

Mental Health Status and Influencing Factors of College Students under the Normal Prevention and Control of Novel Coronavirus Epidemic

Xue Wen

Jining Normal University, Wulanchabu 012000

Abstract: In this study, the Generalized Anxiety Scale (GAD-7) and Depressive Symptom Cluster Scale (PHQ-9) were used to conduct online and offline psychological tests on 1342 college students by random sampling survey to evaluate the mental health status of college students during the period of normal prevention and control of the novel coronavirus pneumonia epidemic. The results showed that during the normal epidemic prevention and control period, the mental health status of most college students was at a normal level, and a few students had anxiety, depression and other adverse emotional reactions. The mental health status of college students is mainly affected by gender, age and other factors.

Keywords: COVID-19 epidemic; Regular epidemic prevention and control; College students; Mental health

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1. Introduction

From the outbreak to the regular prevention and control of the novel coronavirus pneumonia epidemic, it has affected all aspects of people's lives, and also affected people's mental health. Studies have shown that with the constant changes of the epidemic, the control policies and teaching methods adjusted at any time may cause anxiety, depression and other adverse emotional reactions among college students, which will further affect their academic, life and social adaptability^[1]. The purpose of this study was to investigate the mental health status and influencing factors of college students under the normal epidemic prevention and control, and to provide suggestions for the formulation of effective psychological intervention programs for college students.

2. Methods

2.1 Methods and procedures

A random sampling survey method was adopted in this study. From March 2022 to July 2022, online and offline questionnaires were distributed to eligible college students in two batches. A total of 1451 questionnaires were distributed and 1409 were recovered.

2.2 Survey Tools

The Generalized Anxiety Scale (GAD-7)^[2] consists of 7 test items, which are scored using the Likert4 scale (0-3 means "not at all-almost every day"), and the total value is between 0 and 21 points, the higher the score, the higher the anxiety level of the respondent.

The Depression Symptom Cluster Scale (PHQ-9)^[3] consists of 9 test items, which are scored using the Likert4 scale (0-3 means "not at all-almost every day"), and the total value is between 0 and 27 points, the higher the depression level of the respondent.

2.3 Data Statistics

SPSS20.0 software was used to carry out statistical analysis of data, $P < 0.05$ indicates a statistically significant difference.

3. Results

3.1 Anxiety among college students

The anxiety situation of 1342 college students is shown in Table 1.

Table 1 Anxiety state of college students

Profile	M	N	%
No Anxiety (0-4)	2.96±1.67	894	66.62%
Mild anxiety (5-9)	7.06±1.18	339	25.26%
Moderate anxiety (10-13)	11.18±1.24	73	5.44%
Severe anxiety (14-21)	18.09±2.16	36	2.68%

As can be seen from Table 2,this suggests that most of the students(66.62%)in the study were not anxious.

3.2 Depression status of college students

The depression status of 1342 college students is shown in Table 2.

Table2 Depressive emotional state of college students

Profile	M	N	%
No depression (0-4)	2.74±1.23	775	57.75%
Mild depression (5-9)	7.57±1.35	489	36.44%
Moderate depression (10-14)	12.03±1.98	66	4.92%
Severe depression (15-27)	18.87±3.44	12	0.09%

As can be seen from Table 3,more than half of the students(57.75%)were not depressed..

3.3 Analysis of influencing factors of college students' mental health

T-test and F-test were conducted to analyze the effects of gender,grade and age on anxiety and depression of 1342 college students.The results are shown in Tables 3,4.

Table 3 Anxiety and Depressive emotional when grouped according to Sex

Variable	p-value	Interpretation
Anxiety	<0.001	Significant
Depressive	<0.001	Significant

Table 3 shows that there are significant differences in anxiety and depressive emotional among participants in gender groups($P<0.001$).Further analysis of the mean values of anxiety and depressive emotional after gender grouping showed that male students scored lower than female students on the mean values of the two variables by gender grouping.

Table 4 Anxiety and Depressive emotional when grouped according to Grade

Variable	p-value	Interpretation
Anxiety	0.006	Significant
Depressive	0.032	Significant

Table 4 shows that participants'anxiety and depressive emotional have significant differences in grade groups($P<0.01$, $P<0.05$). Further analysis of the average scores of the two variables grouped by grade,in terms of anxiety,the average score of senior year was the highest,significantly higher than the average and total average of the other three grades.The freshman year had the highest depression scores,significantly higher than the other three grades.

4. Discussion

The results showed that 8.12% of the surveyed college students were moderately anxious and 5.01% were moderately depressed. It was lower than the mental health status of college students at the beginning of the COVID-19^[4]. Recently, the overall epidemic situation in China has been effectively controlled, from the epidemic to the normal management, all sectors of society have generally increased attention to the mental health of college students, and carried out a series of relevant lectures, psychological counseling and other intervention measures, which are closely related to the relatively good mental health status of college students. In addition, although most college students can maintain good mental health under the normal epidemic prevention and control, there are still some students whose abnormal mental performance deserves our attention, so as to further understand the influencing factors of their mental health status and conduct timely and effective intervention.

The results showed that there were significant differences in anxiety and depression between different genders ($P < 0.001$), and the scores of both anxiety and depression were significantly higher for girls than for boys, indicating that women showed more serious mental health problems than men under normal epidemic prevention and control. This may be related to the fact that women have a higher perception of the environment and emotions. When the environment changes, women are more likely to quickly perceive the changing environment and react on various emotional expressions, thus affecting their mental health status.

In terms of anxiety, the average score of the senior students was the highest, significantly higher than the average score of the other three grades and the overall average score; Freshman year had the highest depression scores, significantly higher than the other three grades. This may be related to the current problems facing students at different grades and their ability to adapt to the environment. Senior students are faced with relatively large employment pressure, and long-term normal prevention and control will affect their understanding and planning of future career development. Most students may feel anxious and full of pressure because they cannot control the unknown environment. As freshmen have just entered the school, they are still in the stage of adapting to the environment. The long-term normal management of epidemic prevention and control prevents them from entering and leaving the campus normally, and they are unable to meet with family or friends who provide social support, which may be the main reason affecting their mood and mental health at school.

5. Suggestions

According to the results of this study, combined with other relevant investigations, the following suggestions are put forward for the mental health work of college students under the normal epidemic prevention and control of COVID-19:

5.1 All colleges and universities should pay attention to the mental health problems of college students after emergencies, and take timely and effective measures to conduct comprehensive mental health screening and intervention.

5.2 Pay attention to the mental health status of college students in different groups, such as different grades and different genders, and formulate psychological work plans accordingly.

5.3 Strengthen the publicity of mental health knowledge and COVID-19 knowledge through various channels to help students establish a correct attitude towards public events and adjust their mental state.

5.4 Increase the spare time activities of college students, encourage them to develop their own interests and hobbies during the normal management period, and do more physical exercise to enrich their school life.

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About the author:

Xue Wen (1992.03-), female, Han nationality, PhD candidate, lecturer, research interests: Mental health and psychological counseling, family relations and child development.