



NDC
National Deaf Center
on Postsecondary Outcomes

Working With Autistic Deaf Students in Postsecondary Settings

Introduction

Due to the increasing number of children diagnosed with autism spectrum disorders (ASDs), professionals who work with deaf¹ students should expand their capacity to support autistic deaf students, especially in transition planning and postsecondary settings. The rate at which children are identified with ASD has increased over the last 20 years, with around 1 in 59 children now being diagnosed with ASDs every year.^{2,3} Deaf people have autism at comparable rates to the general population.³ Autistic students experience many of the challenges that deaf students experience during transition and beyond, including insufficient support, falling through the cracks, and fewer job opportunities.⁴ These challenges, among others, may result in autistic deaf people not continuing their education or pursuing work opportunities after high school.

When working with autistic deaf students, it is important to consider their dual identities, as well as the overlap of the two. Autistic deaf students are not all the same—autism and deafness are experienced differently by everyone. Autistic deaf students benefit from individualized support that centers them in the decision-making process and involves strategies like asking the right questions, providing appropriate accommodations, and using evidence-based practices. The goal should always be to support the autonomy of autistic deaf people by taking into account their unique identities, experiences, and backgrounds.

Characteristics of Autistic Deaf Students

Autistic deaf students may prefer to identify as autistic deaf, deaf autistic, or deaf with autism, among many other possibilities. Autistic deaf students may also have other identities, experiences, and disabilities that need to be considered in decision-making and communication. The best practice is to ask students how they choose to identify themselves and whether there are any other characteristics that are important to them.

ASD is a developmental disorder that generally affects social communication and behavior. Autism is known as a spectrum disorder because it has a wide range of linked conditions. Much like pitch, volume, understanding, and clarity of sound vary for deaf people, executive functioning (e.g., brain processing) and sensory processing, among other things, are highly variable for autistic people. Some key indicators of ASD include the following:

- Executive functioning, thinking, and behaviors are different. Autistic people may use repetitive patterns, behaviors, interests, or activities as ways to ground themselves and process the world better.³
- Processing of sensory information is different. For example, some autistic people are sensitive to bright lights and loud noises.
- Physical movement may be different. Some autistic people have difficulty with fine motor skills or coordination, including where speech and signing is concerned.
- Communication is different. Autistic people often use different communication patterns and strategies for interaction.
- Socialization is different. Autistic people may understand social cues differently or follow different social norms, which can manifest in atypical facial expressions while talking.⁵

These are general characteristics, and they may vary in autistic deaf people, especially those who sign.⁶ Differences in social interaction, as well as an early language environment that may be inaccessible to deaf children, can lead to divergent patterns of language development.⁷ Signing often looks different for autistic deaf people.^{8, 9, 10, 11, 12} For example, autistic deaf people who sign often prefer to use names instead of sign language pronouns.¹⁰

Evaluation and Diagnosis of Autism in Deaf People

There is currently no validated assessment instrument for screening and diagnosing autistic deaf children. As it can be hard to accurately identify autism in deaf people, they are often identified with autism later than hearing people,³ which can result in less time for intervention and support. Some practitioners use the [Autism Diagnostic Observation Schedule—Second Edition \(ADOS—2\)](#), and when following the standard administration guidelines, deaf children whose native language is ASL are likely to be under-identified.^{13, 14} Screening and diagnosis of autism include criteria related to eye contact and sensitivity to noise, both of which are experienced differently by deaf people.¹⁵ Autistic deaf people may also experience reduced access to language, which affects the validity of screening and diagnosis and makes it harder to identify autism in deaf people.

Supporting the Success of Autistic Deaf Students in College

To support the success of autistic deaf students in college, we recommend using these three overarching strategies: ask the right questions, provide appropriate accommodations, and use evidence-based practices.

Ask the Right Questions

A student-centered approach allows students to take the lead and work toward their own success. Students are the expert on their own needs. Ask students the right questions as part of an ongoing dialogue about the accommodations and supports they need. These questions can be used by instructors at the beginning of the semester or by disability service offices during the intake process. When asking students these questions, it can be helpful to offer concrete examples of the type of support that can be offered. Consider the following questions:

- Social Interaction
 - What level of engagement inside and outside of the classroom are you comfortable with?
 - How can we support you with group assignments or projects?
 - How can we support you as you get involved in campus activities?
- Attention and Focus
 - How can we best support you in attending lectures and staying on task?
 - What types of visual support do you find helpful in the classroom?
- Routines and Transitions
 - How can we best support you at the beginning of each semester/term?
 - How can we best support you during major transition periods in your program?
- Sensory Sensitivities
 - How can we reduce sensory triggers in the classroom that may affect you?
 - How can we reduce sensory triggers outside of the classroom, in large gatherings, dorm life, the cafeteria, and other settings typical to college?

Use Evidence-Based Practices for Instruction

Evidence-based practices and interventions that have been developed for autistic hearing students may be appropriate for autistic deaf students with modifications and accommodations.^{16, 17} The following are examples of evidence-based practices, mostly based on Steinbrenner's work, with positive effects for autistic people.¹⁷

WORKING WITH AUTISTIC DEAF STUDENTS IN POSTSECONDARY SETTINGS

Evidence-Based Practice	Definition
Cognitive Behavioral/ Instructional Strategies	Instruction on management of cognitive processes that help with changes in social and academic behavior
Modeling	Demonstration of a desired target behavior that helps the learner to adopt that behavior
Prompting	Verbal, gestural, or physical assistance given to learners to support them in acquiring or engaging in a targeted behavior or skill
Reinforcement	The application of a consequence following a learner's use of a response or skills that increases the likelihood that the learner will use the response/ skills in the future
Technology-Aided Instruction and Intervention	Instruction or intervention in which the central feature is technology that is specifically designed to support the learning or performance of a behavior or skill for the learner
Time Delay	A practice used to systematically fade the use of prompts during instructional activities by using a brief delay between the initial instruction and any additional instruction or prompts
Video Modeling	A video-recorded demonstration of the targeted behavior or skill shown to the learner to assist with learning or engaging in a desired behavior or skill ^{18, 19}
Visual Supports	A visual display that supports the learner engaging in a desired behavior or skills independent of additional prompts
Explicit Teaching	Explicit teaching of writing and learning strategies, e.g., synthesizing a response based on multiple sources and teaching common structures or academic writing formats ²⁰

Provide Appropriate Accommodations

When working with autistic deaf people, it is important to identify and provide appropriate accommodations. For example, recording lectures, especially for online courses, allows students to access and learn content at their own pace. Accommodations for autistic deaf people can include the following:

- Extended testing time
- Written step-by-step instructions
- Extended deadlines
- Delivery of assignments in a student-preferred format
- Distraction-free testing area
- Students can repeat instructions to verify comprehension
- Option to opt out of group work and work independently
- Model assignments and papers
- Note taking services
- Frequent short breaks
- Visual supports (e.g., share slides in advance)
- Recordings of lectures
- Consistent interpreters
- Deaf Interpreters

For more information on accommodations, refer to the Disability Service Provider Toolkit.²¹

Conclusion

A student-centered and individualized approach that values student autonomy and considers the whole student, including all of their identities and characteristics, is crucial for the success of autistic deaf students. Asking the right questions, providing appropriate accommodations, and using evidence-based practices are strategies that disability service offices, instructors, and service providers can use with autistic deaf students. After all, access is a shared responsibility, not the responsibility of any one individual or office.

Notes and References

1. The National Deaf Center is using the term deaf in an all-inclusive manner, to include people who may identify as deaf, deafblind, deafdisabled, hard of hearing, late-deafened, and hearing impaired. NDC recognizes that for many individuals, identity is fluid and can change over time or with setting. NDC has chosen to use one term, deaf, with the goal of recognizing experiences that are shared by all members of our diverse communities while also honoring all of our differences.
2. Baio, J., Wiggins, L., Christensen, D. L., Maenner, M. J, Daniels, J., Warren, Z., Kurzius-Spencer, M., Zahorodny, W., Rosenberg, C. R., White, T., Durkin, M. S., Imm, P., Nikolaou, L., Yeargin-Allsopp, M., Lee, L-C., Harrington, R., Lopez, M., Fitzgerald, R. T., Hewitt, A., ... Dowling, N. F. (2018). Prevalence of autism spectrum disorder among children aged 8 years – Autism and developmental disabilities monitoring network, 11 Sites, United States, 2014. *Morbidity and Mortality Weekly Report: Surveillance Summaries*, 67(6), 1–23.
3. Szarkowski, A., Mood, D., Shield, A., Wiley, S., & Yoshinaga-Itano, C. (2014). A summary of current understanding regarding children with autism spectrum disorder who are deaf or hard of hearing. *Seminars in Speech and Language*, 35(4), 241–259.
4. National Technical Assistance Center on Transition. (n.d.). *Summary of national reports on secondary transition and students with autism spectrum disorder*. transitionta.org/system/files/resourcefiles/NTACT_ASD_TWG_Summary%20of%20Reports_final_website.pdf
5. Denmark, T., Atkinson, J., Campbell, R., & Swettenham, J. (2014). How do typically developing deaf children and deaf children with autism spectrum disorder use the face when comprehending emotional facial expressions in British Sign Language? *Journal of Autism and Developmental Disorders*, 44(10), 2584–2592.
6. Autistic Self Advocacy Network. (n.d.). *About autism*. autisticadvocacy.org/about-asan/about-autism
7. Kaščelan, D., Katsos, N., & Gibson, J. (2019). Relations between bilingualism and autistic-like traits in a general population sample of primary school children. *Journal of Autism and Developmental Disorders*, 49(6), 2509–2523.
8. Shield, A. M. (2010). *The signing of deaf children with autism: lexical phonology and perspective-taking in the visual-spatial modality* [doctoral dissertation, University of Texas at Austin]. jbe-platform.com/content/journals/10.1075/sll.14.1.11shi
9. Shield, A., & Meier, R. P. (2012). Palm reversal errors in native-signing children with autism. *Journal of Communication Disorders*, 45(6), 439–454.
10. Shield, A., Meier, R. P., & Tager-Flusberg, H. (2015). The use of sign language pronouns by native-signing children with autism. *Journal of Autism and Developmental Disorders*, 45, 2128–2145.
11. Shield, A., Cooley, F., & Meier, R. P. (2017). Sign language echolalia in deaf children With Autism Spectrum Disorder. *Journal of Speech Language and Hearing Research*, 60(6), 1622–1634.

12. Poizner, H., Klima, E. S., & Bellugi, U. (1990). *What the hands reveal about the brain*. MIT Press. wpspublish.com/adosp-2-autism-diagnostic-observation-schedule-second-edition
13. Lord C, Rutter M, DiLavore PC, Risi S, Gotham, K, & Bishop S. (2012). *Autism diagnostic observation schedule, second edition*. Torrence, CA: Western Psychological Services.
14. Mood, D., & Shield, A. (2014, November). Clinical use of the Autism Diagnostic Observation Schedule—Second Edition with children who are deaf. *Seminars in Speech and Language, 35*(4), 288–300.
15. Szymanski, C. A., Brice, P. J., Lam, H. K., & Hotto, S. A. (2012). Deaf children with autism spectrum disorders. *Journal of Autism and Developmental Disorders, 42*, 2027–2037.
16. Borders, C. M., Jones Bock, S., Probst, K. M. (2016). A review of educational practices for deaf/hard of hearing students with comorbid autism. *Deafness & Education International, 18*(4), 189–205.
17. Steinbrenner, J. R., Hume, K., Odom, S. L., Morin, K. L., Nowell, S. W., Tomaszewski, B., Szendrey, S., McIntyre, N. S., Yücesoy-Özkan, S., & Savage, M. N. (2020). *Evidence-based practices for children, youth, and young adults with autism*. Chapel Hill: The University of North Carolina, Frank Porter Graham Child Development Institute, National Clearinghouse on Autism Evidence and Practice Review Team. ncaep.fpg.unc.edu/sites/ncaep.fpg.unc.edu/files/imce/documents/EBP%20Report%202020.pdf
18. Mason, R. A., Ganz, J. B., Parker, R. I., Burke, M. D., & Camargo, S. P. (2012). Moderating factors of video-modeling with other as model: A meta-analysis of single-case studies. *Research in Developmental Disabilities, 33*, 1076–1086.
19. Mason, R. A., Ganz, J. B., Parker, R. I., Boles, M. B., Davis, H. S., & Rispoli, M. J. (2013). Video-based modeling: Differential effects due to treatment protocol. *Research in Autism Spectrum Disorders, 7*, 120–131.
20. Jackson, L. G., Duffy, M. L., Brady, M. P., & McCormick, J. (2017). Effects of learning strategy training on the writing performance of college students with Asperger’s syndrome. *Journal of Autism and Developmental Disorders, 48*(3), 708–721.
21. National Deaf Center on Postsecondary Outcomes. (n.d.) *Serving deaf students in higher education: A toolkit for disability services professionals*. nationaldeafcenter.org/dsptoolkit