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Annual Dr. Greta T. Swart Essay Competition

An annual essay award is available to an undergraduate medical student at the Schulich School of Medicine & Dentistry, Western University. The essay should describe an experience managing a patient at any stage in the lifespan with a developmental disability. This includes management of physical health, mental health or both, either in the hospital system or in the community, including family medicine.

Last year, the winner of the annual competition was Mohnish Rao. (This year's winner will be in the next Issue) Mohnish Rao's essay is below.

A Medical Student's Journey in Navigating Holistic Care for a Patient with Developmental Disabilities

Disclaimer: Certain patient details have been left ambiguous to protect patient confidentiality.

Introduction

As a third-year medical student halfway through clerkship, I had the privilege of helping manage many patients from pediatrics, internal medicine, obstetric and gynecology, as well as psychiatry. All these experiences taught me something new, and I was honoured to have the opportunity to help others. However, perhaps my most impactful experience has been helping take care of a patient with developmental disabilities, whom we can refer to as "Kevin." My time with Kevin illustrated the complexities of medicine and emphasized the importance of a holistic approach. In this essay, I will humbly share my experiences in managing Kevin's care from the mental, physical, and emotional perspective, as well as the lessons I have learned throughout this journey.

Understanding Kevin's Unique Needs

Before I can begin discussing Kevin's care, we must first understand Kevin as an individual. He is a patient with a complex medical history including 15+ co-morbidities and polypharmacy. He has multiple developmental disabilities, including an intellectual disability, brain injury, and autism spectrum disorder. While physically Kevin was in early adulthood, his mental capacity was that of a child. He had numerous physical health conditions, as well as mental health challenges and behavioural issues. He was initially admitted for mental health concerns, but even when those had been taken care of, he could not be discharged as his family felt they could not take care of him at their home anymore with his unique needs. There was an alternative facility that could take care of him, but he was not able to go there until months later; thus, he stayed in the hospital. Kevin's unique needs taught me the importance of personalized care and nuanced consideration of his various conditions. This was one of the first times that I had seen such an intricate interplay of physical, mental, and emotional challenges along with systemic barriers to accessing healthcare. It signified to me the importance of individual-centered care rather than the traditional algorithm-based care I had seen during clerkship.

Cultivating Mental Wellbeing for Patients with Developmental Disabilities

Hospitals may exacerbate anxiety and distress in patients without any developmental disabilities. Kevin had developmental disabilities as well as his struggles with mental health, which were worsened by the hospital setting. Thus, we needed to create a safe atmosphere for him. We built rapport to help him feel comfortable, which was the first step in improving his mental health. We provided counselling and medications for his mental health conditions and aggression. However, we also ensured not to overly sedate him and make him feel like a shell of his former self. In addition, the care team empathetically listened to him and noticed his nonverbal cues to understand his inner voice. The care team was used to create an inclusive environment that would accommodate his unique needs, such as personalizing his rooms, reducing loud noises, and limiting disruptions. This experience reinforced the value of empathy and actively listening to patients to understand and respond to their needs.

Furthermore, we advocated for Kevin to outside organizations to create a safe discharge plan. There were not many places that could take care of Kevin with his complex conditions. However, we reached out to our allied colleagues and worked with them to expand the list of places Kevin could live. We then connected with those community organizations and advocated on behalf of Kevin, indicating the importance of various things he needed to thrive in the community. From this, I learned how to be an advocate for my patients and form connections with colleagues. It also illustrated how to promote health equity through community engagement and reduce barriers to accessible care.

Most of all, we always treated Kevin with dignity which was essential in building a therapeutic relationship. When Kevin would become depressed because of his inability to go home, I would validate his feelings and be there for him. Not just as a medical student but as a fellow human being supporting him through this tough time. We would relay these concerns to his family and formed a partnership with them. The family was provided with education and resources to understand Kevin's situation and navigate the healthcare system. This signified how crucial it is to team up with family members when caring for patients with developmental disabilities. Furthermore, we would always ask Kevin what he wanted to do regarding a medical decision and empower him to make decisions about his health. Last but perhaps most importantly, I saw Kevin often smiling and laughing despite his struggles. His attitude made me reflect on my struggles and inspired me to be more resilient in the face of adversity, like Kevin.

Promoting Positive Physical Health Outcomes

While Kevin was originally admitted for his mental health concerns, he had a numerous physical health issue, some of which are associated with his developmental disabilities. We realized that if we wanted to holistically care for all of Kevin's concerns and not just what he was admitted for, we would need help. Thus, a various number of services and specialists were consulted. This showed me that holistic patient care needs collaboration from interdisciplinary health professionals, where we all work towards a common goal. Furthermore, during Kevin's extended stay in the hospital, we opted to routinely check on his physical issues with the aim of having early detection that could enhance his physical health. I learned from this the importance of being proactive in your approach and how having a preventative care mindset can improve outcomes of chronic conditions.

Often, we would have to advocate on behalf of Kevin to these other specialists so that Kevin's concerns were not downplayed or dismissed as mental health issues rather than physical ones. We also had to communicate Kevin's concerns to other healthcare professionals, so they understood his unique situation. This taught me to be an advocate for my patient and communicate succinctly yet comprehensively with other healthcare workers. In addition, we had to be mindful of how other colleagues were speaking about Kevin and that they were not furthering negative stereotypes. If there were any insensitive comments, then as his primary healthcare team we had an ethical duty to uphold Kevin's dignity and discuss how those insensitive comments were inappropriate in a professional manner. Perhaps even more, we had to catch ourselves when making certain automatic assumptions about Kevin that were rooted in stigma and could potentially negatively impact his care. However, challenging these negative attitudes, helped create an environment where Kevin felt respected and advocated for. This taught me that health workers should advocate for equity, diversity, and inclusion for all our patients, especially Kevin, who may be at greater risk of being stigmatized.

Lastly, I found myself researching the various physical issues Kevin had and how they were associated with his developmental disabilities. I would study the physiology and rationale behind why conditions such as brain injury, intellectual disability and ASD would be associated with other conditions such as apraxia, gastrointestinal issues, and seizure disorders. I would also educate myself on why Kevin would engage in certain physical behaviours and how those would fit his other conditions. This signified that I must form a scholarly mindset where I am always trying to learn and see how various conditions, social circumstances, and behaviours interplay. It reminded me that I need to be committed to lifelong learning as a student, and as a physician.

Fostering Emotional Wellness Through Care

While often forgotten, I believe that caring for patients with developmental disabilities extends beyond physical and mental health. It also involves their emotional wellness. One of the challenges in caring for Kevin was due to communication barriers. His developmental disabilities limited his ability to understand information, and he also had apraxia, which limited his ability to express his feelings. This resulted in self-harm behaviours or aggressive behaviours towards staff because of frustration. I empathized with how frustrating it must feel to be unable to be able to convey your struggles. As a medical student, I would collaborate with the rest of his team to communicate with Kevin. We used different forms of communication to figure out what worked best for him such as using simplified terms, visual aids, and nonverbal actions to facilitate two-way conversation. We sometimes did trial and error, but through team effort and persistence, we understood each other. This experience helped me appreciate how fortunate I was to speak and understand others, something most of us take for granted. But it also taught me that being respectful, collaborative, and professional can help overcome communication barriers and maintain emotional wellbeing.

In addition, we provided Kevin with the space needed to vent his frustration and be patient with him. Still, we had to be professional and not enforce aggressive behaviours towards the staff by creating boundaries. It was a delicate balance, but it taught me to prioritize a patient’s emotional health and allow for emotional exploration. Interestingly, throughout the course of my time working with Kevin, I noticed that he understands and expresses more than what people initially thought. This reaffirmed to me that if you truly listen to patients, you will see that they understand more than what you had previously limited them to.

Another challenge was helping Kevin feel less lonely. Due to his behavioural issues, he was not able to spend time with the other patients and would often feel bored. The care team fostered meaningful social connections to help him feel more emotionally fulfilled. We also organized recreational activities and therapeutic interventions such as music therapy. Furthermore, we contacted an outside organization that provided a support person. During one of my call shifts, I checked in on Kevin and briefly watched a movie with him. I want to think he felt less lonely that night. In addition, the care team brought him various toys and games. I got him my favourite stuffed animal from when I was younger, a black and green monkey. At first, he feared the monkey, but by the next day, he was happily playing with it. This suggested how healthcare workers must

focus on a patient's emotional health when providing care, as it can foster growth. It can also increase positive patient outcomes as Kevin had fewer behavioural issues when we empowered him to navigate his emotions better.

Conclusion

During my third year of medical school, I have had the privilege of helping take care of many diverse patients. However, my experience with caring for Kevin, an individual with developmental disabilities, taught me invaluable lessons. I was able to gain insight into the lived experiences of patients with developmental disabilities, which challenged preconceived notions I had about healthcare. It also showed me how imperative it is to advocate for marginalized populations, be empathetic, and respect diversity. Lastly, I understood that we must treat patients through a multidimensional approach, supporting their physical, mental, and emotional health. Although there will be challenges, we must persevere, have a patient-centred approach, and form collaborative partnerships to empower patients to thrive.

Kevin has helped me reflect as a medical student and develop skills I will use as a future physician. However, even more so, he has helped me grow as a human being. For that, I am eternally thankful.
Sincerely, Mohnish Rao

Recruiting for a Clinical Fellow in the Psychiatry of Developmental Disabilities

The Developmental Disabilities Program in the Department of Psychiatry at Western University in London, Ontario, offers a one-year clinical fellowship in Developmental Disabilities for psychiatrists who have completed their residency. This position is partially funded and, with opportunities for clinical billing, it is expected that the income of fellows during their fellowship will be approximately $100,000.
The prevalence of Developmental Disabilities (Intellectual Disability and/or Autism Spectrum Disorder) is almost 3% of the Canadian population. In addition to higher rates of all medical problems, people with Developmental Disabilities have increased rates of psychiatric disorders, with some studies suggesting rates up to eight times higher than the general population. Unfortunately, due to a lack of training and services, people with Developmental Disabilities tend to have lower rates of diagnosis and treatment of their mental health problems, leading to significant health care disparities and inequities.

The Psychiatry of Developmental Disabilities is a fascinating, intellectually stimulating, and highly rewarding field. The interplay of mental health, physical health, behaviour, and development is central to the field and necessitates the inclusion of elements of developmental pediatrics, neurology, psychiatry, and rehabilitation medicine.

The fellowship provides fellows with extensive clinical opportunities in psychiatry and related disciplines, allowing fellows to enhance their skills in this underserved area and prepares them for independent practice in the Psychiatry of Developmental Disabilities. Fellows will participate in Psychiatry, Genetics, Developmental Pediatrics, Neurology, and Rehabilitation Medicine Clinics. Rather than using a traditional approach with trainees learning in blocks of time within each specialty, this fellowship uses a novel, longitudinal approach in which fellows will work in the same child psychiatry and adult psychiatry clinics with the same supervisor over the course of the year. This approach, in which trainees see the same patients' multiple times over the year, provides the opportunity to develop expertise in the ongoing management of mental health problems in people with Developmental Disabilities.

For more information about the Psychiatry of Developmental Disabilities Fellowship, please feel free to contact my office by email at jason.widdes@sjhc.london.on.ca. I look forward to your inquiries and a chance to discuss our exciting fellowship program with you.

Medication for the Treatment of Interfering Behaviour in Neurodevelopmental Disorders

Rob Nicolson, MD, FRCP(C)

In the following discussion, I describe the pharmacological treatment of interfering behaviours in children and adults with Neurodevelopmental Disorders (NDD; Intellectual Disability, Attention-Deficit/Hyperactivity Disorder, Tourette's Syndrome, etc). In general, we have pharmacological treatments for symptoms, not for diagnoses in psychiatry. Consequently, medications which reduce aggression will generally work for aggression regardless of the underlying diagnosis.

In discussing the use of medications with caregivers, one of the first things I try to point out is that there are no pharmacological treatments for the underlying neurobiological cause of NDD. Instead, the most important interventions are non-pharmacological – education, speech and language therapy, occupational therapy, social skillls training, etc. However, some medications have been shown to be of benefit in reducing behaviours which interfere with the ability of people with NDD to participate in these interventions. Consequently, when used, medication should be viewed as a way to enhance or facilitate interventions described above. They are not a treatment in and of themselves and, when used, should be part of a larger treatment program including other interventions as outlined above.

The two most common reasons that parents come to see me about the possibility of medication are aggression *and* inattention and/or hyperactivity.

Medication for the Treatment of Aggressive Behaviour

Perhaps because it is so common, and sometimes severe, aggression (by which I mean aggression toward others, the self, or property) is one of the most common reasons for parents and guardians of people with NDD to inquire about the possible use of medication. Moreover, among persons with NDD, aggression appears to be more common than in the general population. Aggression in people with NDD most commonly occurs in response to what I term frustration and is probably best described as resulting from poor emotional regulation and poor impulse control. (Please note that I am obviously not a behaviour analyst and this description is not meant as any kind of functional analysis – it is rather just my simplistic clinical observation). Medications work on neurological functions, not behaviour. I tell parents that the role of medication in the treatment of aggression is to improve impulse control, not to change behaviour directly. When medications help with these kinds of behaviours, parents and caregivers tell me that there are less episodes of aggression, and the episodes are less intense, shorter, easier to redirect, and take longer to evolve (thus allowing more time for intervention).

The medications which have the most evidence to support their use in the treatment of aggression in NDD are medications which block the neurochemical dopamine. Dopamine antagonists are typically used to treat adults with schizophrenia and so are usually called antipsychotics. It is important to keep in mind that they are called this purely because that is their most common use and there is no relation between schizophrenia and NDD. These medications can be divided into two groups: older antipsychotics, called “typical antipsychotics”, which blocked only dopamine, and newer antipsychotics, called “atypical antipsychotics”, which block both dopamine and serotonin. An example of the typical antipsychotics is haloperidol (Haldol), while examples of the atypical antipsychotics include risperidone (Risperdal), paliperidone (Invega), aripiprazole (Abilify), olanzapine (Zyprexa), and ziprasidone (Zeldox).

There are numerous studies of haloperidol in children and adolescents with NDD which have shown that it can be effective in reducing aggressive behaviour. Some of these studies demonstrated that it (and, probably medications like it) can also have a positive effect on learning, presumably due to an increased amount of time spent “on task”. Studies also showed that the combination of medication and behavioural modification was more effective for reducing aggression than either intervention alone.

Similarly, risperidone, aripirazole, and olanzapine have been shown to be effective in reducing aggressive behaviour. The largest study, published in the New England Journal of Medicine, showed that, after eight weeks of treatment, subjects taking risperidone had scores on a rating scale for aggression that were about half of that for subjects taking a placebo. From the perspective of whether there was significant improvement (rated by parents), about 75% of the parents of subjects on risperidone said there was a significant improvement, while only about 10% of the parents of subjects taking placebo said there was a significant improvement. A later study showed that after six months of treatment with risperidone, the treatment gains of a reduction in aggression were maintained (i.e., for most children, its effects didn’t “wear off”).

While all of these medications can be sedating, this is rarely a problem when used at appropriate doses and increased gradually. All of these medicines can increase people's appetites, although the newer medications are more likely to cause this and the resulting weight gain. One large study recently indicated that the average weight gain in 8 weeks in people taking risperidone was 2.7kg. After 6 months, the average weight gain was about 5kg. Thankfully, this weight gain does not continue at this rate but tends to plateau after 6 to 8 months. However, in some patients, the weight gain with risperidone or one of the other atypical antipsychotics can be significant and dramatic and concerns about long term health implications, particularly in relation to cholesterol and glucose regulation, are noteworthy.

While the atypical antipsychotics may cause weight gain, they appear to be less likely to cause certain neurological side-effects, and because of this, they have become the most widely used medications for treating aggression in people with NDD. They can all cause stiffness and tremors, although this is relatively infrequent. These are not permanent, but can be uncomfortable. All antipsychotics can cause people to develop odd, involuntary movements, usually starting around the mouth and shoulders. It used to be believed that these movements were permanent when people developed them, but we now feel that for most people they are probably not permanent so long as the medication is stopped relatively quickly. I should point out that it is quite uncommon with either medication nowadays.

In discussing the role of medications, it is important to discuss with patients and parents the risks and benefits of medication use. It is ultimately to the parents and the patient to decide whether the potential benefits of medication outweigh the potential risks. Once on the medication, the benefits in terms of behaviour and the side effects need to be monitored and the risk-benefit analysis reviewed regularly.

It is also important to periodically assess whether the medicines are still needed. The only way to do this is to wean the patient off of the medicine. It is important, both when starting and stopping a medication, to try to keep other potential factors (such as school holidays, for example) in mind and to try to time any change in medication so that other factors are as stable and unchanging as possible.

Suggested dosing of antipsychotics for treatment of aggression (based solely upon my opinion and experience):

- Risperidone (Risperdal), Haloperidol (Haldol)
    - Start at 0.25mg once daily at bedtime; increase weekly by 0.25mg daily until reach 1.5mg to 2mg daily (broken into two equal doses, one in the morning and one at night)
- Aripiprazole (Abilify)
    - Start at 2-2.5mg once daily at bedtime; increase weekly by 2-2.5mg daily until reach 10-15mg daily (broken into two equal doses, one in the morning and one at night)

- Ziprasidone (Zeldox)
    - Start at 10-20mg once daily at dinner (needs to be taken with food); increase weekly by 10-20mg daily until reach 40-60mg daily (broken into two equal doses, one at breakfast and one at dinner)
- Olanzapine (Zyprexa)
    - Start at 2.5mg once daily at bedtime; increase weekly by 2.5mg until reach 10-15mg (broken into two equal doses, one at breakfast and one at bedtime)

Many other medications have been used in the treatment of aggression in children with NDD. However, the evidence for their benefit is limited. Such medications include antidepressants (SSRI's – selective serotonin reuptake inhibitors; examples include fluoxetine (Prozac)), stimulants (such as methylphenidate (Ritalin)), anticonvulsants (such as valproic acid (Epival)), and lithium.

Medications for the Treatment of Hyperactivity and Inattention

Problems with inattention, distractibility, overactivity, and impulsivity are common in children with NDD. In studies that have been done, the rate of these problems seems to be significantly increased in people with NDD in comparison with children who don't have NDD.

An important question to consider in the diagnosis is the impact of impaired development on inattention, hyperactivity, and impulsivity. The definition of Attention-Deficit/Hyperactivity Disorder (ADHD) essentially states that there must be inattention and/or hyperactivity *which are developmentally inappropriate* (emphasis added). I think of a prototypical case of ADHD being a 10 year old boy who functions developmentally at 10 years but who has the attention span of a 5 year old. In the case of someone with NDD, if they are 10 but function intellectually at a 5 year old level, then we should expect their attention span to be like that of a 5 year old. This does not necessarily mean that it is not a problem for them, but it may not be the same thing as "true" ADHD. This may have treatment implications as there is some suggestion that the more severe the intellectual impairment, the less effective stimulant medications become.

Another important consideration in treating ADHD symptoms is the impairment caused by these symptoms. If they are not felt to be interfering with a person's functioning or development, then they shouldn't be considered as targets for treatment with medication. Sometimes, however, this can be difficult to determine, particularly in those with intellectual disabilities in addition to an NDD.

STIMULANTS

The main classes of medication for ADHD symptoms in NDD are amphetamines (stimulants), atomoxetine, alpha agonists, and antipsychotics. Amphetamines are also called stimulants because they stimulate the transmission of certain chemicals in the brain. These are the medications most commonly used to treat ADHD and should probably be considered to be the first line treatment for most children with ADHD symptoms. Medications available in Canada in this class include methylphenidate (Ritalin, Concerta, Biphentin, Foquest), dextroamphetamine (Dexedrine, Vyvanse), and a mixed amphetamine salt (Adderall). These medications are equally effective in large groups of people. However, individuals may do better with one than another, and, as they are chemically distinct from each other, if people don't benefit from one or have intolerable side effects, it is worthwhile to consider a trial of a different stimulant.

Despite the bad press that these medications get at times, they are really quite remarkable in their effectiveness in treating people with ADHD (and, to a lesser degree, other NDD). Older studies indicate that between Ritalin and Dexedrine, about 90% of people who are taking them and for whom they are being prescribed appropriately show a significant improvement. This number is almost certainly higher than with just about any other group of medicines anywhere in the field of medicine.

The other thing to note about the stimulants is that they work very quickly and wear off very quickly. The beneficial effect tends to wear off by the early evening, and there is no carry over effect to the next day. As such, missing a dose can have a significant impact, unlike other medications where there tends to be minimal effect from an occasional missed dose.

Although there haven't been many studies of these medications in children and adolescents with NDD who do NOT have ADHD, more recent, well controlled studies indicate that they can be very effective in reducing inattention and hyperactivity. However, they are probably not as effective in people with NDD (compared to ADHD) as they are in people who "only" have ADHD. One recent study demonstrated a reduction of about 33% in parent-rated ADHD symptoms with methylphenidate. It is important with any medication, but particularly medications for attention, to have realistic goals for treatment. Studies also suggest that patients with NDD may be more vulnerable to side effects with these medicines.

The main side effects are a loss of appetite (especially at lunch) and insomnia (difficulty falling asleep). The stimulants can also cause headaches and stomaches, although this is rare with the long acting medications. In theory they can exacerbate tics in people who have them, although this is something I have not often encountered. Moodiness and irritability can be seen, particularly in younger children (under about 7 years of age). People often ask about addiction, as they are amphetamines. While they can be abused, the reality is that when used appropriately at typical therapeutic doses, there is no evidence of withdrawal or tolerance.

In recent years, there has been a move to use long acting, once daily medications. It is easier to use these medicines and they should be the treatment of choice unless there is a compelling reason not to do so.

Suggested dosing of stimulants for the treatment of ADHD symptoms:

- Ritalin (short acting methylphenidate)
  - In general, should not be used except when the use of very small doses is required
  - Effective period of ~ 3 to 4 hours
  - Total initial target dose approximately 1mg per kg of body weight; start at 2.5mg to 5mg per dose
  - Usually requires three daily doses, particularly in older children and adolescents
- Concerta (long acting methylphenidate)
  - Lasts about 8 to 10 hours
  - Begin at 18mg daily and increase by 18mg weekly until initial target dose is reached (approximately 1mg per kg of body weight)
- Biphentin (long acting methylphenidate)
  - Lasts about 8 to 10 hours
  - Begin at 10mg daily and increase by 10mg weekly until initial target dose is reached (approximately 1mg per kg of body weight)
  - Capsules can be opened and beads sprinkled on food
- Foquest (long acting methylphenidate)
  - Lasts about 10 to 12 hours
  - Begin at 25mg daily and increase by 10mg weekly until initial target dose is reached (approximately 1mg per kg of body weight)
  - Capsules can be opened and beads sprinkled on food
- Quillivant Oral Suspension
  - Only stimulant that comes as a liquid (banana flavoured)
  - Lasts 10 to 12 hours
  - Begin at 10mg daily and increase by 10mg weekly until initial target dose is reached (approximately 1mg per kg of body weight)
- Dexedrine (long acting dextroamphetamine)
  - Comes as a tablet (lasts 4 to 6 hours) or as a capsule (lasts 6 to 8 hours)
  - Begin at 5mg daily and increase by 5mg weekly until appropriate initial target dose is reached (approximately 0.5mg per kg of body weight)

- Vyvanse (long acting dextroamphetamine)
  - Lasts about 8 to 1o hours
  - Begin at 10mg daily and increase by 10mg weekly until initial target dose is reached
  - Comes as a capsule (which can be opened and the powder dissolved in liquid) or as a chewable tablet (cherry flavoured)
- Adderall (long acting mixture of various amphetamines)
  - Lasts about 8 to 10 hours
  - Begin at 5mg daily and increase by 5mg weekly until initial target dose is reached (0.5mg-0.75mg per kg of body weight)

Atomoxetine (Strattera)

Atomotine is unrelated to the stimulant medications and works in a completely different way. Children with NDD and ADHD symptoms who have not benefited from stimulants or who had significant adverse effects with the stimulants may benefit from a trial of Strattera. Its method of action suggests that it may have some benefits for children with problems with anxiety, as commonly seen in NDD. However, to date there is little evidence to suggest that it has a beneficial effect on anxiety in NDD, although studies are examining this question.

Overall, I do not think that atomoxetine is as effective as stimulants for most children with NDD and it should be seen as a second line treatment for most children. There have been few controlled studies of atomoxetine in NDD Those that have been done have found its use resulted in a significant reduction in inattention and hyperactivity. Its use has also been associated with reductions in impulsivity and aggression, although this should not be the primary focus for treatment with atomoxetine.

In general, the side effects of atomoxetine are similar to stimulants but significantly less. Insomnia is quite infrequent, as is a reduction in appetite. Headaches and stomaches are possible but uncommon. There is a warning from Health Canada that its use has been associated with increased thoughts of suicide in people taking it for ADHD. I have not seen this be a problem but it is important for this discussion to occur between healthcare providers and parents. Dosing should begin at 10mg per day (18mg for adolescents) and increased to approximately 1mg per kg of body weight.

Alpha Agonists

Clonidine (Catapress) and guanfacine (Intuniv) are both medications which were originally created for the treatment of high blood pressure. They are rarely used for that purpose now. They have been shown to be beneficial in the treatment of ADHD and tics. In people with NDD there is limited evidence supporting for their use, although there has been one well controlled study of guanfacine in NDD

Side effects of alpha agonists include sedation and headaches. The sedation is more problematic with clonidine. As they are were originally intended for high blood pressure, they can cause low blood pressure and this needs to be monitored. They should not be stopped abruptly as this can result in rebound high blood pressure. Intuniv requires only once daily dosing, typically in the morning. It should be started at 1mg daily and increased by 1mg weekly (or biweekly) as tolerated and needed to a maximum dose of 3mg or 4mg daily.

Antipsychotics

Studies have repeatedly shown that antipsychotics can reduce symptoms of hyperactivity in people with NDD Their benefit with regards to inattention are less clear. Typically, studies with antipsychotics in NDDhaven't used hyperactivity as a main outcome variable. When it has been assessed, the improvement is similar to that seen with stimulants.

Only one study that I'm aware of has directly compared a stimulant (methylphenidate) and an antipsychotic (risperidone) in a double-blind manner (not placebo-controlled). That study, in which participants had moderate intellectual disability (not necessarily NDD), found no significant difference between methylphenidate and risperidone for effects on inattention or hyperactivity. In my opinion, I think that stimulants may have a greater effect in individuals with NDDand/or ID but less people benefit from them than antipsychotics, while antipsychotics have a lesser effect than stimulants but help more people. Consequently, studies using group means may find no significant difference.

Whether one uses an antipsychotic or a stimulant may depend upon the presence or absence of other symptoms. For example, if people have hyperactivity and aggression, then I think an antipsychotic may be better.

Department of Psychiatry Grand Rounds

The Developmental Disabilities Program hosts the Grand Rounds for the Department of Psychiatry at the Schulich School of Medicine & Dentistry every September.

Our September 2024 speaker was Dr. Rob Nicolson the Chair of the Developmental Disabilities Program in the Department of Psychiatry at Schulich. He is also a Child and Adolescent Psychiatrist at both CPRI and the Children's Hospital in London Ontario. Dr. Nicolson's practice is dedicated to people with Developmental Disabilities.

The title of Dr. Nicolson's talk was "Postgraduate Education in Developmental Disabilities"

You can watch a recording of this presentation **HERE**

Annual Dr. Benjamin Goldberg Developmental Disabilities Research Day May 29 @ Western Great Hall

REGISTRATION

The Developmental Disabilities Program at the Schulich School of Medicine & Dentistry invites you to attend the Ninth Annual Dr. Benjamin Goldberg Developmental Disabilities Research Day on Thursday, May 29, 2025, at The Great Hall, Western University.

This event showcases cutting-edge research in developmental disabilities, featuring presentations from trainees, junior faculty, and leading experts. Attendees will engage with innovative studies, network with professionals, and explore advancements in the field. An award of $500 will be presented to the best trainee presentation.

Join us for a day of insightful discussions and collaboration.

For more information, contact the Developmental Disabilities Program at Jason.Widdes@sjhc.london.on.ca

Register Here:

https://psychiatry.purplepay.uwo.ca/ddp/dr-benjamin-goldberg-developmental-disabilities-research-day

Held the second Wednesday of each month. Information can be found **HERE**

You can also watch recordings of our Clinical and Research Rounds and our Grand Rounds on our YouTube channel

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