

Investigation of the Mental Health Status and Related Factors of Impoverished College Students in the New Era

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Abstract: With the rapid development of the new era, social competition is becoming fiercer and fiercer, and social pressure is increasing, the group of college students has received more extensive attention. Caring for the mental health of poor students and strengthening mental health education is a must for colleges and universities. It is an indispensable part. To help impoverished college students learn and grow in a healthy way, research on the mental health status of impoverished college students can provide important support for the work and management of college education. Provide targeted and effective help and lay the foundation for mental health intervention work in colleges and universities.

Keywords: poor college students, mental health-related factors

1. Introduction

The rapid development of society seriously affects the psychological development of college students. College students are at an important stage of rapid physical and mental development, and the incidence of mental disorders among college students is increasing year by year. Mental health education is an issue that needs to be addressed by colleges and universities [1-4]. Poor college students are a special group in colleges and universities, and compared with ordinary college students, poor college students have more and more serious psychological problems. Therefore, this survey used a standardized scale to measure the mental health status of underprivileged college students, trying to understand the mental health level of poor college students in the new era and the influencing factors provide a theoretical basis for educating and helping impoverished college students to study and develop healthily.

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2. Objects and Methods

Definition Criteria for Poor Students The definition criteria for poor students used in this article are based on the "Guiding Opinions of the Ministry of Education and Other Six Departments on Doing a Good Job in Identifying Students from Families with Economic Difficulties", adhere to the concept of seeking truth from facts and people-oriented, and follow the basic principles of fairness, justice, and openness.

2.1 The standard of poor students adopted in this paper

(1) College students who cannot afford the various expenses set by the school, or who find it difficult to maintain normal study and living expenses after school;

(2) According to the standard that the monthly per capita income of the family is less than 150 yuan or the monthly living expenses are less than 200 yuan, I apply for a living allowance;

(3) The township, town government, or work unit where the family is located provides evidence of the family's economic income, difficulties, or minimum allowances;

(4) The counselor discusses and deliberates on the basis of the family's daily living performance;

(5) Students from each school review and approve.

2.2 Research objects:

This study adopts cluster random sampling and selects 144 college students from 2 colleges and universities in Hunan Province for investigation. The sample composition is as follows: 77 students from S colleges, accounting for 53.47%, 67 students from N women's colleges, accounting for 46.53% %; 43 impoverished college students, accounting for 29.86%, 101 non-poor college students, accounting for 70.14%; 54 boys, accounting for 37.5%, 90 girls, accounting for 62.5%; 96 sophomores, accounting for 66.67%, 14 juniors, accounting for 9.72%, and 34 seniors, accounting for 23.61%.

2.3 Survey tools:

This survey uses the Mental Health Symptoms Self-Rating Scale (SCL-90) [5] and the Parenting Style Evaluation Scale (EMBU) [5].

2.4 Data collection and analysis:

The testers distributed the questionnaires on the spot, and all the subjects completed the questionnaires anonymously after carefully reading the instructions. A total of 170 questionnaires were sent out and 144 were returned, with an effective response rate of 84.70%. All of the 144 valid questionnaires were entered into the computer for statistical analysis using the SPSS22.0 software package.

3. Results

3.1 The test results of SCL-90 for college students

3.1.1 The detection rate of mental health disorders among college students (see Table 1)

Table 1 The detection rate of mental health disorders among college

Students Classified	Number of students	With problems	n (%)
Overall	144	4	2.78
S	77	1	1.30
N	67	3	4.48
Poor students	43	2	4.65
Non-poor students	101	2	1.98
Large 2	96	4	4.17
Large 3	14	0	0
Senior	34	0	0

According to the scoring standard of the SCL-90, a ne-factor score equal to or greater than 3 is considered positive, meaning there is a mental disorder. A score equal to or greater than 4 is considered a severe mental disorder. In this survey, among the 43 poor students, 3 were positive, and 1 of the 101 non-poor students was positive; the positive tests were all from the sophomore year.

3.1.2 Comparison of SCL-90 symptom factors between impoverished college students and ordinary college students (see Table 2)

Table 2 Comparison results of the mean and standard deviation of SCL-90 symptom factors between impoverished college students and ordinary college students (M±S)

Classification	Poor college students (43)	Ordinary college students (101)	P	national norm (1338)	P
Somatization	.6609±.5417	.5230±.4448	>0.05	1.37±0.48	>0.05
Obsessive-Compulsive symptoms	1.2163±.7010	.9378±.5833	<0.05*	0.62±0.58	<0.01**
Interpersonal sensitivity	1.0568±.7083	.8605±.5951	<0.05*	1.65±0.61	>0.05
Depression	1.0877±.7023	.7975±.5929	<0.05*	1.5±0.59	>0.05
Anxiety	.9512±.7001	.7367±.6111	>0.05	1.39±0.43	>0.05
Hostility	.8217±.6366	.7415±.6614	>0.05	1.46±0.55	>0.05
Terror	.6744±.5614	.5525±.5940	>0.05	1.23±0.41	>0.05
Paranoia	.9031±.5844	.7534±.5620	>0.05	1.43±0.57	>0.05
Mental illness	.8186±.5666	.6112±.4994	<0.05*	1.29±0.42	>0.05

Note: * $P < 0.05$, ** $P < 0.01$

The SCL-90 scale test shows that the symptom factors of impoverished college students in the SCL-90 are higher than those of ordinary college students, among which there are significant differences in obsessive-compulsive symptoms, interpersonal sensitivity, depression, and mental illness factors. The scores of the four factors of somatization, anxiety, terror, and paranoia are significantly higher than those of ordinary college students. There is no significant difference between ordinary college students and the national norm, but there is a significant difference in the factor of obsessive-compulsive symptoms between impoverished college students and the norm.

3.1.3 Detection rate of mental health disorders in boys and girls (see Table 3)

Table 3 The detection rate of mental health disorders in boys and girls

Classification	Number of people	problem students	n(%)
Boys	54	1	1.85
Girls	90	3	3.33

The effective number of males in this survey is 54, and 1 person is positive, accounting for 1.85% of the total number of males; the effective number of females is 90, there were 3 positive cases, accounting for 3.33% of the total number of females.

3.1.4 Comparison of SCL-90 symptom factors between boys and girls (see Table 4)

Table 4 Comparison of SCL-90 symptom factors between boys and girls ($\bar{x} \pm s$)

Classification	Boys (54)	Girls (90)	P
Somatization	.6330±.4540	.5715±.4633	>0.05
Compulsive symptoms	1.0727±.5976	1.0463±.6258	>0.05
Interpersonal sensitivity	1.0375±.5687	.9469±.6304	>0.05
Depression	.9688±.5740	.9053±.6391	>0.05
Anxiety	.8359±.5153	.8246±.6432	>0.05
Hostile	.9891±.5866	.7711±.6443	<0.05*
Terror	.5979±.6117	.6023±.5819	>0.05
Paranoia	.9884±.5848	.8122±.5588	>0.05
Mental illness	.7745±.5956	.6813±.5240	>0.05

Note: * $P<0.05$, ** $P<0.01$

Table 4 shows that there are differences in hostility factors on the SCL-90 between college students of different genders, but there are no significant differences in other factors.

4. Comparison of parenting styles between poor college students and non-poor college students

4.1 Correlation analysis between each factor of parenting style and each factor of SCL-90

Table 5 Correlation analysis between various factors of parental rearing patterns and various factors of SCL-90

		ff1	ff3	ff4	ff5	ff6	mf1	mf2	mf3	mf4	mf5
Total score	Pearson Correlation	-.033	.018	-.057	.044	.119	.012	.108	-.012	-.079	-.040
	Sig. (2-tailed)	.694	.836	.543	.607	.157	.890	.200	.886	.351	.669
	N	142	142	117	142	142	142	142	142	142	117
Number of positive items	Pearson Correlation	-.025	.025	-.042	.040	.165	-.009	.090	.057	-.043	-.010
	Sig. (2-tailed)	.769	.770	.654	.635	.050	.918	.284	.497	.611	.915
	N	142	142	117	142	142	142	142	142	142	117
Overall average	Pearson Correlation	-.033	.018	-.057	.044	.119	.012	.108	-.012	-.079	-.040
	Sig. (2-tailed)	.694	.836	.543	.607	.157	.890	.200	.886	.351	.669
	N	142	142	117	142	142	142	142	142	142	117
positive distress level	Pearson Correlation	-.010	.006	-.055	.008	-.006	.100	.097	-.100	-.081	-.041
	Sig. (2-tailed)	.905	.948	.554	.921	.943	.238	.252	.237	.338	.657
	N	142	142	117	142	142	142	142	142	142	117
Somatic	Pearson Correlation	-.066	.052	-.075	.066	.075	-.033	.098	.030	.011	-.071
	Sig. (2-tailed)	.435	.536	.421	.438	.373	.698	.247	.721	.893	.446
	N	142	142	117	142	142	142	142	142	142	117

OCD	Pearson Correlation	-.069	-.026	-.020	.081	.118	-.038	.028	-.030	-.081	.021
	Sig. (2-tailed)	.416	.762	.828	.340	.164	.658	.742	.724	.340	.821
	N	142	142	117	142	142	142	142	142	142	117
Interpersonal sensitivity	Pearson Correlation	-.031	.040	-.051	.017	.113	.018	.092	-.009	-.075	.007
	Sig. (2-tailed)	.711	.636	.588	.841	.182	.833	.275	.913	.377	.936
	N	142	142	117	142	142	142	142	142	142	117
Depression	Pearson Correlation	-.029	.010	-.053	.035	.082	.002	.062	-.045	-.123	-.022
	Sig. (2-tailed)	.731	.907	.574	.676	.335	.984	.463	.598	.144	.812
	N	142	142	117	142	142	142	142	142	142	117
Anxiety	Pearson Correlation	-.053	.027	-.014	.064	.129	-.019	.154	.020	-.054	-.051
	Sig. (2-tailed)	.529	.752	.879	.446	.125	.823	.067	.813	.521	.588
	N	142	142	117	142	142	142	142	142	142	117
Hostile	Pearson Correlation	-.009	-.026	-.117	.007	.127	.022	.109	-.025	-.093	-.108
	Sig. (2-tailed)	.918	.757	.210	.937	.131	.794	.197	.771	.269	.248
	N	142	142	117	142	142	142	142	142	142	117
Terror	Pearson Correlation	.044	.007	.005	.075	.098	.103	.130	.003	-.021	.059
	Sig. (2-tailed)	.601	.936	.956	.376	.245	.220	.123	.973	.800	.530
	N	142	142	117	142	142	142	142	142	142	117
Paranoid	Pearson Correlation	.006	.027	-.055	-.043	.057	.022	.088	-.026	-.065	-.061
	Sig. (2-tailed)	.942	.754	.559	.613	.500	.795	.299	.761	.439	.515
	N	142	142	117	142	142	142	142	142	142	117
Psychotic	Pearson Correlation	-.025	.001	-.049	.011	.159	.021	.121	-.024	-.070	-.058
	Sig. (2-tailed)	.767	.995	.600	.895	.059	.803	.151	.781	.410	.538
	N	142	142	117	142	142	142	142	142	142	117
other	Pearson Correlation	-.018	.039	-.072	.013	.062	.050	.091	-.016	-.105	-.100
	Sig. (2-tailed)	.831	.646	.439	.876	.461	.554	.280	.849	.212	.285
	N	142	142	117	142	142	142	142	142	142	117

Note: * $P < 0.05$, ** $P < 0.01$.

Except for Mf2 (punishment, severity), which is positively correlated with each factor of the SCL-90, the rest are negatively correlated. Suggesting that warm, understanding parenting can reduce psychological symptoms in children.

4.2 Comparison of parenting styles between impoverished college students and non-poor college students

Table 6 Comparison of scores of each factor of parenting style between impoverished College students and non-poor college students ($\bar{x} \pm s$)

	Poor college students n=43		Ordinary college students n=101		T	P
	M	S	M	S		
Father 1: Emotional warmth and understanding	48.51±	8.620	50.35±	9.022	1.128	>0.05
Father 2 Punishment and strictness	17.77±	4.770	15.75±	3.711	-2.705	<0.01**
Father 3 Excessive interference	19.44±	3.209	19.89±	3.299	.739	>0.05
Father 4 Favoring subjects	9.62±	3.076	9.94±	3.402	.510	>0.05
Father 5 Refuses and denial	8.58±	2.353	8.34±	2.036	-.606	>0.05
Father 6 Excessive Protection	10.12±	2.118	10.58±	2.175	1.180	>0.05
Mother 1: Emotional warmth and understanding	51.86±	9.099	54.15±	8.879	1.392	>0.05
Mother 2 Excessive interference	33.09±	6.055	34.73±	6.079	1.468	>0.05
Mother 3 rejection and denial	12.35±	3.191	12.39±	2.819	.068	>0.05
Mother 4 Punishment, severe	12.37±	3.047	12.39±	3.438	.022	>0.05
Mother 5 Preference	9.57±	2.777	9.14±	3.101	-.746	>0.05

Note: * $P < 0.05$, ** $P < 0.01$.

Table 6 shows that there is no significant difference in parenting styles between poor and non-poor students, but there is a significant difference in ff2 (punishment, severe) ($p < 0.01$).

5. Discussion

5.1 The current mental health level of impoverished college students

In this study, the SCL-90 scores of college students were all lower than the norms of the national youth group. When poor college students are compared with the national norm, only the factor of obsessive-compulsive symptoms is significantly different from the norm, and other factors are lower than the norm. The survey statistics showed that 140 college students had normal mental health, accounting for 97.2% of the total; 4 were positive, and the detection rate was 2.78%. This shows that with the full attention of society, university leaders and psychological workers, they have realized the importance of psychological education for adolescent education, especially psychological education for poor college students. Learn from the experience of other countries, carry out various forms of psychological education activities in colleges and universities, provide timely psychological guidance or training, and promote the development of intelligence and social adaptability of poor college students. At the same time, this survey found that two of the non-poor college students were significantly positive. This shows that college education should not only pay attention to the mental health education of poor college students but also pay attention to the mental health education of each college student.

The survey shows that from the perspective of gender differences, the overall detection rate of boys is better than that of girls, which is consistent with other studies [6-7]. However, among the SCL-90 factors, the hostility factor of boys is significantly higher than that of girls. This may be related to the fact that society and family place more expectations and pressure on men than women. As a result, the boy developed negative emotions such as inferiority complex and hostility, which were accompanied by friction and contradiction, leading to obvious symptoms of hostility. In terms of grade difference, sophomore students have a higher level of psychological barriers; in terms of school difference, the level of psychological barriers of students at N University is generally higher than that of students at S University, indicating that single-sex college education has a certain impact on students' mental health. Students in single-sex schools may be affected by the environment, education system, and school. There is a certain difference between the norms and curriculum restrictions and the mental health level of ordinary college students [8]. Maslow's Hierarchy of Needs theory suggests that in early adulthood, an individual's hierarchy of needs gradually emerges as personal development needs. According to Maslow's theory, a comparison of college students found that in a fixed learning and living environment, the satisfaction of individual needs of single-sex college students will be relatively hindered, making the psychological development of single-sex college students relatively incomplete, thus as a result, students in single-sex schools are more likely to follow the same group, which is prone to group polarization, leading to changes in ideas and perspectives. Therefore, single-sex schools should analyze the actual situation and formulate a mental health education concept suitable for their students,

and formulate corresponding educational measures to help impoverished college students grow up mentally.

5.2 Prominent Problems and Analysis of the Mental Health of Poor College Students

The survey results show that there are certain psychological barriers among impoverished college students. The first three symptoms are obsessive-compulsive symptoms, depression, and interpersonal sensitivity. At present, poor college students have the highest rate of obsessive-compulsive symptoms. The following is an analysis of the first three major symptoms among impoverished college students:

Obsessive-compulsive symptoms are characterized by the subjective feeling of an individual who has some irresistible and unstoppable ideas, emotions, or behaviors that recur. Although he can recognize that these are unnecessary or meaningless and try his best to restrain them, the more this, the stronger the idea, behavior, or emotion, the more painful it will be for the individual. The reasons for the occurrence of obsessive-compulsive symptoms are the student's introversion, compulsive personality seeking perfection, and certain external incentives. Of course, it is also related to the weak psychological endurance of poor students and the immature rationality of adjusting psychological balance.

The typical symptoms of depression are low mood and blue mood, which is also characterized by decreased interest in life, lack of desire to move, and loss of motivation to move, including disappointment, lamentation, and other sensory and physical problems associated with depression. The reason is the influence of mental factors, such as heavy study pressure, poor grades, tense interpersonal relationships, broken love, and the inability to adjust to the contradiction between ideal and reality. For impoverished students, low self-esteem caused by poor family background is an important reason. [9].

Interpersonal sensitivity manifests itself in feeling uncomfortable around others, being tense and reserved, and having difficulty communicating with others, and forming close interpersonal relationships. College students live far away from their families, among groups from different backgrounds, and have a strong need to belong. It is very distressing to have difficulties in communicating and forming close interpersonal relationships. Impoverished college students, because of their poor economic conditions, often find that urban students say some things they can't talk about and feel that they are not accepted, so they have low self-esteem. At the same time, they attach great importance to other people's evaluations and attitudes toward them, but they also avoid communication and exchange, and it is difficult to establish intimate and harmonious interpersonal relationships with others. Poverty has become a psychological burden.

5.3 Analysis of related factors of poor college students' mental health level

Parents are the first teachers of their children. The quality of parenting style has a significant impact on the personality development and mental health of children. Improper parenting style is the cause of neurosis in children. Among the many social factors that influence the growth of children, the family is the most important and stable, it is one of the risk factors [10]. It is the most durable social connection in a person. For a long time, the relationship between father and son has been regarded as a process in which parents raise children and shape their behavior. Through parental

behavior, social values, behaviors, attitudes systems, and social moral norms are transmitted to children. Research by Zhu Yanhua et al. found that the worse ways parents use with their children, such as harshness, punishment, rejection, denial, and excessive intervention, the worse their children's academic performance. Negative parenting styles can easily lead to interpersonal sensitivity, depression, anxiety, and unhealthy. [11]

From the results of the survey and analysis, we know that father's punishment and strict upbringing are the important factors that affect the mental health of poor college students. The reason may be that the vast majority of college students come from rural families. It is related to the absolute authority of the "father head of the family" established by the traditional cultural model, which undoubtedly shows that what college students imprint in the process of forming their personality and character is mainly the imprint of their father's parenting style. On the other hand, due to the poverty of the family, parents bear the heavy pressure of life, and they will ignore the emotional needs of their children, showing indifference or less concern for their children [12]. Punishment, harshness, and indifference are detrimental to the mental health of impoverished college students, and a higher degree is associated with obsessive-compulsive symptoms. Adolescents are in the second accelerated period of physical development. Their physical changes are not synchronized with the development of their psychological state. Their independence or "adult sense" awareness is enhanced, but they seem to understand many problems and often act emotionally impulsively and rashly. During this period, if parents' reprimand and abuse their children at every turn, harsh parenting methods can easily cause children to develop a "rebellious psychology" toward their parents, and easily hurt their children's self-esteem, even generating hatred and jealousy. In this way, children avoid being punished by their parents, or to save face with their peers, they learn to lie to avoid being punished by their parents and even run away from home [13]. It is also easy to form bad personalities such as cruelty, ruthlessness, or antisocial tendencies. At present, domestic data has proved that disagreement between parents and others will increase aggressive behavior and antisocial behavior, and one of the family characteristics common to juvenile delinquents is that the mother is laissez-faire and the father is too restrictive. If parents can adopt consistent understanding, caring, or warm-hearted parenting methods, it will be beneficial to the healthy development of children's personality, emotional stability, and compassion and it will be easier for parents and children to communicate psychologically. [13-14]

6. Conclusion

This survey shows that the scores of various factors of mental health of college students in the new era are lower than the norms of the national youth group. Among them, 4 were positively detected (144 in total), and the detection rate was 2.78%. Comparing the mental health of impoverished college students with the national norm, there is a significant difference in the factor of "obsessive-compulsive symptoms", and other factors are lower than the norm.

In analyzing the factors related to the mental health of poor college students, it is concluded that family education has an important impact on the physical and mental health of students. Parents should trust, respect, and understand their children, create an intimate and harmonious family atmosphere, enable teenagers to live and study happily

and improve their mental health. Universities should improve the mental health education mechanism, strengthen communication and cooperation between home and school, give more care and respect to poor college students, guide poor college students to learn self-regulation, establish a good attitude, and prevent college students from ideological and psychological crises more accurately and promptly the occurrence of the event.

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References

- [1] Long Xiaodong. Analysis of Causes of Mental Health Problems of Poor College Students and Countermeasures [J]: Higher Education Research, 2003.
- [2] Li Haixing. Investigation and Analysis of Mental Health of Poor College Students [J]: Journal of Health Psychology, 2001.
- [3] Guan Caiping. Research on the relationship between parenting style and mental health [J]: Chinese School Health, 2001.
- [4] Guo Ming, ChenBaojia, Zhao Liang. A study on the differences in mental health and personality between poor and non-poor college students [J]. Chinese Journal of Health Psychology, 2011, 19 (11): 1365-1366
- [5] Editor-in-Chief Wang Xiangdong. Manual of Mental Health Rating Scale [M]: Supplement of Chinese Journal of Mental Health, 1993.
- [6] Zhang Xiaoling, Zhao Xia, Zhu Qingcheng. Analysis of the survey results on the mental health of female college students [J]. Maternal and Child Health Care in China, 2007, 22 (2):525-527.
- [7] Liu Xiaoling. Investigation and research on the mental health status of college students from 2015 to 2018 [J]. Journal of Jining University, 2019, 40(2): 84-89.
- [8] Luo Yanfei. Research on the relationship between gender role type, coping style, and mental health level of students in a single-gender environment [D]. Shaanxi Normal University, 2019
- [9] Liang Ruiqiong, Zhang Juan, Chen Caiying, etc. A survey on the mental health of college students from families with financial difficulties [J]. Chinese Journal of Health Psychology, 2012, 20(5): 769-770.
- [10] A Xin, Jia Silei. arch on the relationship between the mental health of college freshmen and parenting styles in the perspective of personality [J]: Contemporary Education and Culture. 2016,8(06).
- [11] Liu Meiou. The impact of family function on the mental health of college students [D].Shenyang University of Aeronautics and Astronautics, 2010.
- [12] Yang Jing. The mediating role of social support between the parenting style of poor college students and their mental health [J]. Chinese School Health, 2016, 37(7): 998-1000.
- [13] Guo Min. Research on the Influence of Family Factors on the Formation of College Students Potential Psychological Crisis [D]. Inner Mongolia Agricultural University, 2022.
- [14] Guo Zhenjuan. A study on the influencing factors of college students' parenting styles[J]. Journal of Clinical Psychosomatic Diseases, 2010, 16(1):31-34.