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## WHAT DO WE KNOW ABOUT IMPROVING EMPLOYMENT OUTCOMES FOR INDIVIDUALS WITH AUTISM SPECTRUM DISORDER?

### WHY IS THIS AN IMPORTANT ISSUE?

An estimated 1 in 86 children are diagnosed with Autism Spectrum Disorder (ASD)<sup>1</sup> making it the most commonly diagnosed childhood neurological condition in Canada.<sup>2</sup> Adults living with ASD<sup>3</sup> have the poorest employment outcomes of those with disabilities. Most earn less than the national minimum hourly wage, endure extended periods of joblessness and frequently shuffle between positions, further diminishing their prospects. These poor employment outcomes result in lower quality of life and often lead to steep economic costs.

### WHAT DOES THE RESEARCH TELL US?

#### Employment success increases quality of life

Employment enhances quality of life, cognitive functioning and overall well-being of persons with ASD by increasing economic self-sufficiency, financial security, independent living, community participation and self-esteem.<sup>4,5,6</sup> Unfortunately, employment outcomes for those living with ASD are poor; only 25 per cent of adults with ASD are employed, most of this group is considered high-functioning and only six per cent are competitively employed.<sup>7,8</sup> Success in employment is attributable to a combination of individual characteristics, external supports and policy enabling employment opportunities.

#### The influence of individual characteristics

Underemployment and unemployment for individuals with ASD is influenced by unique characteristics of the individual including severity, functional ability/independence, social skills, age, gender, ethnicity, self-determination and

motivation.<sup>9</sup> Having an intellectual disability (noted by IQ <70) significantly decreases the odds of participation in employment. Success in employment is improved with greater social skills, functional ability and independence.<sup>10</sup> Maladaptive behaviours (such as restricted interests, insistence on sameness and difficulty with change)<sup>11</sup> and co-morbid conditions like anxiety, depression and epilepsy negatively impact employment outcomes.<sup>12</sup>

## **The education system lays the groundwork for employment**

Education is one of the most important predictors of employment. Finishing high school and participating in post-secondary were found to have the greatest impact on employment, even over other ASD characteristics like social skills or IQ.<sup>13</sup> The transition period from school to work is a critical time where skill development and work-related experiences in school contribute to employment success.<sup>14</sup> In particular, an internship model entitled Project SEARCH using unique ASD specific supports resulted in positive work outcomes.<sup>15</sup>

## **Training and adaptive work environments are critical**

Success in the work environment for those with ASD is a result of both employee preparedness and employer accommodation. Paid, real-life work experience early in life is predictive of future employment. Supported employment<sup>16</sup> models that use job placement,<sup>17</sup> job coaching<sup>18</sup> and technology accommodations<sup>19</sup> show promise in improved rates of employment, greater job satisfaction and retention and higher employer satisfaction. Supervisors and co-workers who are knowledgeable about ASD, supportive and tolerant are also important contributing factors.<sup>20</sup>

## **Family impacts outcomes**

Family supports play an important role in navigating the complexities of transition supports and adult employment programs.<sup>21</sup> The expectations of the family for an individual with ASD<sup>22</sup> and family income and education<sup>23</sup> also influence employment outcomes. Improvement in vocational activities may be the result of prolonged and persistent activity by parents to advocate on their child's behalf.<sup>24</sup> While it is understood that family plays a critical role in employment success, this remains an understudied area.

## **WHAT ARE THE NEXT STEPS?**

Making good policy decisions on employment initiatives for those with ASD is difficult given the lack of quality research but enhancing and refining policy initiatives based on what is currently known is critical to continuing to improve employment outcomes.<sup>25</sup> Promising investments were made in the 2014/15 federal budget with the announcement of two complementary initiatives to enhance employment outcomes for persons with disabilities.<sup>26</sup> Future investment in policies and programs that impact education, work environments and family will enhance employment success. The complete employment report and full recommendations can be accessed at: <http://www.policyschool.ucalgary.ca/?q=content/what-do-we-know-about-improving-employment-outcomes-individuals-autism-spectrum-disorder>.

The following policy recommendations should be considered to improve employment outcomes for persons with ASD.

**1. Support research on ASD employment in the Canadian labour market**

Factors contributing to employment for those with ASD is an under researched area. Focus is needed on best practices in the workplace and school to enhance effective work-study, internships, supportive employment models and identify transition best practices. The ASD employment literature has little on the role of family and other support networks (such as employers), making this another important area for future research.

**2. Address individual characteristics that limit success**

The lack of social skills, low independence and challenging behaviours are barriers to employment success. Education systems and adult services (available to all regardless of IQ) need to expand supports for adolescents and adults to build these skills throughout their lives.

**3. Improve treatment and access for mental health**

Mental health conditions limit employment opportunities for some individuals with ASD. Until these conditions are better managed many, even those who have high IQs or those with exceptional skills, will continue to struggle to succeed in employment. Policy initiatives that enhance access to health professionals who are trained in the complex issues of neurodevelopmental conditions and mental health issues will help increase access to appropriate treatment, which ultimately may enhance employment success.

**4. Increase opportunities for work experience**

Work experience early on and in real-life settings is one of the strongest predictors of employment. Greater development and funding of work opportunities and supportive employment (such as internships, work-study programs and traineeships) that utilizes innovative best practices and research in schools, post-secondary institutions and adult programs is needed to improve employment outcomes for those with ASD.

**5. Incent and support employers**

Employers play an essential role in employment success. Comprehensive programs that include incentives, tax exemptions, supports for accommodations and workplace awareness, IT initiatives and job coaching are all elements of a comprehensive ASD employment workplace strategy. In some cases small, affordable changes in the workplace may be all that is needed.

**6. Empower families in their supporting role**

Families of persons with ASD play an important role in advocating for and navigating employment programs and opportunities. Not all families have the capability to manage this task. Enabling initiatives such as creating a clearinghouse networking jobs and people, and refining small business support programs that ensure sustainable enterprise opportunities (in the absence of aging parental support), are some suggested directions to improve employment outcomes.

## Notes

1. Lowe, Dudley, Dutton, Zwicker, McMorris, Emery, Nicholas and Clarke, "Laying the Foundation for policy: Measuring local prevalence for autism spectrum disorder", The School of Public Policy, University of Calgary. *SPP Research Papers*, Vol. 7 (28), September 2014.
2. Fombonne, "Epidemiology of pervasive developmental disorders," *Pediatric Research* 65 (6), 2009: 591-598.
3. Autism Spectrum Disorder (ASD) is a lifelong neurodevelopmental condition marked by impaired social interaction, repetitive behaviours, restricted interests and impaired communication.
4. Competitive employment, supported employment, volunteer work and purposeful daytime activity all provide structure and community integration which enhance quality of life. Holwerda et al., 2012.
5. Walsh et al., 2014.
6. Joshi et al., 2012.
7. Competitive employment as it pertains to vocational rehabilitation is defined as work performed by a person with a disability in an integrated setting at minimum wage or higher and at a rate comparable to non-disabled workers performing the same tasks.
8. Holwerda et al., 2012 op.cit.
9. Dudley et al., 2015.
10. Chiang et al., 2013; Hurlbutt and Chalmers, 2004; Carter et al., 2012.
11. Eaves and Ho, 2008.
12. Taylor and Seltzer, 2011; Schaller and Yang, 2005; Chen et al., 2015.
13. Chiang et al, 2013.
14. Wehman et al., 2012; Test et al., 2009.
15. Wehman et al., 2012.
16. Supported employment programs offer a range of services and are defined as the "process of enabling a person with a disability to secure and maintain paid work that is in a regular work environment." See Mawhood & Howlin, 1999 op. cit. Supports might include: interview skills, interest assessments, job placement and job coaching.
17. Nicholas et al., 2014; Hendricks, 2010.
18. Lawer et al., 2009; Schaller and Yang, 2005.
19. Nicholas et al., 2014.
20. Hendricks, 2010; Muller et al., 2003; Nesbitt, 2000.
21. McDonough and Revell, 2010.
22. Carter et al., 2012.
23. Chiang et al., 2013; Shattuck et al., 2012.
24. Taylor and Mailick, 2014 op. cit.
25. Shattuck et al., 2012.
26. The budget allocates \$15 million over three years to connect persons with disabilities with jobs via the Ready, Willing and Able Initiative, and by investing \$11.4 million over four years to expand vocational training programs for persons with ASD.