

Promoting Academic Success, Social Skills, and Job Readiness among Postsecondary Students with Autism Spectrum Disorder

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Post-Secondary Education and ASD

- ▶ Approximately half of those diagnosed with ASD have average to above average intelligence. Yet still they are underrepresented in post-secondary education
- ▶ In addition, students with ASD are less likely to graduate when compared to typically developing peers (Newman et al., 2011)
- ▶ Social difficulties represent a significant barrier to post-secondary educational achievement for intellectually capable students with ASD
- ▶ This can have significant long-term ramifications, including poorer job prospects, reduced potential for societal contribution and greater reliance on income support

Navigating a New Environmental

- ▶ The transition to post-secondary education is accompanied by many social challenges that can impact overall achievement
 - ▶ Advocating for oneself
 - ▶ Managing expectations of independence and self-reliance
 - ▶ Making and maintaining friendships
 - ▶ Integrating into the school community
- ▶ Students with ASD may also face academic challenges
 - ▶ Organizing and scheduling
 - ▶ Managing shifting priorities
 - ▶ Connecting to academic resources

Social Support Linked to Better Outcomes

- ▶ Social support has the capacity to enhance coping, moderate the impact of stressors and promote health
- ▶ Social support from peers and family members is associated with:
 - ▶ Better mental health
 - ▶ Adaptation to college or university
 - ▶ Greater academic performance
 - ▶ Better life satisfaction

Need for More Programs

- ▶ Despite increased awareness of ASD in post-secondary settings, there is a dearth of support programs that specifically target poor student outcomes in this population
- ▶ These students may be used to receiving support due to increased awareness of ASD

ASD Mentorship Program (AMP) at York

- ▶ AMP was developed in 2007 from a peer mentorship model grounded in student development theory and disability theory
- ▶ Developed as multifaceted program individually tailored to support the specific needs of students with ASD within the postsecondary setting
- ▶ Each student is paired with an individual mentor with whom the students meets biweekly to provide individual support based on the student's needs
- ▶ Mentors are graduate students in the clinical psychology program at the university who have extensive knowledge and experience in ASD and are supervised by a clinical psychologist

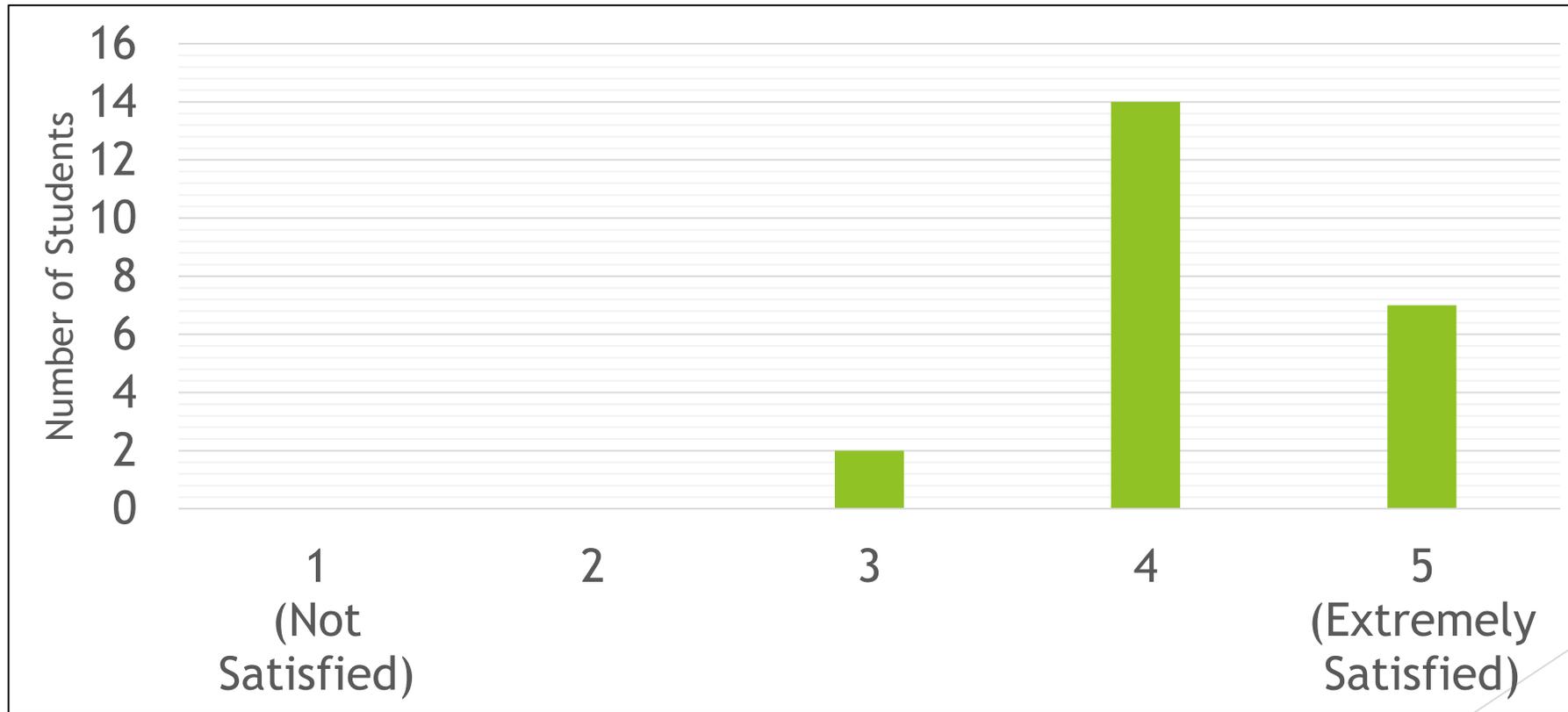
ASD Mentorship Program (AMP)

- ▶ Mentors describe themselves as “coaches” to students in that they are there to support and advocate for students
- ▶ The meetings are a place where students can formulate personal goals, work on strategies to solve problems, and or develop skills within particular individual areas
- ▶ These meetings allow students to discuss issues or topics of concern to them

AMP Support

- ▶ Academic
 - ▶ Scheduling using a timetable
 - ▶ Getting accommodations
 - ▶ Contacting TAs and professors
 - ▶ Reviewing class syllabus
- ▶ Social
 - ▶ Role-playing
 - ▶ Connecting to clubs on campus
 - ▶ Social activities
 - ▶ Group events with mentors and other students

Student Satisfaction with AMP



Top Ten Topics and Goals

Topics Discussed	% of students who endorsed the item
Coursework	87%
Social Skills	87%
Stress and Coping	78%
Weekend or evening plans	74%
Family	70%
Employment/career	57%
Accessing other resources	52%
Organizational skills	52%
Worry, sadness or mental health concerns	48%
Dating and romantic relationships	43%

Yearly Goals

Goal Item	% of students who identified item as a goal
Develop and improve social skills	68%
Develop or improve friendships	68%
Improve study skills and grades	68%
Decrease stress and develop better coping skills	50%
Develop or improve organization skills	50%
Better understand and cope with my feelings	45%
Feel connected and a part of my university community	45%
Improve relationships with family	41%
Learn about employment and career options	36%
Feel as if I have a group where I belong and am understood	36%

Perceived Social Support

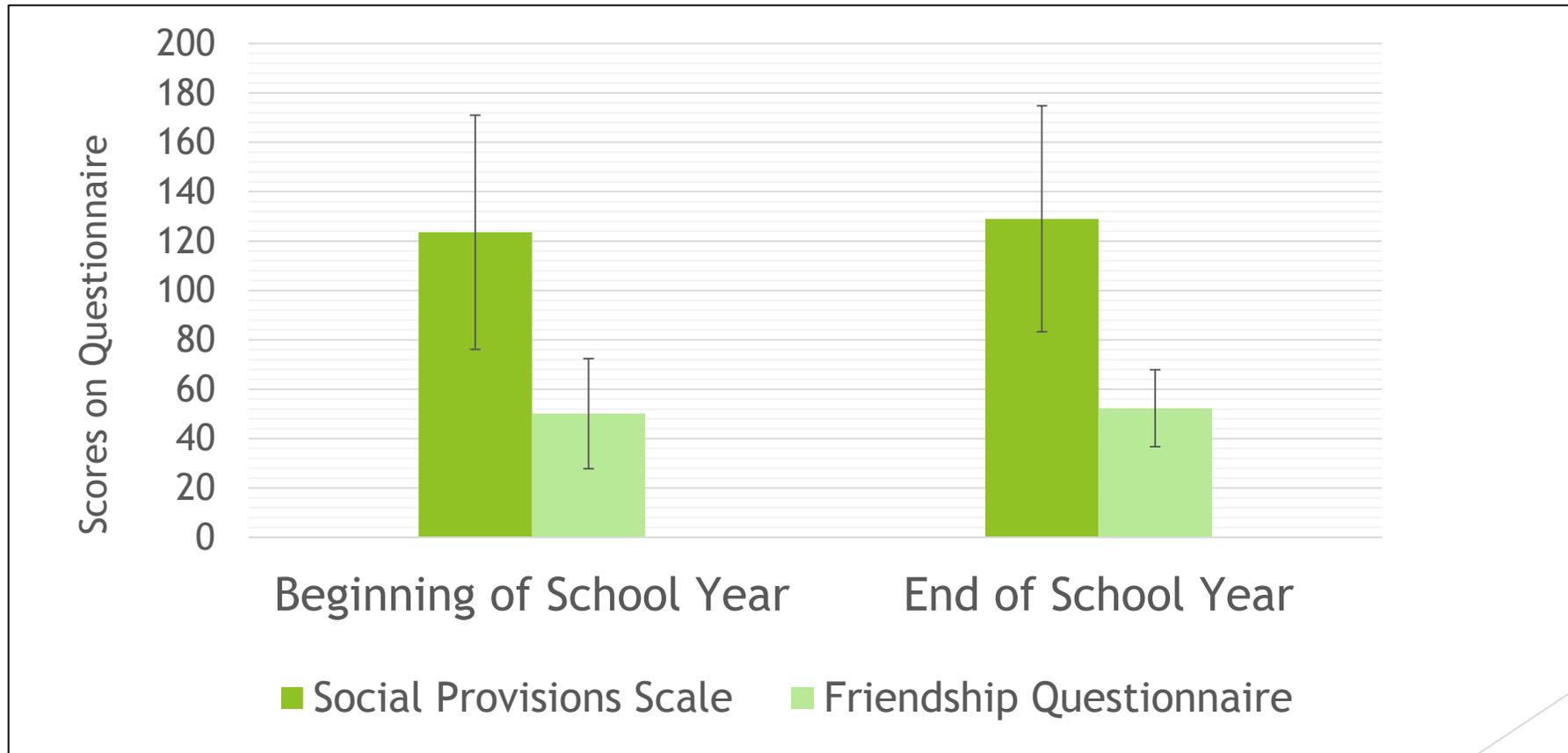
► **Friendship Questionnaire**

- Measures the degree to which students enjoy close, supportive friendships
- 35 item scale with scores ranging from 0 to 145 (higher scores indicate more positive friendships)
- Sample Item: *I don't have anybody who I would call a best friend*

► **Social Provisions Scale**

- Measures social support
- 24 item Likert scale anchored by 0 (Very Strongly Disagree) on one end and 8 (Very Strongly Agree) on the other
- Scores ranged from 0-192 with high scores indicating more social support
- Sample Item: *The people I know will help me if I really need it*

Perceived Social Support



Bridging the Gap

- ▶ Despite identifying social goals, AMP students do not show a difference in perceived social support with membership in AMP
 - ▶ AMP mentors as a source of support
 - ▶ Translating social skills training into behaviour
 - ▶ Prioritizing social support

Life After Graduation

- ▶ ASD employment rates are lower than other those of disabilities (McDonough & Revell, 2010)
 - ▶ US estimates for young adults with ASD = 8-12% (Katsiyannis et al., 2005; Taylor & Seltzer, 2011)
- ▶ Employment often limited to part-time, low income and entry level jobs (Boeitzig et al., 2008; Migliore et al., 2012)

Strengths

- ▶ Individuals with ASD have unique strengths that have been found to enhance workplace performance and productivity (Mawhood & Howlin, 1999; Morgan, 1996; Olney, 2000; Smith et al., 1995)
- ▶ Relative to typically developing individuals, many individuals with ASD possess:
 - ▶ A higher degree of accuracy in visual perception
 - ▶ An ability to sustain concentration
 - ▶ Excellent long-term memory
 - ▶ A high tolerance for repetitive activity

Barriers to Employment

- ▶ Verbal and nonverbal communication impairments
- ▶ Social relationship difficulties
- ▶ Improper social behaviours
- ▶ Special interests
- ▶ Heightened or subdued responses to sensory stimulation
- ▶ Difficulties with changes in routine

Promoting Success

- ▶ Employment success associated with:
 - ▶ Provision of appropriate and ongoing support
 - ▶ Employer flexibility in adapting employee responsibilities
 - ▶ Adjusting expectations of the employer
 - ▶ Implementing accommodations as required

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- ▶ Examples of accommodations:
 - ▶ Consistency in job responsibilities
 - ▶ Personal organizers
 - ▶ Minimize unstructured time
 - ▶ Direct communication
 - ▶ Providing employee with reminders and reassurances

Impact

- ▶ Vocational interventions for individuals with ASD associated with:
 - ▶ Increased employment
 - ▶ Better job retainment
 - ▶ Higher wages
 - ▶ Reduction in ASD symptoms
 - ▶ Higher quality of life
 - ▶ Improvements in cognitive functioning

Employment Support in Ontario

- ▶ Geneva Center for Autism
- ▶ Ontario Disability Support Program (ODSP)
- ▶ ASD Summer Employment Program (ASEP)
 - ▶ Autism Ontario
 - ▶ Autism Services of Eastern Canada
 - ▶ Geneva Center for Autism
 - ▶ Jewish Vocational Services (JVS)
 - ▶ Kerry's Place Autism Services
 - ▶ York University (AMP program)

Why Summer Employment?

- Working group identified that many individuals with ASD attempt to enter the workforce with limited or no previous employment experience
- Without work experience, even students with post-secondary degrees/advanced training struggle to enter workforce
- Post-secondary experience may be more overwhelming and stressful for individuals with ASD and they may choose not to engage in summer employment
- Many students with ASD complete degrees at a slower pace (i.e., have a reduced course load)
 - balancing coursework with part-time employment may not be realistic
 - sustaining employment during this time may be perceived as an additional stressor to be avoided
- Limited or absent employment experience for individuals with ASD represents a serious disadvantage in a competitive labour market

ASD Summer Employment Program (ASEP)

- ▶ Goal: support students with ASD in finding paid summer employment to build their resumes and better prepare them for the workforce
- ▶ Components:
 - ▶ Employment workshops/group training on job-related skills (e.g., social skills at work, dealing with workplace conflict)
 - ▶ Individual support with resume writing/job applications
 - ▶ Interview prep
 - ▶ On the job support
- ▶ Program has run twice: 2012 & 2014
 - ▶ Slight variability in the way the program was run each year
 - ▶ Some incomplete data

Workforce Specialists

- ▶ Two workforce specialists each year (2012 & 2014):
 - ▶ Career training in related fields (e.g., Occupational Therapy)
 - ▶ Delivered employment workshops
 - ▶ Job searching
 - ▶ Accompanying participants to interviews
 - ▶ Building relationships with employers
 - ▶ Job site visits
 - ▶ Ongoing job support

Participants in the ASEP Program

► Postsecondary Students with ASD

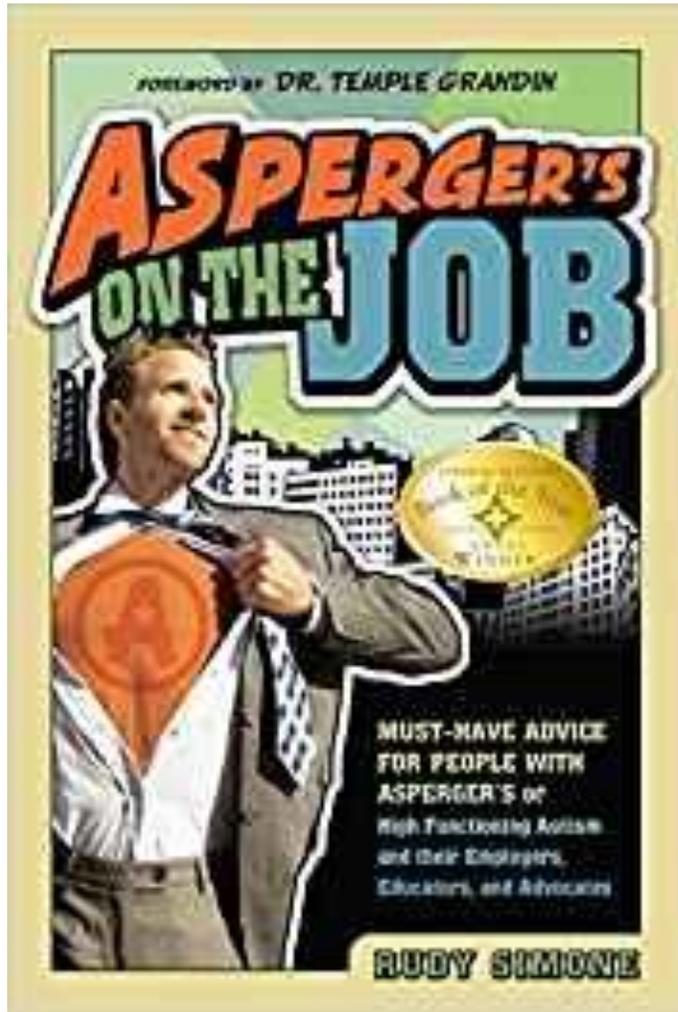
Year of Program	2012 (n=9)	2014 (n=10)
Age	17-26	18-22
Sex	55% Male (n=5)	100% Male

Participants: Other Diagnoses (2014)

- ▶ Many students reported secondary learning/mental health concerns
 - ▶ 50% (n = 4) only reported a diagnosis of ASD
 - ▶ 25% (n = 2) reported 2 diagnoses
 - ▶ 12.5% (n = 1) reported 3 diagnoses
 - ▶ 12.5% (n = 1) reported 4 diagnoses
- ▶ Secondary Diagnoses included:
 - ▶ AD/HD
 - ▶ Learning Disorder
 - ▶ Anxiety Disorders
 - ▶ Depressive Disorder

Participants: Areas of Study

- ▶ The Arts,
- ▶ Tourism and Travel,
- ▶ Marketing,
- ▶ Engineering,
- ▶ Animation,
- ▶ Technology



Equipment

- ▶ Each participant provided with:
 - ▶ Career Booklet (Ontario District School Board)
 - ▶ Asperger's on the Job: Must-Have Advice for People with Asperger's or High Functioning Autism and their Employers, Educators, and Advocates (Simone & Grandin, 2010)
 - ▶ An Agenda
 - ▶ A notebook/journal
 - ▶ A USB/flash drive

Job Success & Placements

- ▶ Employment Success:
 - ▶ 2012: 4 paid, 3 unpaid, 2 unemployed
 - ▶ 2014: 9 paid, 1 unpaid
- ▶ Job Sectors:
 - ▶ Community Services (e.g., retirement home)
 - ▶ Admin & Office Work
 - ▶ Retail
- ▶ Size of Job Site (2012)
 - ▶ Fewer than 20 employees (n=3)
 - ▶ 20-150 employees (n=3)

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Workshop Topics

- ▶ Resume writing & interview skills
- ▶ Job readiness workshops
 - ▶ e.g., Employment Standards Act, Professionalism, Employer Expectations
- ▶ Social skills at work
 - ▶ e.g., Small Talk, Dealing with Difficult Situations, Internet & Computer Use at Work
 - ▶ Email etiquette
 - ▶ Dealing with conflict on the job
 - ▶ Giving and receiving feedback and criticism
- ▶ Transitional supports for individuals with ASD
- ▶ Requesting environmental accommodations in the workplace
- ▶ To disclose or not to disclose

ASD Summer Employment Program

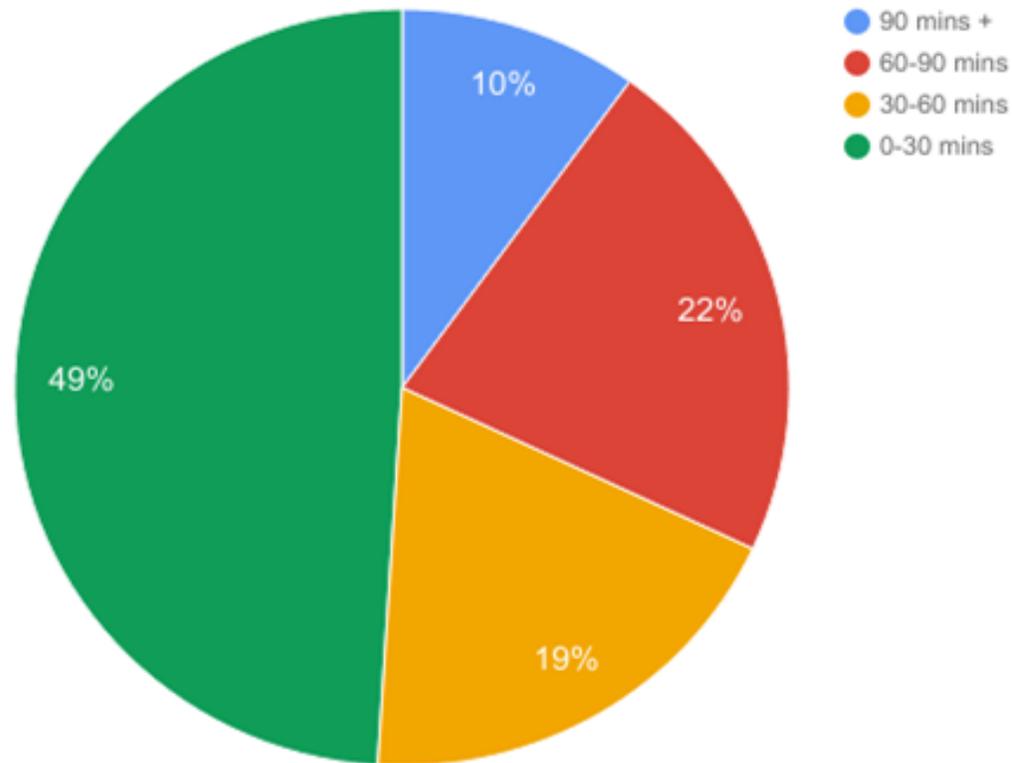
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Among of Ongoing Support (2012)

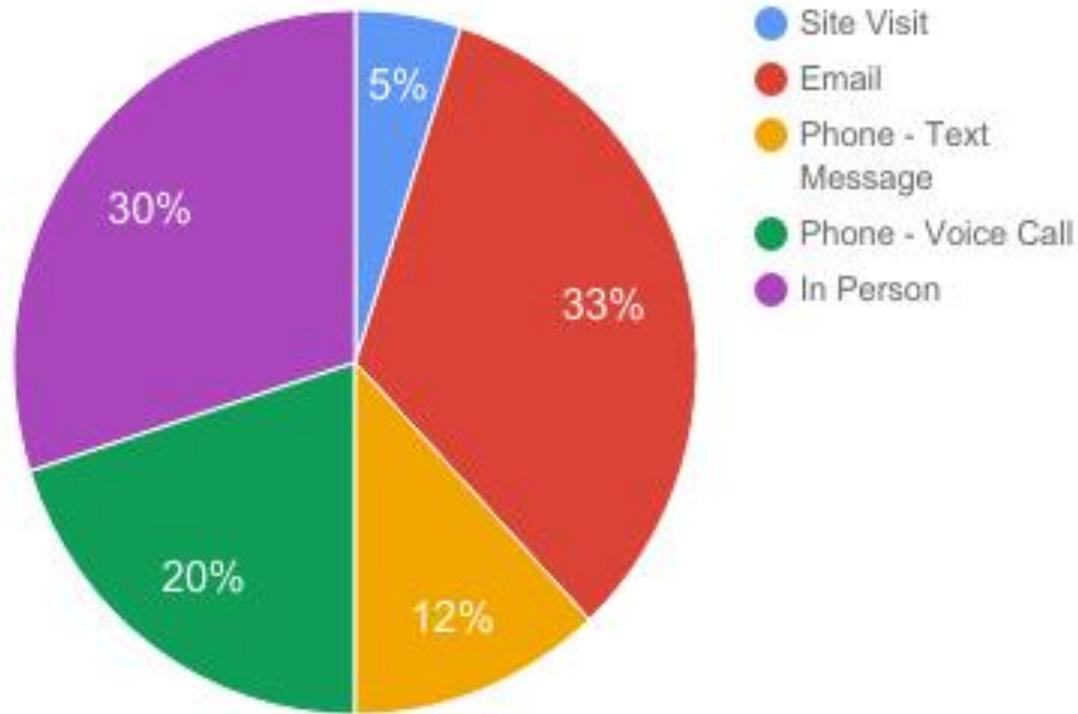
Length of Individual Meetings



Mean number of meetings for students in 2012 cohort was 27 per student between May and August (SD = 6.40, range = 18 - 36)

Amount of Ongoing Support (2012)

Meeting Formats



Number of hours workforce specialists spent supporting 2012 students individually ranged from 10.5 to 30.5 hours ($M = 22.5$, $SD = 6.6$)

Supervisor Satisfaction (2012)

- ▶ Scale ranged from 1 (unsatisfactory) to 5 (excellent)
- ▶ Overall work performance rated as “good” ($M = 4$, $SD = 1$)
- ▶ When specifically asked whether performance was comparable to a typical competitive worker on a 10-pt scale (0 = never, 5 = sometimes, 10 = always), ratings were more modest ($M = 5.5$, $SD = 3.11$)
- ▶ Supervisors also indicated that participants were on average, only “sometimes” able to socialize appropriately with coworkers ($M = 5.83$, $SD = 3.37$)
- ▶ When asked if students would be considered for future employment, half ($n = 3$) of the supervisors responded affirmatively, two responded that it was a possibility (“maybe”), one responded that the student would not be rehired

Supervisor Feedback (2012)

Strengths	Weaknesses
<p>“X is a hard worker and dedicated to the position he takes on.”</p>	<p>“Ease of communication is a bit of a challenge but not insurmountable.”</p>
<p>“X consistently took his job seriously and was committed to being a responsible employee and part of the (place of employment) team.”</p>	<p>“X did not initiate social interactions and did not always respond appropriately when they were initiated by others.”</p>
<p>“X has been a pleasure to work with. She is always smiling and ready to assist anyone in any way that she can.”</p>	<p>“X shows an interest in socializing around her specific interests but prefers not to socialize if engaged by others around other topics.”</p>
<p>“X has been friendly with everyone at (place of employment). X is a pleasure to be around and is always just beaming.”</p>	<p>“X seldom socializes with other volunteers or staff. I have overheard a conversation or two, but rarely does she interact with staff or volunteers.”</p>

Participant Satisfaction

- ▶ Responses overwhelmingly positive
 - ▶ Both workshops and program rated highly
- ▶ Majority of students thought workshops
 - ▶ Were enjoyable (86%)
 - ▶ Were useful (100%)
 - ▶ Increased job-related knowledge (100%)
 - ▶ Increased job-related skills (71%)
- ▶ Students reported gains in knowledge about:
 - ▶ Job searching
 - ▶ Job interviews
 - ▶ On-the-job etiquette
 - ▶ Job maintenance

Participant Feedback

“[workforce specialists] were available and ... provided excellent coaching before interviews”

“one particular situation where this support was demonstrated excellently came during my interview ... a [workforce specialist] was present and that boosted my confidence significantly in the interview”

“I have gained an increased confidence in my abilities to interact with co-workers on the job, and I feel better equipped to handle myself under stressful situations”

“On the whole, I thought the program covered varied and useful topics for employees on the spectrum, and I do feel better equipped to handle myself in the workplace”

Take-Home Messages

- ▶ Majority of participants successfully obtained & retained paid employment
- ▶ Employers tended to be small (<20 employees) & medium-sized (20-150 employees)
 - ▶ Such sites may be less intimidating, more personable, and more flexible than larger workplaces
- ▶ Students perceived experience to be beneficial
- ▶ While students received intensive training in job seeking (e.g., workshops), workforce specialists were instrumental in securing jobs for students

Take-Home Messages

- ▶ Most students required ongoing and frequent support from the workforce specialists
 - ▶ Meetings tended to be short (<30 mins), with online & phone contact used equally as often as face to face
- ▶ Text-based communication (i.e., email, text-messaging) proved a common and efficient tool for connecting with students
 - ▶ Reduced need for face-to-face contact is flexible, decreases workload for workforce specialists, & provides communication options for those with social anxieties

Take-Home Messages

- ▶ ASD symptom severity was not found to be associated with program outcome variables
 - ▶ (may be due to lack of statistical power/small sample size)
- ▶ Participants self-reports on questionnaires, and employer feedback, indicate that social difficulties were a prevalent concern
 - ▶ Employer feedback revealed participants experienced difficulties engaging socially with colleagues
 - ▶ Social skills training and workplace-specific social etiquette should be a significant component of future vocational interventions

Take-Home Messages

- ▶ A substantial amount of government, community, and family resources are allocated to supporting students with ASD throughout elementary and secondary school
 - ▶ Transitions to post-secondary education and/or the workforce can be fraught with difficulties
- ▶ Gaps in support systems for young adults with ASD may result in competent, skilled, and qualified individuals failing at reaching goals of completing post-secondary degrees or securing employment
- ▶ Support programs such as AMP and ASEP can help fill this gap

Looking to the Future

Getting a job is important to me because ...

“ . . . it allows me to give back to the community and allows me to be independent.”

“ . . . a job can help me feel more assertive and independent.”

“ . . . it would help me gain my independence, get me off government support (eventually) and get me out of the house.”

“ . . . I need money to survive and be independent, and to do that in this world one needs to work.”