#### FEATURED ARTICLE

# Autism on Campus: Supporting Students on the Spectrum

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With a significant increase in the number of students with Autism Spectrum Disorder (ASD), there is a need for higher education professionals on campuses to better understand the challenges facing this population. This article presents literature on the topic of college students with ASD that will better equip those working with this student population on campus. Challenges faced by those transitioning to college with ASD and implications for those working in orientation, transition, and other support areas within institutions of higher education are discussed. Suggestions for improving success, retention, and thriving for this population are presented.

Students with autism spectrum disorder (ASD) are entering colleges in growing numbers (Brown, Meeks, & Rigler, 2016) and the trend is expected to continue to increase (Rando, Huber, & Oswald, 2016). Further research and support of this population is needed in order to best guide these students as they navigate various transitions to college campuses (Cai & Richdale, 2016). Students must learn to find sources of support for new academic and social environments. Education for professionals who support this population is much needed because it is imperative that educators understand the challenges these students face and consider the interventions available to them (Barnhill, 2016).

Currently there is a scarcity of research available to guide practice to support college students with ASD, yet practitioners and those in higher education will need to be equipped to advise and assist these students as

they transition to college (Barnhill, 2016; Gillespie-Lynch et al., 2017). The purpose of this paper is to discuss the literature available on the topic of college students with ASD and to suggest ways that campus professionals can improve the likelihood of success, retention, and thriving for this growing population.

The majority of the literature discussed in this work is published in the last seven years because the authors wanted to present as much current research as possible. With few exceptions, information in this article comes from sources which highlight research in autism and/or the areas of higher education or student affairs because these articles were deemed the most informative and relevant sources for practitioners to consider.

The subsequent sections define ASD, explain the outward indicators, and discuss the challenges faced by those transitioning to college with ASD. Following these, the later portion of this work explores implications for those working in orientation, transition, and other support areas within institutions of higher education.

### **About Autism**

#### **Classifications & Definition**

In 2013, the Diagnostic and Statistical Manual of Mental Disorders (DSM) changed the classification of autism to include disorders that were once separate, such as Asperger's syndrome, Rett syndrome, and pervasive developmental disorders not otherwise specified (PDD-NOS) (National Institute of Mental Health [NIMH], n.d.). "Autism spectrum disorders are developmental conditions that involve significant social, communication, and behavioral challenges" (Rettew, 2013, p. 101). While some claim that autism is specifically a neurological disorder, others argue that a distinction between neurological and mental health creates a false disparity of the challenges that ultimately does a disservice to those on the spectrum (Rettew, 2013). This is because comorbid disorders (those which occur alongside ASD) are common, including anxiety and depression (Anderson, Carter, & Stephenson, 2018; Van Hees, Moyson, & Roeyers, 2015).

### **Signs & Indicators**

Determining proper support can be challenging due to the multiple ways that ASD can manifest itself. While signs and indicators vary some from student to student, those with ASD often experience sensory, organizational, and social challenges. Those with ASD commonly have challenges with non-verbal communication and understanding emotions (Barnhill, 2016; Shattuck et al., 2014) which can include maintaining eye contact, difficulty recognizing social cues, and conversing with others (CDC, 2018). Other signs that a student is on the spectrum include difficulty managing changes to routine, intense or overly focused behavior, repetitive behaviors, and the tendency to become overloaded with sensory information (Barnhill, 2016; CDC, 2018).

# **Transition to College**

#### Identification

Perhaps the first challenge that those with ASD face in their transition to college is deciding whether they will disclose or identify themselves as a student with ASD. The degree to which students are comfortable identifying as one with ASD varies from student to student. Some will self-identify, disclose, and seek out help; however, many with ASD do not identify themselves early or at all (Anderson et al., 2018; Shattuck et al., 2014) and the majority have doubts and questions about disclosure (Van Hees et al., 2015).

Shattuck et al. (2014) reported that about one third of students with ASD do not self-identify as disabled or having special needs. If receiving services requires one to identify in a way that these students do not, there is a disconnect. The impact is that many students who may need accommodations are not accessing disability services (Shattuck et al., 2014). For those who identify as a student with a disability, some reasons students opt not to disclose include fear of stigmas, prejudices, and rejection from peers (Van Hees, et al., 2015). Often, parents of students disclose on behalf of the student (Cai & Richdale, 2016).

When students opt not to disclose and a parent does not disclose on their behalf, supporting students with ASD through their transition to

college is especially challenging because earlier intervention is typically more effective. Some students may wait too long to indicate that they need help and find themselves extremely anxious, frustrated, or too academically behind to succeed in the way they would like (Cai & Richdale, 2016).

#### **Changes to Routine**

The stress of transitioning to college is typical for most students and is only exacerbated for individuals with ASD. This is because adjusting to new situations, interactions with unfamiliar people, and encountering new schedules and new routines – all standard for those transitioning to college, can be especially difficult for those on the spectrum (CDC, 2018; Van Hees et al., 2015). Not all students anticipate the structural changes between secondary school and college, so the significant difference can come as a considerable shock (Cai & Richdale, 2016). Further, the sheer number of choices students have to make during transition (major choice, which class and what times, what activities, which people to talk to, etc.) can be overwhelming and there may be fear that the wrong choice means undesired consequences (Van Hees et al., 2015).

Common campus occurrences such as a change of room, change of faculty member, or cancelled class can cause increased anxiety, making getting acclimated even more challenging for those with ASD (Cai & Richdale, 2016). Although a high number of students with ASD continue to live at home while attending college (Anderson et al., 2018; Cai & Richdale, 2016), affected students who move away from parents are facing additional stressors. This can include financial considerations and engaging in intimate relationships (Pinder-Amaker, 2014) in addition to responsibilities of independent living such as laundry and cleaning.

Since students with ASD can experience all these challenges at once, participants in the Van Hees et al. (2015) study reported feeling overwhelmed and exhausted. Classroom challenges may lead to anxiety, so managing these emotions is essential to the learning process for all students in the class (Gobbo & Shmulsky, 2014).

### **Experiencing Campus Environments**

The transition to college can also be complicated by campus environments themselves because campuses have been identified as contributing to sensory overload for many with ASD (Cai & Richdale, 2016; Van Hees et al., 2015). The crowds of students, sounds of campus, and the flickering of lights in classrooms can all trigger stress. Further, out-of-class environments such as sporting or theatrical events, rallies, or dances often have loud sounds and/or lighting that can be problematic for those with ASD. Sensory overload is a recognized challenge for those with ASD (CDC, 2018), so the findings in the studies noted are not surprising, but affirm the need for students with ASD to consider the campus environment.

### **Social Challenges and Adjustments**

A significant aspect of college transitions is meeting new peers, faculty, and staff. Because students with ASD struggle with recognizing social cues, they can find socializing and this aspect of transition challenging. Those with ASD often missed nonverbal cues in class leading to difficulty when these students participated in group projects and class discussions (Gobbo & Shmulsky, 2014). Further, students with ASD may not know when topics of discussions have changed and may continue to talk too long (McKeon, Alpern, & Zager, 2013).

Often, one aspect of socialization in college involves developing romantic relationships. Students with ASD may lack awareness of inappropriate behavior with romantic relationships, which may lead to perceptions of stalking or unwanted advances (Pinder-Amaker, 2014). To exacerbate the problem, they are more likely to lack sexual education, understanding of appropriate public behavior, and knowledge of privacy issues (Pinder-Amaker, 2014). Without proper support, these concerns can lead to lack of confidence and loneliness that can further discourage students (Van Hees et al., 2015).

Students with ASD may not understand boundaries, may interrupt others, have little or no eye contact, or talk too much during conversations with peers (Gobbo & Shmulsky, 2014). Although it is often difficult for students with ASD to develop and maintain social relationships of any

kind, they desire to do so and hope to make progress in this area during college (Van Hees et al., 2015; Watanabe, 2019). In interviews conducted by Van Hees et al. (2015), students with ASD were self-aware of their problems with socializing including not knowing when to begin talking or when to stop.

The challenge when it comes to supporting the success of students with ASD seems to be in determining the proper structure for interventions related to social development. There is research to support the promise of a class for credit; however, support groups with other students, workshops, or noncredit courses are not always appreciated by those with ASD (Gillespie-Lynch et al., 2017). Guiding students with ASD to plan out conversations and advising them on ways to make small talk have been effective practices, and in the right environments of individualized social support, some students with ASD exceed all expectations. The Los Angeles Times noted such an achievement earlier this year in a story highlighting the Claremont McKenna College commencement speaker, a student with ASD (Watanabe, 2019).

## Academic Challenges

Aside from the social challenges of group work and class discussions, there are other considerations to explore in order to better understand and support this population in college. Faculty have stated that students with ASD can lack the ability to view something critically from multiple perspectives; these students tend to think in black and white and subtleties may be missed (Gobbo & Shmulsky, 2014). Further, students with ASD may have a deficit in executive functioning skills that affect all aspects of life, but which can be particularly detrimental in the academic setting. According to McKeon, Alpern, and Zager (2013), these skills are used to function in daily life and can include time management, developing plans, completing tasks, and adapting to changing situations. A student who lacks executive function may regularly turn in assignments late, come to class unprepared, or appear disorganized (McKeon et al., 2013). It is also possible that a student with ASD is precise with scheduling but may lack the adaptability skills to be flexible when things change (Van Hees et al., 2015).

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# **Pre-College Transition Support**

Those with ASD do not always fully understand what it is that they need in the college environment in order to be successful. This is likely because they do not typically have a clear idea of what college is like or what the demands of the environment will be. Many college students with ASD receive no transition planning (Cai & Richdale, 2016). The assumption is that college will be much like their experience in secondary school, but if concepts of college life are not discussed thoroughly, students will be ill-prepared when they begin their college journey (Gillespie-Lynch et al., 2017). Starting transition conversations in high school, or at least prior to stepping foot on campus, seems to be necessary in order to best prepare those with ASD for the transition (White et al., 2017).

Based on research with ASD college students, there is both a greater likelihood of success and higher satisfaction with college support for those who do reveal their status (Hudson, 2013). In fact, in one quantitative study, the longer students wait to disclose, the longer it takes them to graduate (Hudson, 2013). Early transition programs should discuss this research with students to help them understand how revealing their status can benefit them and how a failure to reveal their ASD status can put them at risk of academic struggles. While a significant portion of those with ASD would prefer not to disclose, they should be aware of the advantages and disadvantages of doing so. Transition programs in high school and prior to college would allow students time to consider the implications of their decisions before they arrive on campus (Shattuck et al., 2014).

# **Implications for Campus Transition and Support**

There is little research on types of transition support available and on the success of those programs (Gillespie-Lynch et al., 2017). In light of that, in an effort to develop effective transition programming for students with ASD, considerations from affected students are essential (Gillespie-Lynch et al., 2017; White et al., 2016). Students with ASD considered their top challenges entering college to be lack of social supports, academic stress, and difficulty regulating intense emotions (Van Hees et al., 2015). Another

study noted the importance of self-advocacy skills (Gillespie-Lynch et al., 2017). These elements echo what is understood about ASD and also what faculty, staff, and parents have expressed (McKeon et al., 2013; White et al., 2016).

Significant work remains in both supporting students with ASD in transition and in evaluating the support offered (Gillespie-Lynch et al., 2017; White et al., 2017). Additionally, campuses might consider ways they can offer various supports to students with ASD who opt not to disclose their status – perhaps as open access support programs.

Students with ASD do appear to greatly benefit from longer orientation formats. While some campuses offer this already, many continue to offer orientation sessions of shorter duration (Overland & Sarnicki, 2016). A formal orientation week has shown beneficial to those with ASD (Anderson et al., 2018). Other formats examined for those with Asperger's (which in some cases were funded by vocational rehabilitation programs) ranged from a three-day orientation program to a six-week summer program (Barnhill, 2016). In the study, the authors highlighted a three-week summer program where students with ASD lived in dorms and experienced mini classes. This gave students an opportunity to understand expectations and develop a routine. Valuable learning included how to do laundry, socialize with others, and manage time (Barnhill, 2016).

### Ways to Support Socialization

Those with ASD can be supported through socialization programming in multiple ways and campuses can intervene in ways that encourage student thriving. First, campus professionals should consider that students have often already taken social skills training and do not always appreciate being put into support groups or workshops on social topics (Barnhill, 2016; Gillespie-Lynch et al., 2017). Sensitivity to this may impact the approach taken in terms of supporting socialization formally. Students can, however, be offered for-credit opportunities to learn about a variety of life and college success skills, which also provides a space to get to know other students. These might be part of a first-year seminar type course which considers topics that those with and without ASD face, such as time

management and navigating campus (Gillespie-Lynch et al., 2017). Since those on the spectrum often avoid self-identification, a structure such as a seminar allows them access to the information without requiring disclosure.

Another way to support this population is to offer training for staff and other students so that they are able to develop awareness and remove stigmas (Van Hees et al., 2015). Peers often have misconceptions about students with ASD. A study by Gillespie-Lynch et al. (2015) tested the effectiveness of online training to increase knowledge and decrease assumptions about students with ASD. The study found that the online training was effective with results showing immediate gains in knowledge and decreases in stigma associated with autism among college students (Gillespie-Lynch et al., 2015).

Research by Matthews, Ly, and Goldberg (2014) studied the effects of disclosure of ASD on peer perception. Students were split into three groups and read similar vignettes. One vignette specifically described the student with ASD and briefly stated some of the challenges these students face. Results showed that peers were more accepting of atypical behavior when ASD was disclosed. The revelation allowed for an explanation of the behavior (Matthews et al., 2014). Ironically, students hesitate to disclose their disorder due to fear of stigma but, according to this research, divulging that information can improve other students' perceptions.

## **Academic Support**

According to Barnhill (2016), academic accommodations and supports that are most accessed by students with ASD are advising, extended time for exams, alternative test-taking locations, and note-taking assistance. Many institutions also provide one-on-one executive functioning assistance so students can develop skills that help with managing homework and studying (Barnhill, 2016). In addition, Van Hees et al. (2015) suggests accommodations like spreading out exams or allowing students with ASD to complete alternative assignments instead of group projects. Accommodations should be tailored to the student through understanding individual students' needs (Van Hees et al., 2015) and

flexibility is valued by those with ASD (Cai & Richdale, 2016).

The professor must make an effort to get to know the student and his or her particular symptoms. Professors should use concrete language and provide structure in the classroom so as to avoid unpredictability for the student (Gobbo & Shmulsky, 2014). Students can benefit from use of technology, altering teaching styles, and making adjustments to the physical environment (McKeon, Alpern, & Zager, 2013). Training can be implemented to help both professors and students with classroom discussion, appropriate behaviors, communication, and organization (McKeon et al., 2013).

### **Counseling and Emotional Support**

Since those with ASD generally have comorbid symptoms such as anxiety and depression, campus supports should include individual or group efforts to address these emotional realities (Van Hees et al., 2015). Anderson et al. (2018) found students to value counseling above all other non-academic supports. In terms of counseling perspectives and approaches, Reaven et al. (2012) and White et al. (2017) report cognitive behavioral therapy (CBT) as an effective approach for assisting those with ASD to face fears, alter negative thoughts, and lower anxiety and stress levels.

For those students who do not identify as having a disability, a coaching perspective versus a counseling (deficit) perspective might be welcomed. While Attention-Deficit and Hyperactivity Disorder (ADHD) and ASD are not the same, they share many common mental and physical challenges including impulsivity, sensory overload sensitivity, interpersonal social challenges, and co-occurring anxiety (Kern, Geier, Sykes, Geier, & Deth, 2015). Coaching has been shown to be beneficial for college students with ADHD (Prevatt et al., 2017) and more research on the usefulness of coaching for those with ASD should be undertaken.

### Parent Partnership

Parents are often key members in the decision of whether or not to notify or disclose ASD status to campus support professionals (and will

sometimes disclose even if the student would not decide to do so). In order to foster a smooth orientation and transition to campus, partnering with parents is a key to success with this population (Barnhill, 2016; Wolf, Brown, & Bork, 2009). Parents of students with ASD have likely grown to recognize their student's learning needs of which campuses would benefit from understanding. In addition, parents can communicate what their student knows and understands about the transition and what information should still be provided. One study shows that students with ASD who lived within two miles of campus were generally most successful, perhaps further suggesting the critical role parents play (Barnhill, 2016), although this finding can also possibly be due in part to fewer changes in routine.

### Mentoring

Three quarters of successful services in Barnhill's (2016) study included mentors of some sort, and peer-mentoring and/or graduate student mentoring appear to be particularly successful. Some mentors act as social coaches or academic coaches while others act as a connection between students and faculty members (Barnhill, 2016). Even online mentoring has been shown to be helpful in preparing students for time management and the development of social skills (Cai & Richdale, 2016). Not all studies indicate that students value mentoring above other supports (Anderson et al., 2018), but as an addition to other supports, it seems to be a way for students to learn and grow from the experiences of other students.

#### **Collaborative Efforts**

Although students diagnosed with ASD are growing in numbers on campuses, the cost of specialized programming is high for serving a small portion of the student body. Longtin (2014) suggests using existing infrastructure to support students with ASD. This method utilizes and promotes collaboration with existing support programs in order to minimize costs. Besides disability services, educators can work with health services, the counseling department, career counseling, and residence life

to provide support for students with ASD.

Staff might work collaboratively to find ways to minimize the campus light and sound overload for students who need a different supportive space. Further, departments can work together to develop trainings, facilitate support groups, and create peer mentor programs to help students (Longtin, 2014). Professional development programs for campus professionals who desire to help this population of students are much in need (White et al., 2017) and joint efforts can help disseminate needed information and guidance. Both intentional student programming and an educated staff across campus departments can ensure that students with ASD are given opportunities to excel academically and socially.

#### **Areas for Future Research**

So much remains to be learned in regard to best supporting students with ASD on college campuses that it is challenging to suggest where needs for research are greatest. That acknowledged, no studies appear to be available which examine interventions for sensory overload for this population of students (Anderson, Stephenson, Carter, & Carlon, 2019), and this seems an important topic for educators to better understand. Other areas for future work noted briefly above include an examination of the effectiveness of coaching versus counseling for those who do not consider ASD a disability/deficit and alternative ways to offer services for those not wishing to disclose their status. These types of campus support appear to have potential to help this population of students, but evidence of effectiveness is needed.

## **Concluding Thoughts**

The increasing numbers of students with ASD on college campuses call for institutions to make a concerted effort to provide accommodations and support programming for this population. Wolf et al. (2009) are clear, "We cannot emphasize enough that a well-managed transition often makes the difference between a successful and an unsuccessful first semester" for students on the spectrum (p. 34). Students with ASD often struggle with transitioning to an unfamiliar environment, increasing academic

pressures, and difficulty socializing with peers. These challenges often lead to higher levels of stress, anxiety, and depression. With proper awareness and training, faculty, student affairs professionals, counselors, and other institutional agents can foster a smooth transition and a supportive learning environment in which students with ASD have the opportunity to thrive.

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