

**Co-occurring  
Mental Health  
Conditions and  
ASD**

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**Overview**

- Incidence Rates
- Gender
- Comorbidity
  - Anxiety Disorders
  - Depressive Disorders
  - Attention-Deficit/Hyperactivity Disorder
  - Schizophrenia
  - Disruptive Disorders
  - Gender Dysphoria
  - Personality Disorders
  - Other

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**Incidence Rates**

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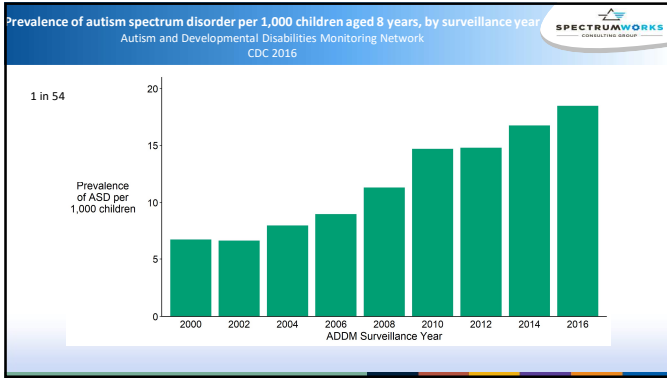
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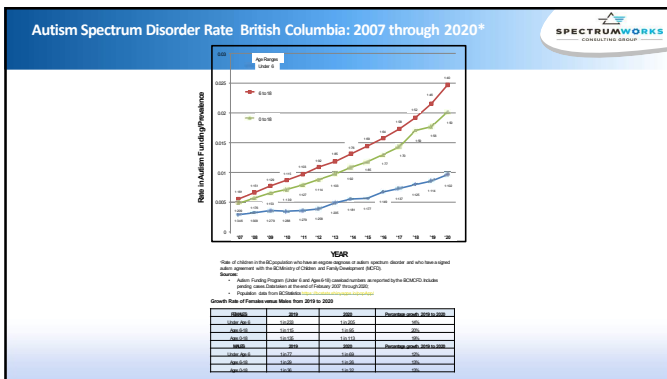
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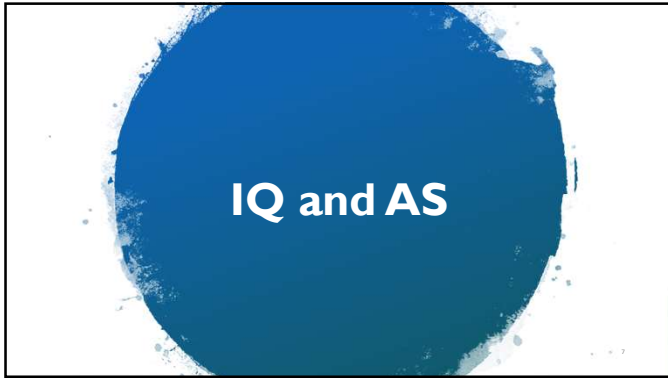
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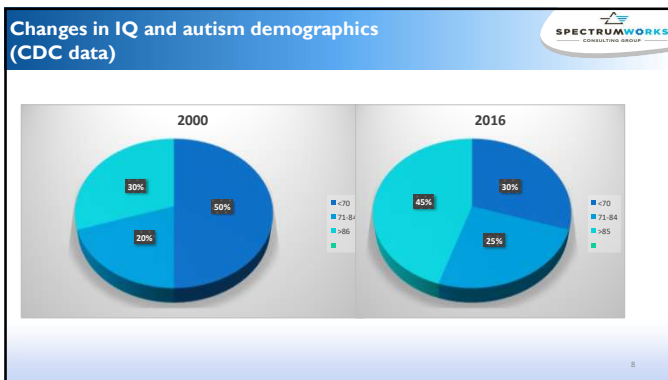
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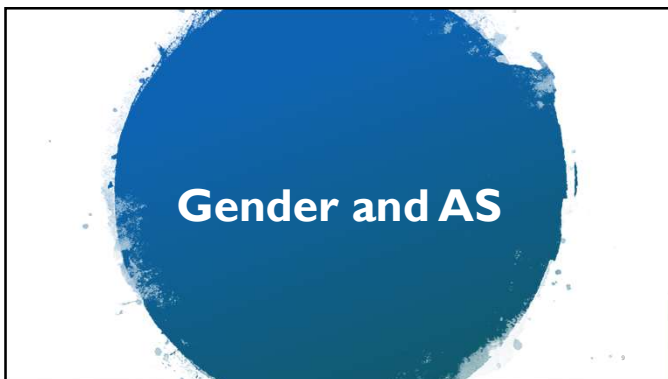
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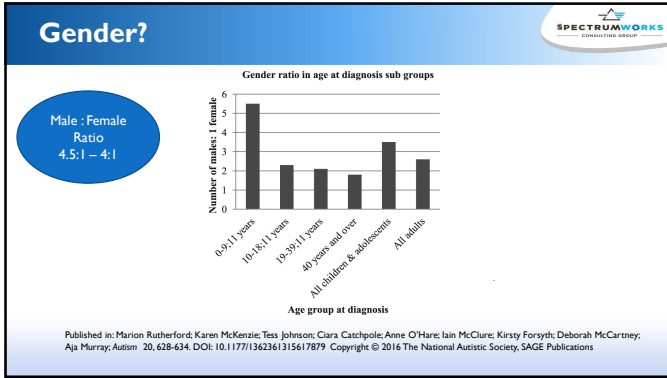
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### Gender Estimates

Traditionally 5:1

12:1 M:F (Fombonne, 2003)

3:1 M:F (Loomes *et al.*, 2017)

**Growth Rate of Females versus Males from 2019 to 2020 (BC Data 2020)**

SEX/AGE	2019	2020	Percentage growth 2019 to 2020
Under Age 5	110,220	110,200	9%
Age 5-19	100,100	100,000	8%
Age 20-64	100,100	100,100	8%
65+	100,100	100,100	8%
Under Age 5	110,270	110,000	9%
Age 5-19	100,200	100,000	9%
Age 20-64	100,200	100,200	9%

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## Comorbid Mental Health and ASD

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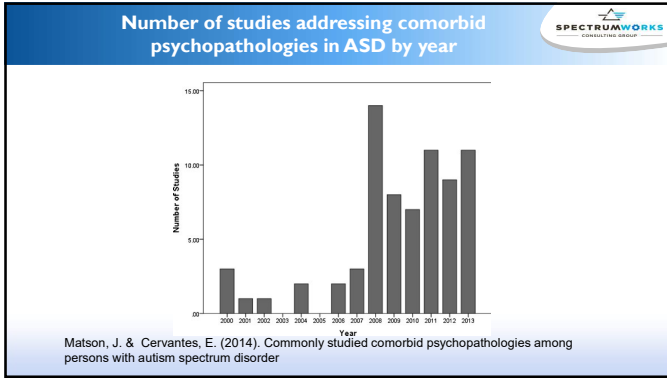
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- ### Issues with co-occurring conditions
- Exacerbates existing challenges (e.g., irritability, self-harm)
  - Adds extra burden to performing activities of daily living
  - Decreases quality of living
  - Impacts treatment outcomes
  - Often go undiagnosed/treated

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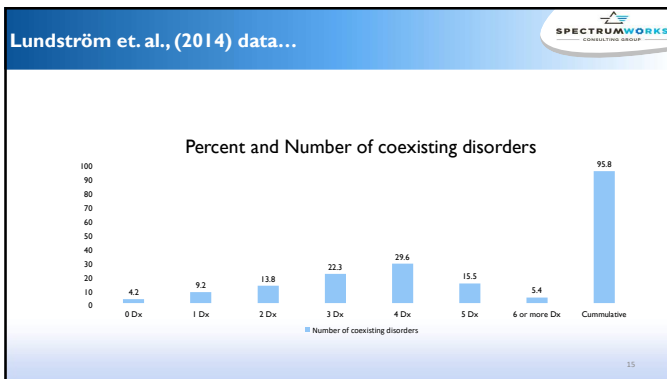
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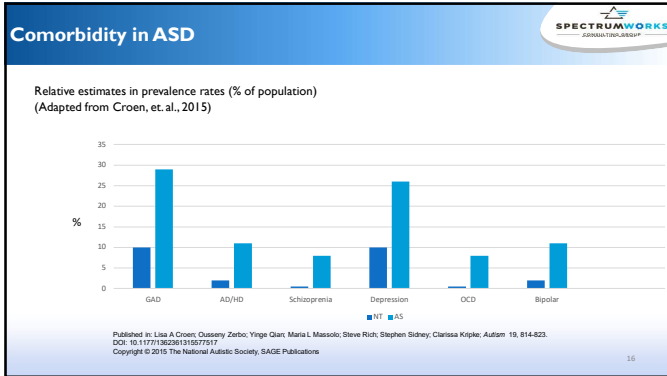
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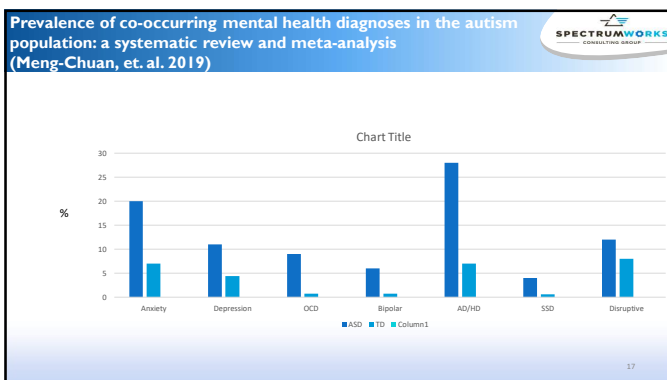
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- ### Challenges measuring comorbid symptoms in ASD
- ASD variation
    - Symptom presentation
    - Cognitive functioning
    - Diagnostic terms
  - Source of data
  - Trouble separating out 'traditional' ASD symptoms from potential comorbid symptoms
  - Alexithymia
  - Hyper/hypo-sensitivity to environment
  - In-the-moment thinking/feeling

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**Anxiety Disorders**

- One of the most prevalent co-occurring mental health conditions with ASD
- Estimates of anxiety disorders in ASD range from 22-84% (compared to 2-20% in 'typical' populations)
- Three most commonly associated with ASD (Hollocks et. al., 2016):
  - Social Anxiety Disorder
  - Obsessive Compulsive Disorder
  - Specific Phobia

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**Challenges measuring anxiety in ASD**

- Often relies on self-report
- Alexithymia
  - Trouble articulating cognitions
  - May be unaware of anxious thinking
  - Vague physical symptoms
- Sensory reactivity
  - To environment
  - To internal physiological states
- Transient states of anxiety

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**Social Anxiety Disorder and ASD** 

- Prevalence in general population approximately 7% (DSM-5)
- Up to 50% of individuals with ASD have clinically significant symptoms of SA (Spain et. al., 2017)
- Can be very challenging to separate out ASD core features from SA (social avoidance, solitary activities, etc.)

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**ASD and Specific Phobia** 

- Incidence of Specific Phobia in general population = 7-9% (DSM-5)
- Rates for ASD population are between 30-64% in literature (Lydon, 2015)

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**Specific Phobias and ASD** 

	Non ASD	ASD
<b>Common Phobias in childhood</b>	<ul style="list-style-type: none"> <li>• death/injury</li> <li>• the dark</li> <li>• thunderstorms</li> <li>• monsters</li> <li>• bad guys</li> </ul>	<ul style="list-style-type: none"> <li>• Can be same as Non ASD</li> </ul>
<b>Uncommon Phobias</b>	<ul style="list-style-type: none"> <li>• rare</li> </ul>	<ul style="list-style-type: none"> <li>• Pine needles</li> <li>• Toilets</li> <li>• Prosthetic limbs</li> </ul>
<b>Percentage exhibiting Uncommon Phobias</b>	5%	40-65%
<b>Behaviours</b>	<ul style="list-style-type: none"> <li>• Crying</li> <li>• Avoidance</li> <li>• Panic</li> </ul>	<ul style="list-style-type: none"> <li>• Can be same as Non ASD</li> <li>• Increase in self-stim behaviours</li> <li>• Acting out</li> </ul>

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# Obsessive Compulsive Disorder (OCD)

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### OCD Prevalence



Sample	Rates of OCD
Normative	1.5-2.0%
ASD	17%

Using current prevalence data of 1/51 for ASD and 17% with OCD...we could expect close to 17,000 individuals in B.C. with comorbid ASD and OCD

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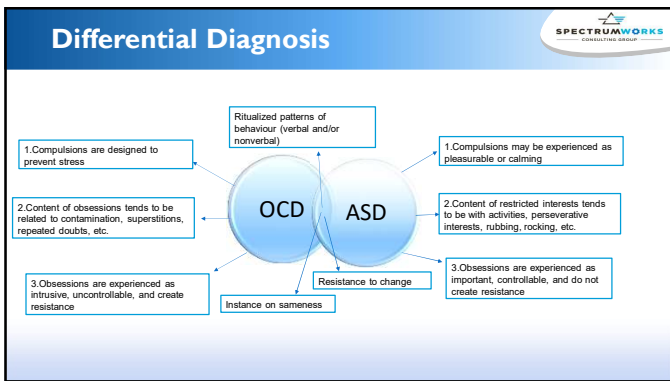
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**Differential Diagnosis** 

- In distinguishing between typical OCD features and more typical ASD features need to take into account:
- Emotional valence of the thoughts and compulsions
- Content of the obsessions and compulsions
- Function of the obsessive-compulsive behaviours and patterns of restrictive and repetitive behaviours

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**Depressive Disorders**

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**Depressive Disorders** 

- Incidence rates for normative sample = 7 % (DSM-5)

ASD prevalence rates

- Rates vary 2.5%-47.1% (Hossain, et al., 2020)
- 11% | 62,671 samples comprising of children and adults ( Lai et al., 2019 ).
- Current 12.3% and lifetime 14.4% ( Hudson et al., 2019 ).

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**Confounds measuring depression**

- Alexithymia
- Flatt affective expression
- Unusual or exaggerated expression ("standing irritated face")
- In-the-moment thinking

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**Depression and ASD Risk Factors**

De-la-Iglesia & Olivar (2015)

- Gender: No relationship
- Age: Positive correlation (i.e., the older...the more depressed)
- IQ:
  - Higher the IQ and milder the symptom presentation = higher rates of depression
- Social Comparison:
  - Higher rates of social comparison lead to high rates of depressed mood
- Life Events (e.g., death, moving, abuse, loss of relationship)

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**Suicide**

- Chen et. al., (2017)
  - 12- 29 yrs of age: ASD (n=5,618) NT (n=22,472)
  - Followed from 2001-2011
  - Patients with ASD had a higher incidence of suicide attempts (3.9% vs 0.7%, P < .001)
  - core symptoms of ASD, such as deficits in social cognition and communication, restricted thoughts, and cognitive rigidity, may be related to an elevated likelihood of suicidality
- Contributing factors:
  - Impulsivity
  - Higher cognitive/social/insight
  - Abuse/bullying
  - Poor social support/social isolation

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**AD/HD and ASD**

Co-occurring Attention-deficit/hyperactivity disorder (ADHD) ranges from 25.7% to 65% ( Hedley and Uljarević, 2018 ; Lai et al., 2019 ; Lugo-Marín et al., 2019 )

- pooled prevalence of ADHD was 25.7% among 24,511 individuals ( Lugo-Marín et al., 2019 ).
- pooled prevalence as 28% among 210,249 participants with ASD ( Lai et al., 2019 ).

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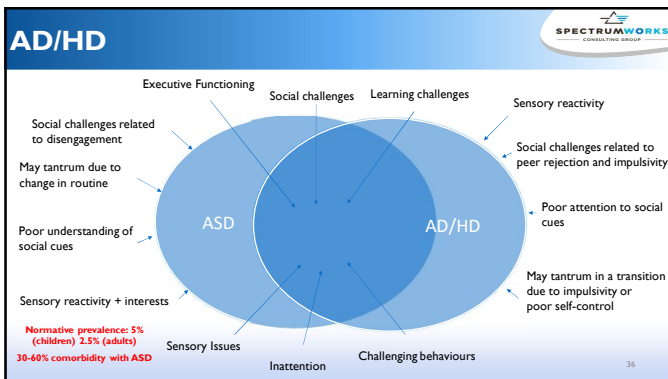
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**Prevalence data**

- ASD symptoms in SSD
  - Kincaid et. al., (2017) found rates of:
    - Autistic-like traits = 9.6%-61%
    - ASD Dx = 1%-52%
    - Reported ranges in literature 3.6-60% (Chisholm, et. al., 2015)
- SSD symptoms in ASD
  - Marin et. al., (2017) found rates of:
    - SSD Dx = 6%
    - Reported ranges in literature 0-34.8% (Chisholm, et. al., 2015)

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**Delusions in ASD**

- Often fixed
- Based in logic (i.e., rational for individual)
- Vivid recollection of events that is mismatched to reality
- Refusal to see other perspective
- Incomplete answers or odd language choices can sound like thought disorder
- Blunted affective expression
- Grimace/unusual facial expressions
- Grandiose thinking

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## Hallucinations

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- Can occur in ASD
  - Not necessarily intrusive/disturbing
  - Sensory processing?
- Auditory
  - Hearing voices
  - Often replaying auditory memories
  - Lack of filter to appreciate social norms re “hearing voices”
- Sensory
  - Significant reactions
  - Out of proportion to event/stimuli

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## Symptom Comparisons

(Adapted from Nyander, 2014)

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The diagram shows two overlapping circles representing Schizophrenia and Autism. The left circle (Schizophrenia) is associated with: Later onset, Altered sense of self, Pharmacological response: Good, Substance use/dependence, IQ worsening, Theory of Mind, Social Cognition Impairment, Anxiety, and Poor Executive Functioning. The right circle (Autism) is associated with: Onset: from birth/early childhood, Repetitive Behaviours, Circumscribed Interest, Stable IQ, and Pharmacological response:?. The overlapping area (intersection) is associated with: Significantly Impairing, Depression, and Poor Adaptive Functioning. Other shared terms include: Motor Impairment, Genetic links, and Psycho-educational Intervention: Good.

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ASD and Disruptive Disorders

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## Disruptive Disorders and ASD

- Oppositional Defiant Disorder (ODD)
  - Prevalence in general population = 3% (DSM-5)
  - ASD population ranges from 4-37%
- Intermittent Explosive Disorder
  - Prevalence in general population = 2.7%
  - In the ASD population ?
- Conduct Disorder
  - Prevalence in general population = 4% (DSM-5)
  - ASD population varies from 1-10%
- Disruptive Mood Dysregulation Disorder
  - Prevalence in general population = 2-5% (DSM-5)
  - ASD population estimates = 45%

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## Disruptive Mood Dysregulation Disorder

- Severe and recurrent temper tantrums
- 3-4 times per week or more
- Mood between temper outbursts is irritable and angry
- Age of onset before 10

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## Gender Dysphoria

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## Gender Dysphoria (GD)



- Prevalence rates in general population (DSM-5) :
  - Assigned male at birth: .005-.014%
  - Assigned female at birth: .002 -.003%
- Strang et. al., (2014) found that when compared to controls:
  - 7.59 times more likely to report gender variance
- May et. al., (2017) found ASD prevalence = 4.0%

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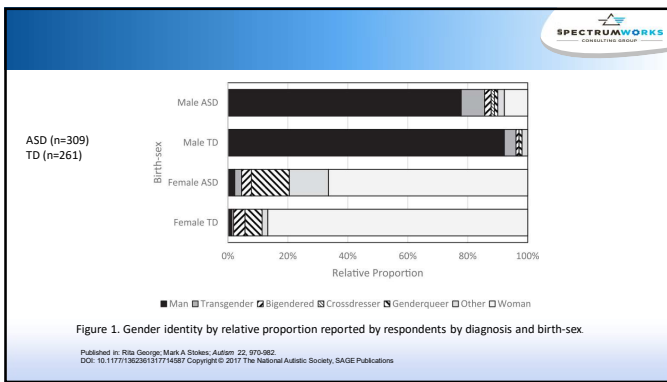
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## ASD and Eating Disorders



- DSM-5 prevalence rates in normative samples:
  - Anorexia: 0.4% Females
  - Bulimia Nervosa: 1.0 – 1.5%
  - Binge-Eating Disorder: 1.6% (females) 0.8% (males)
- Gender ratio: 10:1 Female : Male for Anorexia and Bulimia
- Karjalainen et. al., (2016) found prevalence rates in ASD of 7.9%
  - Gender Ratio: 2.5:1 F:M
- (Nickel et al., 2019 ) found 7.9% of individuals with ASD had a current or previous eating disorder (ED), including anorexia nervosa (6.7%), bulimia nervosa (2.7%), and binge eating disorder (1.4%)

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**Personality Disorders**

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- Hofvander et. al., (2009) using DSM-IV found:
- In sample of 117 ASD adults:
  - 68% met criteria for 1 PD
  - 40% 2 PD
  - 18% 3PD
    - Paranoid = 19%
    - Schizoid = 21%
    - Schizotypal = 13%
    - Borderline =9%
    - Avoidant =25%
    - Obsessive = 32%

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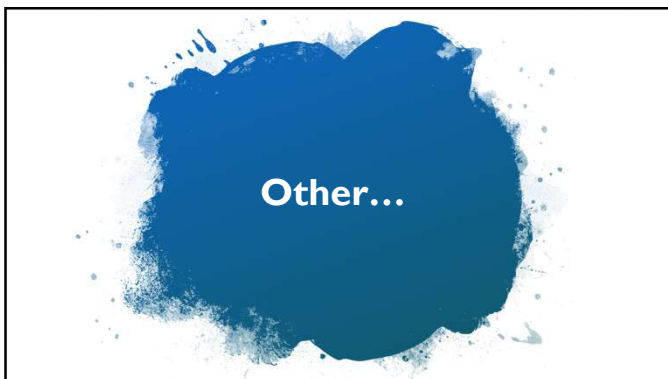
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**ASD and other challenges**

- Sleep
- Diet
- GI
- Gross/Fine Motor
- Adaptive Functioning
- Seizures



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**Autism and mental health treatment disconnect**

Cantor et al., (2020) surveyed 8,184 mental health treatment facilities in the contiguous US. (as of August 2019)

- 43.0 percent of facilities reported providing behavioral health care for children with ASD
- 36.6 percent were accepting such children as new patients
- 12.7 percent reported having a clinician with specialized training
- 4.3 percent reported having a specialized treatment program



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**Questions?**

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If, after this webinar, you have questions about any of these topics, or about how and where to access help in your own region, you can contact

AIDE Canada [www.aidecanada.ca](http://www.aidecanada.ca) Don't forget that we have a live chat and an email option.

You may also contact the host HUB, Autism Yukon, at [info@autismyukon.org](mailto:info@autismyukon.org) or (867) 667-6406.

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