

Research on Prevention and Response Mechanisms for Psychological Crisis among College Students in Plateau Region

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Abstract: Against the backdrop of rapid social development and increasing competition pressure, especially exacerbated by the impact of the COVID-19 pandemic, the mental health issues of college students in the plateau region of China have drawn significant attention. They are confronted with severe psychological challenges, yet research on relevant prevention and coping strategies remains relatively limited. This study utilized a psychological health screening scale specifically designed for Chinese university students to conduct an in-depth investigation into the mental state of freshmen before and after the outbreak in a certain university in plateau region. Through a comprehensive analysis of 22 psychological health dimensions, we found that male college students exhibited significantly better mental health conditions than females, and freshmen during the pandemic showed better psychological health conditions. Based on these observed results, we further proposed a series of targeted recommendations and strategies.

Keywords: Psychological crisis, college students, psychological prevention, Response mechanisms

1. Introduction

Since the outbreak of the COVID-19 pandemic globally, our ways of life, work, and study have undergone significant changes^[1]. For college students, this pandemic represents not only a health crisis but also a psychological challenge. At this unprecedented moment, we are compelled to reexamine and adjust our lifestyles, adapting to a reality we never imagined before.

Before the pandemic, college students typically faced challenges in academic pressure, interpersonal relationships, and future planning, among other aspects^[2]. However, the sudden onset of the pandemic completely changed everything. Students transitioned from familiar campus environments to unfamiliar online learning spaces, and the once bustling schedule of classes and social activities became silent. As schools shifted to online teaching, college students had to adapt to new learning methods amidst loneliness and anxiety, while also facing the unknown risks of the pandemic and concerns from their families.^[3-5] During this period, some severe psychological problems may even lead to more serious consequences. In plateau regions, characterized by high altitudes and chronic cold temperatures^[6], we must carefully consider the psychological state of college students. Has the pandemic exacerbated their feelings of anxiety, loneliness, and helplessness? What impact has the pandemic had on their mental health? The answers to these questions are crucial for understanding and addressing the mental health issues among college students.

To better understand this issue, we first need to grasp the concept and origin of "psychological crisis." Psychologist Lindemann was the first to propose this concept, further elaborated upon by Caplan^[7-8]. They posit that when individuals face certain situations where their usual coping strategies and support systems fail to meet their needs, psychological imbalance, or a psychological crisis, may occur. This theoretical framework provides support for identifying and interpreting psychological issues among college students.

College students' psychological crises can be finely categorized from various perspectives. Firstly, we can classify them based on individual traits, including gender, academic year, and family background. Secondly, based on the depth and urgency of the crisis, they can be defined as "first-level, second-level, and third-level" psychological crises. Furthermore, starting from the triggering causes of the crisis,

classifications may encompass adaptation difficulties, academic pressure, romantic troubles, interpersonal conflicts, specific life events, financial hardships, employment concerns, and complex crises^[9]. Classified according to Chinese scholars, college students' psychological crises can be subdivided into existential, developmental, and situational crises^[10]. Each type may pose significant challenges to the psychological growth of college students. Faced with these issues, we have a responsibility to provide adequate attention and ensure the continuous cultivation and protection of college students' mental health.

To address the aforementioned issues, we have decided to conduct a comparative study on the mental health status of college freshmen in 2018 and 2021. Such research will not only help us understand the specific impacts of the pandemic on them but also provide a robust basis for developing targeted psychological health education and assistance strategies in the future. This paper will delve into the changes in college students' psychological levels before and after the pandemic, explore the influencing factors of the pandemic on college students' psychology, and propose suggestions to improve college students' mental health. Through our investigation, we hope to better focus on the mental health of college students, effectively identify and intervene in their psychological issues in a timely manner, and contribute to the prevention of potential crises and the enhancement of their mental health quality.

2. Methods

2.1. Survey Participants

Freshmen from a certain university in plateau region were selected as the research subjects. Before the pandemic, a total of 1,913 students participated in the survey. Among them, there were 1,018 males (53.2%) and 895 females (46.8%). During the pandemic, a total of 2,453 students participated in the survey. Among them, there were 1,314 males (51.7%) and 1,139 females (48.3%). This study was approved by the Ethics Committee of this University. The survey was conducted anonymously, and informed consent was obtained from the students.

2.2. Survey Instruments

This study utilized the Chinese College Student Psychological Health Screening Scale^[11], which was developed by experts organized by the Ministry of Education and has demonstrated high reliability and validity. The scale comprises 96 items and is divided into three levels of screening, totaling 22 screening indicators. The first-level screening is for severe psychological problems, including indicators such as hallucinations and suicidal behavior and ideation. The second-level screening is for general psychological problems, divided into internalizing and externalizing psychological problems. Internalizing psychological problems include anxiety, depression, paranoia, inferiority, sensitivity, social phobia, and somatization. Externalizing psychological problems include dependency, hostile aggression, impulsivity, compulsivity, internet addiction, self-harming behavior, eating problems, and sleep disturbances. The third-level screening is for developmental distress, including difficulties in school adaptation, interpersonal relationship troubles, academic pressure, employment pressure, and romantic relationship troubles. The first and second-level screenings are the core of screening for student psychological health problems, while the third-level screening mainly reflects the sources of student psychological distress and hints at potential psychological problems.

3. Survey Results

3.1. Statistical Analysis

Statistical analysis was conducted using SPSS 27.0 to explore differences in different levels of psychological health screening indicators before and after the pandemic and across genders.

3.1.1. Primary Psychological Health Screening Results for New Students of Different Genders Before and During the Pandemic

In a survey of 4,456 freshmen, the analysis of first-level screening indicators revealed no significant differences between males and females in terms of hallucinations and suicidal intent. However, both male and female students exhibited higher levels of suicidal intent during the pandemic compared to before the pandemic (see Table 1 for details).

Table 1. Statistical Results of Primary Screening by Gender Before and During the Pandemic

Symptom	Sex	Pre-pandemic			During the pandemic			p
		n	M	SD	n	M	SD	
Hallucinations and Delusions symptoms	Male	1018	0.59	1.372	1314	0.53	1.432	0.283
	Female	895	0.61	1.295	1139	0.57	1.295	0.509
	p	0.759			0.432			
Suicidal tendency	Male	1018	0.37	1.426	1314	0.50	1.516	0.024
	Female	895	0.28	1.346	1139	0.42	1.397	0.021
	p	0.165			0.144			

3.1.2. Secondary Psychological Health Screening Results for New Students of Different Genders Before and During the Pandemic

Secondary psychological health screening indicators are divided into two aspects: internalizing psychological problems and externalizing psychological problems, as detailed in Table 2. The results show that females score higher than males in internalizing psychological problems, while in terms of externalizing psychological problems, except for self-harm behavior, males generally score lower than females. During the pandemic, females' hostility index decreased, and males' internet addiction also decreased. Overall, except for the social control index, scores for internalizing psychological problems generally decreased during the pandemic, and scores for externalizing psychological problems, except for self-harm, hostility, and internet addiction indicators, also decreased.

Table 2. Statistical Results of Secondary Screening by Gender Before and During the Pandemic

Category	Symptom	Sex	Pre-pandemic			During the pandemic			p
			n	M	SD	n	M	SD	
Internalizing psychological problems	Anxiety	Male	1018	0.33	1.091	1314	0.22	1.172	0.014
		Female	895	0.70	1.096	1139	0.55	1.151	0.005
		p	<0.001			<0.001			
	Depression	Male	1018	0.36	1.098	1314	0.22	1.175	0.003
		Female	895	0.74	1.098	1139	0.48	1.073	<0.001
		p	<0.001			<0.001			
	Paranoia	Male	1018	0.33	1.071	1314	0.23	1.170	0.036
		Female	895	0.57	1.054	1139	0.43	1.054	0.002
		p	<0.001			<0.001			
	Inferiority	Male	1018	0.33	1.078	1314	0.21	1.189	0.009
		Female	895	0.79	1.115	1139	0.53	1.101	<0.001
		p	<0.001			<0.001			
	Sensitive	Male	1018	0.18	0.972	1314	0.03	1.080	0.001
		Female	895	0.62	1.002	1139	0.41	1.015	<0.001
		p	<0.001			<0.001			
	Social anxiety	Male	1018	0.34	1.070	1314	0.28	1.174	0.197
		Female	895	0.70	1.159	1139	0.70	1.187	0.886
		p	<0.001			<0.001			
Somatization	Male	1018	0.43	1.233	1314	0.30	1.265	0.011	
	Female	895	0.71	1.280	1139	0.45	1.222	<0.001	
	p	<0.001			0.004				
Externalizing psychological problems	Dependence	Male	1018	0.37	1.076	1314	0.16	1.091	<0.001
		Female	895	0.72	1.115	1139	0.48	1.030	<0.001
		p	<0.001			<0.001			
	Hostile	Male	1018	0.38	1.162	1314	0.29	1.243	0.059
		Female	895	0.51	1.152	1139	0.40	1.110	0.029
		p	0.016			0.018			
	Impulsivity	Male	1018	0.34	1.057	1314	0.11	1.089	<0.001
		Female	895	0.77	1.058	1139	0.48	1.033	<0.001
		p	<0.001			<0.001			
	Compulsion	Male	1018	0.23	.953	1314	0.02	1.020	<0.001
		Female	895	0.54	.943	1139	0.32	0.960	<0.001
		p	<0.001			<0.001			
	Internet addiction	Male	1018	0.23	1.012	1314	0.12	1.021	0.011
		Female	895	0.50	0.957	1139	0.45	0.950	0.259
		p	<0.001			<0.001			
	Self-harm behavior	Male	1018	0.66	1.464	1314	0.60	1.528	0.378
		Female	895	0.63	1.306	1139	0.60	1.365	0.673
		p	0.647			0.991			
Eating disorders	Male	1018	0.45	1.209	1314	0.30	1.308	0.005	
	Female	895	0.78	1.146	1139	0.57	1.134	<0.001	
	p	<0.001			<0.001				
Sleep disturbances	Male	1018	0.18	.984	1314	0.03	1.044	0.001	
	Female	895	0.46	.971	1139	0.30	0.966	<0.001	
	p	<0.001			<0.001				

3.1.3. Results of Tertiary Psychological Health Screening for New Students of Different Genders Before and During the Pandemic

Tertiary psychological health indicators primarily focus on general stress and adaptation issues, including school adaptation, interpersonal relationships, academic pressure, employment pressure, and romantic relationship problems. The data shows that, in terms of gender, except for romantic relationship problems, female students generally scored higher than male students in the other four indicators. In terms of timing, during the pandemic, except for male students' scores on interpersonal relationships showing no significant difference, the scores of both male and female students generally decreased in other indicators (refer to Table 3).

Table 3. Statistical Results of Tertiary Screening by Gender Before and During the Pandemic

Category	Sex	Pre-pandemic			During the pandemic			p
		n	M	SD	n	M	SD	
School adaptation	Male	1018	0.36	1.018	1314	0.17	1.083	<0.001
	Female	895	0.57	0.998	1139	0.37	0.940	<0.001
	p	<0.001			<0.001			
Interpersonal relationships	Male	1018	0.28	1.051	1314	0.23	1.164	.267
	Female	895	0.58	1.035	1139	0.43	1.036	<0.001
	p	<0.001			<0.001			
Academic pressure	Male	1018	0.44	0.978	1314	0.25	1.065	<0.001
	Female	895	1.04	0.894	1139	0.76	0.944	<0.001
	p	<0.001			<0.001			
Employment pressure	Male	1018	0.13	0.914	1314	0.02	0.999	<0.001
	Female	895	0.71	0.913	1139	0.49	0.954	<0.001
	p	<0.001			<0.001			
Relationship troubles	Male	1018	0.24	1.045	1314	0.09	1.068	0.001
	Female	895	0.31	1.048	1139	0.15	1.027	<0.001
	p	0.118			0.174			

4. Discussion

This study conducted a mental health survey before and during the pandemic on 4456 first-year college students using the Chinese University Student Psychological Health Screening Scale. The findings revealed significant effects of gender and time on mental health. Additionally, it was observed that during the pandemic, there was an increase in suicidal tendencies among college students.

4.1. Comparison of Mental Health Status Among Different Genders of College Freshmen

There are significant differences in mental health status based on gender. The research findings indicate that, except for primary mental health indicators, male college freshmen exhibit notably better mental health levels than female counterparts. This difference may be partially influenced by biological factors, such as the impact of hormone levels on emotional regulation and coping abilities. Females may be more susceptible to emotional fluctuations due to the influences of menstrual cycles and biological rhythms^[12]. Social roles and expectations also affect mental health, and males and females may adopt different strategies for coping with stress. Males are often encouraged to demonstrate independence, competitiveness, and autonomy^[13], while females may face more pressure related to appearance, interpersonal relationships, and family roles. Research suggests that males are more likely to cope with stress through activities and extroverted means, while females tend to be more introspective and expressive of their emotions^[14]. Adapting to college life may be more challenging for some individuals, especially females, who may be more susceptible to the effects of family separation, new environments, and new social circles.

4.2. Trend in Psychological Health Status of College Freshmen

This study found a significant increase in suicidal tendencies among college students during the pandemic, which may be attributed to various factors including heightened anxiety, increased stress, and social isolation. The disruption of daily routines due to the pandemic has exacerbated psychological burdens, thereby elevating the risk of suicide. However, concurrently, the study also observed that other aspects of the psychological health of college freshmen improved during the pandemic. This positive shift may be attributed to the combined effects of multiple factors.

Firstly, there has been an unprecedented increase in national attention to the mental health of college

students. A series of policies and measures have been gradually formulated with the aim of enhancing students' psychological resilience to better cope with the challenges brought about by the pandemic^[15]. These measures not only include providing psychological counseling and educational resources but also strive to create a supportive environment that encourages students to share their emotions and experiences with others.

Furthermore, the level of attention given to mental health issues by schools, families, and society has also reached unprecedented heights. Schools have implemented a range of mental health support measures tailored to the pandemic, such as providing online counseling services and organizing support groups or workshops to help students better cope with the stress and anxiety caused by the pandemic^[16]. Additionally, the support from family and societal environments may positively influence the psychological health of college freshmen. They may receive understanding and support from family members, friends, and communities, enabling them to better adapt to the changes brought about by the pandemic^[17].

Moreover, the role of individual psychological resilience and adaptability is crucial in this process^[18]. Some students may overcome difficulties by maintaining a positive mindset and employing effective coping strategies, thus maintaining a good state of mental health. Taking into account these factors collectively helps to explain why college freshmen have performed better during the pandemic.

4.3. Recommendations

Currently, mental health issues among college students are on the rise, especially more pronounced in the female population. In order to effectively address this trend, psychological crisis intervention has become a crucial strategy^[19]. Its goal is to handle existing psychological crises in a timely manner and gradually restore students' mental well-being through continuous and efficient efforts. Drawing from existing successful experiences, survey results, and practical situations, it is recommended to undertake construction efforts from multiple aspects:

Faculty Development: Strengthen training for faculty members, establish dedicated positions for psychological counselors, and provide relevant training for psychology teachers, counselors, etc.

Psychological Counseling Center: Establish an independent psychological counseling center within the Student Affairs Office, ensuring sufficient resources to provide counseling and guidance services to students.

Mental Health Promotion: Promote the importance of mental health widely, correct misunderstandings, and encourage students to seek help when facing psychological issues.

Curriculum Development: Incorporate mental health courses as a priority, explore various intervention models for psychological issues, and integrate them into teaching.

Mental Health Surveys: Conduct annual mental health surveys to establish a database for a more accurate understanding of students' mental health status.

Psychological Early Warning System: Establish a comprehensive psychological early warning system involving students, class teachers, counselors, teachers, and parents to ensure students receive comprehensive care and support. Prompt intervention and focused observation should be implemented once students with suicidal tendencies are identified.

Targeted Counseling: Provide targeted assistance and support based on student psychological assessment results to ensure timely and effective care for their mental health.

In summary, addressing the mental health of college students requires targeted strategies and measures from multiple dimensions.

5. Conclusion

This study conducted a mental health survey on 4456 first-year students at a certain University. The results indicate that, compared to males, females exhibited poorer mental health levels in secondary and tertiary screenings. However, following the outbreak of the pandemic, with the increased support from the government, society, and families, the mental health levels of both males and females have improved, suggesting that the nation's emphasis on mental health has played a positive role. Nevertheless, the emphasis on mental health needs to be sustained, and there is a need for further improvement in

psychological crisis intervention measures to provide more comprehensive mental health services to college students.

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