

**Transition to College and Students With High Functioning Autism Spectrum
Disorder: Strategy Considerations for School Counselors**

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Abstract

There are limited school counseling resources that address the unique post high school transition issues faced by students with High-functioning Autism Spectrum Disorder (HASD). While many school counselors have excellent skills in assessment, advising, and career planning, it is worthwhile to expand these to include working with students with disabilities, particularly those diagnosed with HASD. The purpose of this article is to build a deeper understanding of the challenges faced by students with HASD and to provide school counselors with strategies to assist these students with school to college transitions.

Keywords: career transitioning, High functioning Autism Spectrum Disorder, post-school transitions; high school students with Autism Spectrum Disorders

Transition to College and Students With High Functioning Autism Spectrum Disorder: Strategy Considerations for School Counselors

The Centers for Disease Control (CDC) estimate that approximately 730,000 individuals, between the ages of 0 to 21, may be diagnosed with Autism Spectrum Disorders (ASDs) within the next two decades (CDC, 2011). There is a remarkable exponential growth of 300% based on the number of students in the Autism Spectrum category receiving special education services between 2000-2001 to 2009-2010 (Auger, 2013b). Given the increasing number of students with ASDs in the public school system (CDC, 2012), it is reasonable to expect that the number of students accessing disabilities services will continue to increase (Leinbaugh, 2004). According to Auger (2013a), "Students with ASDs present unique challenges to schools and school counselors" (p. 256). There is general agreement that there is an overwhelming shortage of professionals who have the knowledge and skills to serve the needs of youth with ASDs (Myles & Simpson, 2001; U.S. Senate, 2002). The need is significant enough for Sampson (2003) to note that preparing qualified school professionals to support students with ASDs could well be the most significant challenge facing the field. Students with ASDs represent one of the several stigmatized groups due to symptoms of the disability and limited information surrounding the disorder among school professionals. There is a need to help high school students at the high end of the ASD continuum to transition successfully to the college setting (Wolf, Thierfeld, & Bork, 2009). Successful interventions in working with this population have been described as high intensity, comprehensive, and long term (Auger, 2013b), a difficult challenge for school counselors already struggling with high volumes of students.

By all accounts, research on effective interventions for individuals with ASDs trails miserably behind the needs as indicated by the expanding number of students receiving an ASD diagnosis. Research on interventions for youth with ASDs is still in its infancy (Schreiber, 2011), particularly in the school setting. Existing evidenced based interventions have rarely included school-based interventions (Auger, 2013a), particularly those directed at meeting the post-school transition need of students with High Functioning Autism Spectrum Disorder (HASD). In order to effectively meet the challenge to serve these students, the school counseling profession can rise within the rank of the school multidisciplinary team drawing upon the available research findings in other settings and combine it with their expertise to develop appropriate interventions when working with this population.

The purpose of this article is to provide school counselors with targeted strategy considerations for post-high school transitional needs of students with HASD. School counselors are in a key position to assist with post-secondary planning for these students, given their unique training in career development, academic preparation, and life transitions. This article will provide school counselors with diagnostic considerations of youth with ASDs, existing empirically proven interventions and career and transition related research. In addition, authors will provide specific strategy considerations while highlighting limited existing research to address the unique career development and transition needs of students with HASD.

Diagnostic Considerations

Asperger's disorder, a diagnostic category within the *Diagnostic and Statistical Manual of Mental Disorders*, 4th Ed., Text-Revision (DSM-IV-TR) (American Psychiatric

Association [APA], 2000) has been eliminated from the 5th Edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM V) (APA, 2013). Individuals who had been previously diagnosed with Asperger's disorder based on the DSM-IV-TR criteria would be placed on the higher functioning end of the ASD in DSM-V. These individuals typically perform at higher academic levels (Roberts, 2010) and as a result, would likely consider college a viable post-high school option. Therefore, it is reasonable to assume that a higher percentage of these students will be among the next generation of students on college campuses (Dunn, Myles, & Orr, 2002; Rutter, 2005). With the help of school counselors, students with HASD are more likely to attain a more successful transition to college.

Under the current diagnostic criteria listed in DSM-V (APA, 2013), an individual who had been previously diagnosed with Asperger's disorder based on the criteria listed in DSM-IV-TR (APA, 2000) would now be given the diagnosis of ASD. However, if the individual displayed marked deficits in social communication, the individual could also be diagnosed with Social Communication Disorder (SCD), and should be reevaluated using the most recent diagnostic criteria in the DSM-V (APA, 2013). The new categorization of ASD by DSM-V, places the severity of symptoms associated with the disorder on a continuum. Some youth with an ASD diagnosis may show mild impairment, while others fall on the severe range of the continuum (Auger, 2013b). Some are able to function in regular classrooms while others need special programming to be successful in academic and social arenas (Auger, 2013b).

ASD core characteristics include social impairment, communication difficulties, and restricted stereotypical interests (APA, 2013). Additionally, students with ASD may

present with several co-morbid mental health conditions and symptoms such as anxiety, depression, avoidant behavior, and repetitive behavior (Auger, 2013b). Studies from several countries have found that more than two-thirds of individuals with ASD have comorbid psychiatric conditions with one third of these having two or more co-morbidities (Gjevik, Eldevik, Fjaeran-Granum, & Sponheim, 2011; Hess, Matson, & Dixon, 2010; Simonoff, Pickles, Charman, Chandler, Loucas, Baird, 2008).

As students with HASD move into adolescence, difficulties with anxiety, organization, executive functioning, test performance, social reciprocity, and emotional expressiveness can present challenges and put the student-teacher relationship in jeopardy (Auger, 2013b; Songlee, Miller, Tincani, Sileo, & Perkins, 2008). Deficits in the area of social comprehension translate into few opportunities for shared laughter and jokes, which for many is a means to building positive relationships (Eman & Farrell, 2009). Further, students with HASD often demonstrate idiosyncratic behavior and with limited social skills, they become easy targets for bullies (Humphrey & Symes, 2010). The challenges associated with HASD also affects parent-child understanding of the purpose of school to college transition, impacting the execution of effective postsecondary planning (Auger, 2013b). For example, it is not unusual for adolescents with ASD to view the purpose of college as career preparation, whereas their parents would see college as a place for their son and/or daughter to gain more experience in the arena of social interaction.

Milson (2002) observed that professional school counselors provide a number of interventions and services to students with disabilities, many of which they have not been educationally prepared to provide. With the rise in prevalence rate of students with

ASD in public schools (Auger, 2013a), professional school counselors face a daunting task in how to better address the unique and holistic needs of these students. A 2006 study indicated that 75% of school counselors and administrators agree that providing holistic services to students, including meeting their mental health needs, should be part of the school counselor's role (Brown, Dahlbeck, & Sparkman-Barnes, 2006). Yet, school counselors continue to indicate some level of discomfort when working with students who have a mental health diagnosis (Carlson & Kees, 2013). School counselors interested in meeting the holistic needs of students with a mental health diagnosis of HASD can acquire essential knowledge that supports a successful post-high school transition to college. By understanding the symptoms and characteristics of ASD, school counselors may become more comfortable in working with students who happen to have this mental health diagnosis. To better assist school counselors in working with the unique needs of students with HASD, these authors will provide a brief summary of empirically proven interventions with this population.

Existing Empirically Proven Interventions

Researchers have developed evidence-based strategies aimed at fostering the emotional adjustment and overall quality of life for students with disabilities, especially students with HASD. Largely, a number of these research efforts have focused on programs designed to improve students' social skills (Kasari, Rothcram-Fuller, Locke, & Gulsrud, 2012; White, Koenig, & Schill, 2010), anxiety reduction (Wood, Drahota, Sze, Har, Chiu, & Langer, 2009), perspective taking (Dodd, Ocampo, & Kennedy, 2011), test-taking skills building (Songlee, Miller, Tincani, Sileo, & Perkins, 2008) and planning for postsecondary transition success (Camarena & Sarigiani, 2009). Among these many

areas of research, interventions specifically addressing the social deficits of students with ASD have shown most promise. Successful interventions for youth with ASD have included comprehensive treatment programs on social impairments (Gray, 2013). Social stories, one of the few interventions that address the symptoms of social deficit, have shown the most success. Social stories (Gray, 2013) are specific adaptable interventions with considerable research support that is malleable for a number of behavioral and social concerns (Auger, 2013b). The level of success associated with a social stories intervention is connected with its ease of use, its complementarity to other interventions, its applicability to a variety of social issues, and certainly its effectiveness with youth with HASD (Reynhout & Carter, 2009). Research supports that social stories reduce problem behaviors by reinforcing positive social skills, particularly when working with HASD students who have very specific learning styles and interests (Schreiber, 2011) especially when the story is musically adapted (Brownell, 2002). Research has demonstrated the efficacy of other techniques to improve social skills as well, including the use of audiotaped social scripts (Stevenson, Krantz, & McClannahan, 2000), peer mediated approaches, (Farmer-Dougan, 1994; Haring & Breen, 1992), and self-management strategies (Koegel & Frea, 1993). More recently, technology encompassing a virtual environment is showing promise to help students with HASD acquire social skills (Moore, Change, McGrath, & Powell, 2005; Parsons, Leonard, & Mitchell, 2006; Parsons, Mitchell, & Leonard, 2004).

SCORE skills strategy is another promising intervention with proven scientific efficacy among young adults with HASD (Webb, Miller, Pierce, Stawser, & Jones, 2004). The SCORE program targets five key social skills areas aimed at helping young

adults with HASD to share ideas, compliment others, offer help or encouragement, recommend appropriate feedback, and learn to exercise self-control (Webb et al, 2004). Associated with the SCORE program are instruction in modeling, teaching, and role playing of each of the connected skills (Webb et al., 2004). The latter skills of modeling, teaching and role play are familiar to school counselors and could be incorporated into post-school transition preparation as an appropriate intervention with youth with ASD in the school setting.

Even with the modicum of success reported in the social area, (Schreiber, 2011; Weber, Miller, Pierce, Strawser, & Jones, 2004), professionals are cautioned that the positive results of these interventions have been obtained in a community setting. Although generalizability from a community-based to school-based setting is difficult to achieve, Auger (2013b) nonetheless encourages school counselors to provide research supported interventions in small counseling groups or in individual counseling sessions with HASD students. After all, practitioners involved in the intervention and treatment of individuals with ASDs, have navigated the maze of what is available “best practices” without the assuredness that comes with scientific evidence for decades (Sampson, 2003). This admonition is worthy of note by school counselors, as research on evidence-based interventions for youth with HASD is just emerging. As empirically based interventions with youth with HASD continues to evolve, it is important for school counselors to *cautiously* embrace research supported interventions that have been conducted outside the academic setting and understand its impact on career development and transition.

Career Development and Transition Considerations

Though school counselors have traditionally taken a leadership role in promoting career development for all students (McCarthy, Van Horn, Calfa, Lambert, & Guzman, 2010), fostering career and college readiness for students with HASD can be a challenging responsibility. The ASCA national model (2005) recognizes that career counseling interventions can help all students identify opportunities for success to help lead fulfilling lives as responsible members of society. Effective transition planning requires active participation from all members of the multidisciplinary team, including the student in need of transition. Transition planning provides opportunities for adolescents with ASDs to learn about themselves and plan for their post-school goals (Hendrick & Wehman, 2009; Organization for Autism Research, 2006). With ASCA national model (2005) as a guiding principle, school counselors can provide post secondary transition counseling to students with HASD by actively participating as a leader on the school multidisciplinary team (Rock & Leff, 2011; Rothman et al., 2008). Given their vantage position and advocacy for students, it is paramount for school counselors to familiarize themselves with the unique needs of students with disabilities, particularly those with the ASD.

Although research on career transition intervention practices for students with disabilities in general has flourished, (Adreon & Durocher, 2007; Enright, Conyers, & Symanski, 1996), there is a paucity of scholarly literature on research based interventions addressing the school-to-college transition needs of students with HASD (Hendricks & Wehman, 2009). School-to-college transition planning often includes elements of career guidance during senior high school years (Organization for Autism

Research, 2006). Without knowledge of effective career interventions for students with HASD, school counselors may experience difficulty assisting with the transition planning to college of these students. Considering the difficult job market, it is vital that students with HASD are provided with information about their post high school options. Although these strategy considerations are supported outside of the academic setting, they provide an important guideline for school counselors when working with students with HASD who are transitioning to college.

Students with HASD often have difficulty transitioning and adjusting to new situations (Grandin & Duffy, 2008). Therefore, strategic interventions are imperative for a successful school to college transition. Successful transition requires the student to be actively involved and be recognized as a respected participant (Fast, 2010; Hendricks & Wehman, 2009). Individualized interventions, embedded in a well-managed transition plan, can help guide successful post-secondary educational experiences for students with HASD (Wolf et al., 2009). As school counselors identify and respond to the complex processes associated with this developmental period, they are better positioned to provide the necessary guidance through turbulent times often associated with transition to college of students with HASD (Brown & DiGalbo, 2011).

As school counselors help with the college transition of students with HASD, they are generally “treading uncharted waters” (Hart, Grigal, & Weir, 2010, p. 139), especially with efficacious techniques. Therefore, Auger (2013b) suggests partnering with parents and teachers. In the spirit of this partnership, these authors suggest school counselors consider hosting a parent night for families of students with HASD. Inviting former students with HASD, who have successfully transitioned to college, to be guest

speakers may be advantageous. Using such partnerships (Auger, 2013b) school counselors can help students learn more about the college environment, be more independent and accountable, and facilitate a smoother transition to college. Moreover, partnering with other mental health professionals will also help school counselors tap into resources from other members of the multidisciplinary team, an important support for a successful transition to college. These collaborative opportunities create room for members of various professions to contribute their particular skills without duplicating efforts. For example, school counselors may choose to focus on social skills and stress management to reduce anxiety within a group modality (Auger, 2013b), while other counseling professionals may focus on helping students acquire self advocacy and self awareness skills. Working in a collaborative fashion with other members of the student's multidisciplinary team can maximize time and reinforce a positive transition to higher education for students.

Post-School Transition Strategies for Students with HASD

Long before the high school graduation, school counselors can begin to have conversations regarding adjustment to college with both students and their families (Organization on Autism Research, 2006; Hendricks & Wehman, 2009). These authors suggest school counselors host small group meetings or sessions, as supported by Auger (2013b) to share information about the college admission process as an effective way to raise career awareness before the college search process begins. College site visits are encouraged for all students, but they play an important role in assisting students with HASD in their transition and adjustment to the college environment (Brown & DiGaldo, 2011). It is not unusual to find expert on ASDs on college campuses,

due to the increasing number of HASD students enrolling in colleges. Thus, hosting a college representative who is sensitive to issues faced by students with HASD, can allow these students an opportunity to meet in a familiar setting before visiting the lesser known college environment. School counselors can help coordinate college site visits and inquire if there are students with HASD who can serve as a tour guides to promote insight into some of the anticipated adjustments. Collaboration with the Office of Disability Services on college campuses may further assist students and their families with the coordination of site visit activities (Wolf et al., 2009).

Accommodation Considerations for Students With HASD

Applicable legislation. As effective advocates for students with HASD, school counselors can become familiar with the relevant laws associated with students with disabilities such as the Individuals with Disabilities Education Improvement Act (IDEIA, 2004), the Americans with Disabilities Act (ADA, 1990; 2004) and Section 504 of the Rehabilitation Act of 1973. It is important to recognize that IDEIA is an education law that provides entitlement to services for all students with ASDs. Section 504 requires special accommodations in higher education settings, while ADA is an extension of the Section 504 law. ADA is also considered a civil rights law that promotes opportunities for students with disabilities to receive services and reasonable accommodations in post-high school settings (Wolf et al., 2009).

Although these laws currently ensure that students with ASDs are provided with appropriate services and accommodations, they are fundamentally different. The ADA focuses on the functional impact of the disabilities, referring to the level of impairment or limitation on major life activities (Adreon & Durocher, 2007) while IDEIA centers on 13

categories of disabilities based on diagnostic labels. In comparison, IDEIA ensures the provision of services to enhance student success, whereas ADA ensures equal access for students with disabilities. However, IDEIA cannot guarantee appropriate services for HASD students transitioning to higher education. Under IDEIA, parents and educators have the primary responsibility for the provision of services for students with HASD (Brown & DiGalbo, 2011). In contrast, the responsibility rests on the student to initiate services under the ADA (Adreon & Durocher, 2007). Under Section 504 and ADA, universities are required to provide equal access to all educational programs, services, facilities, activities, reasonable accommodations, academic adjustments and/or auxiliary aids (Wolf et al., 2009). For example, accessibility to buildings, adaptive technology, opportunity to participate in extra-curricular activities, and academic supports are considered reasonable accommodations that can be provided under Section 504 and ADA. Familiarity with these legislative acts can help translate the differences in accommodations for students with HASD in their transition from high school to college.

Student and parent responsibilities. Parents of high school students with HASD have reported a strong preference for bidirectional communication from school to home (Renty & Roeyers, 2006). Therefore, parents and other family members need to be prepared that their influence will be significantly reduced at the university level (Brown & DiGaldo, 2011). Family Educational Rights and Privacy Act of 1974 (FERPA) is an essential component of preparing parents and students for this role reversal in the post-secondary educational environment (Brown & DiGaldo, 2011). Parents may also need some preparation to help them adjust to limited communication from the university. That is, they are unlikely to receive direct communication on the student's

attendance and academic progress from instructors at the college level. Without information about these realities of college experience, adjustment to college may be difficult for both parents and students. School counselors can work with students with HASD to develop effective communication skills in order to share the academic information with their parents.

In attending to the holistic needs of students with HASD transitioning to college, school counselors may also need to educate parents and students on the strict application of university conduct codes for academic and residential life. Prior to entering college, students need to understand the consequences of breaking these rules. Some violations of the university codes of conduct may be transferred to the Office of Judicial Affairs because of their severity. Students could be expelled or suspended for severely inappropriate behaviors, such as stalking (Wolf et al., 2009). Offering individual and group sessions (Auger, 2013b) on unacceptable behavior on college campuses can assist students with HASD to establish boundaries long before the completion of high school. These authors further recommend that school counselors encourage families to help students connect with college officials to gather tips and insights about their rights and responsibilities as a college student. Directing students and families to the student handbook, college website and linking students with the college counseling office of the selected institution may also assist with the post high school transition.

Reasonable accommodations. Although a student with ASD has the right to receive effective, appropriate and reasonable accommodations (Brown & DiGaldo, 2011), higher education programs may select alternatives that have successfully been

used in the past, and deny requests they deem unreasonable or inappropriate. Fundamentally altering course requirements, such as attendance, group projects, or presentation assignments are not considered reasonable accommodations. Students need to know that having a disability does not guarantee a particular accommodation will be provided, and any accommodation provided does not guarantee success. In college, a reasonable accommodation could be a modification or adjustment to a course, program, service, job, facility, or activity that enables a qualified person with a disability to have an equal opportunity to participate in these programs (Brown & DiGalbo, 2011).

Students with HASD may continue with reasonable accommodations while in college, but such accommodations may be much different from those they received in the K-12 setting. Extended time is often provided for testing and projects for students with HASD in both high school and in college. In college, many youth with HASD may receive periodic breaks due to anxiety during exams. School counselors can bring up the topic of accommodations in group or individual sessions (Auger, 2013b) to help ease the transition to the college environment. In addition, colleges and universities are obligated to maintain and enforce their conduct codes by maintaining academic standards, integrity, and freedom, and to determine fundamental requirements of courses and programs (Wolf et al., 2009). Students must clearly understand that their disability does not excuse a breach of university conduct codes or inappropriate behaviors in college (Brown & DiGaldo, 2011; Wolf et al., 2009). As a vital member of the student's multidisciplinary team, school counselors can help explain these rules to students and their families to help them recognize the differences between high school

and higher education learning environment expectations. School counselors can find additional information about appropriate supports used by students with HASD at www.cec.sped.org, www.thegraycenter.org, www.autismhelp.info, www.nichcy.org, and www.autismsupportnetwork.com and also within *The School Counselor's Guide to Special Education* (Trolley, Haas, & Patti, 2009).

College Classroom Expectations

Classroom expectations in high school and college are very different. Most public high schools have a fixed curriculum with designated rules that govern the school day. A typical classroom setting may contain 20-25 students and teaching is often completed using assigned textbooks. Frequent tests or quizzes and noncumulative exams are often part of high school curriculum and copious amounts of information are provided over the course of multiple days. On average, high school students with HASD may find themselves involved in educational activities for up to 12-14 hours per day (Brown & DiGaldo, 2011).

Comparatively, college students may spend an average of 5-10 hours per week in the classroom and in relatively, unstructured environments. Significant amount of information are often presented to large groups of students in college classrooms in one sitting (Wolf et al., 2009), with two or three cumulative exams given per semester. In college, instructors may teach using multiple sources and outside independent homework is often expected. Moreover, class size can range from a dozen to several hundred students. Courses may also be taught online, on weekends, during evenings, and may require attendance, participation in group work, and online postings from all students.

Staying in one's seat, raising one's hand to speak, taking turns and not interrupting are important classroom expectations for students with HASD to understand. It is also essential that students recognize social cues from the instructor and classmates in order to conduct efficient classroom self-management. Without prior preparation, students with HASD can miss essential cues and inadvertently contribute to a challenging, overwhelming, or chaotic classroom environment (Brown & DiGalbo, 2011). Within a group format, school counselors can role play situations (Webb et al., 2004) that may typically occur in the classroom and suggest acceptable classroom behavior. Discussion and practice of appropriate classroom conversations are also helpful college preparation activities (Brown & DiGalbo, 2011). Information about potential consequences for unacceptable social behaviors in the classroom should be part of individual or group counseling sessions. To manage class-related anxiety and to assist with focused attention, counselors may also recommend that students keep their hands occupied by taking notes or doodling during class time to distract them from inappropriate interruptions if necessary (Wolf et al., 2009).

Learning style. Knowing how students learn best may help provide strategies to manage the massive amounts of information students with HASD will encounter in a college classroom (Edelson, 2008). Apart from providing vital information to maximize student preparation and training, learning style may be a necessary element in the development of self-awareness for success in the academic setting for youth with HASD (Wolf et al., 2009). An assessment of the student's learning style (Webb et al., 2004) can provide valuable information regarding the best methods to incorporate note taking, test preparation, and class presentations. For example, if the student learns best by

explanation, verbal instruction coupled with a written protocol might be the ideal strategy to use in assisting the individual with HASD to learn while in college (Brown & DiGalbo, 2011). School counselors may consider partnering with other counseling professionals to administer learning style assessments, and review the results with students while in high school prior to graduation.

Required documentation. IDEIA (2004) clearly supports including assessment and preparation in the students' individual education plan (IEP) as part of post-high school transition planning for students with HASD. A yearly review and update of the resultant IEP is warranted to ensure the delivery of recommended services is both thorough and current (Shore, 2010). Accordingly, the college transition plan should include (a) present level of student performance, (b) instruction, (c) related services, (d) community experiences, and (e) employment and other post-school adult living objectives that align with the student's personal goals and aspirations, including the student's areas of relative strength and weaknesses (Roberts, 2010). HASD documentation by medical/mental health professionals is also needed to establish eligibility for reasonable and appropriate accommodations on college campuses (Shore, 2010). Current neuropsychological reports are preferred as a part of the transition plan, but since HASD symptoms are chronic, older reports are often accepted (Roberts, 2010). As a member of the student multidisciplinary team, school counselors can assist students and families in collecting the up-to-date disability related information that colleges and universities will require for accommodations.

Social Skills Acquisition

Researchers explored the extent and nature of the social deficits among youth with HASD (Lang, Kuriakose, Lyons, Mulloy, Boutot, Britt, & Lancioni, 2011; Orsmond & Kuo, 2011; Rotheram-Fuller, Kasari, Chamberlain, & Locke, 2010). Students with HASD tend to isolate themselves from interactive social activities by engaging in restricted activities. Yet, social interactions govern the college atmosphere (Auger, 2013a; Wolf et al., 2009). Students with HASD tend to interact less with peers, stay closer to adults, and are less active (Lang et al., 2011). Limiting students' opportunity to engage in solitary activities (Grandin & Duffy, 2008; Orsmond & Kuo, 2011) may enhance their opportunity to further develop social skills with same-age peers. Limited social skills are a hallmark symptom of HASD and the main concern of parents when helping to transition their child transition to college (Auger, 2013b; Camarena & Sarigiani, 2009). Rotheram-Fuller et al. (2010) note that the shift to cooperative interactive activities, and the social demands of unstructured settings, such as college, can be challenging for students with HASD. It is also important to note that youth with HASD underestimate the social gap between themselves and their non-disabled peers (Auger, 2013b). Those who aspire for a successful transition to the post-high school world may need training and practice in the multiple social skill areas noted above (Muller, Schuler, & Yates, 2008). School counselors can lead the way by helping the students see the benefits of social interaction with their peers. In certain situations, a combination of individual and group activities can help individuals with HASD with the crucial social skills needed to succeed in the college environment (Auger, 2013b).

There have been positive results among youth with HASD who used social skills group interventions with a structured curriculum using verbal and visual teaching aides that involved repetition and parental involvement (White, Koenig, & Scahill, 2010). The use of group modality is particularly relevant, given that social skills must be learned in a context similar to a social situation in order to be successful (Meyer, 2010). Although the findings from studies on social skills are mixed, parents have reported an overall satisfaction with improvements in social communication of their children (White et al., 2010). When designing small group counseling sessions and social skill groups, school counselors can build in more opportunities to practice skills at a slower pace (Auger, 2013b) and may consider including other students without HASD to expand the opportunity for these students to receive feedback.

Transition discussion topics in a group setting can also include, dating etiquette, ways to effectively handle peer pressure regarding drinking, drug use, and sexual exploration; how to receive criticism and feedback; and how to handle rejection. These are important topics for all students transitioning to college, but can be vital for individuals already with limited social skills associated with HASD. These authors suggest school counselors offer a flexible time-line for students to develop these social skills by breaking down expected behaviors into functional gains while assisting each student to monitor his/her own behavior. Counselors can provide students with visual checklists or charts to track their own progress as an effective way to monitor success (Frea, 2010; Myles & Simpson, 2001)). In addition, the use of computer virtual environment (CVE) technology, when used carefully, may also assist in the development of vital social skills. Smedley and Higgins (2005) argued that because

interactions via CVE tend to be slower than face-to-face interactions, slowing down the rate of interactions may provide users with HASD with time to think of alternative ways of handling a particular situation. CVE interactions provide opportunities for these youth, regardless of social ability, to take risks in a virtual environment, which then prepare them for real world interaction.

To provide students with the best chance of social success, parents need to be involved. Successful interventions with students with HASD have been possible with adult support (Auger, 2013b) and parental involvement (Webb, et al., 2004; White et al., 2010). Parents can be encouraged to initiate discussions on personal hygiene topics at home, including doing laundry, grooming, and buying personal care items like shampoo and deodorants, topics difficult for many youth with HASD. Few things are more stigmatizing or socially isolating than to be known as the student with poor hygiene in a group living environment, oftentimes required in college (Meyer, 2010). Since social stories (Gray, 2013) seem particularly useful for a range of behavioral and social issues (Auger, 2013b), these authors suggest school counselors use social stories in classroom guidance or small group lessons to facilitate a supportive environment in anticipation of ensuing post-school transition.

Self-awareness and self-advocacy. Successful self-advocacy and self-determination requires intact social skills (Wehman, 2006). Youth with HASD may lack the social skills necessary to self-advocate and, therefore, negotiate a successful transition to the post-high school world (Organization for Autism Research, 2006; Kaffenberger , 2011). Independence can be unattainable without the ability to self-advocate. Effective self-advocacy involves being familiar with one's disability, legal

rights, and the ability to communicate these rights (Shore, 2010). As a member of the multidisciplinary team, school counselors can help with the development of social skills curriculum to help meet students' self-advocacy development need (Eman & Farrell, 2009). Helping students with HASD develop an individualized checklist of strengths and limitations may help reinforce these skills as well as empower students with the necessary confidence to self-advocate, and ask salient questions during this important transition. School counselors may also encourage students to facilitate their own IEP meetings in anticipation of advocating on their own behalf, a role the college environment will definitely require (Frea, 2010; Hendricks & Wehman, 2009).

School counselors can help meet the personal/social needs of students with disabilities, including those with HASD, through an integrative comprehensive counseling approach (Auger, 2013a; Rothman et al., 2008). Part of this integrative counseling approach is to help students with HASD build self-knowledge and awareness by becoming familiar with their strengths and weaknesses, and developing a thorough knowledge of their disability; increasing the likelihood of college, career, and life success (Kaffenberger, 2011). The self-knowledge acquired can provide a foundation for successes, as well as a vision for what is possible in the future. Helping students with HASD develop an understanding of themselves, and their disability, is essential for success in the post-school world of college.

Technology-Based Solutions

The recent advent and widespread availability of personal technology provides much needed solutions to many students with HASD (Brown & DiGalbo, 2011). School counselors could recommend these tools of independence, organization, and self

management to student with HASD to help promote readiness for the unstructured world of the college environment. The use of personal digital assistants, electronic organizers, smart phones and tablets are now in frequent use to assist individuals with disabilities manage their time, tasks and become more independent (Hart & Weir, 2009). All together, the use of these devices provides students with excellent support for organization and management of college responsibilities, which may be daunting to an incoming freshman unfamiliar with these demands. Hart and Weir (2009) noted that an added benefit to using commercially available devices is that they do not make the student stand out or look different because practically every college student appears to be using them in the current academic culture.

Extracurricular Activities

School counselors can consider encouraging students with HASD to develop leisure and recreational activities to help manage stress associated with adjusting to college. Having one or two extracurricular activities outside the classroom may help add structure to the student's schedule, could serve as a source of stress reducer, and increase opportunities for social engagement (Brown & DiGalbo, 2011). Leisure activities such as joining the chess club, gaming, or Anime organizations may be popular with HASD students (Wolf, et al., 2009). Gaming, in particular, is increasingly becoming an important learning and training tool for students with HASD (Mangis, 2003). It provides students with the opportunity to role play social skills in an environment specifically designed to mimic certain social situations.

Vocational Rehabilitation Services

Partnering with vocational rehabilitation (VR) programs in the community should be a major consideration for school counselors when preparing students with HASD for the school to college transition. Enrolling in the state's VR programs may be a helpful strategic option. VR programs are specifically designed to help students with HASD prepare for post-secondary transition options (Grandin & Duffy, 2008). Fortunately, most states have a VR counselor versed in the post-school transition process in most public schools. Of all the services available in the community, VR programs may be the most helpful to the post-school transition needs of student with HASD because transition services are available to students through this government agency (Chappel & Somers, 2010). Transition services that could be obtained through the VR programs include: assessment and vocational evaluation; career guidance and counseling; participation in cooperative work experience programs; personal/vocational adjustment training and/or college preparation training; and assistive technology devices/services (Fast, 2010). School counselors partnering with VR programs may find that they need not shoulder all the responsibilities and their students with HASD have an overall, smoother transition to college with the assistance from this often overlooked but important government agency (Chappel & Somers, 2010).

Conclusions and Recommendations for Continuing Research

Research on school-based interventions for students with HASD transitioning to college is in its infancy (Auger, 2013a; Hendricks & Wehman, 2009). Yet, some research findings noted above are showing promise, thereby, creating hope for the successful transition of students with HASD and those who serve them in the school

setting. Despite limited school-based research to guide school counselors in working with youth with HASD and their families, existing research supported interventions, combined with practical applicability, can serve as important resources to inform school counseling practice. School counselors with specialized knowledge about academic, career, and personal-social development of students (ASCA, 2005) can provide effective and efficient transition services to youth with HASD. While many school counselors have excellent skills in career planning with neuro-typical students, it is worthwhile to expand these skills to include those with HASD on the cusp of post-school transition to college. These authors suggest school counselors working with this population continue to add new, research supported interventions to their repertoire of skills and stay up to date with successful treatment modalities available in their schools and communities. With the increasing number of students with HASD choosing college as a post-school option, readiness for the college environment will continue to be a central issue facing these students and their parents as they anticipate post-school transition (Camarena & Sarigiani, 2009).

With limited resources and evidenced-based interventions on this topic, emerging research should focus on the relationships between variables that enhance the successful transition of youth with HASD. Future research should include testing the efficacy of these strategies in the academic environment, utilizing well-designed quantitative approach (Auger, 2013b) and/or the use of qualitative approach. In addition, studies can include how to effectively integrate best practice strategies with this population in counselor education program curricula to ensure that school counselors are prepared to work with this population. Investigations centering on how school

counselors can collaborate and advocate with other members of the multidisciplinary team, would be of additional value in supporting students with HASD moving on to higher education. We anticipate growth in the existing scientific evidence base of school-to-college transition interventions of students with HASD. School counselors who are knowledgeable about effective interventions for students with HASD, operating within a multidisciplinary team, can continue to be leading advocates of this marginalized population.

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