

Comparative Study on the Mental Health Status of Left-behind Secondary Vocational School Students and Left-behind General High School Students

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Abstract: In order to understand the mental health status and differences between left-behind secondary vocational school students and left-behind general high school students, and to enhance the effectiveness and pertinence of mental health education, the SCL-90 symptom self-assessment scale was used to investigate the mental health status of left-behind secondary vocational school students and left-behind general high school students. A total of 500 survey questionnaires were distributed, and 418 left-behind students were finally selected from the valid questionnaires, including 210 left-behind secondary vocational school students and 208 left-behind general high school students. The results showed that the positive detection rate of psychological problems among left-behind secondary vocational school students was 37.6%, while the positive detection rate of psychological problems among left-behind high school students was 27.9%. The positive detection rate of psychological problems among left-behind secondary vocational school students was significantly higher than that among left-behind high school students; Compared with the national norm of middle school students, the mental health status of left-behind secondary vocational school students and left-behind general high school students is poor; The mental health status of left-behind secondary vocational school students is worse than that of left-behind general high school students, mainly manifested in obsessive-compulsive symptoms, interpersonal sensitivity, depression, and anxiety. Based on this, educational suggestions are proposed around four levels: government, community, school, and parents, in order to improve the mental health status of left-behind secondary vocational school students.

Keywords: Left-behind secondary vocational school students; Left-behind general high school students; Psychological health status; Comparative study

1. Introduction

In the context of the development of the urban-rural dual system, with the rapid development of China's social economy, a large number of laborers are gradually actively or passively migrating to developed areas, and a large number of vulnerable groups, namely left-behind students, have emerged in underdeveloped areas. The so-called left-behind students refer to children who have been separated from one or both parents for a long time due to their parents going out to work and staying in their hometown to study. At the same time, the child's upbringing, education, and management are all the responsibility of other elders. ^[1] Students in secondary vocational schools have the same physiological age as those in regular high schools. Although they have sharp thinking, they have a greater tendency towards one-sidedness and are sometimes prone to extremism; Although they are enthusiastic, they are sometimes impulsive and have significant psychological fluctuations; Their self-awareness has significantly increased compared to primary and junior high school, and their independent thinking and problem-solving abilities have gradually developed, but they still crave the care and love of their elders and teachers. This age stage is not only a critical stage for life development, but also an important period for personality formation and development. Without the companionship of parents and inappropriate educational methods adopted by other guardians or educators, it is more likely to lead to many psychological problems in students. Zigong City is located in the central position of the southwest region, close to economically developed cities such as Chengdu and Chongqing. Therefore, there are relatively many migrant workers and left-behind students, which can provide a certain sample size for this study.

The purpose of this study is to understand the mental health status of left-behind secondary vocational school students and left-behind general high school students, as well as the differences between the two, and to provide a basis for relevant policy formulation and mental health education intervention through discussion and analysis, in order to enhance the effectiveness and pertinence of mental health education.

2. Research Object and Methods

2.1 Research Object

The study focuses on students who are currently in a left-behind state at a vocational school and a regular high school in Zigong City. With the assistance of the school homeroom teacher, a total of 500 survey questionnaires were distributed through the Sojump platform, and 458 valid questionnaires were collected, with an effective response rate of 91.6%. The condition for screening the left-behind students is that the students are 18 years old and under, and both parents or one of them has been away for more than 6 months continuously due to work, business or going abroad. 418 left-behind students were ultimately selected from valid questionnaires, including 210 left-behind secondary vocational school students, including 112 male students (53.3%) and 98 female students (46.7%), with an average age of (17.17 ± 1.38) years; There are 208 left-behind high school students, including 101 males (48.6%) and 107 females (51.4%), with an average age of (16.93 ± 1.57) years.

2.2 Research Tools

The Symptom Checklist 90 (SCL-90) was used to assess the mental health status of left-behind secondary vocational school students and left-behind general high school students. The scale consists of 90 items, including somatization, obsessive-compulsive symptoms, interpersonal sensitivity, depression, anxiety, hostility, terror, obsession, and psychoticism. The 90 items are scored on a 5-point scale according to their severity, with asymptomatic=1; Mild=2; Moderate=3; Severe=4; Serious=5. The higher the score, the more severe the symptoms. The total score is the data obtained by dividing the total score of the scale by the total number of items on the scale, and the factor is the sum of the scores of each item that makes up a factor divided by the number of items on that factor. The total score is obtained by directly adding up the scores of 90 items. A total score greater than 160 indicates a positive detection of mental health, and different total scores represent different results: ① If the total score of SCL-90 is less than 160 points, it indicates that the condition is good and there are currently no psychological problems; ② If the total score of SCL-90 is between 160 and 208 points, there is a tendency towards mild psychological problems; ③ If the total score of SCL-90 is between 208 and 250, there is a moderate tendency towards psychological problems. If the total score of SCL-90 is greater than 250 points, there is a tendency towards severe psychological problems. [2]

2.3 Measurement Methods

The research team imported the questionnaire content into the Sojump platform to generate a link. After obtaining informed consent from parents or guardians, the homeroom teacher distributed the questionnaire link to students or parents, guiding students to fill out the questionnaire truthfully based on their recent situation and feelings within the specified time. After submission, the data was automatically uploaded to the platform.

2.4 Statistical Methods

This study used SPSS 25.0 to perform statistical analysis on the collected data. Qualitative data was expressed as the total number (percentage of the total number) [n (%)], while quantitative data was expressed as mean \pm standard deviation ($M \pm SD$). Descriptive statistics, chi square test, independent sample t-test, and abstract independent sample t-test were used for data analysis, with $P < 0.05$ indicating statistically significant differences.

3. Research Results

3.1 Overall Mental Health Status of Left-behind Secondary Vocational School Students and Left-behind General High School Students

As is graphically illustrated in table 1, the survey results showed that among the 210 left-behind secondary vocational school students, 131 (62.4%) had good psychological status, and 79 (37.6%) had mental health problems, including 59 cases (28.1%) of mild psychological problems, 17 cases (8.1%) of moderate psychological problems, and 3 cases (1.4%) of severe psychological problems. Among the 208 left-behind high school students, 150 (72.1%) had a good psychological state, while 58 (27.9%) had mental health problems. Among them, 50 (24.0%) had mild psychological problems, 7 (3.4%) had moderate psychological problems, and 1 (0.5%) had severe psychological problems. The overall psychological problem detection rate of left-behind secondary vocational school students is higher than that of left-behind general high school students, and the difference is statistically significant ($P < 0.05$). Among them, in terms of the detection rate of moderate psychological problems, the group of left-behind secondary vocational school students is significantly higher than that of left-behind general high school students.

Table 1: Overall mental health status of left-behind secondary vocational students and left-behind general high school students [n(%)].

	Left-behind secondary vocational students (n=210)	Left-behind general high school students (n=208)	χ^2	p
Psychological positive	79(37.6%)	58(27.9%)	4.49	0.034*
Mild psychological problems	59(28.1%)	50(24.0%)	0.89	0.345
Moderate psychological problems	17(8.1%)	7(3.4%)	4.32	0.038*
Severe psychological problems	3(1.4%)	1(0.5%)	0.99	0.32

Note: * indicates $p < 0.05$, and ** indicates $p < 0.01$.

3.2 Comparison of the Mental Health Status of Left-behind Secondary Vocational School Students and Left-behind General High School Students with the Norm of Middle School Students in China

Table 2: Comparison of the mental health status of left-behind secondary vocational students and left-behind general high school students with the regular model of national middle school students.

	Left-behind secondary vocational students (n=210)	Left-behind general high school students (n=208)	Normal model for middle school students (n=2209)				
Factor	M±SD	M±SD	M±SD	t_1	p_1	t_2	p_2
Somatization	1.83±0.74	1.71±0.76	1.58±0.62	4.74	0.000**	2.39	0.017*
Forced symptoms	2.30±0.81	2.11±0.73	2.10±0.72	3.45	0.001**	1.91	0.848
Sensitive to interpersonal relationship	2.20±0.78	1.98±0.73	1.82±0.68	6.81	0.000**	3.03	0.003**
Depressed	2.11±0.77	1.92±0.79	1.77±0.71	6.15	0.000**	2.64	0.009**
Anxious	2.08±0.75	1.90±0.71	1.75±0.69	6.13	0.000**	2.99	0.003**
Hostile	2.02±0.82	1.87±0.79	1.81±0.74	3.57	0.000**	1.05	0.294
Terrifying	1.95±0.73	1.81±0.82	1.53±0.61	8.07	0.000**	4.8	0.000**
Bigoted	1.98±0.82	1.86±0.78	1.74±0.68	4.1	0.000**	2.14	0.033*
Psychiatric sex	1.93±0.71	1.83±0.77	1.67±0.62	5.12	0.000**	2.9	0.004**

Note: * indicates $p < 0.05$, and ** indicates $p < 0.01$. The results of the comparison between the middle school students are t_1 and p_1 , while the results between the secondary vocational students and the middle school students are t_2 and p_2 .

As shown in Table 2, left-behind secondary vocational school students have higher factor scores in

somatization, obsessive-compulsive symptoms, interpersonal sensitivity, depression, anxiety, hostility, terror, paranoia, and psychoticism than the Chinese middle school student norm [3], and the differences are statistically significant ($P < 0.01$). There was no significant difference in the scores of left-behind high school students compared to the national norm of middle school students in terms of somatization, interpersonal sensitivity, depression, anxiety, terror, paranoia, and psychoticism, except for the factors of coercion and hostility. The differences were statistically significant ($P < 0.05$ or 0.01).

3.3 Comparison of Mental Health Status between Left-behind Secondary Vocational School Students and Left-behind General High School Students

As shown in Table 3, the overall average mental health score of left-behind secondary vocational school students is higher than that of left-behind high school students, and there is a significant difference ($P < 0.05$). In terms of obsessive-compulsive symptoms, interpersonal sensitivity, depression, and anxiety, the average income of left-behind secondary vocational school students is higher than that of left-behind general high school students, and there is a significant difference ($P < 0.05$ or 0.01). In terms of somatization, hostility, terror, paranoia, and psychoticism, there was no significant difference in the mean scores between left-behind secondary vocational school students and left-behind high school students ($P > 0.05$).

Table 3: Comparison of mental health status of left-behind secondary vocational students and left-behind general high school students.

	Left-behind secondary vocational students(n=210)	Left-behind general high school students(n=208)		
Factor	M±SD	M±SD	t	p
Somatization	1.83±0.74	1.71±0.76	1.63	0.103
Forced symptoms	2.30±0.81	2.11±0.73	2.52	0.012*
Sensitive to interpersonal relationship	2.20±0.78	1.98±0.73	2.97	0.003**
Depressed	2.11±0.77	1.92±0.79	2.49	0.013*
Anxious	2.08±0.75	1.90±0.71	2.51	0.012*
Hostile	2.02±0.82	1.87±0.79	1.9	0.058
Terrifying	1.95±0.73	1.81±0.82	1.84	0.066
Bigoted	1.98±0.82	1.86±0.78	1.53	0.126
Psychiatric sex	1.93±0.71	1.83±0.77	1.38	0.168
Total average score	2.04±0.78	1.88±0.73	2.16	0.031*

Note: * indicates $p < 0.05$, and ** indicates $p < 0.01$.

4. Discussion

4.1 The Positive Detection Rate of Psychological Problems among Left-behind Secondary Vocational School Students was Significantly Higher than that among Left-behind High School Students

This survey shows that the positive detection rate of psychological health problems among left-behind secondary vocational school students is 37.6%, which is lower than the results of the survey conducted by Zhou Quanxiang and others on the psychological health status of vocational school students who have left-behind experience in ethnic areas in southern Guizhou [4]. This may be due to regional differences. The positive detection rate of psychological health problems among left-behind high school students is 27.9%, which is consistent with the research results of Wu Rui [5]. On the psychological health status of left-behind middle school students in a certain reservoir area county in Chongqing. Overall, the positive detection rate of psychological problems among left-behind secondary vocational school students is significantly higher than that of left-behind general high school students, and the detection rate of moderate psychological problems among left-behind secondary vocational school students is also significantly higher than that of left-behind general high school students. More left-behind secondary vocational school students require corresponding psychological counseling and intervention, and vocational schools should increase their efforts in mental health education for this group.

4.2 Compared with the National Norm of Middle School Students, the Mental Health Status of Left-behind Secondary Vocational School Students and Left-behind General High School Students is Poor

This study shows that left-behind secondary vocational school students have significantly higher scores than the Chinese middle school student norm in nine factors: somatization, obsessive-compulsive symptoms, interpersonal sensitivity, depression, anxiety, hostility, terror, paranoia, and psychoticism, and the differences are statistically significant. Left-behind high school students scored significantly higher than the national middle school norm in seven aspects: somatization, interpersonal sensitivity, depression, anxiety, terror, paranoia, and psychoticism, and the differences were statistically significant. The above results suggest that the mental health levels of left-behind secondary vocational school students and left-behind general high school students are lower than the norm of middle school students in China, indicating that the overall mental health status of both left-behind secondary vocational school students and left-behind general high school students is poor. This may be due to a lack of emotional communication with parents and effective family education. Teenagers are in a critical period of exploring identity and establishing identity. After entering adolescence, their self-awareness increases, internal conflicts increase, they are curious about the opposite sex, psychologically sensitive, care about others' opinions, have high emotional fluctuations, and are easily influenced by surrounding events, which is a high-risk period for psychological problems. [6] Good parent-child emotional communication and family education have a direct, subtle, and lasting effect on children, especially during the critical period of psychological development in adolescence. Parents play a crucial role in the healthy growth of their children. [7] Students who are growing up in a left-behind environment may encounter difficulties in their daily learning and life. Due to the lack of direct emotional guidance and correct guidance from their parents for a long time, they are prone to accumulating negative psychological emotions, which can eventually lead to many psychological problems.

4.3 The Mental Health Status of Left-behind Secondary Vocational School Students is Worse than that of Left-behind General High School Students

This study shows that the overall average mental health score of left-behind secondary vocational school students is higher than that of left-behind high school students, and there is a significant difference. Left-behind secondary vocational school students have higher average scores than left-behind high school students in four aspects: obsessive-compulsive symptoms, interpersonal sensitivity, depression, and anxiety, and there is a significant difference. The psychological health status of left-behind secondary vocational school students is relatively worse than that of left-behind general high school students, especially in terms of coercion, interpersonal sensitivity, depression, and anxiety. Psychological counseling and intervention for left-behind secondary vocational school students should focus on these aspects. Due to the limitations of educational resources and societal biases towards vocational education, there is widespread discrimination against vocational education, which is perceived as low in level and limited in opportunities. This bias not only affects students' learning motivation, but also has a negative impact on their self-identity and self-esteem. Left-behind secondary vocational school students often have a deviation in their self-positioning and may develop lower self-efficacy due to their educational level, believing that their abilities are insufficient and it is difficult to realize their personal value. In addition, the parents of left-behind secondary vocational school students have lower expectations and care for their academic performance, which leads to more psychological problems for them. At the same time, the fierce competition in the job market and the constantly increasing skill requirements for vocational school students have put greater pressure on left-behind students to find employment. Compared to ordinary high school students, vocational school students in some vocational colleges not only need to complete daily school learning tasks, but also need to intern and exercise in enterprises to promote the development of their vocational skills. They face the challenges of adapting to social work and the pressure of interpersonal communication with social personnel earlier. If there is a lack of parental companionship, care, and positive guidance during this period, it will inevitably lead to psychological problems such as coercion, interpersonal sensitivity, anxiety, and depression among vocational school students who are left-behind.

5. Conclusions and Educational Recommendations

Adolescence is an intermediate stage that connects the past and the future, a transitional phase from the past to the future. [8] Both vocational school students and high school students are in a critical period

of physical and mental development and personality shaping, and are also professional talents for revitalizing the future of the country and the nation. Therefore, it is necessary to timely pay attention to the psychological health status of left-behind secondary vocational school students and left-behind high school students, carry out effective psychological health education and counseling measures for different situations, and enhance students' psychological resilience. Especially for left-behind secondary vocational school students, they need multi-faceted assistance from the government, community, schools, and families to improve their mental health level.

At the government level, relevant policies should be introduced to provide financial support and policy guarantees for psychological health services for left-behind secondary vocational school students. Ensure the popularization and quality of mental health education through legislation, and encourage social organizations and enterprises to participate in the mental health education of left-behind secondary vocational school students. In addition, the government should fully play a guiding role in concepts, establish a social value orientation of labor first and labor glory, promote the cultivation of craftsmanship spirit, model worker spirit, and labor spirit, form a discourse system for vocational education, improve the bias of various sectors of society towards vocational education, and fundamentally enhance the confidence of left-behind secondary vocational school students.^[9]

At the community level, a mental health service center can be established to provide psychological counseling, emotional counseling, and emergency psychological intervention services for left-behind secondary vocational school students. The community should also organize regular mental health promotion activities to raise public awareness and attention to the mental health issues of left-behind secondary vocational school students.

At the school level, vocational schools should establish a sound mental health education system, equip professional mental health education teachers, offer mental health courses, regularly hold mental health lectures and workshops, and provide students with regular psychological counseling and guidance, especially for left-behind vocational students with special needs. Schools should establish student mental health records and provide individualized attention and counseling to left-behind secondary vocational school students.

At the family level, parents should reunite with their children as much as possible during the period of migrant work, and pay timely attention to their children's psychological state.^[10] They should not only provide necessary material support for their children, but also make them feel emotionally cared for. In addition, parents should enhance their awareness of mental health education, improve their own mental health education abilities through learning relevant knowledge and skills, and ensure the effectiveness of family mental health education.

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