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## CAOT Position Statement: Autism spectrum disorders and occupational therapy (2015)

*The Canadian Association of Occupational Therapists (CAOT) believes that individuals with Autism Spectrum Disorders (ASD) and their families should have access to evidence-informed, interprofessional and collaborative health services throughout the lifespan. Occupational therapy, an essential component of interprofessional services, promotes health through participation and engagement in valued occupations.*

### Recommendations for occupational therapists

1. Ensure provision of best practices through the utilization of and the participation in the development of valid screening and assessment tools and interventions that are focused on functional outcomes relevant to individuals with ASD.
2. Support, lead, participate in and disseminate research related to occupational therapy and interprofessional services for individuals with ASD.
3. Participate in continuing professional education to keep abreast of current research and expert consensus regarding provision of services to individuals with ASD.
4. Acquire or continue to expand the knowledge of theoretical frameworks and evidence-informed interventions required to provide best practice in meeting the social communication, sensory processing and motor planning challenges.
5. Promote interprofessional collaboration among practitioners, educators, researchers and policy makers to advance evidence, knowledge and capacity in providing ASD assessments and interventions.
6. Strive for collaborative service delivery to best meet the diverse challenges experienced by the individual with ASD across the lifespan.

### CAOT Initiatives

To enable occupational therapists to develop and deliver best practices, CAOT will:

1. Participate in government advocacy initiatives that support services for individuals with ASD based on client-centred values and participation in the occupations of daily life.
2. Facilitate, support and sponsor activities that promote

interprofessional collaboration in all models of service delivery for individuals with ASD.

3. Advocate for increased access to occupational therapy services for individuals with ASD that promote engagement in occupation throughout the lifespan.
4. Partner with other stakeholders to support collaborative research in identifying best practices in the evaluation and intervention for individuals with ASD.
5. Support continuing professional education activities for occupational therapists to help expand their knowledge and competence in order to prepare them to meet the needs of youth and adults with ASD and their families and communities.
6. Promote the inclusion of currently recognized and evidence-informed theory and practice within university curriculums to ensure that graduates are qualified to address the social communication, sensory processing and motor planning challenges experienced by the majority of individuals with ASD.
7. Develop and disseminate material to inform the public and stakeholders regarding the comprehensive occupational therapy approaches and privileged expertise to address ASD.

### Background information

Autism Spectrum Disorders (ASD) are defined in the Diagnostic and Statistical Manual of Mental Disorders (Fifth Edition; DSM-5) as a class of neurodevelopmental disorders that are characterized by persistent, complex and variable deficits in social communication and social interaction and restricted, repetitive patterns of behaviours, interests and activities (American Psychiatric Association, 2013). The symptoms present in early childhood, impair everyday function and may fluctuate throughout the lifespan.

In 2014 in the United States, the Centers for Disease Control and Prevention (CDC) estimated that 1 in 68 children has been identified with ASD (Baio, 2014). This represents a 120 percent increase compared to the 2002 and 2000 estimates (Autism Speaks Canada, 2014). The heightened prevalence has had a significant impact on service delivery. Occupational therapists have experienced an increased demand for service delivery and subsequently, their role on multidisciplinary teams is expanding (Schaaf & Blanche, 2012).

## Occupational Therapy Role

Occupational therapy is a health profession that focuses on maximizing an individual's ability to participate in daily occupations that include self-care routines, leisure activities, school or work-related tasks – engagement and participation in everyday life roles. The combination of sensory, motor, communication, social and behavioural challenges faced by individuals with ASD can impact all areas of occupational performance and participation across all environments (Case-Smith & Arbesman, 2008; Rogers & Dawson, 2010) and throughout their lifespan. Using knowledge gained from neurobiology, their ability to assess an individual's occupational performance and provide the intervention necessary to facilitate independence and participation in meaningful activities, occupational therapists are well positioned to assist individuals with ASD.

Historically, the occupational therapy role with individuals with ASD was limited to institutional settings where the focus was on self-care skills, fine motor activities and/or play therapy (Bloomer & Rose, 1989). Furthermore, the CAOT Brief to the Canadian Senate Standing Committee on Social Affairs, Science and Technology (Law, 2006) notes that occupational therapy services for children with ASD primarily focus on sensory motor integration and skill building. Occupational therapists can offer an enhanced understanding of the impact of sensory challenges in all daily activities and can recommend environmental accommodations that help in minimizing negative reactions to sensory input (Law, 2006). Environmental accommodations may then help people with ASD to participate in activities in the home, school and community. A recent investigation additionally highlights the expanded expertise of occupational therapists in the provision of early intervention with infants and children who have ASD from three angles: the development of prerequisites to social communication; advocacy and education for the child and family; and balance between environment, occupation and person (Hébert, Kehayia, Prelock, Wood-Dauphinee, & Snider, 2014). Pediatric clinicians in this study perceive occupational therapy treatment to be 'indispensable' in helping young children with ASD become better communicators.

The occupational therapy role in the provision of education, accommodations and intervention to manage sensory deficits will continue to expand given the DSM-5 recognizes the high prevalence of atypical sensory processing in ASD. Recent studies examining the effectiveness of occupational therapy treatment utilizing a sensory integration framework to address sensory processing with children with ASD provides encouraging outcomes (Pfeiffer, Koenig, Kinnealey, Sheppard, &

Henderson, 2011; Schaaf et al., 2014). Interventions that utilize a sensory integration frame of reference were found to be among the top three services requested by parents of children with ASD (Goin-Kochel, Mackintosh, & Myers, 2009; Green et al., 2006).

Motor difficulties are also increasingly recognized as a barrier to optimum function in people with ASD (Bhat, Landa, & Galloway, 2011; Gowen & Hamilton, 2013). Occupational therapists utilize various models of intervention when addressing motor deficits (Polatajko & Cantin, 2010). These include sensory integration treatment, neurodevelopmental treatment (NDT), cognitive orientation to daily occupational performance (CO-OP) approach, perceptual motor training, strength training and individual skill training. The use of visual aids, task analysis, applied behavioural analysis and augmentative communication devices all support the work of occupational therapists with this specific population.

Huebner (2001), Miller-Kuhaneck (2004) and Hébert (2014) identify the expanding role of occupational therapy in the areas of communication and play. Communication and social interaction challenges experienced by people with ASD include impaired joint attention and engagement, difficulty interpreting social cues and rules, as well as limited understanding of the perspective of others. Occupational therapists understand the importance of the ideation, planning and sequencing required to engage with unfamiliar toys, games and/or activities, and with peers and their activities. Occupational therapists address these deficits through individual and/or group intervention.

Occupational therapists consider the effects of an ASD diagnosis and of atypical sensory processing on family members' occupations (meaningful activities that the family participates in and performs) and family dynamics, including extended family members (Baranek, Boyd, Poe, David, & Watson, 2007). Occupational therapists provide support to families through education, consultation, advocacy and assisting with access to community resources (Bagatell, Cram, Alvarez, & Loehle, 2014).

Occupational therapists have had a strong and growing role in the assessment, treatment and consultation of children in schools in the past decades. Case-Smith and Miller (1999) noted that 66% of occupational therapists working with children with ASD provide services within the school system. Occupational therapists use their knowledge of sensory processing, emotional and behavioural regulation, oral/fine/gross motor development and task analysis to support classroom learning and participation. Occupational therapists may be consulted to modify environments (sensory rooms, earphones to decrease noise, adapted seating), modify

activities (keyboarding for writing, clothing adaptations, visual instructions, adapting the speed at which an activity happens) and support children with ASD through the many transitions of their day (fidget toys/tools, visuals, supporting social interactions), in addition to the many transitions in life such as from home to daycare, from daycare to school, and from school to society.

As individuals with ASD transition from home to community living, occupational therapists can assist by helping clients and families to explore independent living options. The occupational therapist may be involved in adapting or modifying environments to ensure individuals are safe and achieve optimum independence and well-being. Occupational therapists are also involved in assessing driving capacities (Classen, Monahan, Brown, & Hernandez, 2013), vocational skills, developing work-related capacities and minimizing barriers to employment (Gal, Ben Meir, & Katz, 2013).

Integrated service delivery models are critical for individuals with ASD due to their diverse challenges (Miller-Kuhaneck, 2004). Kashman and Mora (2002) noted the developing trend for occupational therapists and speech-language pathologists to offer collaborative evaluation and treatment to youth with ASD. Occupational therapists offer a unique contribution to interprofessional teams which include psychologists, psychiatrists, behavioural therapists, early interventionists, social workers, educators, vocational counsellors and life skills workers.

Occupational therapists are cited as essential in the currently recognized models of service delivery for children with ASD. These models include but are not limited to the Early Start Denver Model of Intensive Therapy for Young Children with Autism (ESDM) (Rogers & Dawson, 2010), The Social Communication Emotional Regulation Transactional Support model (SCERTS) (Prizant, Wetherby, Rubin, Rydell, & Laurent, 2006), the Ziggurat Model (Aspy & Grossman, 2007) and the Floortime Approach (Greenspan & Wieder, 1998). These models of care all integrate occupational therapists' role and knowledge in addressing sensory processing, praxis and self-regulation.

The profession of occupational therapy is well positioned to meet the diverse needs of individuals with ASD. Occupational therapists are essential members of intervention teams with their knowledge of neurobiology, their expertise in assessing an individual's occupational performance, as well as their ability to provide the intervention necessary to facilitate the individual's maximum independence and participation in meaningful activities. Due to the complex needs of people with ASD, multiple professional disciplines are required. With these healthcare and educational professionals, among others, occupational

therapists are ready to meet the challenge of developing evidence-informed practices with a highly heterogeneous population who are best served through individualized attention to their complex needs. Occupational therapists bring a unique and comprehensive perspective in the treatment of persons with ASD because their intervention includes considerations of people with ASD within their environment, their community and in society as a whole.

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