Post-secondary Support Programs for Students with Autism Spectrum Disorder: Literature Review

Programas de Apoio no Ensino Superior para Alunos com Transtorno do Espectro Autista: Revisão de Literatura

Programas de Apoyo Post Secundario para Estudiantes con Trastorno del Espectro Autista: Revisión de Literatura

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Abstract

Autism Spectrum Disorder (ASD) is one of the fastest growing disabilities in the world. Research shows that students with ASD are increasingly being accepted into college. Students with ASD and other developmental disabilities have specific needs; however, college disability support services (DSS) offices are not equipped to meet and/or may be limited in meeting these unique needs. The purpose of this literature review is to provide an overview of research related to the experiences of students with ASD at the post-secondary level. Topics explored in this review are support services for students with ASD in higher education, challenges supporting students with ASD at the post-secondary level, recruitment and retention of students with ASD at the post-secondary level, establishing additional service support programs for students with ASD, and access and equity for students with ASD within higher-education.

Keywords: Autism Spectrum Disorder. Post-secondary Education. Higher Education. Disability Support Services.

Resumo

O Transtorno do Espectro do Autismo (TEA) é uma das deficiências que mais crescem no mundo. Pesquisas mostram que estudantes com TEA estão cada vez mais sendo aceitos na faculdade. Alunos com TEA e outras deficiências de desenvolvimento têm necessidades específicas; no entanto, os serviços de suporte a pessoas com deficiência não estão equipados e/ou podem ser limitados para atender a essas necessidades. O objetivo desta revisão de literatura é fornecer uma visão geral das pesquisas relacionadas às experiências de estudantes com TEA no ensino superior. Os tópicos explorados nesta revisão são serviços de suporte para estudantes com TEA no ensino superior, desafios para apoiar os alunos com TEA no ensino superior,

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Palavras-chave: Transtorno do Espectro do Autismo. Ensino Superior. Serviços de Apoio à Deficiência.

Resumen

El trastorno del espectro autista (TEA) es una de las discapacidades de más rápido crecimiento en el mundo. La investigación muestra que los estudiantes con TEA son cada vez más aceptados en la universidad. Los estudiantes con TEA y otras discapacidades del desarrollo tienen necesidades específicas; sin embargo, las oficinas de servicios de apoyo para discapacitados universitarios (DSS) no están equipadas para satisfacer y/o pueden estar limitadas para satisfacer estas necesidades únicas. El propósito de esta revisión de la literatura es proporcionar una visión general de la investigación relacionada con las experiencias de los estudiantes con TEA en el nivel post secundario. Los temas explorados en esta revisión son servicios de apoyo para estudiantes con TEA en la educación superior, desafíos para apoyar a los estudiantes con TEA en el nivel post secundario, reclutamiento y retención de estudiantes con TEA en el nivel post secundario, estableciendo programas de apoyo de servicio adicionales para estudiantes con TEA, y acceso y equidad para estudiantes con TEA dentro de la educación superior.

Palabras clave: Trastorno del espectro autista. Educación post secundaria. Educación superior. Servicios de apoyo para discapacitados.

1 Introduction

There has been an increase in the prevalence of students with Autism Spectrum Disorder (ASD), who are attending post-secondary institutions.ASD is the fastest growing category of disabilities in the United States (Baio, 2014; Boyle, Boulet, Schieve, Cohen, Blumberg, Yeargin-Allsopp, &Bogan, 2011; Pinder-Amaker, 2014). TheCenter for Disease Control and Prevention (CDC) estimates that "1 in 68"children in the United States have been diagnosed with ASD (CDC, 2014). A report by the National Center for Education Statistics (2019) claims that in the 2013-2014 school year there were 538,000 school-aged children from ages three through 21 years old with ASD. Between 2004 and 2013 the population of children on the spectrum, from ages six through 21 served under Part B of the Individuals with Disabilities Education Act (IDEA), increased from 0.2% to 0.7% (U.S. Department of Education, 2015).

Statistics indicate that from 2003 to 2009 more than 20% of students with disabilities enrolled into post-secondary education (Pinder-Amaker, 2014) and according to Roux, Shattuck, Rast, Rava, Edwards, Wei, McCracken, and Yu (2015), one-third of youth on the spectrum within eight years of graduating from high school in the United States matriculate into post-secondary institutions. The population of students with ASD attending post-secondary institutions has increased (Roux et al., 2015). The increase of students with ASD

continuing their education past high school can be contributed to factors such as an increase in prevalence. Pinder-Amaker's (2014) study states that factors contributing to the increased prevalence of individuals on the spectrum "include heightened public awareness, improved screening, changes and diagnostic specification, and, notably, improved ability to recognize and diagnose higher-functioning individuals who may have been overlooked in the past" (p. 125).

Students with ASD, though intelligent, are "at-risk of academic underachievement" (Wilkinson, 2014, p. 5) due to underlying conditions of their disorder, such as social deficits, deficits in executive functioning, emotional affliction, and insistence on sameness. Providing effective supports to students with ASD can pose as a challenge at any level; elementary, middle, secondary, and/or at the post-secondary level. Educational programming beyond high school, at the post-secondary level, is necessary to provide students with ASD with the support necessary to successfully complete their undergraduate studies and for the opportunity to seek advanced degrees.

Students with ASD are attending post-secondary institutions after high school, therefore, universities must meet the needs of all students. There are approximately 4,140 colleges and universities in the United States. Of those 4,140 post-secondary institutions, there are approximately 62 programs that are designed to specifically support students with ASD (Brown, 2019). Concurrently, enrollment of students with ASD into higher education has increased (Edwards, 2014). While universities have established support programs for students with ASD, research shows that college life can present challenges for students with ASD, their parents, and institutions of higher education (Pinder-Amaker, 2014). Some colleges have disability support services offices; however, students with ASD need assistance with specific skills. Students with ASD need services to support their specific needs and to help them matriculate successfully.

Though many students with ASD are intellectually capable of education at the post-secondary level, individuals with ASD can be limited by social and environmental challenges (VanBergeijk, Klin, &Volkmar, 2008). Students with ASD face specific challenges that impede successful integration into college. Such difficulties consist of social challenges, executive functioning, and higher order planning (Hewitt, 2011). Although students on the spectrum are high-functioning and their difficulties seem subtle they need different support services than those who are severely affected by their disability (Hewitt, 2011). As students progress through adulthood, they do not outgrow their diagnosis of ASD (Zager&Alpern, 2010). Therefore, students need an efficient support system to meet their challenges. Students with ASD need college support programs to develop academic and social skills to excel at university life.

2.1 Support Services for Students with Autism Spectrum Disorder

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Social and legislative initiatives, such as Section 504 of the Rehabilitation Act of 1973 (Section 504) and the American Disabilities Act of 1990 (ADA), have supported the implementation of post-secondary educational opportunities for students with ASD (Plotner& Marshall, 2015).

Section 504 and the ADA protect students with disabilities from discrimination and mandates that post-secondary institutions that receive federal funding (Gil, 2007; Wise, 2015) provide "reasonable academic adjustments" to students with disabilities who request it (Madaus, 2005, p.32). The Vocational Rehabilitation Act of 1973 predates Section 504, ADA, and the Individuals with Disabilities Education Improvement Act 2004 (IDEA); which sets the precedent that federal funded programs cannot discriminate against people who have disabilities (Walker, 2006). There are no laws that define reasonable accommodations in schools, only that students with disabilities be offered accommodations (Rights of Students with Disabilities in Higher Education, 2013; Smith, 2007; Yell, 2016). Support services at institutions of higher education are different from services provided within the K-12 setting (Smith 2001; Williams-Harmon, 2016). There is also a variation in how universities provide these services (Madaus, 2005). To receive post-secondary support services, students must provide documentation to be eligible to receive accommodations (Gil, 2007) and services must be requested; therefore, students must be self-aware and develop self-determination and self-management skills to "successfully transition, adjust to, and remain in college" (Getzel&Thoma, 2008, p. 82).

In the traditional setting, disability support services (DSS) offices serve as the primary provider to ensure that students who disclose their disability receive the proper accommodations. However, according to Edwards (2014), DSS offices are limited in best supporting students with ASD. Concurrently, DSS offices may not have faculty members who are adept with the skills necessary to assist students on the spectrum. Hansen (2011), emphasizes that it is necessary for services to extend beyond DSS offices. Services offered by DSS offices are sometimes referred to as generic (Brinckerhoff, McGuire & Shaw, 2002). In a study by Getzel and Thoma (2008), students felt that current services provided by post-secondary institutions were "insufficient and/or were offered too late to have the desired result" (p. 82).

Across the nation, universities are being recognized for providing support services for students with HFASD. However, there is little research available that provides information regarding the success of these support services programs, how students with ASD fair in post-secondary institutions who receive these support services (Cai&Richdale, 2015), or how other institutions of higher education can provide support services for the rising demographic of students on the spectrum.

Institutions of higher education are developing programs to support the growing demographic of students on the spectrum. Marshall University is the oldest university to grant students who haveASD with a college degree and is a pioneer in developing specialized

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support services for students with Asperger's Syndrome since 2002 (Becker-Coltrill& Ellison, 2007; Roth, 2013). Since then, other institutions such as Drexel University, Purchase College SUNY, New York University, Rutgers University, and Fairleigh Dickinson University (Brown, 2019; Jones, 2012) to name a few, have identified support systems to assist in addressing the specific needs to ensure the success of students with ASD.

2.2 Transition Support Services

Transition support services are critical for students with ASD to successfully integrate into post-secondary institutions. According to Wise (2015), the purpose of transitional support services is to prepare students who are exiting high school to enter higher education seamlessly. With the appropriate supports and training, students on the spectrum can meaningfully integrate post-secondary institutions (Wehman, 2006). As per Hewitt (2011), the best way to handle complex adjustment issues is to prevent them. Therefore, it is essential to carefully plan the transition of students with ASD to ensure success.

In 2008, the Higher Education Opportunities Act (HEOA) approved transition programs for students with ASD (VanBergeijk& Cavanaugh, 2012), and as of 2012, "Transition Programs for Students with Intellectual Disabilities (TPSIDs) was authorized under HEOA" (Roux et al., 2015, p.7). TPSIDs began in 2010 and the U.S. Department of Education began a 5-year funding program to 27 post-secondary institutions (Bruce, 2014; Glickman, 2010; Roux et al., 2015). TPSIDs are located at 4-year colleges and 2-year community colleges and, according to Roux et al., (2015), these programs typically support students on the autism spectrum who have a comorbid intellectual disability. This means students with ASD without a comorbid intellectual disability must seek services through DDS offices, which typically are not suited to the specific needs of students with ASD (Roux et al., 2015).

An "anecdotal consensus" is that transitions are difficult and stressful for individuals with ASD (Pinder-Amaker, 2014). Research suggests that summer transition programs and fitting the student to the institution will benefit students on the spectrum who are entering college (VanBergeijk et al., 2008). Transitional support and other services such as social and academic support influence student achievement and post-secondary outcomes (Hendricks &Wehman, 2009).

2.3 Social Support Services

Theory of Mind (ToM) is a deficit that affects individuals who are diagnosed with ASD. ToM is the ability to infer, which is the capability to understand "one's own or other's mind" (Hwu, 2011; McCrimmon et al., 2014). ToM is necessary in social communication. Individuals with HFASD may have an "underdeveloped" ToM, which contributes to difficulties in social interaction (Ellison, 2013). Social skills and life skills are considered a hidden curriculum for people with ASD (Breakey, 2006; Hewitt, 2011). Therefore, individuals with ASD lack the

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ability to connect socially, which limits their interaction with other people and contributes to isolation.

For individuals with ASD to reach their full potential they need support services. Support services provide social interaction for individuals on the spectrum. Universities need to endorse the hidden curriculum that is associated with ASD (Breakey, 2006; Hewitt, 2011) because students with ASD experience high levels of stress due to social isolation and high dependence on their families (VanBergeijk et al., 2008). Support services are needed because people with ASD experience difficulties with communication due to literal interpretations, socialization, interpersonal skills, and organizational skills (Cai&Richdale, 2015; Hewitt, 2011). Appropriate and structured socialization is needed to enhance the college experience for individuals with ASD. Students' impairment in executive functioning, social relationships, and unacceptable behavior caused by anxiety require accommodations (Cai&Richdale, 2015; Roux et al., 2015). According to Wise (2015), deficits in social skills are a possible barrier to obtaining a degree. Social deficits decrease retention rates of students with ASD because students are incapable of handling their social environment.

Research supports that individuals on the autism spectrum struggle with social skills well into adulthood (Levy & Perry, 2011; Magiati, Tay, &Howlin, 2014). College students on the spectrum need social support services to assist in socialization, independent living, self-advocacy, and time management (Adereon& Durocher, 2007). A change in the social environment from high school to higher education can be a social shock. This leaves students with ASD vulnerable and confused about how to adjust to their new social environment. Students with HFASD need social-emotional supports and can benefit from trained staff, peer mentors, social skill building, and counseling (Hansen, 2011; Welkowitz& Baker, 2005; Wenzel & Rowley, 2010; VanBergeijk et al., 2008). As per Wise (2015),a social support system that includes advanced preparation is critical for social success. Advance preparation of how to approach a new social construct will help students adapt to their new surroundings. Research suggests, that parents believe that a social support system, as well as advanced preparation is necessary for social success; additionally, case managers suggest that self-regulatory skills and private living arrangements are also essential (Wise, 2015). Individuals with ASD are insistent on sameness and routine; therefore, providing preparation in advance, a routine, and a social construct will provide students with ASD with the social tools necessary to succeed.

2.4 Academic Support Services

Students on the spectrum are intellectually capable of success at the college level and according to Taylor and Seltzer (2010), a post-secondary education is possible for these students to achieve. Individuals with ASD are more adept in subjects like Math, History (Gibbons & Goins, 2008) and Science. However, many individuals on the spectrum are not as successful at reading comprehension, drawing inferences, and writing (Huemer& Mann,

2010). Students with ASD typically have difficulties understanding abstract concepts (Firth & Hill, 2003) because they are concrete thinkers; therefore, students on the spectrum have difficulties understanding some literature (Huemer& Mann, 2010).

Due to impairments in executive functioning, students with ASD find it overwhelming to manage large tasks. A suitable accommodation to support students manage overwhelming tasks is to chunk material by breaking down larger tasks into smaller tasks (VanBergeijk et al., 2008; Shmulsky&Gobbo, 2013) and provide extended deadlines (Shmulsky&Gobbo, 2013). Gelbar, Smith, and Reichow (2014) claim that support services, such as the aforementioned accommodations, allow students with ASD to be more comfortable and demonstrate their knowledge of course objectives. Research by Roux et al. (2015) indicates that common accommodations for students with ASD at 2-year institutions include "human aides (62.5%), testing accommodations (56.4%), and physical adaptation in the classroom (34.3%)" (p. 2). Thoughstudents with ASD have the potential to be capable at the college level, academic accommodations are necessary due to their newly acquired independence (Glennon, 2001).

Social constructs interfere with students on the autism spectrum's academic success. Failure to provide social support to students with ASD would impair academic achievements (VanBergeijk et al., 2008). Universities provide minuscule accommodations that do not meet the holistic needs of students on the spectrum. Universities provide vague instruction, as well as accommodations, such as extra time on tests and tutoring (Hughes, 2009; VanBergeijk et al., 2008). Students with ASD need support that is specifically tailored to their needs, which focuses on the whole student, including transitional support such as campus life, social support, and academic support.

2.5 Challenges Supporting Students with ASD at Post-secondary Institutions

A progression in research supports the recent increase in students with ASD attending post-secondary institutions. Awareness and acceptance of individuals on the spectrum has peaked (Gardiner &Iarocci, 2013). However, there are frequently reported challenges that students on the autism spectrum endure, such as difficulties with social interaction, sensory overload, time management, and self-advocacy (Gelbar et al., 2014). To address these specific challenges, universities must provide the proper accommodations and support services for students with ASD (VanBergeijk et al., 2008).

Fifty percent of students with ASD, after high school, do not continue their education or secure employment (Shattuck, Narendorf, Copper, Sterzing, Wagner, & Taylor, 2012). Individuals on the spectrum, in the United States, have one of the lowest rates of enrollment into higher education (Wei, Yu, Shattuck, McCracken, &Blackorby, 2013). According to Van Hees, Moyson, and Roeyers (2015), the challenges that students with ASD face within higher education include "struggling with new situations and unexpected changes…exhausting but

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necessary social contacts… processing information and time management… doubts and disclosures… and mental health issues" (pp. 1678-1679). Some students with ASD are under the impression that college is not for them. In a study by Getzel and Thoma (2008), one student's experience was discouraging, and he shared "no one understood my disability and I was told that I could not attend college" (p. 80).

2.6 Recruitment of Students with ASD

Individuals on the spectrum, more than ever before, have an opportunity to enter college and obtain a degree (Nevill& White, 2001). Post-secondary institutions are actively recruiting students with disabilities to increase enrollment (Chiwandire& Vincent (2019); Mangrum&Strichart, 1984). The recruitment of students with ASD increases diversity amongst the student population. However, many programs at the college level for students with developmental disabilities, including ASD are segregated from the traditional setting of a college campus and are often limited to specialized institutions (Dolyniuk, Kamens, Corman, &DiNardo, 2002). These segregated settings are far from different than what the student may have experienced in secondary school. Inclusion of students with ASD needs to be the goal of all universities, and students should not be isolated based on their differences. While these programs provide support academically, they neglect an important life skill of sociability (Dolyniuk et al, 2002). Including support services, as well as academic services will create a positive atmosphere for individuals on the spectrum to succeed.

Parents of and students with ASD must make sure that the post-secondary institutions and programs they choose are the logical choice for the student's interests and abilities (Harpur, Lawlor,& Fitzgerald, 2003). The post-secondary choice of a student with ASD must support the individual's needs in order to be successful. Research by Harpur et al. (2003) suggests that colleges' proposed accommodations be examined before making a decision. Although, parents and students are responsible for their choices, there are not many programs specifically designed to support individuals on the spectrum.

2.7 Retention of Students with ASD

For students with developmental disabilities, including ASD, to be independent and successful at the post-secondary level, students may require support (Harpur et al., 2003). There is a lack of attention and encouragement to ensure that individuals with ASD graduate from college (Bruce, 2014). Under ADA more institutions of higher education are accepting students with developmental disabilities (Bruce, 2014), including ASD, but are not capable to meet their unique needs. In the transition from high school into higher education, students with ASD experience a wealth of challenges. Students are overwhelmed by new information, new structures and/or lack thereof, not knowing where to fit in, sensory overload that has

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developed due to a new environment, resistance towards disclosure, as well as being stressed, anxious, and alone/isolated (Van Hees et al., 2015). In a study by Van Hees et al. (2015), students recommended that post-secondary institutions take a "personalized approach," provide "academic accommodations," coach students in "education, student life, and daily living," provide "adequate psychosocial support" and provide "leisure activities" (pp. 1682-1683).

Some students confirm that requesting accommodations is not always easy (Hutcheon &Wolbring, 2012), which can deter a student and/or interfere with their success. Students who are reluctant to self-determine or ask for assistance do not access disability services or receive needed service supports and/or accommodations (Schlabach, 2008). Other students reveal that they do not know how to access given services (Gil, 2007). In addition, students with ASD may be so socially isolated that they do not seek out reasonable accommodations (Becker-Cottrill& Ramsey, 2002). In a study by Schlabach (2008), post-secondary institutions recognized risks of retention and inadequate means to service the increase of students with ASD.

2.8 Establishing Additional Service Support Programs for Students with ASD

Very few individuals with HFASD have great employment or educational opportunities or outcomes (Magiati, Tay, &Howlin, 2014). Therefore, there is a need to better support students on the spectrum to lead purposeful lives. Providing additional services to support students with ASD at the post-secondary level will benefit students on the spectrum, as well as, society. Evidence supports that providing students with post-secondary education and employment is inadequate and society is not successfully preparing individuals on the spectrum to enter adulthood (Howlin& Moss, 2012).

Students need post-secondary institutions to assume some responsibility for the transition of individuals with ASD into college life. Currently, at many institutions of higher education, students with disabilities are responsible for managing their own accommodations, as well academic challenges (Getzel& McManus, 2005). Students are also required to disclose their disabilities in order to receive services; however, some students do not disclose or wait to disclose (Getzel& McManus, 2005). These current practices may result in unsuccessfully retaining students with developmental disabilities, as well as, students with ASD. Students on the spectrum need professionals with an expertise in developmental disabilities, including ASD to better aid them in the post-secondary environment (Hewitt, 2011).

There is little research available that describes the needs and challenges to develop new post-secondary programs for students on the spectrum (Plotner& Marshall, 2015). There are several key components that are areas of concern as new programs to support students with ASD are proposed. These programs include acceptance of individuals with

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developmental disabilities, including individuals with ASD. These programs also include existing post-secondary policies and procedures, residential options, and financial support as most programs that are developed to assist students on the spectrum require additional fees (Plotner& Marshall, 2015). Universities need to establish a clear vision and advocate for inclusion (Folk, Yamamoto, &Stodden, 2012).

2.9 Need of Support for ASD Programs within Post-Secondary Institutions

Within higher education, there are very few programs that support the needs of students with ASD. These needs include campus daily living skills, social integration, and environmental accommodations (Roux et al., 2015). The transition to adulthood and independent living poses as a struggle to some individuals with ASD. Researchers posit that traditional practices of services provided at the post-secondary level are not particularly adequate for the transition of students with ASD (Blacher, Kramer, & Howell, 2010; McDonnell & Hardman, 2010; Neece, Kraemer, &Blacher, 2009; Wehman, 2013).

Support for students with ASD needs to be recognized. Currently, universities are adept in providing academic support to students with learning disabilities, such as specific learning disabilities (SLD) and attention deficit hyperactive disorder (ADHD) (VanBergeijk et al., 2008). Specifically, individuals with HFASD need support with social constructs as they transition into adulthood. These individuals need to be taught things like what to say to a person that may find attractive and how to generalize these social concepts (VanBergeijk et al., 2008).

Parents and relatives of individuals with ASD are worried about their loved ones' college experience. According to Fleischer (2012), universities need to provide social support services to maintain the safety of their students with ASD so that they are not bullied or taken advantage of. Relatives of individuals on the spectrum also express frustration with the inability to act as collaborators between students and DSS offices (Fleischer, 2012). This poses a serious issue and explains why students with ASD do not self-disclose. Parents are typically involved in the individual education program (IEP) process during the K-12 setting. Although it is argued that college counselors act as collaborators between relatives and DSS offices, counseling and support services specifically for students on the spectrum are rare (Gelbar et al., 2014; Pillay &Bhat, 2012; Smith, 2007).

2.10 Access and Equity for Students with ASD

Section 504, ADA, and the HEOA support access to higher education for students with disabilities that include students with ASD. Equal access for students with developmental disabilities is acquired through reasonable accommodations (Grossman, 2001). However, students with ASD do not receive equal access to the university life if their needs are not

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met. According to the U.S. Department of Justice (2009), the ADA requires that people with disabilities receive an equal opportunity through the benefits of programs and services. In many post-secondary institutions in the United States, DSS offices are left to determine how students with disabilities receive access.

Concurrently, universities have admitted that they are not equipped to address the influx of students entering their post-secondary institutions with the additional needs of students with ASD (Hewitt, 2011; VanBergeijk et al., 2008). In a study by Hewitt (2011), a director of a DSS office referred to the additional supports needed by students with ASD as complex and as "extra cheese on the pizza" (p. 280). With these types of attitudes, the question is whether or not post-secondary institutions have specific support services or programs to provide equitable experiences to students with developmental disabilities, such as ASD.

3 Conclusion

To address the numerous challenges of a student with ASD, post-secondary institutionsmust offer support services that are specifically designed to address the unique and specific needs of individuals on the spectrum (VanBergeijk et al., 2008). These services include transitional services, social services, academic services, and faculty adept in addressing the critical needs of this growing population of students in institutions of higher education. Self-disclosing or identifying the presence of a disorder is insufficient if current systems in place are not prepared to accommodate the influx of a particular disability, such as ASD. Over the last 20 years the prevalence of individuals with ASD has increased. As of 2014, the CDC reported that 1 in 68 people have autism spectrum disorder, which is expected to continuously increase. This rapid increase of individuals diagnosed with ASD has caused an increase in the demographic of students who are on the spectrum entering college.

Currently there are approximately 62 institutions of higher learning that specifically have programs for individuals on the spectrum. Although most post-secondary institutions have DSS offices, the support and accommodations offered do not meet the specific needs of students with ASD. DSS offices are limited in the type of services, which are referred to as generic, that they can offer. This research supports the need for more universities to develop support services and programs for individuals on the spectrum. The challenges that students with ASD are met with at the post-secondary level aids in attrition and causes these students to believe that college is not for them. Relatives of students are no longer advocates on the front lines as DSS offices hold relationships primarily with the enrolled student who has disclosed their disability. Reasonable accommodations exist for this demographic of students; however, institutions of higher education must provide them. Other supports needed include daily living skills,social integration, and environmental accommodations; however, research suggest that post-secondary institutions are not equipped to manage this change of demographic.

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Individuals with disabilities, including individuals with ASD deserve the right to equal access and reasonable accommodations. There are multiple legislations that support the notion of access and equity; however, DSS offices that see the needs of individuals with ASD as extra are responsible for providing students with ASD access to accommodations that are meant to provide equity. Therefore, research is needed on how college support services, specifically, for students with ASD are supporting this population of students and what challenges do these specific support service programs encounter. Additionally, research is needed on the experience of these students in these programs and how can more institutions develop similar service programs to support students with ASD.

References

Adreon, D., & Durocher, J. S. (2007). Evaluating the college transition needs of individuals with high-functioning autism spectrum disorders. *Intervention in School and Clinic, 42*(5), 271-279.

Baio, J. (2014). *Prevalence of autism spectrum disorder among children aged 8 years—autism a n d developmental disabilities monitoring network, 11 sites, United States, 2010*. Retrieved from http://www.cdc.gov/mmwr/preview/mmwrhtml/ss6302a1.htm?s_cid=ss6302a1_w

Becker-Cottrill, B., &Ramsey, K. (2002). *The Howard Austin Memorial Scholarship Program for college students with autism.* Huntington, WV: Marshall University.

Blacher, Jan & R Kraemer, Bonnie & Howell, Erica. (2010). Family expectations and transition experiences for young adults with severe disabilities: Does syndrome matter?.*Advances in Mental Health and Learning Disabilities, 4,* 3-16.

Brown, J. (2019). *Programs for students with asperger syndrome*. Retrieved from http://collegeautismspectrum.com/collegeprograms.html

Boyle, C. A., Boulet, S., Schieve, L. A., Cohen, R. A., Blumberg, S. J., Yeargin-Allsopp, M., &Bogan, M. D. (2011). Trends in the prevalence of developmental disabilities in US children, 1997–2008. *Pediatrics, 127*(6), 1034-1042.

Breakey, C. (2006). *The autism spectrum and further education: A guide to good practice*. London, England: Jessica Kingsley.

Brinckerhoff, L. C., McGuire, J. M., & Shaw, S. F.(2002). *Postsecondary education and transition for students with learning disabilities.* Austin, TX:PRO-ED, Inc.

Bruce, N. T. (2014). *A qualitative case study investigating the graduation and job placement outcomes of college students with autism spectrum disorder: Implications for higher education leaders* (Doctoral

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dissertation). Retrieved from ProQuest Dissertations and Theses Global. (Order No. 10157631)

Cai, R. Y., &Richdale, A. L. (2016). Educational experiences and needs of higher education students with autism spectrum disorder. *Journal of Autism and Developmental Disorders,* *46*(1), 31-41.

Centers for Disease Control and Prevention (CDC). (2014).*Autism spectrum disorder (ASD): Data &statistics.* Retrieved from https://www.cdc.gov/ncbddd/autism/data.html\

Chiwandire, D., & Vincent, L. (2019). Funding and inclusion in higher education institutions for students with disabilities. *African Journal of Disability, 8*

Dolyniuk, C. A., Kamens, M. W., Corman, H., &DiNardo, P. O. (2002). Students with developmental disabilities go to college: Description of a collaborative transition project on a regular college campus. *Focus on Autism and Other Developmental Disabilities, 17*(4), 236-241.

Edwards, A. D. (2014). *Serving the needs of students on the autism spectrum in higher education: A study of leadership and support services* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses Global. (Order No. 3672020)

Ellison, L. M. (2013). *Assessing the readiness of higher education to instruct and support students with asperger's disorder* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses Global. (Order No. 3557253)

Harpur, J., Lawlor, M., Fitzgerald, M. (2003). *Succeeding in college with Asperger syndrome: A student guide*. London, UK: Jessica Kingsley Publishers.

Fleischer, A. S. (2012). Alienation and struggle: Everyday student-life of three male students with aspergersyndrome. *Scandinavian Journal of Disability Research, 14*(2), 177–194.

Folk, E. D. R., Yamamoto, K. K., &Stodden, R. A. (2012). Implementing inclusion and collaborative teaming in a model program of postsecondary education for young adults with intellectual disabilities. *Journal of Policy and Practice in Intellectual Disabilities, 9*(4), 257-269.

Gardiner, E., &Iarocci, G. (2014). Students with autism spectrum disorder in the university context: Peer acceptance predicts intention to volunteer. *Journal of Autism and Developmental Disorders, 44*(5), 1008-17.

Gelbar, N. W., Smith, I., &Reichow, B. (2014). Systematic review of articles describing experience and supports of individuals with autism enrolled in college and university programs. *Journal of Autism and Developmental Disorders, 44*(10), 2593-601.

Getzel, E. E., McManus, S., &Briel, L. (2005). Expanding support services on campus. *Going to college: Expanding opportunities for people with disabilities*, 139-154.

Getzel, E. E., &Thoma, C. A. (2008). Experiences of college students with disabilities and the importance of self-determination in higher education settings. *Career Development for Exceptional Individuals, 31*(2), 77-84. Retrieved from http://www.library.drexel.edu/cgi-bin/r.cgi/login?url=http://search.proquest.com/docview/61993957?accountid=10559

Revista Educação Inclusiva - REIN, Campina Grande, PB, v.3, n.03, julho-dezembro-2019, p.10-26.

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Gibbons, M. M., & Goins, S. (2008). Getting to know the child with asperger syndrome. *Professional School Counseling, 11*(5), 347-352.

Gil, L. (2007). Bridging the transition gap from high school to college: Preparing students with disabilities for a successful postsecondary experience. *Teaching Exceptional Children, 40*(2), 12-15.

Glennon, T. J. (2001). The stress of the university experience for students with Asperger syndrome. *Work, 17*(3), 183–190.

Glickman, J. (2010). *U.S. secretary of education duncan announces $10.9 million in awards under new programs that help students with intellectual disabilities transition to postsecondary education*. Retrieved from http://www.ed.gov/news/press-releases/us-secretary-education-duncan- announces-109-million-awards-under-new-programs-he

Grossman, P. D. (2001). Making accommodations: The legal world of students with disabilities. *Academe: Bulletin of the American Association of University Professors,* 41-46.

Hansen, R. (2011). The trifecta of student support services: Helping students with autism spectrum disorders succeed in postsecondary education. *College and University, 86*(4), 37– 40.

Hendricks, D. R., &Wehman, P. (2009). Transition from school to adulthood for youth with autismspectrumdisorders. *Focus on Autism and Other Developmental Disabilities, 24*(2), 77-88.

Hewitt, L. E. (2011). Perspectives on support needs of individuals with autism spectrum disorders: Transition to college. *Topics in Language Disorders, 31*(3), 273-285.

Howlin, P., & Moss, P. (2012). Adults with autism spectrum disorders. *Canadian Journal of Psychiatry, 57*(5), 275–283.

Huemer, S. V., & Mann, V. (2010). A comprehensive profile of decoding and comprehension in autismspectrumdisorders. *Journal of Autism and Developmental Disorders, 40*(4), 485–493.

Hughes, J. (2009). Higher education and Asperger's syndrome. *Chronicle of Higher Education*, *55*(40), 21.

Hutcheon, E. J., &Wolbring, G. (2012). Voices of "disabled" post-secondary students: Examining higher education "disability" policy using the ableism lens. *Journal of Diversity in Higher Education, 5*(1), 39-49.

Hwu, L. A. (2011). *The role of theory of mind in the social interaction of individuals with autistic disorder: A model program* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses Global. (Order No. 3541448)

Jones, J. (2012). Autism in academia. *Chronicle of Higher Education*, 38-42.

Levy, A., & Perry, A. (2011). Outcomes in adolescents and adults with autism: A review of the literature. *Research in Autism Spectrum Disorders, 5*(4), 1271–1282 .

Revista Educação Inclusiva - REIN, Campina Grande, PB, v.3, n.03, julho-dezembro-2019, p.10-26.

23

Madaus, J. W. (2005). Navigating the college transition maze: A guide for students with learning disabilities. *Teaching Exceptional Children, 37*(3), 32-37

Magiati, I., Tay, X. W., &Howlin, P. (2014). Cognitive, language, social and behavioural outcomes in adults with autism spectrum disorders: A systematic review of longitudinal follow-up studies in adulthood. *Clinical Psychology Review, 34*(1), 73–86.

Mangrum, C. T., &Strichart, S. S. (1984). *College and the learning disabled student: A guide to p r o g r a m selection, development, and implementation.* Grune&Stratton.

McCrimmon, A., Altomare, A., Smith, A., Jitlina, K., Matchullis, R., &Sakofske, D. (2014). Overview of autism spectrum disorder. In L. Wilkinson (Eds.), *Autism spectrum disorder in children and adolescents* (pp. 17-36). Washington, D.C.: American Psychological Association.

McDonnell, J., & Hardman, M. (2009). *Successful transition programs: Pathways for students with intellectual and developmental disabilities*. Thousand Oaks: SAGE Publications

Neece, C. L., Kraemer, B. R., &Blacher, J. (2009). Transition satisfaction and family well being among parents of young adults with severe intellectual disability. *Intellectual and Developmental Disabilities, 47*, 31–43.

Nevill, R. E. A., & White, S. W. (2011). College students' openness toward autism spectrum disorders: Improving peer acceptance. *Journal of Autism and Developmental Disorders, 41,* 1619-1628.

Pillay, Y., & Bhat, C. S. (2012). Facilitating support for students with asperger's syndrome. *Journal of College Student Psychotherapy, 26*(2), 140–154.

Pinder-Amaker, S. (2014). Identifying the unmet needs of college students on the autism spectrum. *Harvard Review of Psychiatry.22*(2). 125-137.

Plotner, A. J., & Marshall, K. J. (2015). Postsecondary education programs for studentswith an intellectual disability: Facilitators and barriers to implementation. *Intellectual and Developmental Disabilities, 53*(1), 58-69,87,89.

Rights of Students with Disabilities in Higher Education. (2013). Retrieved from http://www.disabilityrightsca.org/pubs/530901.pdf

Roth, M. (2013). *At Marshall University, students with autism can find a haven.* Retrieved from http://www.post-gazette.com/news/health/2013/10/09/At-Marshall-University-students-with-autism-can-find-a-haven/stories/201310090042?pgpageversion=pgevoke

Roux, A. M., Shattuck, P. T., Rast, J. E., Rava, J. A., Edwards, A. D., Wei, X., &Yu, J. W. (2015). Characteristics of two-year college students on the autism spectrum and their support services experiences. *Autism Research and Treatment, 2015,* 1-10*.*

Schlabach, T. L. (2008). *The college experience of students with asperger'sdisorder:Perceptions of the students themselves and of college disability service providers who work with these students* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses Global. (Order No. 3323938)

Shattuck, P. T., Narendorf, S. C., Cooper, B., Sterzing, P. R., Wagner, M., & Taylor, L. J. (2012). Postsecondary education and employment among youth with an autism spectrum disorder. *Pediatrics, 129*, 1042–1049. doi:10.1542/peds.2011-2864.

Shmulsky, S., &Gobbo, K. (2013). Autism spectrum in the college classroom: Strategies forinstructors. *Community College Journal of Research & Practice, 37*(6), 490–495.

Smith, C. P. (2007). Support services for students with asperger's syndrome in higher education. *College Student Journal, 41*(3), 515–531.

Taylor, J. L., & Seltzer, M. M. (2010). Changes in the autism behavioral phenotype during the transition to adulthood. *Journal of Autism and Developmental Disorders, 40*(12), 1431-1446.

The National Center for Education Statistics (NCES). (2019). Retrieved fromhttps://nces.ed.gov/fastfacts/display.asp?id=64

U.S. Department of Education. (2015). *37th annual report to congress on the implementation of individuals with disabilities education act*. Washington, DC.

U.S. Department of Justice. (2009). A guide to disability rights laws. Retrieved from http://www.ada.gov/cguide.htm

VanBergeijk, E., & Cavanaugh, P.K. (2012). Brief report: new legislation supports students with intellectual disabilities in post-secondary finding. *Journal of Autism and DevelopmentalDisorders.*

VanBergeijk, E., Klin, A., &Volkmar, F. (2008). Supporting more able students on the autism spectrum: College and beyond. *Journal of autism and developmental disorders*, *38*(7), 1359-1370.

Van Hees, V., Moyson, T., &Roeyers, H. (2015). Higher education experiences of students with autism spectrum disorder: Challenges, benefits and support needs. *Journal of Autism and Developmental Disorders, 45*(6), 1673-1688. doi:10.1007/s10803-014-2324-2

Walker, C. J. (2006). Adequate access or equal treatment: Looking beyond the IDEA to section504 in a post-schafferpublicschool. *Stanford Law Review, 58*, 1563–1622.

Wehman, P. (2013). *Life beyond the classroom: Transition strategies for young people with disabilities*(5th ed.) [5th ed.]. Baltimore, Md.: Paul H. Brookes Pub. (2013).

Wei, X., Yu, J. W., Shattuck, P., McCracken, M., &Blackorby, J. (2013). Science, technology, engineering, and mathematics (STEM) participation among college students with an autismspectrumdisorder. *Journal of Autism and Developmental Disorders, 43*(7), 1539–1546.

Welkowitz, L. A., & Baker, L. J. (2005). Supporting college students with asperger's syndrome. *Asperger's syndrome: Intervening in schools, clinics, and communities*, *173*, 1-25

Wenzel, C., & Rowley, L. (2010). Teaching social skills and academic strategies to college students with asperger's syndrome. *Teaching Exceptional Children, 42*, 44-50.

Revista Educação Inclusiva - REIN, Campina Grande, PB, v.3, n.03, julho-dezembro-2019, p.10-26.

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Wilkinson, L. (2014). Introduction: Evidence-based practice for autism spectrum disorder. In L. Wilkinson (Eds.), *Autism spectrum disorder in children and adolescents* (pp. 3-13). Washington, D.C.: American Psychological Association.

Williams-Harmon, A. (2016). *Student support services for autistic students transitioning to community colleges* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses Global. (Order No. 10100320)

Wise, K. L. (2015). *A formative program evaluation of a postsecondary support program for students with high functioning autism spectrum disorder* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses Global. (Order No. 10016538)

Yell, M. L. (2016). *The law and special education*. (4th ed.) Upper Saddle River, NJ: Merrill/Pearson Education

Zager, D., &Alpern, C. S. (2010). College-based inclusion programming for transition-age students with autism. *Focus on Autism and Other Developmental Disabilities*.

Revista Educação Inclusiva - REIN, Campina Grande, PB, v.3, n.03, julho-dezembro-2019, p.10-26.

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