



AUTISM SPECTRUM DISORDER SERIES

Autism and Employment

By
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Abstract

This article describes the problem of employment for individuals with autism and explores selected instructional and behavioral supports that can reduce the number of individuals with autism who are unemployed. With the rising number of individuals diagnosed with autism, the abysmal rate of unemployment, and the increasing amount of these individuals reaching the age to enter the job market, educators and employers must recognize their role in preparing and connecting individuals with autism to their communities and employment opportunities.

Autism and Employment

Introduction

Autism is the fastest-growing developmental disability in America with a 1,148% diagnostic growth rate (Cavagnaro, 2007). The United States Department of Health and Human Services (2012) reported that one in 88 births result in an individual with autism, which translates to approximately 1.5 million individuals. As the number of individuals diagnosed with autism continues to rise, students identified with autism represent a serious challenge to schools, communities, and society at large.

Defining the word autism remains elusive. The Mayo Clinic (2012) defines autism as a group of serious developmental problems that typically manifest prior to a child's third birthday. Standifer (2009) describes autism as "neurologically-based developmental disorders, which affect a person's thinking, perception, attention, social skills, and behavior" (p. 1). A diagnosis of being autistic may be classified as one of five disorders: *Autistic Disorder*, *Asperger Syndrome*, *Rett's Disorder*, *Childhood Disintegrative Disorder*, or *Persuasive Developmental Disorder Not Otherwise Specified (PDD-NOS)* (Van Wieren, Reid, & McMahon, 2008).

The multiple classifications of the disorder contribute to the confusion over the many characteristics and behaviors attributed to the disorder. Not only do symptoms differ, but the frequency at which they occur and the intensity of autistic characteristics and behaviors may vary. Some of these behaviors are constantly present and others only emerge intermittently. Van Wieren et al. (2008) reported that the common traits expressed in those with autism were social impairments in communication, interaction, and behavioral patterns. The variability of these traits in individuals with autism makes it difficult to educate society about the disorder.

Subsequently, it is difficult for individuals with autism to be productive citizens in their communities and in society at large.

The Problem of Employment

A study conducted by the National Autism Society in 2006 concluded that only six percent of individuals with autism are employed full time (Chappel & Somers, 2010). Further, Hendricks (2010) noted that the unemployment rate for individuals with autism ranges from 50-75%, indicating substantial gaps between the education individuals with autism receive and their preparedness for future employment. Further, Allen, Wallace, Greene, Bowen, and Burke (2010) established that “78% of the community-wide sample [of those with autism] was unemployed; not living independently, and leading relatively socially isolated lives” (p. 186). In a follow up study Allen, Burke, Howard, Wallace, and Bowen (2012) stated that, “even among those on the autism spectrum who are considered to be the highest functioning, less than 5 % are competitively employed” (p. 2410). These statistics do not support the goals set forth by the Individuals with Disabilities Education Improvement Act (IDEA) of 2004 which states that the special education programs in our schools should “prepare [students with disabilities] for further education, employment, and independent living” (Carter, Austin, & Trainor, 2012, p. 50).

This article describes the problem of employment for individuals with autism and explores selected instructional and behavioral supports that can reduce the number of individuals with autism who are unemployed.

Autism and Employment

The Individuals with Disabilities Education Improvement Act (IDEA) of 2004 mandated that the special education programs in our schools’ address transition services prior to the individual student’s 16th birthday. The primary goal of this mandate was to provide students with disabilities a positive way to transition into adulthood from the high school setting. IDEA 2004 specified four areas that needed to be integrated within the Individualized Education Program (IEP): independent living, education, employment, and training. The successful integration of transition services into the student’s curriculum will increase the employability of the student and positively impact his future.

The abysmal rate of unemployment for individuals with autism suggests that schools are not achieving this goal. With the rising number of individuals diagnosed with autism and the increasing numbers reaching the age to enter the job market, transition services in high schools need to be a serious consideration. Special education programs must develop skills for daily living, self-help, pre-employment, and independent living. It is imperative that schools focus on developing skills for employment. Engaging in positive transition services has been shown to increase earnings and the employment level for individuals with autism. A study conducted by Carter et al. (2012) found strong evidence linking “paid school-sponsored work and paid community employment with employment after high school” (p. 57). To provide a stronger transition program within special education services is for educators to become familiar with employment environments and match individuals with autism to their best working environment. The participation in transition services, integration within the community and the introduction of pre-employment and independent living skills in the classroom will assist in a smoother transition to the workforce.

Autism and employment environments. Individuals with autism frequently have difficulty determining the type of job they would be able to fulfill successfully. Their ability to cognitively assess their strengths and match them with their interests is a weakness for individuals with

autism. Atwood (2007) found that an important step for success in the job market is helping individuals with autism to understand their vocational strengths and preferences. With the assistance of a professional, the types of jobs that would be appropriate can be identified. Placing individuals in job employment environments that match their abilities, skills, and interests promises a higher level of job-related success.

Generally, individuals with autism are unable to clearly articulate their employment area of interest. In an effort to find the appropriate job placements for individual with autism, situational assessments may be performed. A situational assessment places individuals with disabilities into specific job situations and demands that they perform the basic job duties that would be expected of them. The professional performing the assessment observes the relationship between the individual and the environment. Multiple situational assessments are performed in different fields to ascertain which job is the best fit. For example, if a person is unable to speak effectively, finding a job dealing with computers would be better suited than a job in customer service. The results of the situational assessments lead to job placement recommendations and the initiation of the job seeking process.

To secure an appropriate job placement is complex. The job seeking process is much more involved than making the initial contact with a business. Filling out the job applications, contacting the employers, and setting up interviews are just some of the possible steps within the first stage of employment. Individuals with autism benefit from support during this process due to their communication and organizational difficulties.

There are three main types of employment environments for individuals with autism, which differ based on the level of the independence and autonomy the individuals are capable of maintaining. The most restrictive workplace environment is a segregated workshop. Individuals who qualify for this type of employment environment are not able to make their own decisions or independently care for their daily living needs. This environment is outside of the mainstream employment market. The workshops employ only individuals with disabilities who receive intensive support to complete job tasks, follow their schedule, and communicate with coworkers and employers all under close supervision. Supervisors are typically referred to as job coaches. The segregated workshop is typically a lifelong job placement.

Supported employment is another option for individuals with autism. This setting is less restrictive; however, it provides the needed supports for the individuals at work and lies within the mainstream job market. Employers or local agencies provide employees with necessary supports and accommodations (such as vocational supports), which assist individuals with autism in locating and maintain employment. In the actual workplace, individuals with autism may be provided with a job coach to support the learning of job duties and responsibilities. The presence of the job coach also provides support to the employer. Over time the goal is to fade the services of the job coach to allow the individual with autism to reach a higher level of independence. The fading of the job coach is a key difference between the segregated workshops and the supported employment environments.

Lastly, the competitive employment environment is the most independent of the three. The individual with autism usually works alongside his typically developing peers in a mainstream workplace. These individuals would not need assistance or may need minimal assistance in securing the job, performing the job tasks, or maintaining job performance.

Autism and employment supports and accommodations. In all three employment environments, the Equal Employment Opportunity Commission (1990) has approved the use of certain supports and accommodations to achieve employment. The supports and accommodations may be permanent or reduced over time. These supports and accommodations include participation in situational assessments, assistance in securing a job placement, providing additional on-site training, and using guided practice as a training tool.

Another support that is helpful for this population is additional on-site training. Most jobs have mandatory training for their new hires; however, the training may be brief. Providing the training in smaller chunks and with multiple review opportunities may ensure better understanding and retention of the information for employees with autism. In conjunction with initial job training is the necessity to provide individuals with autism guided practice. The method of guided practice incorporates modeling of the expected job tasks for the individuals and then having them perform the tasks. The tasks would be broken down into smaller steps and practiced repeatedly. Visual cues may be used to help individuals remember job tasks or sequence of tasks. All of these supports can make the difference in an individual with autism gaining and maintaining employment. However, even with the aforementioned supports and accommodations there are barriers that affect employment performance for individuals with autism, such as impairments in the executive functioning, difficulty with communication, and workplace discrimination.

Barriers to employment. Some of the characteristics exhibited by individuals with autism directly impact their ability to secure and maintain employment. Characteristics resulting from impairments in their executive functioning operate as a barrier to employment. Impairments in executive functioning are observed as having difficulty with communication and sensitivities to smells, bright lighting, and loud noises. They may be triggered by stress, noise, and other sensory stimuli causing aggression, self-injurious behavior, or property damage. Additionally, these sensitivities can lead to disengagement, misbehavior, emotional outbursts, or other socially unacceptable behavior. Impairments in executive functioning can also impact an individual's attention span and lead to difficulty organizing multiple thoughts at one time. Thoughts and actions may seem disorganized and disjointed. These impairments lead to difficulties in comprehending how multiple details fit into a bigger picture.

Another barrier for individuals with autism who are seeking employment is their difficulty with communication. They experience difficulty perceiving body language and understanding subtleties other than non-verbally communicating. Individuals with autism tend to ask many questions and occasionally communicate in a manner that is considered inappropriate (Hendricks, 2010). Behaviors such as these can lead to a negative first impression, making the job seeking process more difficult. They may also strain the employee-employer relationship, which in turn affects the value of the employee's contribution to the workplace.

Discrimination in the workplace toward individuals with autism has been seen as another barrier to employment. The most common reason for the discrimination is the misunderstanding of the disability and how to work with individuals with autism. There is a social movement in support of the civil rights of individuals with autism and one of its top priorities is to operationally define autism in an effort to create a societal understanding of how it affects people (Gillham, Carter, Volkmar, & Sparrow, 2000). This definition would provide society with a clearer definition of autism, its effects, and ways to relate to those with the disorder. Ultimately, this clearer more meaningful definition would lead to more acceptances of individuals with autism and less discrimination in the workplace. Of interest is that this social movement has also generated interest in recognizing the capabilities of people with autism. Providing others with the real-life

examples of individuals with autism who can be successful as an employee helps others understand the condition more comprehensively.

Another form of discrimination against individuals with autism is derived from the perceptions held by potential employers. The perception by many employers is that the supports and accommodations needed by the individuals with autism are expensive. The most important strategy, which leads to successful employment, is to match individuals' abilities and skills with their specific job tasks. This reduces the amount of supports or accommodations they will need to perform the job. The most common support involves assisting individuals with autism in learning job tasks and procedures, not altering the physical structures. Learning the job tasks and procedures may include a visual task list, multiple short breaks instead of one longer break, or the implementation of auditory reminders. Using these learning strategies can lead to independence for the individuals and more acceptances from the employers. Conceptualizing the disorder, educating the public, and identifying the appropriate supports will increase the employment opportunities for individuals with autism.

Instructional methods and employment. Once individuals with autism have secured a job, implementing strategies to teach the required job tasks and social interaction skills are integral to their job performance. Some of the instructional methods deemed effective are video modeling, simulated situations, and social stories. These methods have been used to teach social skills, job skills, and self-help skills, along with academic concepts (Allen et. al, 2010; Cardon & Wilcox, 2011; Lattimore, Parsons, and Reid, 2006). Furthermore, the use of Applied Behavioral Analysis (ABA) and functional behavior assessments (FBA) focus on the identification of unwanted behaviors and the implementation of replacement behaviors. For example, the Training and Education of Autistic and Related Communication Handicapped Children (TEACCH) method is important because it identifies the unique aspects of individuals with autism and reduces the negative connotations associated with each aspect (UNC School of Medicine, 2013). All of these methods include observation and demonstration coupled with repetition, which supports the development of job skills for individuals with autism leading to successful employment (Allen et. al, 2010; Cardon & Wilcox, 2011; Lattimore et. al, 2006; UNC School of Medicine, 2013).

According to Cardon & Wilcox (2011), the instructional method of video modeling has been proven successful in teaching imitation to individuals with autism. The practice of video modeling requires students to view a video that demonstrates the desired behavior or set of behaviors. After viewing, the students are given an opportunity to perform the behavior. The students with autism may need to watch the video multiple times and practice the skill repeatedly for mastery. An advantage of the video approach is the reduction of external stimuli, which can be very distracting for those with autism (Cardon & Wilcox, 2011). This instructional method allows the students to stay focused on relevant stimuli while reducing the likelihood that they will be distracted by extraneous stimuli. Video modeling can be used to teach a wide array of skills, such as purchasing interactions, daily living skills, conversational skills, play skills, expressive language, and self-help skills (Allen et al., 2010; Cardon & Wilcox, 2011).

Lattimore, Parsons, and Reid (2006) highlighted the use of simulated situations as an effective instructional method for individuals with autism. Simulated situations recreate a specific environment, such as a restaurant, retail store, or community venue, with the purpose of allowing individuals to practice situations and encounters that may occur. Allowing students the opportunity to practice within the environment is valuable because it can reduce the unknown, which is a source of anxiety for individuals with autism. Lattimore et al. (2010) found that

individuals who used this method to learn and practice their required job skills performed higher-level tasks and completed their tasks more rapidly over 75 percent of the time. This instructional method also promotes generalization from one situation to another making it more meaningful.

Social stories are another instructional method that uses observation and role-play to teach new skills. It is frequently used for teaching students with autism how to deal with confusing social situations. This instructional method employs narrative descriptions of specific situations from students' perspectives. The situations are described and appropriate responses are revealed through the story. The stories seek to include answers to social situations by asking the following questions: who, what, when, where and why. The social stories can be individualized to incorporate the specific needs of the individual. The stories can be read and reread on a daily basis and faded as necessary. Standifer (2009) reported that social stories could be an effective method for preparing students for job interviews or teaching them job tasks.

One behavioral method that has become widely used in special education programs is known as the Applied Behavioral Analysis (ABA), which includes a systematic way to observe and collect information about an individual who is engaging in negative or unwanted behaviors and replace these behaviors with more appropriate skills. The ABA method is the most popular intervention used for individuals with autism and focuses on reducing unwanted behaviors through punishment and reinforcing desired behaviors through rewards (Standifer, 2009). This method employs specific techniques, such as positive reinforcement to increase useful behaviors and reduce harmful or interfering behaviors. Hendricks (2010) identified other techniques used within the ABA method: modeling, structured reward systems, video modeling, errorless learning, graduated guidance, and systems of prompts. Researchers have concluded that the use of ABA can result in significant improvements in learning, reasoning, communication, and adaptability for individuals with autism (Hendricks, 2010 & Walsh, 2011). Walsh (2011) found that 40- 50 % of individuals with autism who participate in ABA could return to mainstream classrooms.

Functional Behavioral Assessment (FBA) can include indirect assessment, direct assessment or observation, and hypothesis development (Schall, 2010). The method has three steps: to identify the antecedents of the unwanted behaviors, teach replacement behaviors, and then reinforce the new skills. Using the FBA method is another effective way to isolate and focus on critical job skills needed by individuals with autism.

Standifer (2009) introduced an intervention strategy specifically designed for individuals with autism and it is referred to as TEACCH (Training and Education of Autistic and Related Communication Handicapped Children). The TEACCH method identifies the unique aspects of individuals with autism and reduces the negative connotations associated with each aspect (UNC School of Medicine, 2013). A TEACCH classroom has defined areas for individual work, group activities, and play. Each student with autism has a daily schedule with pictures and/or words to delineate the order of the day and to assist with transitioning from one area to another. This strategy appeals to the individuals' visual processing strengths through the organization of the physical environment and using visual means to communicate with individuals with autism. This is perceived as successful because it relies upon teaching through visual means instead of auditory channels, which is a weakness for individuals with autism (UNC School of Medicine, 2013).

The TEACCH strategy consists of the following six components: structure of the environment, marking and labeling of the physical spaces, visual communication instead of verbal communication, routine, sensory distractions to aid focus, and individualization. This method

focuses on the strengths of the individual with autism. It recognizes the characteristics that make each individual with autism unique without making him or her feel inferior. It highlights the importance of self-esteem, self-confidence, and self-advocacy. To note, another distinctive aspect of the TEACCH strategy is the emphasis on a continuum of care. A continuum of care focuses on supporting the individual with autism from a young age through adulthood and incorporates appropriate transition services and involves outside agencies for care. This activation of community resources can support the individual with autism in understanding more about life and work in the community.

Conclusion

As the number of individuals with autism increases, it becomes essential to devise a plan for their successful assimilation into the workforce. The abysmal rate of unemployment for individuals with autism should not be accepted. Special education programs must become more responsible and responsive to the employment needs of individuals with autism. With the rising number of individuals diagnosed with autism and the increasing amount of these individuals reaching the age to enter the job market, educators and employers must recognize their role in preparing and connecting individuals with autism to their communities and employment opportunities.

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