

## **Diversity in Ontario's Youth and Adults with Autism Spectrum Disorders:**

Medication use for mental health, neurological and behavioural problems



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This article summarizes some of the information contained in the report entitled: “Diversity in Ontario’s Youth and Adults with Autism Spectrum Disorders: Complex Needs in Unprepared Systems”.

Medication use in youth and adults with ASD is fairly unexplored terrain; specifically, we know little about frequency of specific medication/class of medication use, dosing practices, service pathways to prescription of medication, and those symptoms that are targeted and monitored in clinical practice (Stoddart, Burke, & King, 2012). However, compared to medication use for physical ailments that exist in ASD (such as gastrointestinal and respiratory problems), medication targeting mental health, behavioural dysregulation, irritability and inattention are better researched. Given we know there is no pharmacological remedy to alter the core features of ASD, here we focus on medications used to reduce mental health struggles, neurological symptoms or disorder(s), and behavioural problems.

Research and reviews of the usefulness of medications examine their ability to target specific behavioural or mental health symptoms commonly associated with ASD (Sloman, 2005; Stoddart, Burke, & King, 2012; Towbin, 2003). A review of research on 13 to 30 year olds with ASD found only eight relevant studies—four were of ‘fair’ quality and four were labeled as ‘poor’ (Dove et al, 2012). A similar systematic review published five years earlier found only five double-blind, randomized controlled trials (Broadstock, Doughty, & Eggleston, 2007). In the absence of multiple, well designed research

studies, “...many clinicians rely on results from treatment of other psychiatric disorders (ADHD, schizophrenia, OCD) and extrapolate these findings to the [ASD] population” (Blankenship, Erickson and McDougle, 2010, p. 208). This may be helpful and appropriate, but caution is also warranted as some youth and adults with ASD may have idiosyncratic responses to medication (Burke & Stoddart, in press) or respond optimally to lower doses (Sloman, 2005). As well, individuals with ASD may have difficulty articulating or recalling subtleties in feeling states, in response to questions by their support team.

During the introduction of any medication it is therefore imperative to: (1) start with lower than normal doses of any medication and increase (if appropriate) very slowly, (2) define clear, expected outcomes of medication administration (e.g., reduce anxiety), (3) target accompanying specific and idiosyncratic mental health or behavioural symptoms (e.g., reducing repetitive speech and behaviours), (4) monitor the increase or decrease of these symptoms using narrative medication diaries or specific repeated quantitative measures, and (5) discuss the above regularly with all individuals on the support team (e.g., medical personnel, parents, group home staff, etc.).

Selective serotonin reuptake inhibitors (SSRIs) are one of the main treatments for depression and anxiety and other mental health disorders in the general population. Examples of SSRIs include Prozac, Luvox, Paxil, Zoloft, Cipralex and Celexa. A study in Toronto that examined medication use found these medications, sometimes combined with others, were frequently used to manage anxiety, behaviour and depression in adults

on the autism spectrum (Stoddart, Burke & Temple, 2001). Studies of this group of medications for adults are at an early stage; they are often at an open label, small uncontrolled trial, or case report level (Dove et al, 2012; Stoddart, Burke, & King, 2012) although they are routinely used in clinical practice.

A second class of medications used in the youth and adult ASD population are anti-psychotics. The newer, atypical antipsychotics include Risperdal, Seroquel, Zyprexa, and Abilify. Many of these are used to address behavioural problems, irritability, anxiety, and psychosis. Again, compelling research on the usage, dosing and symptoms successfully treated in youth and adults is early, but promising results have been found for Risperdal, for example (Dove et al., 2012). Third, stimulants have gained increasing use with higher-functioning youth and adults with ASD (such as Asperger Syndrome) since we have recognized that distractibility and inattentiveness may successfully be reduced by medications such as Ritalin, Dexedrine, Adderal, Strattera and Concerta (Sloman, 2005; Stoddart, Burke, & King, 2012,).

Due to the medication sensitivity experienced by many individuals with ASD, and as a result, anxiety about the use of medications, many are drawn to alternative medical treatments. Some of these have been useful, such as Melatonin, in assisting with sleep issues (Paavonen, Neiminen-von Wendt, Vanhala, Aronen & von Wendt (2003). However, as many “natural” remedies are sold under different names, and as there are side effects to these (as there are with prescribed medications), we caution individuals to speak to their physician, pharmacist or naturopath to ensure the product they are taking is safe, does not interact with other products, and that they are using appropriate doses.

For our recent study of youth and adults (16+) who had been diagnosed with ASD (Stoddart et al., 2013), we asked if they were prescribed medication and if so, what the medication(s) were. Of 480 individuals, 36.9% were on no medication, 19.0% were taking one, 17.3% were taking two, 9.8% were taking three, and 17.1% were taking four or more. The average number of medications was 1.65 with 63.1% of the sample taking medication for a range of psychological, neurological and medical disorders. There were 12 medications taken by the sample 10 times or more. In order of frequency they included: 124 subjects on SSRIs (Zoloft, Celexa, Prozac, Cipralex and Paxil), 26 on benzodiazepines (Lorazepam and Clonazepam), 22

subjects on anticonvulsants (Divalproex and Tegretol), 19 subjects on Effexor (SNRI), 11 on antipsychotics (Risperdal, Seroquel and Abilify), 10 on Wellbutrin (NDRI), and 10 on a stimulant (Concerta).

Considering that medication is routinely used in the treatment of some of the mental health, behavioural and neurological symptoms related to ASD in youth and adults, research and education on their use in Ontario remains an urgent priority for this underserved group.

## **Challenges to Developing and Accessing Effective and Relevant Services and Supports:**

- Lack of expertise in the community when prescribing medication for mental health, neurological or behavioural disorders
- In the absence of research, practitioners may use existing research which does not take into account unique symptoms and responses in ASD
- Lack of Canadian research on older youth and adults with ASD
- Lack of medical expertise available, even in specialist centres

## ***Recommendations for the Community:***

- Develop resource listings for those with experience prescribing medications in ASD
- Create professional networks for clinicians who are faced with medication requests from the public
- Participate in research on medication and ASD

## ***Recommendations for the Individual and Family:***

- Target specific symptoms (e.g., anxiety, depression) and monitor them closely with healthcare provider(s)
- Decide with the healthcare team what behaviours may be suggestive of specific disorders in situations where the individuals cannot express their internal symptoms (e.g. repetitive pacing, self-injury, isolation)
- Have realistic expectations of what medication can accomplish over a certain period of time, taking into consideration that many SSRIs take several weeks to show therapeutic effects
- Ask your healthcare provider about his or her experience prescribing to individuals with ASD

- Use symptom checklists or rating scales repeatedly (e.g. for anxiety or depression) to assess the effectiveness of specific medications over time

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