

The Role of Vocational Colleges in Supporting the Employment of Adolescents with Autism Spectrum Disorders

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Abstract: "Promoting integrated education, comprehensively improving the quality of special education, and further deepening the integration of general education, vocational education, medical rehabilitation, and information technology with special education" is one of the three major tasks and measures in the "14th Five Year Plan" for the development and improvement of special education. The concept of integrated education is a key clue to solving the current problems of low employment ability and employment difficulties for special needs children. Adolescents with autism spectrum disorder (ASD) often face practical difficulties in the employment process due to social and communication barriers. Vocational colleges have rich experience and resources in vocational education, helping adolescents with autism spectrum disorder improve their vocational skills and employment abilities through curriculum design, vocational skills training, practical training base construction, school enterprise cooperation, and other aspects. This article aims to explore how vocational colleges can utilize their educational resources and industry connections to build an effective support system, in order to promote the improvement of employment ability and social integration of adolescents with autism spectrum disorders.

Keywords: Vocational Colleges; Adolescents with Autism Spectrum; Employment Support.

1. Introduction

Autism spectrum disorder (ASD) is a complex neurodevelopmental disorder characterized by social communication, communication deficits, and limitations, repetitive behaviors, interests, and activities, as well as perceptual abnormalities, typically occurring before the age of 3. The research on intervention and treatment for children with autism spectrum disorders by domestic and foreign scholars is increasing, with a focus on the methods and effects of early intervention. The 2022 Blue Book on the Rehabilitation Industry for Children with Developmental Disorders points out that there are over 10 million people with autism spectrum disorders. Among these 10 million people, there are approximately 3-5 million children aged 0-14. With the increasing age of children with autism spectrum disorder, the development of adolescents with autism spectrum disorder, especially the important aspect of their integration into society - employment, has become an urgent practical problem to be solved.

2. Employment Needs of Adolescents with Autism Spectrum Disorder (ASD)

Employability was first proposed by British economist Beveridge in 1909. He believes that employability, also known as employability, refers to an individual's ability to acquire and maintain employment. Later scholars supplemented and improved this concept, and in 2005, the US Education and Employment Commission clarified the concept of employability once again. Employability, also known as employability, refers to the ability to acquire and maintain employment. Employability not only includes the ability to find a job in a narrow sense, but also the ability to continuously complete work and achieve good career

development. Adolescents with autism spectrum disorder have special needs in employment due to their unique social interactions, language expression, and other aspects. Through interviews with 10 guardians of adolescents with autism spectrum disorder, it was found that adolescents with autism spectrum disorder face significant difficulties in entering social work. Guardians expressed their hope that adolescents with autism spectrum disorder (ASD) will have the opportunity to start working, which can alleviate the pressure on family care, finances, and enable them to realize their self-worth. The employment needs of adolescents with autism spectrum disorder (ASD) are mainly concentrated in the following aspects:

2.1. Special Vocational Skills Training

Vocational skills training for adolescents with autism spectrum disorder is a crucial aspect, as it can help them acquire necessary vocational skills to integrate into society and the workplace in the future. Currently, there is a lack of suitable vocational skills training for adolescents with autism spectrum disorders in China. Firstly, conduct a career assessment of the trainees. Symptoms of adolescents with autism spectrum disorder include varying degrees of social and communication barriers, narrow interests, repetitive and stereotyped behaviors, and perceptual abnormalities. It is necessary to make career choices and evaluations for adolescents with autism spectrum disorder, develop specialized training plans and programs, and then receive long-term systematic training. Secondly, vocational skills training for adolescents with autism spectrum disorder requires colleagues to possess dual attributes of "special education" and "vocational education". Children with autism spectrum disorder lack specialized social support, especially vocational skills training, after graduating from special schools. Some parents may hire rehabilitation therapists to provide specialized training for their children, but most

parents are limited by time and energy and cannot provide corresponding training for their children. To ensure the effectiveness of vocational training for adolescents with autism spectrum disorders, it is necessary to integrate the educational principles and methods of special education into the process of vocational education. A specialized curriculum system and teaching methods need to be designed, which also puts higher requirements on the training subjects; Finally, the evaluation of vocational skills training for adolescents with autism spectrum disorder requires a combination of multiple methods. Vocational training is a long-term process, so its evaluation also needs to combine multiple methods such as process+results, quantitative+qualitative, etc. to ensure that it has sufficient career preparation before entering the job position.

2.2. Suitable Employment Positions

Autism spectrum adolescents, due to their social, linguistic, and behavioral characteristics, often emphasize repetitive tasks in their work or allow them to work independently to avoid excessive social interaction. Firstly, it is necessary to provide sufficient and suitable employment opportunities for adolescents with autism spectrum. At present, it is generally believed that the following job fields are suitable for their employment choices: computer programming, engineering drawing, computer animation design, handicraft processing, carpentry or welding, and other professions; Automotive repairman, computer repairman, small home appliance repairman, and factory equipment repairman; Warehouse management, shelf sorting, and sorting work at recycling plants typically require following clear rules and procedures, which are more suitable for the needs of young people with autism. However, every adolescent with autism spectrum has different abilities and interests. When choosing a job, one should consider their personal characteristics, skill levels, and interests, and provide specialized employment support to help them find the most suitable job for them. Secondly, it is necessary to provide professional training to employers or relevant staff of the employing unit, promote effective communication between ASD adults and employers, and meet the respective needs of employers and ASD adults [2].

2.3. An Inclusive Social Acceptance Environment

Brownfin Brenner believes that the natural environment is the main source of human development, and the environment or natural ecological environment in people's daily lives is a system with a nested structure. This environmental system includes both environmental subsystems that directly affect people's development and environmental subsystems that indirectly affect people's development. Providing an inclusive social acceptance environment for adolescents with autism spectrum involves the establishment of the entire social ecosystem. In the microsystem, families and employment environments that have a direct impact on the employment of adolescents with autism spectrum should provide sufficient support, especially in the employment environment, which should be inclusive and understandable; In the meso system, due to the unique characteristics of adolescents with autism spectrum, it is still necessary to maintain communication and collaboration between families and employment training units, as well as between families and employment units, to ensure the smooth progress of their work; In the external system, the community and other social environments can

provide an understanding and acceptance environment for adolescents with autism spectrum through related activities, publicity, etc. At the same time, the community can also provide necessary sheltered work opportunities for adolescents with autism spectrum; In the macro system, the integration of special populations runs through all aspects of society. At present, the country promotes social equity through various policies and regulations. For example, the 14th Five Year Plan for National Economic and Social Development of the People's Republic of China and the 2035 Long Range Goal Outline propose the development goal of "improving the employment support system for people with disabilities and strengthening the protection of their labor rights and interests", which affirms the important role of the employment support system for people with disabilities at the national level and reflects the high importance attached to their labor rights and interests [9].

3. Employment Support Status of Adolescents with Autism Spectrum Disorder from the Perspective of Developmental Ecology

As research deepens, researchers have found that there are practical difficulties in using families as intervention subjects. Families of individuals with autism spectrum disorder are facing increasing challenges. In the families of most individuals with autism spectrum disorder, in addition to bearing heavy economic pressure, the mental pressure is even greater [6]. Through empirical research, it has been found that parental intervention still faces challenges such as limited scope of action, insufficient stability and sustainability of its effects, and an impact on the quality of family life. And it is advocated that based on the systematic analysis of the advantages and difficulties of parental intervention, scientific promotion of parental intervention should be carried out, and precise guidance should be explored; Clarify the mechanism of intervention influencing factors to ensure the effectiveness of intervention; To improve the social support system for parents and provide a more equitable and healthy development environment for autism spectrum disorders, researchers are gradually expanding their research perspective to the construction of social support systems for autism spectrum disorders based on the concept of lifelong education, full life cycle, all-round development, and development ecology. The employment support programs for adolescents with autism spectrum disorders both domestically and internationally mainly include the following types:

3.1. Employment Support Projects Primarily Focused on Government and Public Welfare Associations

From July 2020 to December 2021, the Bright Star Program was launched by the Xiehang Association and the Haifu Parent Resource Center, with the aim of supporting the growth and employment of young people with autism, formulating career plans for them early, and increasing employment opportunities. The service targets include: high ability autistic young people who attend mainstream schools and are six or above; Highly capable autistic youth aged 15 or above who are preparing or currently employed in mainstream workplaces; Young parental caregivers; Service content functional evaluation and training, practical skills, work internships, case follow-up, emotional support, parental

support, employer and employee workshops, teacher and friend programs. The one-on-one model and mobile working groups are typical support projects and the typical ways of employment support for autism in the United States. Provide employment support, psychological services, communication and coordination services for different manifestations of autism. Japan's Beech Home and Chuyan Home are specialized childcare institutions for adults with autism. Based on a people-oriented philosophy, they believe that no matter how severe the symptoms are, people with autism can work and find employment. Their practice has proven the possibility of becoming famous for autism through vocational training and employment.

In addition, China provides sheltered employment platforms for individuals with autism, such as the autism program in Changzhou, Jiangsu Province Shelter Employment Center, Autism Social Practice Base in Shanghai, and Comprehensive (Occupational) Rehabilitation Service Center for Autism Disabled Persons in Shenzhen; The China Disabled Employment and Entrepreneurship Network Service Platform, various regional disabled employment service guidance centers, disabled employment information networks, and online recruitment and consulting services for disabled people can screen and integrate these employment service resources, providing great convenience to autistic patients and their families.

3.2. The Employment Support Project Provided by the Company for the Autism Spectrum Group

Some companies have started providing job opportunities for individuals with autism spectrum disorder to facilitate their integration into society. SAP has conducted feasibility studies on individuals with autism and launched a talent program for individuals with autism, including recruitment, training, hiring, onboarding, and retention. Provided strong support for individuals with autism to work in corporate positions. Tianjin Yitong Psychological Counseling Co., Ltd. is an institution dedicated to the rehabilitation of autism. They not only provide rehabilitation services, but also actively recruit positions such as autism rehabilitation therapists, providing employment opportunities for professionals with autism. Auticon Company specifically hires adults with autism as IT consultants, and all employees of the company are individuals with autism. Auticon believes that specific skills of individuals with autism, such as pattern recognition, logic, accuracy, etc., are highly valuable in the IT field. The Changchun Toffel Laundry Factory and Shanghai Dream Workshop Coffee Bar also provide employment platforms for individuals with autism spectrum through different means.

3.3. A University Research Project Focusing on Employment Support for Adolescents with Autism Spectrum Disorder

The university research project provides professional suggestions for employment support for adolescents with autism spectrum, building a bridge between theory and practice. The "Xinghe" Practice Team of East China Normal University is a team dedicated to providing employment support for young people with autism spectrum disorder. In theory and practice, it provides a reference plan for employment support for young people with autism spectrum disorder. The team is led by Wang Ziyan, a graduate student

from the Department of Rehabilitation Science at East China Normal University. They are committed to exploring and implementing effective employment solutions for young people with autism. The project attaches great importance to the career development of young people with autism, utilizing the advantages of special education and from a rehabilitation perspective, proposing a sheltered employment model for individuals with autism, and developing a complete set of autism employment support programs. Through preparatory vocational training and work processes, the project has received continuous guidance and support. In practice, the project has helped six individuals with autism, including Chen Chen, master vocational skills and successfully find employment.

4. The Practical Path of Vocational Colleges Providing Employment Support for ASD Youth

In the national "14th Five Year Plan" for the development and improvement of special education, it is clearly stated that vocational education plays an important role in the integration of special education. Vocational colleges have sufficient vocational education resources and natural advantages in providing vocational training and employment transition services for adolescents with autism spectrum disorders.

4.1. Collect Information and Provide Customized Course Plans

Adolescents with autism spectrum have unique characteristics in social interaction and communication skills, and their interests, hobbies, and abilities are also different. Some stereotyped behaviors can also be transformed into employment advantages. In order to better help this group achieve employment and social integration, collecting information through questionnaire surveys and parent interviews to understand their development needs and interests is an important step in formulating personalized employment support plans. Firstly, develop a multidimensional survey questionnaire to provide a basis for customized courses. The questionnaire survey includes social preferences, communication styles, sensory sensitivity, daily behavioral habits, and their interest in specific activities among adolescents with autism spectrum disorder. These questions help to understand the personal characteristics of autistic adolescents and provide a basis for them to choose suitable course content.

Secondly, parent interviews are an effective way to obtain first-hand information. Parents, as the closest people to their children, have the deepest understanding of their children. Through interviews, we can gain a more comprehensive understanding of the physical and mental development, behavioral characteristics, and potential employment barriers of adolescents with autism. Feedback from parents is crucial for the design of customized employment courses. After collecting sufficient information, combined with the physical and mental development characteristics and interests of autistic adolescents, a series of employment courses suitable for them can be designed. These courses cover basic social skills training in the workplace, vocational skills training, and workplace adaptability training. For example, for autistic adolescents who prefer a quiet environment, training as a library or office assistant can be provided; For teenagers interested in technology, courses related to computer

operation or programming can be provided. Thirdly, based on the characteristics of adolescents with autism spectrum, vocational colleges need to ensure the safety of practical training operations. This includes providing a safe training environment, using safe equipment and tools, and teaching correct operating procedures. For adolescents with autism spectrum disorder, additional preventive measures may be needed, such as simplifying operational procedures, using more intuitive guidance methods, or providing one-on-one counseling.

Ultimately, through these customized employment courses, autistic adolescents can enhance their employability, better adapt to the workplace, realize personal value and social participation. At the same time, this also helps to improve society's understanding and acceptance of autism groups, promoting social diversity and inclusive development.

4.2. Based on Interests, Choose Appropriate Vocational Skills Training Methods

Personalized teaching and support are essential in the practical training process of vocational colleges. Adolescents with autism spectrum disorder exhibit unique advantages and interests in certain fields, which can be cleverly applied in employment training to enhance their vocational skills and employability. For example, adolescents with autism often exhibit repetitive behavior patterns, which can be seen to some extent as a focus on details and a adherence to patterns. In vocational skills training, courses that require precise operations and repetitive work can be designed, such as data entry, library management, or laboratory work. Through these activities, they can demonstrate sensitivity to details and improve work efficiency. Adolescents with autism may exhibit extremely high levels of focus in certain specific fields. By utilizing this characteristic, vocational skills training that requires long-term focus and deep thinking can be carried out. By providing a quiet work environment and clear task goals, it can help them better concentrate and leverage their focus advantages. Many adolescents with autism have a keen perception of color, which gives them potential advantages in work involving color discrimination and matching. Vocational skills training related to art, design, or image processing can be conducted to learn how to transform color cognition skills into creative vocational skills.

When conducting vocational skills training, the selection of teaching methods is crucial due to the differences in the characteristics of the trainees themselves. Various teaching methods can be adopted, including one-on-one teaching, integrated education, practical operations and simulated work scenarios, the use of visual aids, and the development of clear workflow, to adapt to the learning styles and preferences of different autistic adolescents. In addition, providing regular feedback and encouragement, as well as clear success standards, can help them build confidence and improve learning motivation.

4.3. A Fusion Model of Home School Cooperation, Companionship, and Training

Ensuring the safety of adolescents with autism spectrum disorder is the top priority in the process of integrating with vocational colleges. This not only involves the physical safety of practical training operations, but also includes the special characteristics of autism spectrum adolescents in emotional control and behavioral performance, sometimes exhibiting

extreme behavior, which poses challenges to the management and teaching of vocational colleges. Therefore, parental involvement plays a crucial role in the education and training of adolescents with autism spectrum. Due to the fact that many guardians of autistic adolescents may not have jobs, vocational colleges can encourage and support parents to participate in the training process. This not only provides necessary care for autistic adolescents, but also enables parents to learn relevant vocational skills and increase employment opportunities. By participating in training, parents can work together with adolescents with autism spectrum to create a supportive work environment. This model not only helps with the employment and social integration of autistic adolescents, but also provides job opportunities for parents, thereby improving the family's economic situation.

4.4. School Enterprise Co Education, Building a Simulated Work Environment

As an important base for vocational skills education, vocational colleges have abundant training resources, which not only include on campus training facilities, but also practical training opportunities for cooperation with off campus enterprises. These practical training resources provide valuable learning and adaptation opportunities for adolescents with autism spectrum, helping them better integrate into society and enhance their employability. On campus training resources typically include simulated workplaces, laboratories, studios, etc. These facilities can provide a safe, controllable, and simulated real work environment for adolescents with autism spectrum disorder. In such an environment, they can gradually learn the skills required for work under the guidance of professionals, such as teamwork, time management, task execution, etc. In addition, on campus training can also help them adapt to work rhythm, understand work requirements, and practice social interaction in simulated work scenarios.

Off campus enterprise training is a transitional stage for adolescents with autism spectrum to enter the workforce. Through cooperation with enterprises, adolescents with autism spectrum can directly encounter real work scenarios, understand the actual needs of the industry, and experience workplace culture. This practical training method can help them better understand their career interests and advantages, and also provide them with opportunities to showcase their abilities. In addition, a major challenge faced by adolescents with autism spectrum in the employment process is social acceptance. Through cooperation with enterprises, vocational colleges can provide a platform for autistic adolescents to showcase their professional skills and increase their chances of being accepted by society. Enterprise practical training not only provides practical opportunities for adolescents with autism, but also provides opportunities for enterprises to understand and accept this group. Through practical training, companies can discover the special talents of autistic adolescents in certain fields, such as attention to details and high concentration, in order to provide them with suitable job positions.

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References

- [1] Lord C, Elsabbagh M, Baird G et al. August spectrum disorder [J]. *Lancet*, 2018, 392 (10146): 508-520.
- [2] Scott M, Falkmer M, Girdler S, et al. Views on Factors for Successful Employment for Adults with Autism Spectrum Disorder [J]. *Plos One*, 2015 (10): 15-16.
- [3] Xiong Xurong, Sun Yumei. Social support and influencing factors in families of children with autism spectrum disorder [J]. *China Maternal and Child Health*, 2014,29 (31): 5077-5081.
- [4] Li Haohao, Shen Yijun, Yang Cuiying. The Dilemmas of Autistic Families and the Construction of Social Support Systems: A Survey Based on Shanghai [J]. *Social Security Research*, 2020, (06): 37-47.
- [5] Zhao Nan, Pan Wei. The advantages, difficulties, and coping strategies of parental intervention in early intervention for children with autism [J]. *China Special Education*, 2020, (10): 22-26+57.
- [6] Sun Lijuan, Zhu Yifei. The impact of social support on the quality of life of individuals with autism spectrum disorders [J]. *Journal of Chongqing University (Social Sciences Edition)*, 2020,26 (03): 227-238.
- [7] Su Xueyun, Gu Yongfen, Yang Guangxue. Integrated Education Support System for Autistic Children from the Perspective of Development Ecology: Based on Case Analysis and Field Research [J]. *Basic Education*, 2017,14 (02): 84-89+95.
- [8] Chen Ajiang, Liu Yijun, Lv Nianqing. Exploration of the Construction of Formal Support System for Children with Autism: A Case Study of Hu City [J]. *Journal of China University of Mining and Technology (Social Science Edition)*, 2022-24 (01): 83-94.
- [9] Wei Miaomiao. Typical employment models and policy recommendations for autism patients in China [J]. *Social welfare*. December 2021.
- [10] Yu Jiongmei. Investigation and Discussion of Related Issues and Solutions for Elderly Autism Patients [D]. Hebei: Hebei Medical University, 2011.
- [11] Song Luling. The current employment situation and coping strategies of adults with autism [J]. *Human Resource Management*, 2018,14 (4): 174.
- [12] An Lin. Research on Employment Support Service Strategies for Autism Groups in Public Libraries [J]. *Journal of Library Science*, 2021.7.