, B., Yang, Q., Wang, B., Yang, P., Cui, Y., Song, Y., Zheng, P., Wang, Q., Bjornstad, O. T., Yang, R., Grenfell, T., Pybus, O. G., & Tian, C. D. (2020). An investigation of transmission control measures during the first 50 days of the COVID-19 epidemic in China. *Science*, 368,638 642(2020).DOI:10.1126/science.abb6105
- Wang, C.K., Hu, Z.F., & Liu, Y. (2001). Reliability and validity of general self-efficacy scale. *Applied Psychology* (01), 37-40. (in Chinese) doi: CNKI: SUN: YXNX.0. 2001-01-006.
- Wei, C.L., Chen, H., Wang, W., M, L., & Yang, T. (2014). A Correlation Study among General Self-Efficacy, Self-Consistency and Congruence and Coping Styles in College Students. *Advances in Psychology*, 4(7), pp. 889-895. Bandura, 1992
- Wu, J.J., Liao, Q.L., & Han, L.G. (2019). Research on the effective model of mental health education in colleges and universities under the background of positive psychology. *Heilongjiang Higher Education Research* (03), 113-117. (in Chinese) doi: CNKI: SUN: HLJG.0. 2019-03-024.
- Yin, K.L., & He, J.M. (2012). Reliability and validity of short version of mental health continuous volume scale (adult version). *Chinese Journal of Mental Health* (05), 388-392.
- Zhang, X.Y. (2018). Research on the Undergraduate Mental Health Education in Positive Psychology Horizon (Master Thesis, Bohai University). [https://kns.cnki.net/KCMS/detail/detail.aspx?Dbname=CMFD201802 & filename=1018127716](https://kns.cnki.net/KCMS/detail/detail.aspx?Dbname=CMFD201802&filename=1018127716).
- Zhou, X.H., & Wu, Q. (2021). Study the relationship between college students' sense of life meaning, perceived social support and resilience. *Occupation and Health* (20), 2826-2830. doi: 10.13329/j.cnki.zyyjk.2021.0665.