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

Presenters: Komal Shaikh and Busi Ncube
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

![Bar graph showing student satisfaction levels with AMP. The x-axis represents satisfaction levels from 1 (Not Satisfied) to 5 (Extremely Satisfied), and the y-axis represents the number of students. The graph indicates that 3 students are not satisfied, 4 students are extremely satisfied, and 5 students are satisfied.](image-url)
## Top Ten Topics and Goals

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

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

Scores on Questionnaire

Beginning of School Year

End of School Year

Social Provisions Scale
Friendship Questionnaire
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 retention
  - 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.
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

<table>
<thead>
<tr>
<th>Year of Program</th>
<th>2012 (n=9)</th>
<th>2014 (n=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>17-26</td>
<td>18-22</td>
</tr>
<tr>
<td>Sex</td>
<td>55% Male (n=5)</td>
<td>100% Male</td>
</tr>
</tbody>
</table>
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)
ASD Summer Employment Program

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  - Interview prep
  - On the job support
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
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ASD Summer Employment Program

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

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

<table>
<thead>
<tr>
<th>Feedback</th>
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<tbody>
<tr>
<td>“[workforce specialists] were available and ... provided excellent coaching before interviews”</td>
</tr>
<tr>
<td>“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”</td>
</tr>
<tr>
<td>“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”</td>
</tr>
<tr>
<td>“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”</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Getting a job is important to me because ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>“... it allows me to give back to the community and allows me to be independent.”</td>
</tr>
<tr>
<td>“... a job can help me feel more assertive and independent.”</td>
</tr>
<tr>
<td>“... it would help me gain my independence, get me off government support (eventually) and get me out of the house.”</td>
</tr>
<tr>
<td>“... I need money to survive and be independent, and to do that in this world one needs to work.”</td>
</tr>
</tbody>
</table>