

# Towards a Model of Employment Support for Adults with ASD

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## Conflicts of Interest

We have no conflicts of interest to declare

## Presentation Outline

1. Background of ASD
2. Brief review of methods
3. Results
4. Implications for health services for adults with ASD



## Background

**Cost** associated with supporting adults with ASD:

- 45% of adult costs are due to **lost employment**<sup>1</sup>
- \$22 billion a year goes toward supporting those with ASD in Canada

Mental health **comorbidities**:

- Anxiety and depression<sup>2</sup>

## Background (continued)

- Employment is reported to be a significant factor contributing to **one's identity** and **quality of life**<sup>3</sup>
- The unemployment rate of Canadian adults with ASD is estimated to be **66%** (10x Canadian rate of unemployment)<sup>4</sup>



## Why are we interested in this topic?

- Occupation is recognized implicitly as an **important determinant of health**<sup>5</sup>
- Enabling people to do what they want and need to do = **their occupations**
- **Occupational Therapy** enables ALL people to live full and meaningful lives through engagement in meaningful occupations.



## Research Question

What is known in the existing literature about the **barriers** and **facilitators** to employment for adults with ASD?

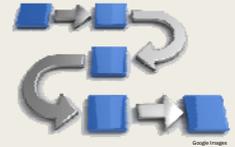


## Methods: Scoping Review

Used methodological framework outlined by Arskey and O'Malley<sup>5</sup>

### Five components:

1. Determine the research question
2. Identify relevant studies
3. Study selection
4. Appraise the quality and extract the data
5. Collate and summarize results



## Identification of Relevant Studies

### Inclusion Criteria:

- Published in the English language
- Human subjects, 18 years and older
- Published between **January 1, 2000 and March 31, 2017**
- Research subjects with a diagnosis of ASD
- Literature from peer-reviewed journals or grey literature
- Review articles
- Research reviews limited to developed countries

### Exclusion Criteria:

- Non-rigorous journal articles that are outside those defined in the inclusion list (e.g. opinion articles, anecdotal information, book reviews, etc.)
- Undergraduate dissertations
- Policy analyses

## Study Selection

Initial search:  
2083 articles

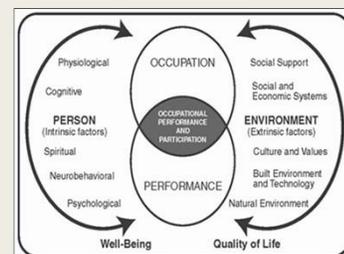


After screening:  
161 articles

## Evidence-Based Table

Level of Evidence	Study Design	Number of Articles Selected
I	Systematic reviews, meta analyses, randomized control trials	28
II	Two groups, nonrandomized studies (e.g. cohort, case-control)	26
III	One group, nonrandomized studies (e.g. before and after, pretest and posttest)	35
IV	Descriptive studies that include analysis of outcomes	72
		<b>Total: 161</b>

## Person Environment Occupation Model<sup>7</sup>



## Barriers and Facilitators



Person



Environment



Occupation

## Findings in each category: Person



	Facilitators	Barriers
<b>Physiological</b>	<ul style="list-style-type: none"> <li>Not discussed</li> </ul>	<ul style="list-style-type: none"> <li>Poor personal hygiene</li> <li>Physical health issues</li> </ul>
<b>Cognitive</b>	<ul style="list-style-type: none"> <li>Skills specific to certain jobs</li> </ul>	<ul style="list-style-type: none"> <li>Decreased <b>executive function skills</b></li> <li>Difficulty <b>following instructions</b></li> </ul>
<b>Self-Identity</b>	<ul style="list-style-type: none"> <li>Positive self-identity</li> </ul>	<ul style="list-style-type: none"> <li>Low self-esteem</li> </ul>
<b>Neurobehavioural</b>	<ul style="list-style-type: none"> <li>Higher functioning</li> <li>Fewer symptoms</li> </ul>	<ul style="list-style-type: none"> <li>More severe communication/social difficulties</li> <li>More symptoms</li> </ul>
<b>Psychological</b>	<ul style="list-style-type: none"> <li>Insight</li> <li>Self-advocacy</li> </ul>	<ul style="list-style-type: none"> <li>Mental health challenges</li> <li>Resistance to change</li> </ul>

## Findings in each category: Environment



	Facilitators	Barriers
<b>Social Support</b>	<ul style="list-style-type: none"> <li><b>Trained coaches, teachers, mentors, support staff</b></li> <li>Positive employer/coworker attitudes</li> </ul>	<ul style="list-style-type: none"> <li>Non-preferred level of social interaction</li> <li>Negative employer/coworker <b>attitudes</b></li> </ul>
<b>Social &amp; Economic Systems</b>	<ul style="list-style-type: none"> <li>Long- &amp; short-term workplace supports/programs</li> <li>Individualized accommodations</li> </ul>	<ul style="list-style-type: none"> <li><b>Lack of long-term workplace supports/programs</b></li> <li>Lack of information/access to programs</li> </ul>
<b>Culture &amp; Values</b>	<ul style="list-style-type: none"> <li>General value of diversity</li> <li>Understanding disclosure rights, positive disclosure experience</li> </ul>	<ul style="list-style-type: none"> <li>Social stigma</li> <li>Negative disclosure experiences</li> </ul>
<b>Built Environment &amp; Technology</b>	<ul style="list-style-type: none"> <li>Preferred level of sensory stimuli</li> <li>Technological aids</li> </ul>	<ul style="list-style-type: none"> <li>Poor <b>person-environmental fit</b></li> </ul>
<b>Natural Environment</b>	<ul style="list-style-type: none"> <li>Not discussed</li> </ul>	<ul style="list-style-type: none"> <li>Not discussed</li> </ul>

## Findings in each category: Occupation



	Facilitators	Barriers
<b>Training &amp; Support</b>	<ul style="list-style-type: none"> <li>Multi-area training</li> <li>Support for job search, interview, job prep</li> </ul>	<ul style="list-style-type: none"> <li>Lack of individualized workplace training</li> <li>Lack of support for job search, interview, job prep</li> </ul>
<b>Job Fit &amp; Preferences</b>	<ul style="list-style-type: none"> <li>Good job fit</li> <li><b>Fair compensation</b>, working conditions, opportunities to grow</li> </ul>	<ul style="list-style-type: none"> <li><b>Poor job fit</b></li> <li>Unfair compensation, poor conditions</li> </ul>
<b>Feedback &amp; Expectations</b>	<ul style="list-style-type: none"> <li><b>Clear expectations</b>, boundaries, schedule</li> <li>Feedback, self-monitoring, goal setting</li> </ul>	<ul style="list-style-type: none"> <li><b>Unclear expectations</b>, boundaries, schedule</li> </ul>

## Primary Themes

- Higher functioning, experience, skills, insight of the individual
- Highly trained coaches, teachers, mentors, professionals providing services
- Customized long-term supports
- Multi-area training
- Meaningful job fit (any job is not the right job)
- Building supportive communities



## Gaps in the research

- Mental health
- Stigma
- Transition Services
- Consensus on content of support programs/training
- Strategy for supporting employers and families



## Conclusions

- The literature on the topic of employment and ASD is **extensive**
- There are many small sample size studies and lower “quality” research
- **Key themes** included customized and diverse training/support from well-trained professionals and a positive surrounding community
- Recommendation: **coordinated, systematic** and **comprehensive** approach to employment support



## Next Steps

- **Create** an innovative and useful tool for professionals working with adults with ASD
- **Partner** with local adults with ASD, families, and relevant stakeholders
- **Advocate** provincially and federally for customized workplace accommodations and comprehensive support programming<sup>8</sup>



## How you can reach us?



## References

- <sup>1</sup>Buescher AVS, Cidav Z, Knapp M, Mandell DS. Costs of Autism Spectrum Disorders in the United Kingdom and the United States. *JAMA Pediatrics*. 2014;168(8): 721-728. doi:10.1001/jamapediatrics.2014.210
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- <sup>4</sup>Chen JL, Sung C, Pi S. Vocational rehabilitation service patterns and outcomes for individuals with autism of different ages. *Journal of Autism and Developmental Disorders*. 2015;45(9):3015-3029. doi:10.1007/s10803-015-2465-y
- <sup>5</sup>Arksey H, O'Malley L. Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology*. 2005;8(1):19-32.
- <sup>6</sup>CAOT. *Enabling occupation: an occupational therapy perspective*. Ottawa: CAOT Publications ACE, 2002.
- <sup>7</sup>Christiansen C, Baum C, Bass J, eds. *Occupational therapy: Performance, participation, and wellbeing*, 4<sup>th</sup> edition. Slack Thorofare: NJ; 2005.
- <sup>8</sup>Canadian Institutes of Health Research. *Strategy for Patient-Oriented Research*. Canadian Institutes of Health Research. <http://www.cihr-ispc.gc.ca/e/41203.html>. Updated July 25, 2016. Accessed April 9, 2017.