

Investigation on Mental Health Status and Intervention Strategy of College Students with High Autism Trait in Jilin Province

Zhiyong Zhang*, Da Li

College of Education Science, Beihua University, Jilin 132000, Jilin Province, China

*Corresponding author: Zhiyong Zhang, 525593927@qq.com

Copyright: © 2025 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract:

In the current era, college students are the core force to promote the future progress of the country, and their mental health problems are increasingly concerned by all walks of life. With the extensive coverage of higher education, the scale of college students continues to expand, and the members' backgrounds are becoming more diverse. In this group, college students with high autism characteristics constitute a special subgroup, and they show significant characteristics different from ordinary people in interpersonal communication, information communication, interest and behavior. This paper analyzes the investigation methods and psychological status of college students with high autism traits in Jilin Province, and explores effective intervention strategies from various aspects.

Keywords:

Jilin Province
College students with autistic characteristics
Mental health status survey
Intervene

Online publication: February 26, 2025

1. Introduction

In recent years, the research of college students' mental health problems has been deepening, and various psychological troubles have gradually emerged. Among the factors that affect the mental health of college students, the role of individual characteristics should not be underestimated. College students with high autism traits show unique characteristics in cognitive pattern, emotional expression and social interaction. The educational environment and regional cultural

characteristics of colleges and universities in Jilin Province provide abundant samples and unique research background for the study of the mental health status of college students with high autism characteristics. There are differences in cultural heritage, educational methods and social assistance systems in different regions. How these elements interweave with high autism traits and then affect the mental health of college students is a research topic that needs in-depth analysis.

2. Investigation method analysis of mental health status of college students with high autism traits in Jilin Province

2.1. Survey respondents

Jilin Province has many colleges and universities, and the student population is large and diverse. The regional distribution, level differences and subject types of colleges and universities in the province should be considered comprehensively when selecting survey objects. Regionally, universities in Changchun and Jilin, which are rich in educational resources, and Baicheng and Songyuan, which are relatively weak in educational resources, should be covered to balance the impact of regional differences ^[1]. At the university level, it is necessary to include key universities such as 985 and 211, as well as general undergraduate and junior colleges, because colleges and universities at different levels have differences in educational concepts, training models, campus atmosphere and other aspects, which may have different impacts on students' mental health. In terms of subject type, it should cover comprehensive universities, science and technology colleges, normal colleges, medical colleges, etc. Students' professional backgrounds, academic pressure and career planning are different, which will also affect their mental health status. Through comprehensive and detailed sampling, it is ensured that the survey objects can fully represent the college students with high autism characteristics in Jilin Province, which provides a solid foundation for the universality and accuracy of the survey results.

2.2. Survey tools

Scientific and effective survey tools are the key to ensuring data quality. Aiming at the mental health status of college students with high autistic traits, which is the focus of this study, the study selected a variety of professional scales with good reliability and validity. Specifically, the Revised Autism Rating Scale for Children (CARS-R) was used to quantify the autistic traits of students, which covers multiple dimensions such as social interaction, language and repetitive behavior, and comprehensively reflects the autistic level of students ^[2]. At the same time, the SCL-90 was introduced, which included nine factors such as somatization, compulsion and interpersonal sensitivity to evaluate students' psychological symptoms in multiple

dimensions. In addition, the questionnaire of college students' mental health, which is designed for college students, involves learning, life, emotion and other aspects, is more suitable for college students' reality, and provides rich data support for comprehensive analysis of the mental health of college students with high autism characteristics.

2.3. Investigation process

Standardized and rigorous investigation process is the key to ensure the quality of investigation. Before the survey, systematic training was conducted for the personnel to ensure that they were familiar with the survey tools, scoring criteria and precautions, and to ensure the accuracy and consistency of data collection. The investigation follows the principle of voluntary confidentiality, and the purpose, significance and confidentiality measures of the investigation are explained to students in advance to eliminate concerns and enhance participation ^[3]. First of all, a questionnaire was issued on an online platform for preliminary screening to quickly identify students with high autistic trait tendencies. Subsequently, an in-depth offline survey was conducted on the screened students, combined with face-to-face interviews and paper questionnaires to collect more detailed information. Interviews are conducted by professional trainers in accordance with standardized procedures to ensure that the content is complete and effective. After the questionnaires were collected, they were strictly cleared and examined, invalid questionnaires were eliminated, and valid data were input and analyzed by statistical software. Through descriptive statistics, correlation analysis, difference test and other methods, the data information was deeply mined to draw scientific conclusions on the mental health status of college students with high autism characteristics in Jilin Province.

3. Analysis of mental health status of college students with high autistic traits in Jilin Province

3.1. Types of common psychological problems

When studying the mental health status of college students with high autistic traits in Jilin Province, the study must pay attention to the common psychological

problems they encounter. This special group is more likely to face a series of unique psychological difficulties due to its uniqueness in social communication, speech expression and behavior^[4].

(1) Social phobia

In a crowd gathering or active communication situation, they may feel extremely uneasy and worry that their words and actions will not be accepted or understood by others. This constant worry and fear takes a heavy toll on their social engagement and quality of life. Social fear not only shrinks their social circle, but may also trigger self-isolation, which can further worsen mental health.

(2) Depressed mood

Individuals with high autism traits may gradually develop pessimistic and negative emotions due to difficulties in integrating into the mainstream of society, frequent misunderstandings or rejection. They may have doubts about their abilities and worth, and lose confidence and expectations for the future. This persistent depressive mood not only affects their academic performance but also may induce more serious psychological disorders.

In addition, college students with high autism traits may also suffer from psychological problems such as obsessive-compulsive disorder and lack of attention. Obsessive-compulsive disorder (OCD) is characterized by repeated compulsive thinking and behavior, such as excessive cleaning and repeated verification. Although these behaviors can alleviate their anxiety to a certain extent, in the long run, they will seriously disrupt their daily life and study order.

3.2. Analysis of influencing factors

The mental health status of college students with high autism traits is influenced by multiple factors. As far as the family environment is concerned, the early family education model and family atmosphere play a crucial role in the psychological growth of individuals. If parents adopt overly strict or overly protective parenting styles, and there is a lack of effective emotional communication and guidance in the family, the cultivation of children's social skills and emotional expression ability may be inhibited, resulting in children showing a tendency to withdraw and close in the face of the external environment^[5].

The school environment also plays an important

role. The rich and colorful social activities and collective life in college pose a severe challenge to students with high autism characteristics. The fast pace of learning on campus and the intricate network of interpersonal relationships make it difficult for them to adapt quickly, which leads to psychological pressure.

Social and cultural environment is also a factor that cannot be ignored. At present, society generally praises good interpersonal skills and extroversion personality, which makes college students with high autism characteristics easy to be at a disadvantage in the social evaluation system. This gap between social expectation and reality further aggravates their psychological burden.

In addition, the individual's physiological and psychological characteristics are also the key factors affecting mental health. College students with high autism traits are more likely to have psychological problems in response to external stimuli because of their unique cognitive, emotional and behavioral patterns. Their relatively weak ability to self-regulate, to some extent, exacerbates the severity of mental health problems^[6].

4. Intervention strategies for the mental health status of college students with high autism traits in Jilin Province

4.1. Construct a multi-dimensional accurate psychological education system to strengthen the effectiveness of cognitive remodeling and emotional regulation

Under the macro environment of continuous innovation of educational concepts and increasing social attention to mental health, the mental health status of college students has become the focus of social attention. For college students with high autistic traits in Jilin Province, it is particularly important and urgent to build a comprehensive and accurate mental health education system given their special obstacles in cognitive function, emotional expression and social interaction^[7].

Therefore, in the course design, the study actively absorbs the theoretical essence of positive psychology on cultivating positive thinking and enhancing mental toughness, as well as the technical means of identifying and transforming negative thinking patterns in cognitive behavioral therapy, and carefully compiles psychological

education textbooks specifically for college students with high autism characteristics. For example, the self-cognition course is designed as a series of modules step by step, starting with the understanding of one's physical characteristics, interests, and hobbies, and gradually in-depth analysis of personal thinking mode, emotional response mode, and other deeper content. In the implementation of the emotion awareness course, by introducing real life scene cases, students are guided to deeply analyze the root causes of emotion in different situations.

In addition, the construction of an online education platform is also crucial. The study uses big data analysis technology to accurately push personalized course content for each student according to the psychological assessment results of students at the time of admission. Specifically, for students with low scores in the dimension of emotion management, the system will automatically push a learning package containing rich resources such as emotional recognition games and short videos explaining emotional regulation skills. For students with cognitive deviation, educators provide targeted logical thinking training courses and cognitive reconstruction exercises. At the same time, educators also regularly invite well-known psychologists to give live online lectures to share the latest research results. In addition, educators invite people with high autism traits who have successfully integrated into society to share their growth stories and ways to cope with challenges through video connection, encouraging students to draw strength from their role models, and gradually realize cognitive reconstruction and comprehensive improvement of emotional regulation ability.

4.2. Integrate interdisciplinary and multiple psychological intervention resources to achieve personalized deep psychological support matching

With the deepening of mental health research, people are increasingly aware that psychological interventions from a single disciplinary perspective are difficult to fully meet the complex and diverse needs of college students with high autism traits. Therefore, colleges and universities in Jilin Province should actively integrate resources from multiple disciplines and strive to build a comprehensive

and multifaceted psychological intervention system^[8].

Specifically, professionals from multiple disciplines, such as psychology, education, sociology, and medicine, should be brought together to form an interdisciplinary integrated intervention team. Among them, psychological professionals are responsible for conducting psychological assessments and developing personalized treatment plans. Education professionals provide students with necessary support from the perspective of educational methods and learning strategies. Sociology professionals are concerned about students' adaptation to social roles and the establishment of social relationships. Medical professionals, on the other hand, provide professional advice on medication and guidance on physical health when necessary.

In the development of personalized intervention programs, it is necessary to comprehensively collect students' psychological assessment data, family growth background, personal interests and other information. For students with musical talent, music therapy can be introduced. Professional music therapists carefully select suitable music tracks according to students' mental state and emotional problems and guide students to express their inner emotions through listening, humming, playing Musical Instruments, etc., to adjust their mental state. For students who love sports, sports therapists can tailor sports programs for them, such as encouraging them to participate in jogging, basketball and other team sports, and cultivate students' teamwork spirit and social interaction ability during sports to enhance their self-efficacy.

At the same time, universities should also actively expand external resources, and work with the community to carry out integration activities, such as organizing students to participate in community environmental protection publicity, caring for lonely elderly and other volunteer service activities, so that students can exercise social skills in real social scenes. In addition, colleges should also cooperate with enterprises to carry out career experience activities to help students better understand the workplace environment and career requirements, and fully prepare for future employment to achieve accurate docking of personalized deep psychological support.

4.3. Plan immersive social integration practice

projects to stimulate interpersonal interaction and advance social skills

The lack of social ability is one of the main obstacles for college students with high autism traits to integrate into society and promote the development of mental health. In order to effectively improve their social ability, it is particularly important to plan and implement immersive social integration practice projects to provide them with real and diversified social scenes^[9].

As an important platform, colleges and universities should set up social practice societies for students with high autism characteristics. Taking the Handmade Creative Club as an example, it can regularly hold various kinds of handmade activities, such as pottery production, weaving technology, paper carving art, etc. Before the event starts, the organizers should be briefed on social etiquette, such as how to greet people politely and how to listen effectively to others. In the process of the activity, group cooperation is set up. For example, the group members are required to specify the division of labor, some are responsible for design conception, some are responsible for shaping, and some are responsible for coloring and decoration, to promote communication and interaction among members through cooperation.

In addition, cross-school social activities should be actively expanded. Educators can join hands with other universities to organize cultural festivals, and invite students' associations with high autism characteristics to participate in programs, cultural exhibitions, and other activities. During the preparation and presentation process, students need to communicate and collaborate with classmates from different schools to broaden their social range. At the same time, colleges cooperate with social organizations to carry out charity sale activities, so that students are responsible for the display, sales, and publicity of goods, and have direct communication with the public, to exercise practical social skills, gradually enhance interpersonal interaction, and realize the improvement and advancement of social skills.

4.4. Develop dynamic and hierarchical psychological rehabilitation programs to promote the continuous and steady improvement of mental health

The psychological problems of college students with high

autism traits show significant individual differences and dynamic changes. Therefore, it is of great importance to develop a dynamic hierarchical psychological rehabilitation program to achieve accurate intervention and effectively improve their mental health level. Therefore, students should be divided into three levels of mild, moderate and severe according to the results of the psychological assessment, the severity of psychological problems and the stage of development^[10].

For students with mild psychological problems, a variety of self-service psychological counseling resources should be provided. The school mental health education website should set up an independent curriculum area, covering emotional regulation, stress management, interpersonal relationship building and other courses for students to choose to learn. At the same time, the psychological counseling manual is compiled and issued, which covers psychological adjustment skills, analysis of common psychological problems, etc., so that students can refer to it at any time.

For students with moderate psychological problems, professional psychological counselors should be arranged for regular one-on-one consultations, at least once a week, and each consultation should last no less than 50 minutes. In the process of counseling, cognitive behavior therapy, humanistic therapy and other psychological treatment methods should be flexibly adopted according to the specific situation of students. In addition, group psychological counseling activities should be organized, each group of 8 to 10 people, once a week, through thematic discussions, role-playing, team games and other forms to promote communication and interaction between students, to promote psychological growth in the group atmosphere.

For students with severe psychological problems, a consultation team composed of multidisciplinary experts such as psychologists, psychiatrists, and education experts is required to jointly develop a personalized deep intervention plan. The program may cover a combination of drug therapy and psychotherapy, such as prescribing appropriate psychotropic drugs according to the diagnosis of a psychiatrist, and cooperating with a psychotherapist to conduct systematic psychotherapy. At the same time, a strict tracking and observation mechanism should be established to record students' mental state and behavior

every day, and a team discussion should be held once a week to timely adjust the intervention plan according to the rehabilitation of students, so as to ensure that students' mental health can be continuously and steadily improved.

5. Conclusion

The research on the mental health status of college students with high autistic traits in Jilin Province is an important reflection of the society's in-depth exploration of college students' group care and education. Based on regional characteristics and comprehensive consideration of multi-dimensional factors, this study is committed to

providing practical and effective psychological support for college students with high autism characteristics. From the elaborate design of investigation methods to the in-depth analysis of mental health status, to the multiple construction of intervention strategies, it is not only a help for this special group, but also a positive practice of the collaborative development of education and psychology, providing a scientific paradigm for mental health education in colleges and universities, promoting the continuous progress of social care for special groups, and helping them integrate into society. Realize the harmonious coexistence of individual value and society.

Funding

2025 Education Department of Jilin Province, "A Survey on the Mental Health of College Students with High Autism Traits in Jilin" (Project No.: JJKH20250791SZ)

Disclosure statement

The authors declare no conflict of interest.

References

- [1] Zhang L, 2024, The Influence of Scene Emotional Information on Emotional Face Recognition of College Students With Different Autism Trait Levels. *Journal of Yancheng Normal University (Humanities and Social Sciences Edition)*, 44(6): 44–53.
- [2] Wu H, Liu J, 2019, The Influence of Interpersonal Sensitivity on Somatization in College Students With Autistic Traits. *New Journal of Psychology*, 44(3): 232–240.
- [3] Chen L, Zhang X, 2023, The Influence of Physical Exercise on Autistic Characteristics of College Students. *Journal of Huangshan University*, 25(5): 94–98.
- [4] Zhai P, Sui X, 2019, A Study on the Relationship Between Empathy and Emotional Attention Bias in Individuals With High Autism Traits. *Psychological Journal*, 18(13): 229–232.
- [5] Wu H, Li X, Liu J, 2019, The Impact of Negative Emotions on Academic Achievement of Rural Children: The Moderating Role of Autistic Traits. *New Research in Psychology*, 43(1): 61–67.
- [6] Yin Z, Meng F, Xuan B, 2019, The Relationship Between Subliminal Autism and Fear of Missing Out on Social Media: The Mediating Role of Loneliness. *Chinese Journal of Health Psychology*, 30(2): 310–314.
- [7] Liu H, Wang W, 2019, The Effect of Autistic Traits on Suicidal Ideation: A Moderated Mediation Model. *Chinese Journal of Clinical Psychology*, 28(6): 1130–1134.
- [8] Meng C, Li T, Ge H, et al., 2020, Investigation on the Status Quo of College Students' Autistic Traits and Its Educational Implications. *Journal of Leshan Normal University*, 35(10): 108–114.

- [9] Guo Q, Qiao Y, Xuan R, et al., 2019, Study on the Intervention of Group Cognitive Behavioral Therapy on the Empathy Ability of College Students With Autistic Characteristics. *Journal of Chifeng College (Natural Science Edition)*, 36(7): 64–68.
- [10] Qiao Y, Ge Y, Liu S, et al., 2019, A Study on the Eye Movement of Face Processing Characteristics of College Students With Autistic Traits. *Journal of Inner Mongolia Normal University (Natural Science Edition)*, 49(3): 269–275.

Publisher's note

Whoice Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.