

Improving Employment Outcomes for People With Autism Spectrum Disorder by Developing Their Social and Communication Skills

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Why are social skills for adults with autism spectrum disorder important for improving their employment outcomes?

People with autism spectrum disorder (ASD) often face challenges with communicating with others.¹ Workers with ASD have difficulty communicating with supervisors and coworkers; poor social and communication skills significantly hamper their job performance.²⁻⁵ Employment is uncommon for individuals with ASD, with only 14% achieving full employment.⁶

This scoping review summary identifies methods that can be successful in helping people with ASD achieve employment outcomes through evidence-based strategies to improve their social and communication skills. These strategies can be applied by vocational rehabilitation (VR) counselors and employment specialists who work with people with autism. Scoping reviews are rapid syntheses of existing literature on a subject and “can be used to map the key concepts underpinning a research area.”⁷

What does the research say?

Four themes emerge from research that supports effective strategies to help adults with ASD find employment and keep their jobs. These include interviewing skills, on-the-job social skills training, self-advocacy, and compensatory strategies to aid learning on the job.

Interviewing skills are critical for obtaining a job. Viewing modeled or simulated interviews and practicing or conducting mock interviews support the development of interviewing skills.⁸⁻²² Interviewing skills are included as a component of social skills because of the need for appropriate communication skills, such as eye contact and clear speaking, and because prospective employers base much of their decision to hire a candidate on the interview. The research team found a range of interventions that were helpful for individuals with ASD to improve their interviewing skills. The critical components involved viewing simulated or example interviews^{18,23}; participating in practice interviews (in person or virtually)^{15,17,18}; and targeting specific social-pragmatic skills or following the social rules regarding communication—for example, using the right language for different reasons, saying “hello” upon greeting someone, or changing the language for the listener or situation.¹⁶ Whereas some programs may have targeted one component of the interview process, others used a combination of practices. The research team identified modeling appropriate interview

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questions and answers, watching simulated interviews, and extensive practicing and providing feedback as key methods for improving interview skills.

On-the-job social skills are necessary for obtaining and maintaining employment. Group interaction activities, job coaching, and supported employment are strategies that may improve on-the-job social skills and problem-solving skills for people with ASD.

- **Facilitated group activities and training support the development of social skills and problem-solving skills.** In a few studies, facilitated group training programs^{23, 24, 25} included between four and 14 individuals with ASD and met at least weekly for 8 to 12 weeks. Each meeting included a focus, such as “conversational skills,” “evaluating actions and facing failures,” and “working with difficult people.” This training resulted in improvements that included improved social skills and problem solving^{22, 24} and close to two thirds of the participants having a paid or unpaid internship.²³
- **Job coaching and supported employment improve social skills.** The evidence^{8-11, 26-28} shows that job coaching improved social skills when the job coach was actively cueing or prompting the client to perform specific activities and supporting a client in workplace communication skills. Job coaching improved social skills, confidence, communication, and behavior by 40% to 50%.⁸ In another study, supported employment—providing structured job services and individualized and intensive job training at the job site—was a related strategy that helped more than 80% of people with ASD obtain jobs.⁹ Specifically, VR counselors supported by assessing each individual and creating a jobseeker profile, guiding the career search, conducting training at the job site, and designing long-term supports to maintain employment.

Self-advocacy, the ability to advocate for reasonable employment accommodations on behalf of oneself, is a valuable skill for all individuals with disabilities, including those with ASD. Self-advocacy training is often part of a larger program for teaching social and communication skills.^{11, 20} The main activity that VR counselors may refer individuals to is facilitated group skills training to improve participants’ abilities to advocate for themselves.^{23, 29} In the research, group skills training included groups of adults with ASD who participated in eight to 12 discussions, lectures, and formal and informal communication practice activities on such topics as how to request time off and extra support. Individualized job coaching and group training were associated with increased self-advocacy as seen through better social interaction, task engagement, and self-awareness while on the job or searching for employment.^{11, 20, 23, 26}

Compensatory strategies, such as memory aids or instructional strategies, facilitate learning or completion of a task without prompting or assistance by others and improved job retention.²⁵ Examples of compensatory strategies include reminders, checklists, and technological guidance that improves communication skills and employment outcomes. Instructional strategies, including video instructions, virtual reality training, and on-the-job concealed audio instruction promote increased independence in job communication, improved job interviewing skills, and job retention. Use of technological devices was associated with enhanced structure in employment and improved social communication skills in the workplace.^{9, 28-30} These included voice output augmentative and alternative communication devices, picture schedules, audio prompting device or walkie-talkie, laptop, iPod Touch, iPad, and computer, which supported task completion as well as additional social interaction with colleagues.^{9, 28-30}

What can VR counselors do?

The research found through this scoping review offers four specific recommendations for VR counselors to support improved employment outcomes for adults with ASD.

1. **Practice interviews with clients.** Facilitate practice interviews with family or friends and VR staff and ask for feedback. As part of this practice, examine the related resources for potential options.

Related resources:

- Article (free): Smith, M. J., Fleming, M. F., Wright, M. A., Losh, M., Boteler Humm, L., Olsen, D., & Bell, M. D. (2015). Brief report: Vocational outcomes for young adults with autism spectrum disorders at six months after virtual reality job interview training. *Journal of Autism and Developmental Disorders*, 45(10), 3364–3369. Retrieved from <http://doi.org/10.1007/s10803-015-2470-1>
- Simulated interview training (cost is \$89) that was used in the study: <http://simmersion.com/Job-Interview-Training.aspx>
- Additional simulated training to improve social communication skills for adults with autism (free): <http://simmersion.com/Social-Conversation-Training.aspx>
- The document *The Job Interview* by Autism Speaks provides guidance specific to individuals with ASD: https://www.autismspeaks.org/sites/default/files/docs/etk_job_interview.pdf
- Society for Human resource Management provides example questions and considerations for a mock interview: <https://www.shrm.org/resourcesandtools/tools-and-samples/interview-questions/pages/default.aspx>

2. **Provide access to job coaches and supported employment strategies to individuals with ASD.** Job coaching and supported employment can provide on-the-job social skills and self-advocacy, both critical to learning social and communication skills for successful employment.

Related resources:

- Article (free): Wehman, P., Lau, S., Molinelli, A., Brooke, V., Thompson, K., Moore, C., & West, M. (2012). Supported employment for young adults with autism spectrum disorder: Preliminary data. *Research and Practice for Persons with Severe Disabilities*, 37(3), 160–169. Retrieved from <http://journals.sagepub.com/doi/abs/10.2511/027494812804153606>
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3. **Facilitate or refer individuals to group activities or trainings with individuals with ASD.** Facilitated group activities or training enhances social skills, problem solving, and self-advocacy.

Related resources:

These groups promote equality for people with disabilities, share community news, and provide forums for learning and sharing opinions. Following their activities is a great way to learn about self-advocacy and show your support for the community.

- [Autistic Self Advocacy Network](#)
- [Global and Regional Asperger Syndrome Partnership](#)
- [Self Advocates Becoming Empowered](#)

4. **Support individuals with ASD to use reminders, checklists, and technological assistance on the job.** For individuals with ASD who need help remembering appropriate social behaviors, support the use of appropriate compensatory strategies that they can use on the job.

Related resources:

Applications:

- Autism Speaks has a comprehensive list of applications that spans a variety of topics for all age ranges, including communication and organization: <https://www.autismspeaks.org/autism-apps>
- The University of Connecticut's Center for Students with Disabilities has suggested applications: <https://csd.uconn.edu/ios-organizationtime-management-apps/>
- Goodnet lists applications, and a few are focused on individuals with autism: <https://www.goodnet.org/articles/7-best-apps-for-people-disabilities-list>

Task lists and other strategies:

- Indiana Resource Center for Autism's "to-do" lists for people with autism describes how to create to-do lists based on the strengths and needs of the individual with autism: <https://www.iidc.indiana.edu/pages/increasing-independence-in-adults>
- Autism Speaks provides multiple visual tools, many of which are focused on youth but may be valuable to adults related to communication and planning: <https://www.autismspeaks.org/family-services/resource-library/visual-tools>

Where does the evidence come from?

This scoping review included a scan of the literature that included research articles and research-based products (toolkits and training materials) that were published between 1998 and 2017. This date range was selected because the Workforce Investment Act, which was introduced in 1998, provided state and local workforce investment activities to increase employment, including for people with disabilities. Thus, to filter out less relevant research, the search strategy included published and nonpublished research from that timeframe. The research articles and products included different types of studies from interviews, focus groups, surveys, and large studies to capture the breadth and depth of guidance on best practices. Of 210 articles and products reviewed, 29 were relevant to improving social skills for individuals with ASD.

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