# Mental Health and Individuals with Autism

*A Primer for Community Professionals and Parents*

Presented by


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# Acknowledgements

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We also acknowledge the generous support of the Inukshuk Fund in the presentation of this online video and for the funding to develop the ACT Online Learning Community (AOLC). ACT greatly appreciates the valuable support we continue to receive from Simon Fraser University's Teaching and Learning Centre in the creation of the AOLC.

ACT is developing our online community provide an opportunity for parents and professionals across the province to access autism resources more easily, no matter where they live. It continues to be a work in progress!

Don't forget that ACT has a team of Information Officers ready to provide you with a range of autism-related resources by telephone and by email.

For more information on the ACT Online Learning Community and about ACT's work, please see our www.actcommunity.net or email us at info@actcommunity.net.

To receive notification of ACT live and online events, you are welcome to join ACT's confidential email list which you can access on the home page of the ACT website: www.actcommunity.net.

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# Index

**As I have been engaged in the practice of child psychiatry now for nearly half a century, I can look back and compare the present with the past.**

**I would like you to know that the picture which is now called autism was clearly recognizable as early as I can remember doing this kind of work.**

**There is no evidence from my point of view, seeing large numbers of children of all kinds, that there is an increase in the number of autistic children or that there is anything new whatever except in regard to the name and, an important thing, the determination of groups of people to look into the matter and to see how far autism can be prevented and to what extent it can be treated.**

**From my point of view the invention of the term autism was a mixed blessing. The advantages are fairly obvious.**

**The disadvantages are less obvious.**

***D.W. Winnicott***
*Pediatrician, child psychiatrist, and psychoanalyst,*
*26 March, 1966.*

## Prevalence of psychopharmacologic treatment in ASD

- Biomedical treatments increasingly common in the treatment of ASD
- 1/3 of C/Y were taking 2 or more medications together
- most consistent target symptoms are anxiety-related (65%)
  - Antidepressants (32.1%)
  - stimulants (20.2%)
  - neuroleptics (16.5%)

## Epidemiology of Psychiatric Comorbidity

- High levels of psychiatric co-morbidity / mental illness in specialty clinic setting
  - 1/3 at any given time (school-age)
  - close to 75% probability prior to adulthood
  - Prevalence from ?? 10% to 60% **
  - Specific Conditions
    - Anxiety disorders:
    - ADHD
    - Tic disorders
    - Mood disorders

## Predictors of biomedical treatment in ASD

- Studies suggest that **over half** of ASD individuals will be treated with medications at some point
- Miranda reported that the most predictive features *associated choice for medication treatment* were family stress, child's ability to speak, and irritability
- No accurate data on prevalence of **other** biomedical treatments

## History of psychopharmacologic treatment in ASD

- The interest in specific medical treatments for autism has a long but checkered history
- With a few exceptions, research has found that available treatments **do not** have substantial benefit in treating autism itself
- Of modern medical treatments, psychiatric - and particularly psychopharmacologic - treatments have **increasing** research support of effectiveness for ***comorbid*** disorders.

## Barriers to treating psychiatric syndromes in ASD

- Psychiatric disorders commonly missed and untreated
- Assumption that **no** psychiatric intervention needed because abnormal behaviour is **inherent part of ASD**
- Unusual presentations of psychiatric disorders confound accurate diagnosis
- Often seen as only "symptom relief" to be used as a "last resort"

## "Biomedical" Treatments in Autism

- Increasingly common in the treatment of ASD
- Much of this is in the format of an unproven treatment
  - using widely accepted criteria of efficacy claims (i.e.; statistical research), most treatments have no solid basis in evidence
  - Some treatments are based on purely anecdotal information
  - The theoretical underpinnings of some of these treatments stretch credulity (e.g.; hyperbaric oxygen, mega-dose vitamins)
  - Others - without established efficacy; but having established dangerousness (e.g.; chelating)
  - Some require regular invasive procedures (egg; vitamin injections)

## Complementary treatments of ASD

- Some “somatic” treatments have historical basis, though varying levels of scientific support
- Chinese Acupuncture, Ayuravedic Medicine have established evidentiary bases, but for specific conditions only
- Others, suffer from a lack of consistency across practitioners (e.g.; naturopathy)
- Many have limited, or no, regulatory framework
- In some jurisdictions some of these treatments are funded by public medical dollars (e.g.; Naturopaths in BC)

## “Alternative” Treatments in Autism

- Most of these are paid for out-of-pocket, and can be costly
- Some treatments need to have allied health support to ensure safety (e.g.: nutritionist for the child receiving gluten and casein restriction diets)
- implementing an alternative treatment generally demands substantial family time and attention (e.g.; ordering / obtaining supplements, driving to appointments, making changes to other children’s diets, etc)
- For most families, attending to one bio-medical treatment at a time is enough (i.e.; it is unusual to see children receiving chelation and psychopharmacology concurrently)

## Treatment of Psychiatric Disorders in ASD: *My Bias*

- *Medication in ASD can promote development and improve functioning*
  - *Benefit mostly related to the impact on development – learning, social skills, emotional maturation, etc.*
- *Most psychotropic medications, if used judiciously, can have profound impact on functioning.*

## Autism, Parsimony and Comorbidity

- Do <u>two</u> symptoms mean :
  - 2 disorders (*true comorbidity*)
  - 2 or parts of same disorder (*artifactual comorbidity*)?
- ***Parsimonious*** experts view autism diagnostic term to encompass core features as well as commonly associated challenges
- ***"Comorbidity"*** approach allows for multiple diagnoses + autism
  - Many common (but not universal) features not specified in formal diagnostic criteria
  - each diagnosis leads to specific treatment

# Word of the week: PARSIMONY

- According to Wikipedia:

*Parsimony is a 'less is better' concept of frugality, economy or caution in arriving at a hypothesis or course of action.*

*In science, parsimony is preference for the least complex explanation for an observation. This is generally regarded as good when judging hypotheses.*

*Some authors provide cases where a parsimonious approach does not guarantee a correct conclusion and, if based on incorrect working hypotheses or interpretations of incomplete data, may even strongly support a false conclusion.*

*Occam's razor also states the "principle of parsimony"; however, some argue that parsimony should not be elevated to the status of a general principle.*

# Comorbidity and DSM-IV

- Comorbidity approach conflicts with the diagnostic “rules” of DSM-IV in some cases
  - e.g.: ADHD, selective mutism, separation anxiety and GAD *cannot be diagnosed in presence of ASD*
- The categorical DSM system sets specific boundaries for the definition of “caseness”
  - high prevalence of *boundary* conditions
  - artifactually elevation of definitional comorbidity

## What psychiatric disorders are present in ASD?

## Anxiety

- Equally common in ASD girls and boys
- In younger children most common are social phobia and selective mutism, commonly together
- Frequently travel together in young children
- Anxiety disorders in young children are often (though not always) amorphous, i.e. they have features of many anxiety syndromes

## Features of anxieties of childhood

- Social discomfort and avoidance
- Discomfort vocalizing around others
- Insecurity, clinginess, difficulty separating from parent (day or night)
- Excessive worry – about real concerns *and* unlikely events
- Repetitive anxiety "neutralizing" behaviours (rules, compulsions, habits)
- Tension and irritability

## Features of ADHD in school-age kids

- Developmentally inappropriate challenges with:
  - Inattentiveness, distractibility
  - Restlessness, overactivity
  - Impulsivity
- Challenges present in learning and social adjustment
- Frequently associated with complicating maladaptive behaviours
- Hyperactivity decreases as all children develop, and is inconsistently present
- Frequently present in ASD girls

## Features of Tic Disorders

- Includes *Tourette Syndrome* ( = 2 motor tics + 1 phonic tic)
- COMMON in all Developmental Disabilities
- Rarely a problem; more of a nuisance
- Sometimes the “tip of the iceberg”, as often travels with LD, ADHD and OCD
- Generally increases till teens then recedes or stabilizes
- More common in boys

## Depression

- Mood disorders uncommon in ALL pre-pubertal children
- 1/3 of ASD individuals will have depressive episode prior to adulthood
- Can occur in individuals of low or high IQ
- Family history of depression in about ½ - ¾ of cases
- Some regression during adolescence may be linked to affective disorders

## Features of depression in youth with ASD

- The most common main complaints are **new or worsened**:
  - Unhappiness
  - Agitation /aggression
  - Self-Injurious Behaviour (SIB)
  - Compulsive / ritualistic behaviours
  - Withdrawal
  - Neuro-vegetative changes
  - *Regression* in functioning

## Bipolarity / Mania

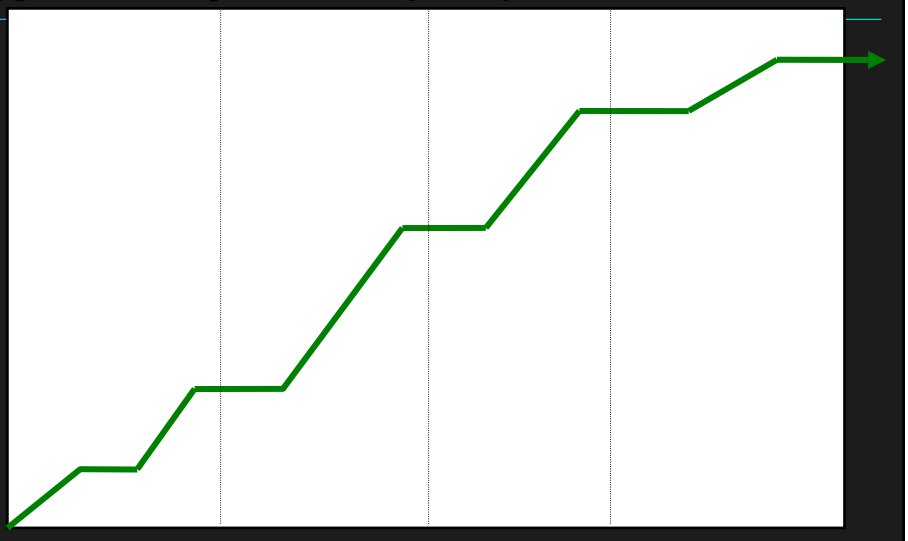
- Less common
- Much debate about childhood bipolar disorder
- Some data to indicate higher occurrence of bipolar disorder in ASD youth
  - High rates of bipolar disorder in the relatives of one sample of autistic probands
- Presents with ***new or worsened:***
  - Overactivity, Sleeplessness
  - Agitation / aggression
  - Dysphoria
  - Uncharacteristic sociability
- Cyclic patterns over a period of weeks or months (not hours)

## Psychotic symptoms and schizophrenia in youth

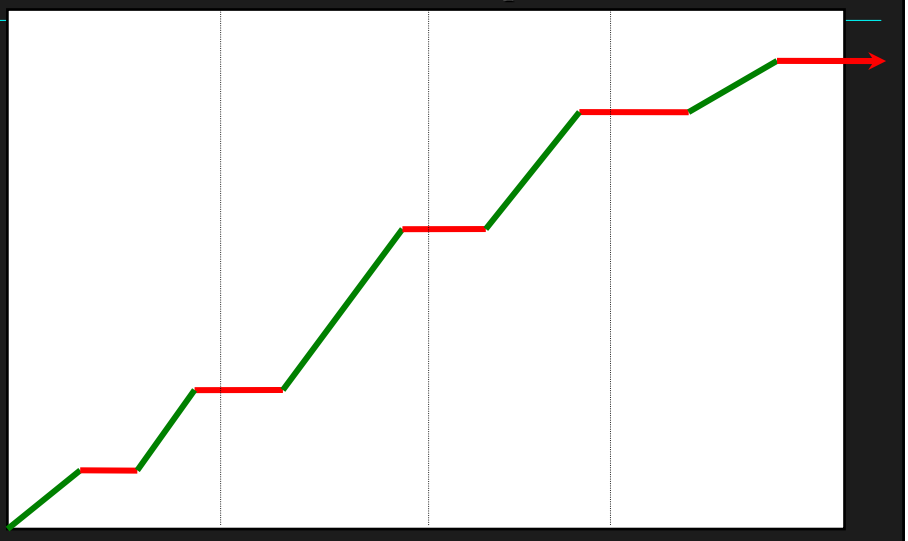
- Risk of developing schizophrenia similar to the risk in the general population.
- New perceptual disturbances (i.e. hallucinations)
- New challenges with logical thoughts or beliefs

## Natural History of Neuropsychiatric Disorders

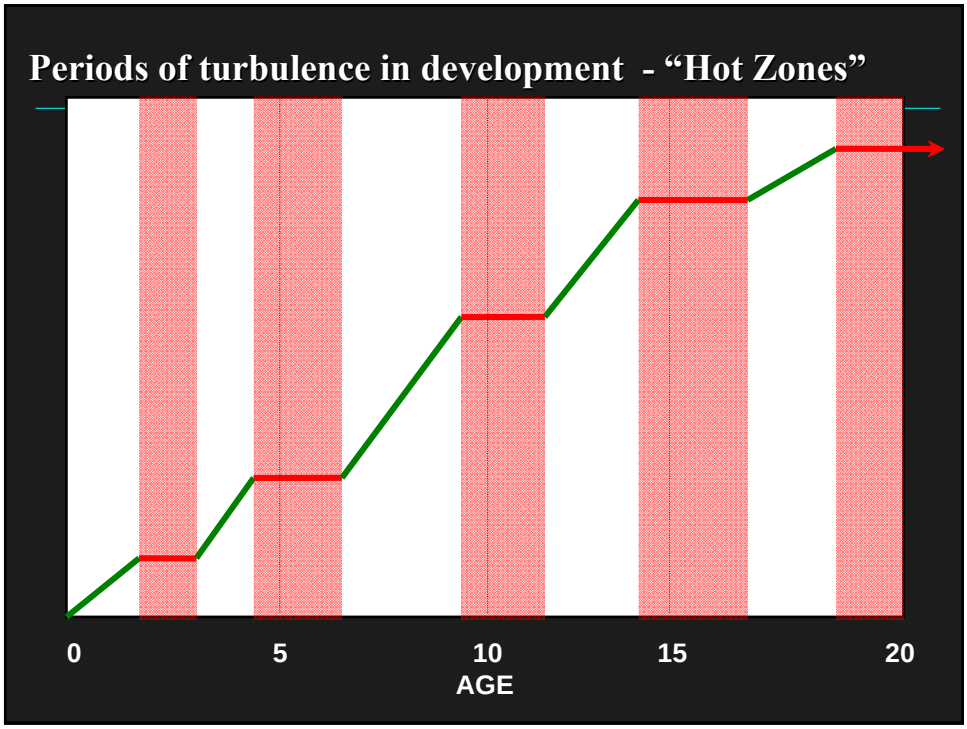
## Typical Developmental Trajectory of Children



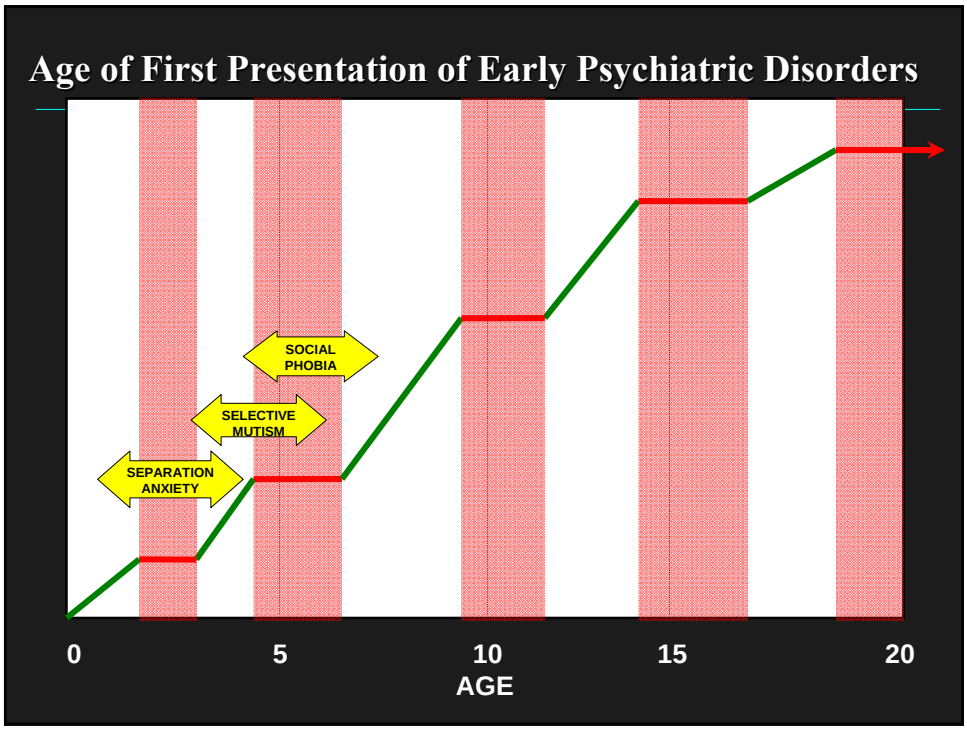

## Periods of consolidation in development

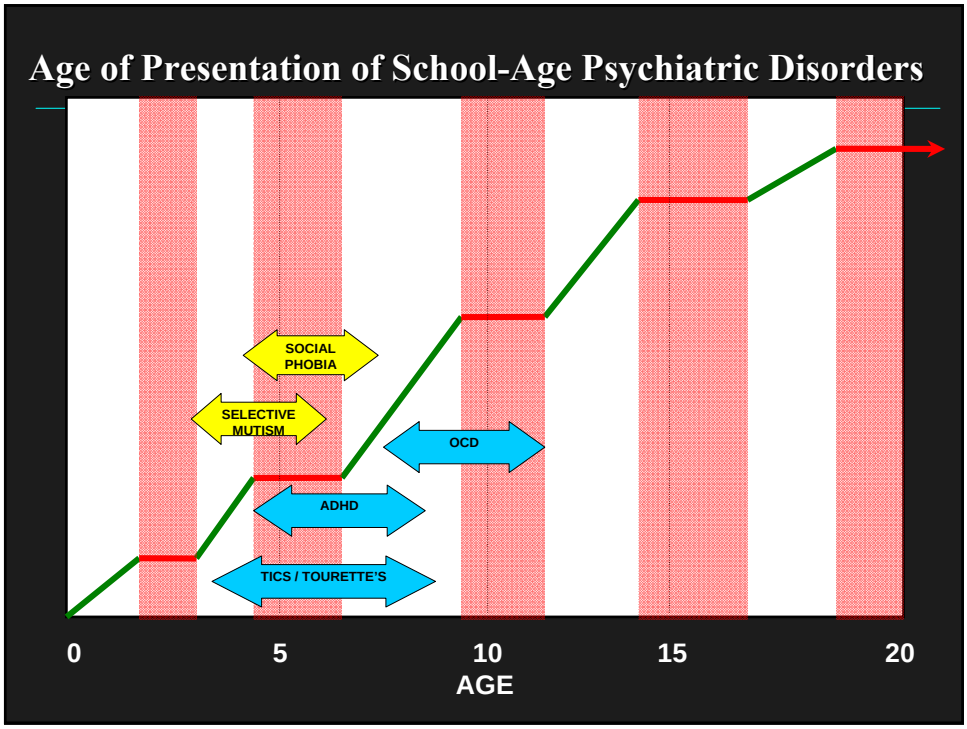


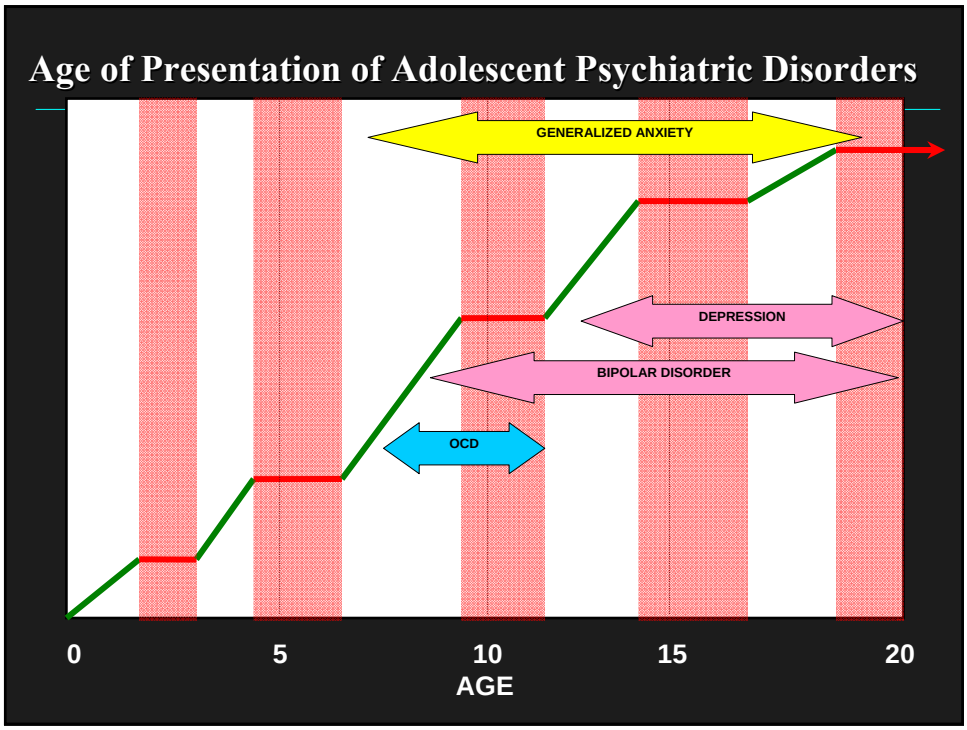
## Periods of turbulence in development - “Hot Zones”




## Age of First Presentation of Early Psychiatric Disorders




Age of Presentation of School-Age Psychiatric Disorders
SOCIAL PHOBIA
SELECTIVE MUTISM
OCD
ADHD
TICS / TOURETTE'S
0
5
10
15
20
AGE


Age of Presentation of Adolescent Psychiatric Disorders
GENERALIZED ANXIETY
DEPRESSION
BIPOLAR DISORDER
OCD
0
5
10
15
20
AGE

# Mental Health and Individuals with Autism

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# PART 2

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## First generation neuroleptics

- Long used; weak evidence of dopamine involvement in autism
- Decreased aggressive /stereotypic behaviours, and impulsivity.
- high-potency neuroleptics (haloperidol) improve attention and reduce hyperactivity, outbursts, and stereotypies
- Low-potency neuroleptics: cognitive and sedative side effects
- significant number develop dystonias/dyskinesias (1/3)
- ? Is suppression of self-injury and aggression is nonspecific, secondary to sedation

## Atypical Neuroleptics

- No long-term studies
- Lower risk of extra-pyramidal side effects
- Risperidone approved for treatment of autism
  - irritability and aggression, repetitive and obsessional behaviors, affective symptoms, inattention and hyperactivity, social behaviour
- Short-term research of *clinical* ASD population
  - 0.5 to 3.5 mg daily
  - reduced irritability (57% vs. 14%)
  - “much improved” or “very much improved” on Clinical Global Improvement (69% vs. 12%)
  - no improvements of social behaviour and language
  - adverse effects: weight gain and metabolic syndrome, sedation

## SSRIs

- Short-term research:
  - reduced repetitive thoughts / behaviour, maladaptive behaviour
  - improved social relatedness and language use
  - One study: 66% showed improvement with preoccupations, repetitive behaviours or stereotypies; 47% had improvement in mood lability, aggression, and irritability.
  - Few side effects and excellent tolerance; but higher likelihood of adverse effects

## Psycho-stimulants

- Around for more than half a century
- methylphenidate / dextroamphetamine preparations
- mixed response
- Early studies suggested that little therapeutic effect, but increased irritability and stereotypies
  - but mean ages of the children in the studies low
- Recent data suggests MPH resulted in a significant decrease in hyperactivity
  - Troublesome adverse effects absent
  - Negative effects of stimulants thought to occur mostly with low mental age

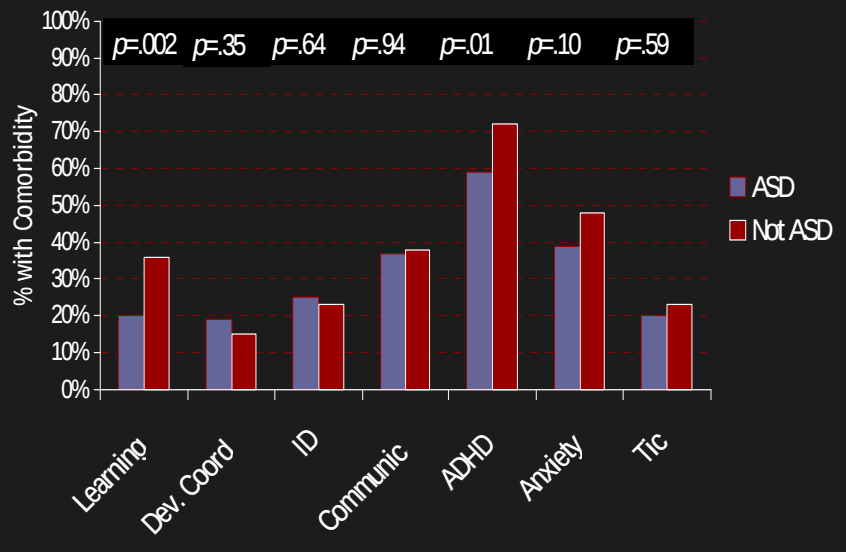
## Others

- Clomipramine: reduced stereotypies and ritualized behaviours
  - risks: QT prolongation, seizure, constipation
- Alpha-2-adrenergic agonists (clonidine) successful in open-label studies
- Anticonvulsants: as mood stabilizer: no controlled studies
  - Naltrexone: SIB: results initially positive; larger studies shown marginal benefits
- Benzodiazepines: disinhibition and tolerance
- Lithium
- Melatonin

## Also Rans

- Secretin: consistently failed to show efficacy
- 5-HT agonist fenfluramine
- Tryptophan
- Supplements and Megavitamins

## Specific Comorbidity Among ASD and Non ASD Patients >5 Years




## PSYCHIATRIC COMORBIDITY IN C/Y REFERRED FOR QUERY ASD

| DX | % (N) | ANXIETY D/O | ADHD | TIC D/0 | OCD | PSYCHOTIC D/O | MOOD D/O |
|---|---|---|---|---|---|---|---|
| TOTAL | 580 | 41.4% | 59.1% | 19.3% | 4.0 % | 0.7 % | 1 % |
| ASD | 33.8 % | 32.7 % | 43.9 % | 16.3 % | 2.6 % | 0.5 % | - |

***N=580*** ***Mean Age=8.1 years*** ***Age range = 1.7-18.7 years***

## Psychiatric Comorbidity In C/Y Referred For Query ASD

| AGE (Years) | % (N) | ANX % | ADHD % | TIC % | OCD % | PSYCH % | MOOD % |
|---|---|---|---|---|---|---|---|
| **ALL** | 580 | 41.4 | 59.1 | 19.3 | 4.0 | 0.7 | 1 |

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## Psychiatric Comorbidity In C/Y Referred For Query ASD

| AGE (Years) | % (N) | ANX % | ADHD % | TIC % | OCD % | PSYCH % | MOOD % |
|---|---|---|---|---|---|---|---|
| **ALL** | 580 | 41.4 | 59.1 | 19.3 | 4.0 | 0.7 | 1 |
| **< 6** | 33.1 | 32.3 | 38.5 | 12.5 | 3.6 | - | - |

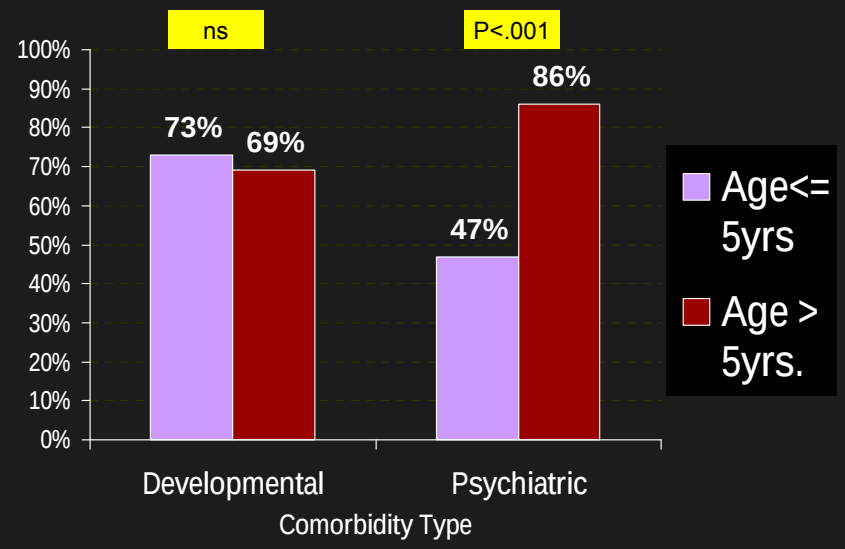
*N=580* *Mean Age=8.1 years* *Age range = 1.7-18.7 years*

## Psychiatric Comorbidity In C/Y Referred For Query ASD

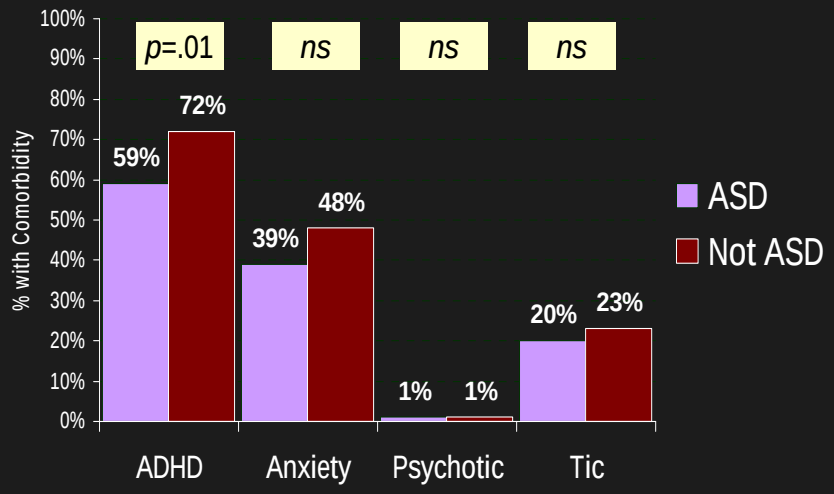
| AGE (Years) | % (N) | ANX % | ADHD % | TIC % | OCD % | PSYCH % | MOOD % |
|---|---|---|---|---|---|---|---|
| **ALL** | 580 | 41.4 | 59.1 | 19.3 | 4.0 | 0.7 | 1 |
| **< 6** | 33.1 | 32.3 | 38.5 | 12.5 | 3.6 | - | - |
| **> 6** | 66.9 | 45.9 | 69.3 | 22.7 | 4.1 | 1 | 1.5 |

***N=580*** ***Mean Age=8.1 years*** ***Age range = 1.7-18.7 years***

## *Variations in Comorbidity by Age*



## Psychiatric Comorbidity in Patients > 5 Years

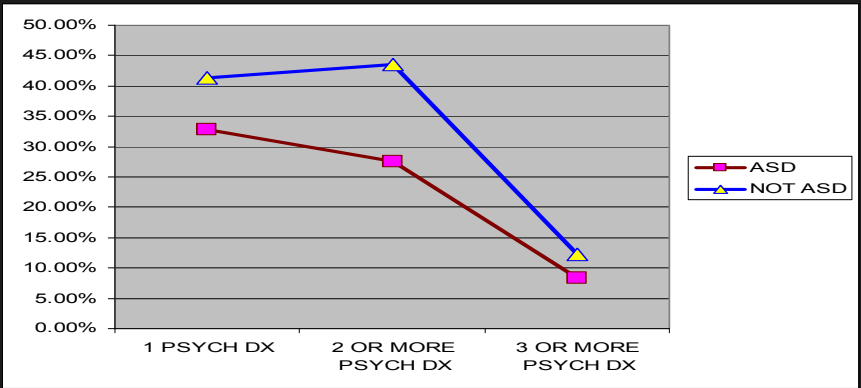



## Psychiatric Comorbidity Patterns In C/Y Referred For Query ASD

| DX | % (N) | 1 PSYCH DX | 2 OR MORE PSYCH DX | 3 OR MORE PSYCH DX |
|---|---|---|---|---|
| TOTAL | 580 | 38.4% | 38.1% | 12.3% |
| ASD | 34.2% | 32.8 % | 27.6 % | 8.3% |
| NOT ASD | 66.2 % | 41.4 % | 43.6% | 12.3 % |

*Psychiatric Dx =*
*Anxiety D/O or Selective Mutism or ADHD or Tic D/O or OCD or Mood D/O or Psychotic D/O*

## PSYCHIATRIC COMORBIDITY PATTERNS IN C/Y REFERRED FOR QUERY ASD




*Psychiatric Dx =*
*Anxiety D/O or Selective Mutism or ADHD or Tic D/O or OCD or Mood D/O or Psychotic D/O*

## ASD Comorbidity Algorithm

*Step 1*

*Step 2*

*Step 3*

*Step 4*

*Step 5*

## ASD Comorbidity Algorithm
### *Assumptions and Rules*

- Centrality of focus on developmental competence
- Assumes ASD can and does frequently co-exist with other psychiatric diagnoses
  - Similar emphasis in rest of child psychiatry
  - Early identification of comorbidity in order to avoid complications
  - That the natural history of co-morbid and "uni-morbid" syndromes is similar
- Encourages multiple diagnoses in addition to ASD
  - Each additional label suggesting important areas for intervention

## ASD Comorbidity Algorithm

Step 1: Developmental review
Step 2: Intervention review
Step 3: Structured psychiatric diagnostic assessment
Step 4: Treatment initiation
Step 5: Treatment follow through

## ASD Comorbidity Algorithm

### STEP 1-A: Developmental Review

A. Development or regression in the three core domains should be reassessed in patients with ASD referred for psychiatric problems
   - Reciprocal social interaction
   - Communication
   - Stereotyped, repetitive interests and behaviours

- Persistent or evolving deficits may be the cause of their difficulties.

## ASD symptoms: unique?

- Many also occur in numerous other developmental and neuropsychiatric disorders
- children with mood and anxiety disorders can present with features also associated with autism
- Studies:
  - 84% of individuals with ASD also met the criteria for an anxiety disorder
  - 2/3 anxious children "positive" on one ASD screen (SCQ, CCC-2, or SRS)
  - similar data on children with ADHD (SRS)
- More subtle features assist in distinguishing the putative source for a clinical finding

# Specificity of ASD Phenomenology

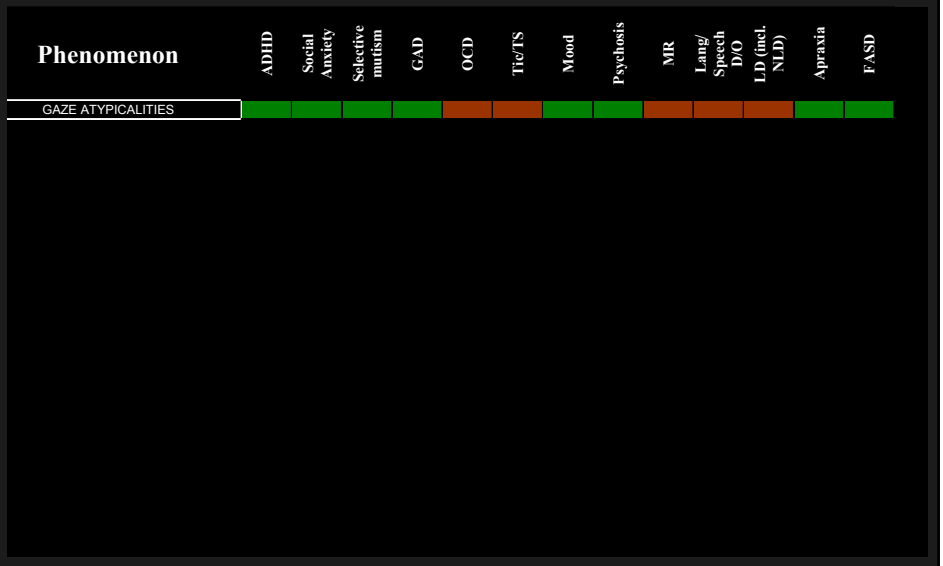
| Phenomenon | ASD | ADHD | Social Anxiety | Selective mutism | GAD | OCD | Tic/TS | Mood | Psychosis | MR | Lang/ Speech D/O | LD (incl. NLD) | Apraxia | FASD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GAZE ATYPICALITIES | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| PEER INTEREST | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| EARLY GROUP PLAY | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| FRIENDSHIPS | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| EARLY SHOWING | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| SHARING ENJOYMENT | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| USE OF BODY AS TOOL | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| POINTING (PDP) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| GESTURES | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| STEREO/ECHOLALIC SPEECH | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| NEOLOGISMS/IDIOSYNC SPEECH | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| PRONOMINAL CONFUSION | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| INAPPROPRAIATE COMMENTS | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| RECIPROCAL CONVERSATION | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| CHIT-CHAT | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| IMITATIVE PLAY | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| PRETEND PLAY | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| CIRCUMSCRIBED INTERESTS | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| UNUSUAL PREOCCUPATIONS | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| VERBAL RITUALS | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| BEHAVIOURAL RITUALS | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| MOTOR STEREOTYPIES | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| SENSORY INTERSTS | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| INTERESTS IN PARTS OF OBJECTS | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |

Atypical features can be present ■ Generally unremarkable ■



# "NEGATIVE" ASD SYMPTOMS

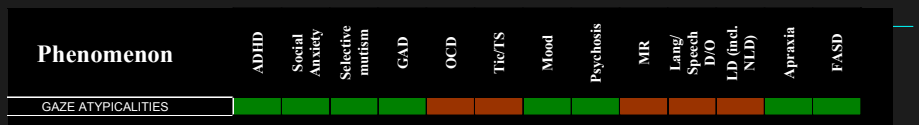
# Specificity of ASD Phenomenology




Generally unremarkable  Atypical features can be present



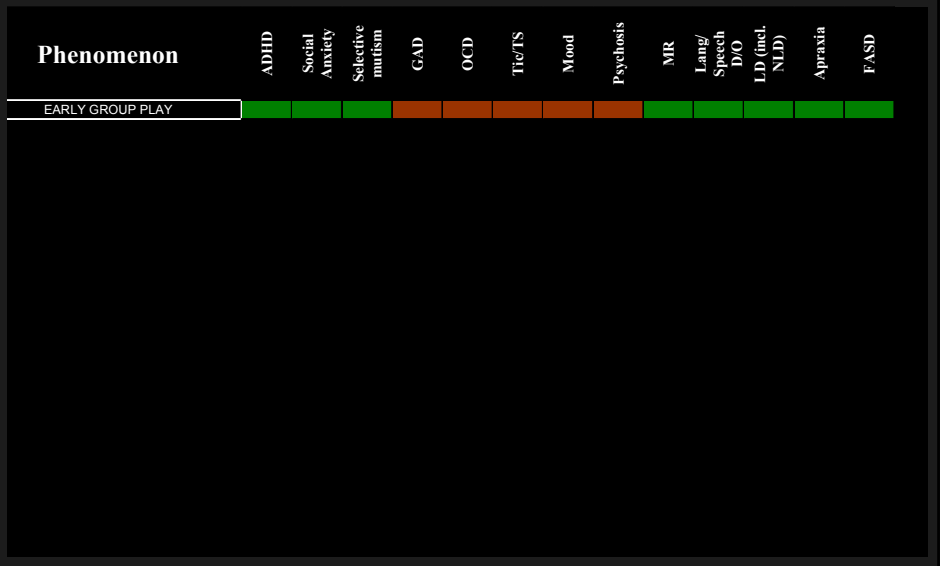
# Specificity of ASD Phenomenology




- Socially anxious kids show abnormalities in gaze, joint attention
- "volitional" component in anxiety disorders
- Brief "ADHD" eye contact results in missing other's nonverbal social cues

Generally unremarkable  Atypical features can be present

# Specificity of ASD Phenomenology

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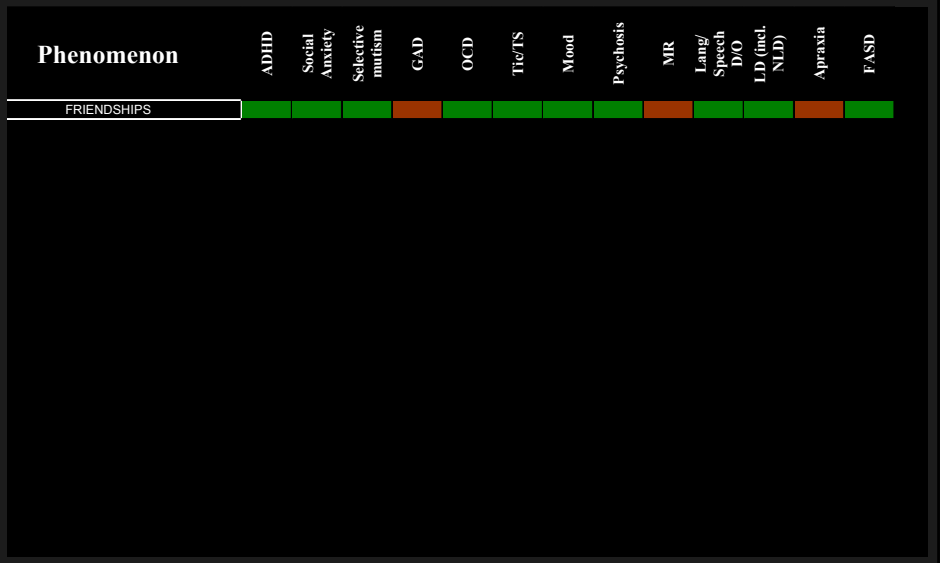
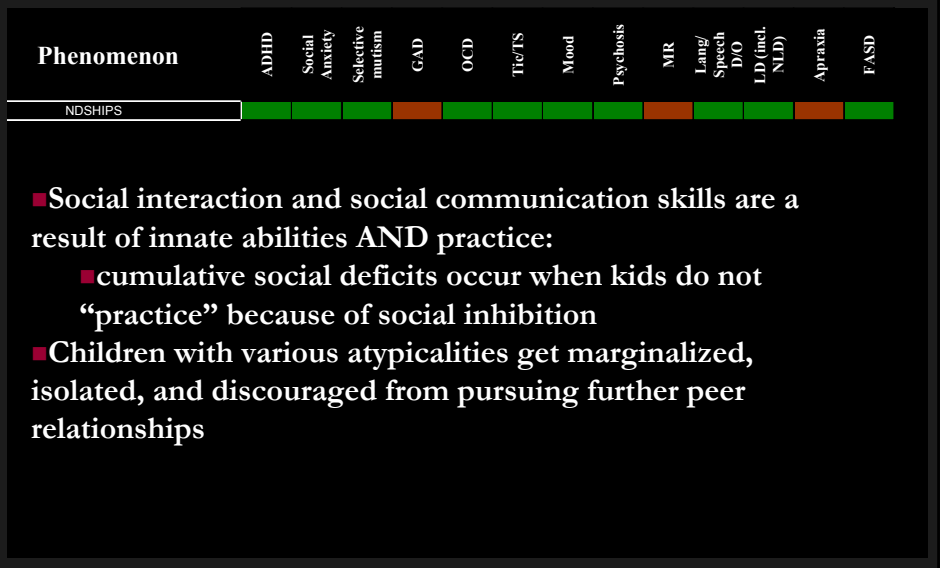
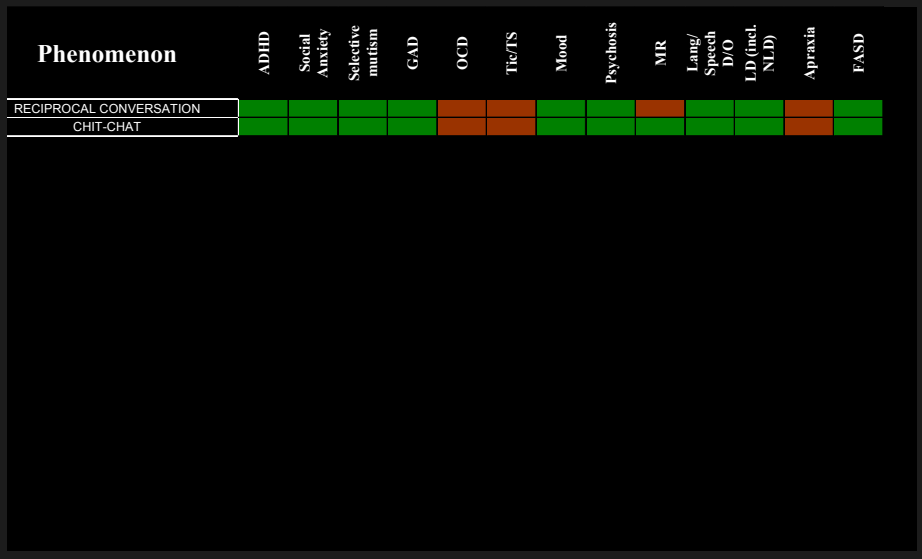



# Specificity of ASD Phenomenology




- Social interaction and social communication skills are a result of innate abilities AND practice:
  - cumulative social deficits occur when kids do not "practice" because of social inhibition
- Children with various atypicalities get marginalized, isolated, and discouraged from pursuing further peer relationships

# Specificity of ASD Phenomenology




Generally unremarkable

Atypical features can be present

# Specificity of ASD Phenomenology

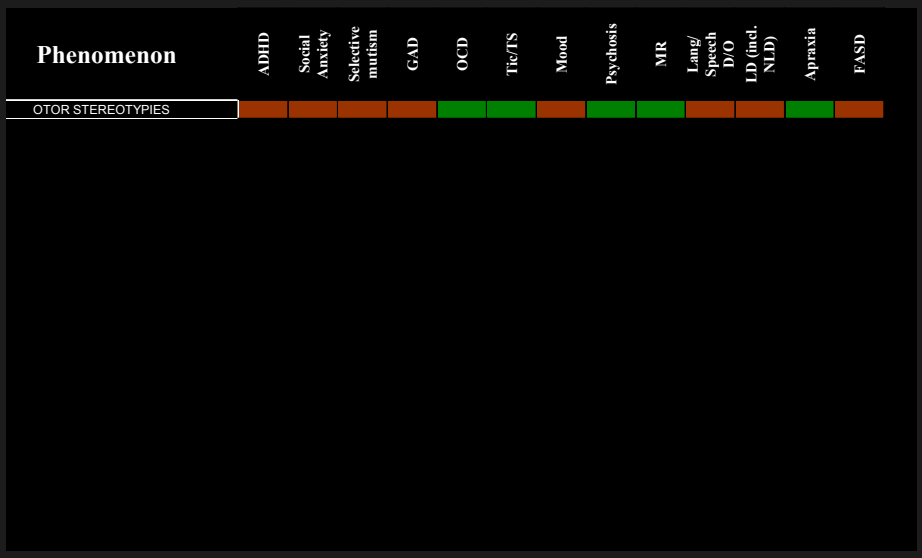

- Selectively mute – socially phobic kids: how does one assess social communication/interaction?
- In selectively mute children, lack of practice will result in deficits in conversational skill (“pragmatics”)
- Disjointed communication is common in ADHD

Generally unremarkable

Atypical features can be present

# POSITIVE" ASD SYMPTOMS

## Specificity of ASD Phenomenology



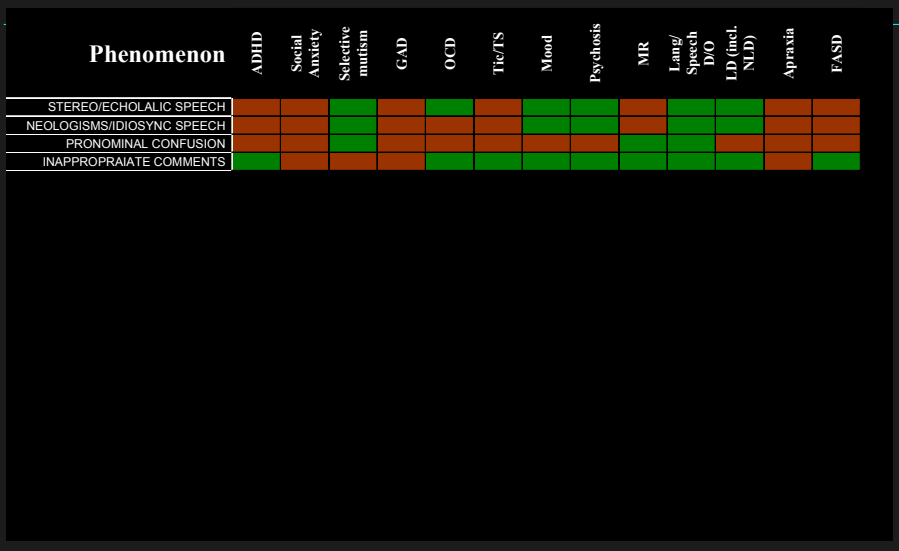
# Specificity of ASD Phenomenology


- Definitions of tics, stereotypies, and other movement disorders overlap

Generally unremarkable

Atypical features can be present

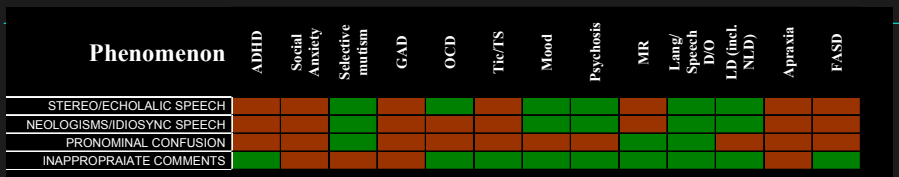
# Specificity of ASD Phenomenology




Generally unremarkable

Atypical features can be present

# Specificity of ASD Phenomenology



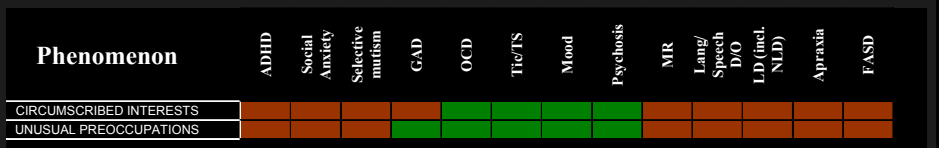

- Selectively mute kids often ALSO have language which is disordered or deviant
- Atypical speech is common in schizophrenia (though of later onset).
- Compulsive and stereotyped utterances can be see in OCD

Generally unremarkable

Atypical features can be present



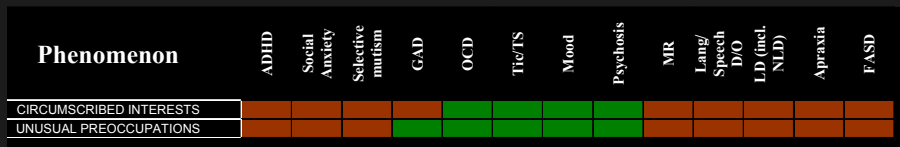
# Specificity of ASD Phenomenology




Generally unremarkable

Atypical features can be present

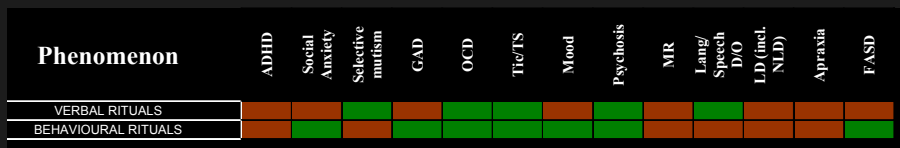
# Specificity of ASD Phenomenology




- Obsessive concerns or sensory interests can be early presentations of OCD/TS in very young children
- Odd interests common in schizophrenia

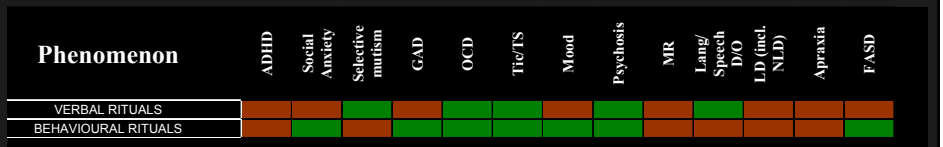
Generally unremarkable  Atypical features can be present

# Specificity of ASD Phenomenology




Generally unremarkable  Atypical features can be present

## Specificity of ASD Phenomenology




- ADI definition of "compulsions", motor stereotypies, repetitive speech overlaps with OCD and Tourette's
- Socially anxious kids show rigid behaviours

Generally unremarkable

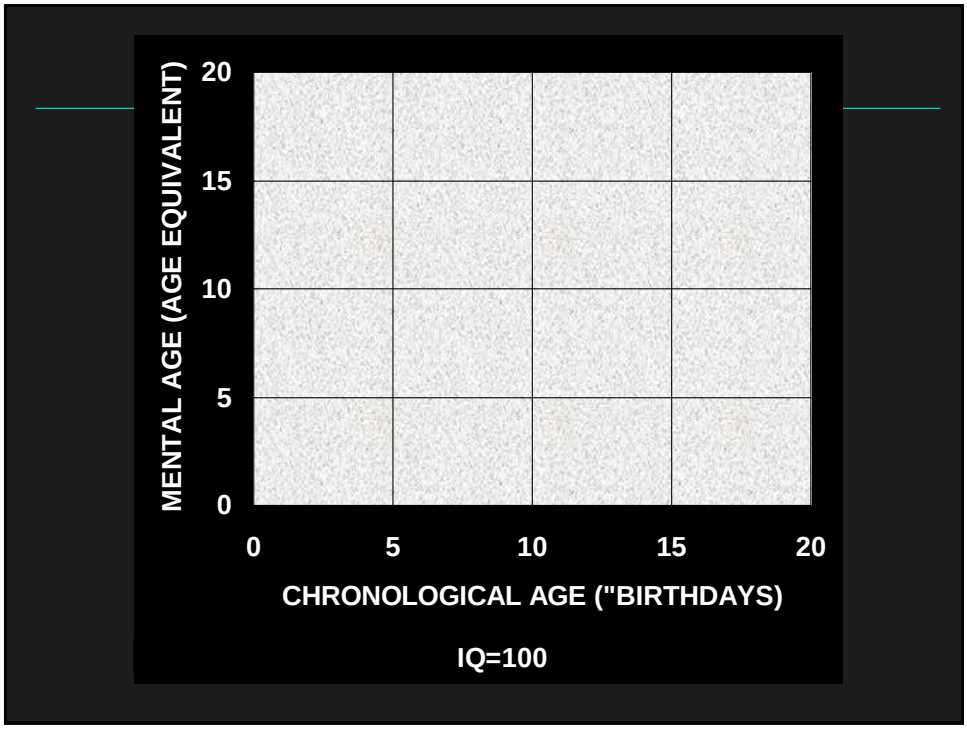
Atypical features can be present

## ASD Comorbidity Algorithm

### ***STEP 1-B: Developmental Review***

B. Review status of cognitive impairment and current developmental or environmental demands

- IQ/Learning
- Communication status (delay, deviance, pragmatics)
- Motor and sensory function (output, SI)
- Sensory impairments (hearing, vision)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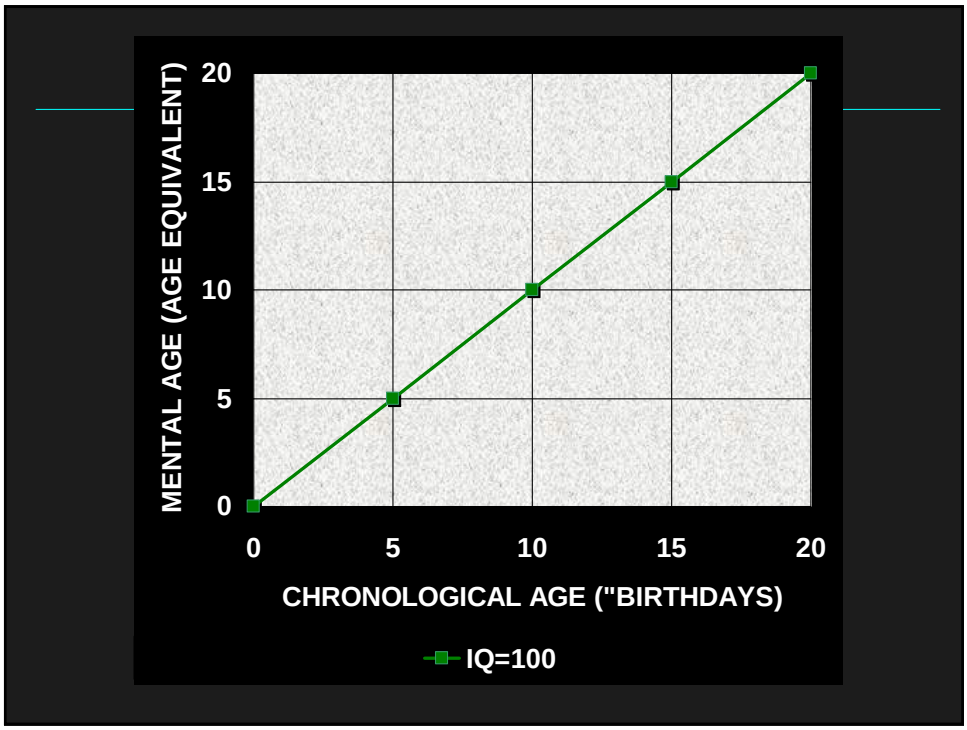
CHRONOLOGICAL AGE ("BIRTHDAYS)
IQ=100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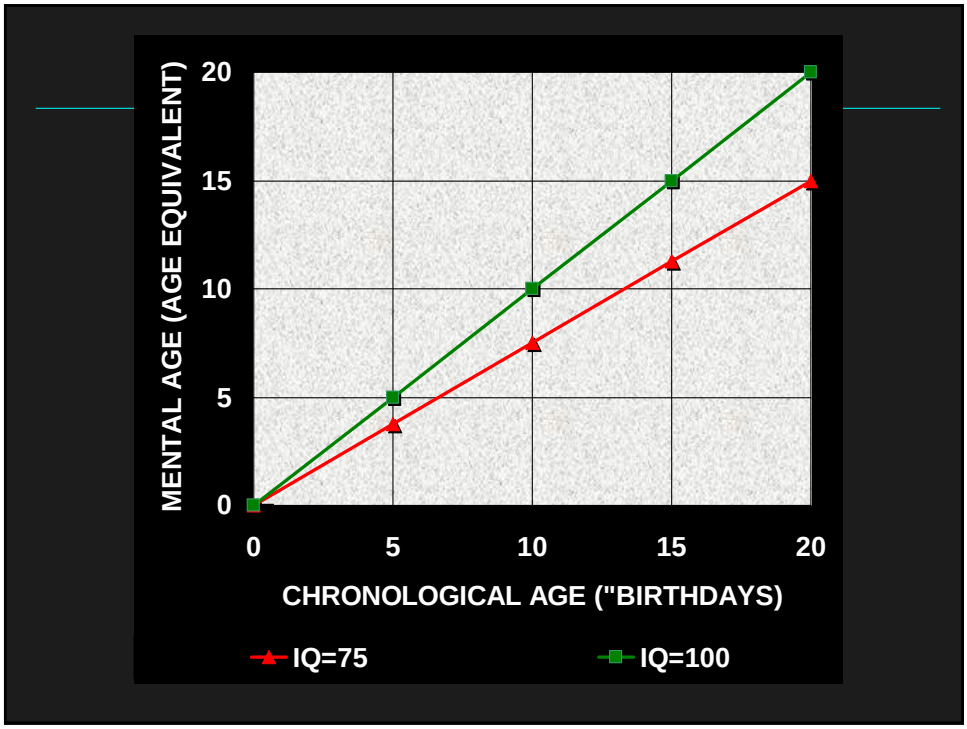
CHRONOLOGICAL AGE ("BIRTHDAYS)
IQ=100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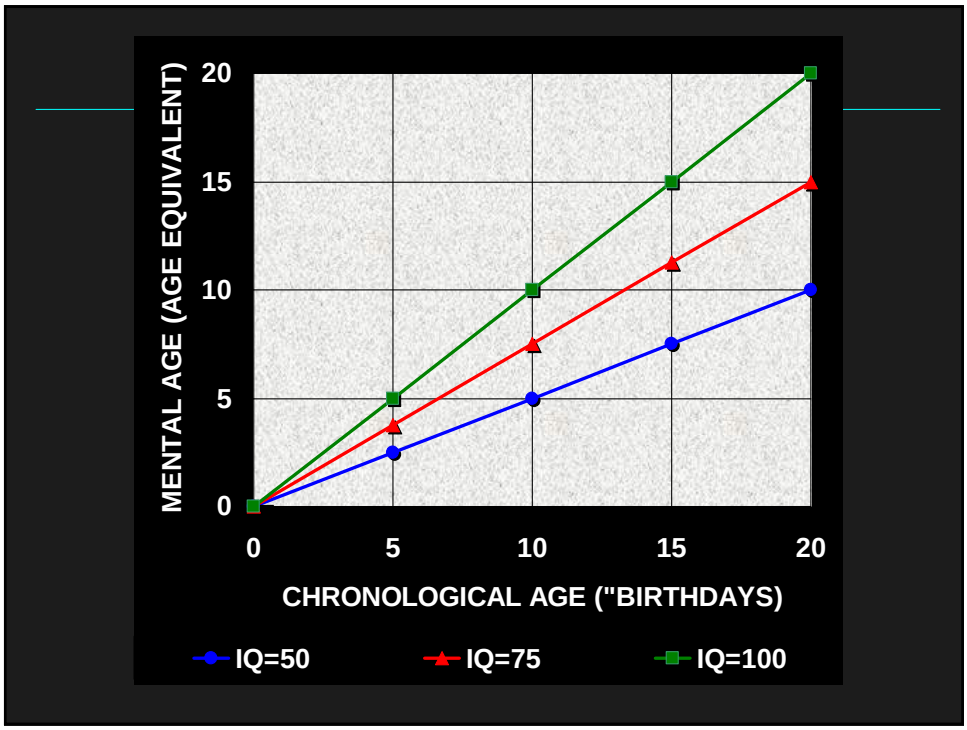
IQ=100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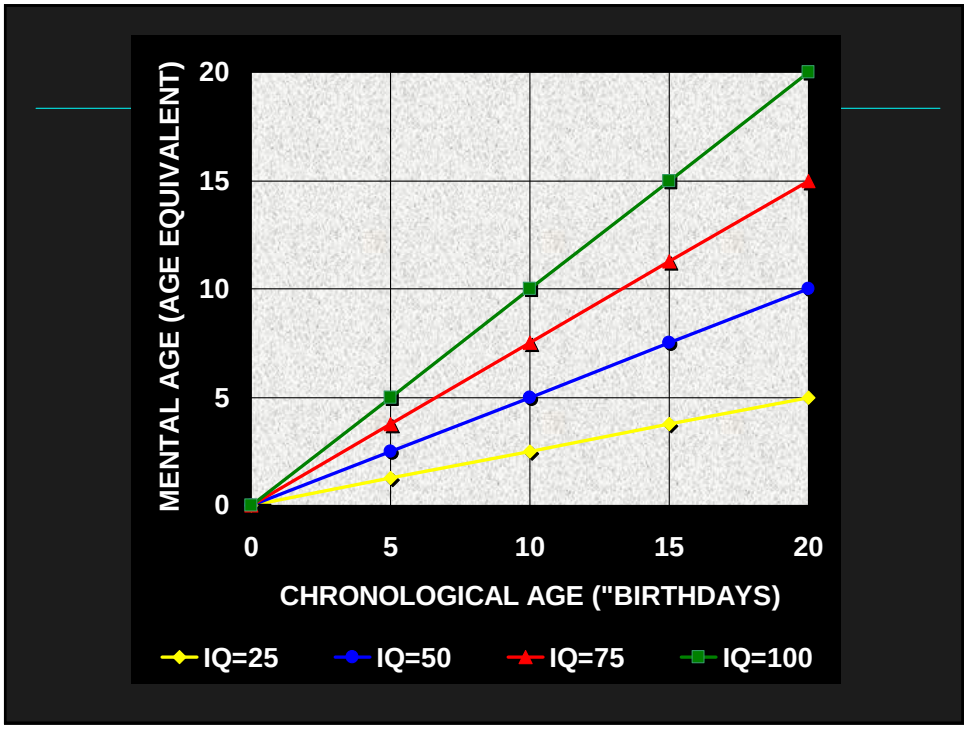
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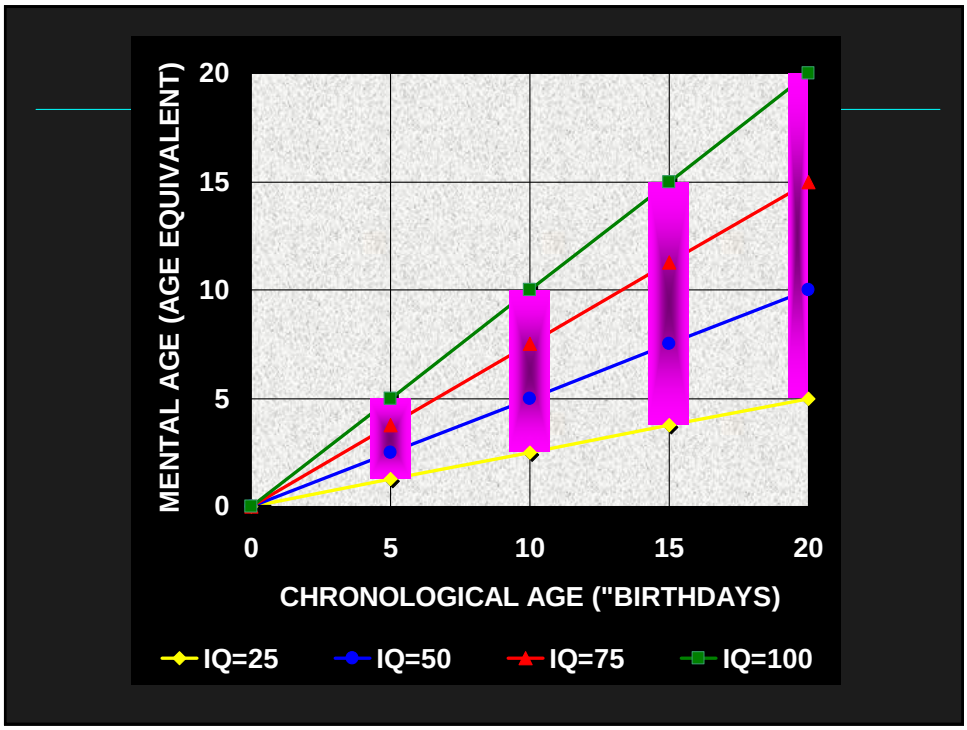
IQ=75
IQ=100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20
CHRONOLOGICAL AGE ("BIRTHDAYS)
IQ=25
IQ=50
IQ=75
IQ=100

## ASD Comorbidity Algorithm

### STEP 1-C: Developmental Review

C. Review medical issues

- Consider seizure disorder (25 -30% lifetime incidence)
  - deterioration in language, social, or cognitive functioning, mood, or behaviour
  - hallucinations or other abnormal mental experiences
  - New, unusual stereotyped repetitive behaviour
- Other common medical concerns (encopresis, nutrition, etc.)

## ASD Comorbidity Algorithm

### STEP 2: Intervention Review

- Behavioural (outgrown former approach)
- Communicative (social communication, augmentative communication)
- Educational (goodness of fit – under or over challenging, change in types of demands)
- Motor / sensory (output problems, sensory overload)
- Social abilities (increased interest, demands)
- Family (stress, fatigue, discouragement)

## ASD Comorbidity Algorithm

***STEP 3-A:***
***Structured psychiatric diagnostic assessment***

A. Structured review to identify any potential comorbid psychiatric disorders including:

- Anxiety disorders
- ADHD
- Tic disorders (including Tourette's)
- Mood disorders (including bipolar disorder)
- Non-specific behaviour problems (by exclusion)

## ASD Comorbidity Algorithm

***STEP 3-B:***
***Structured psychiatric diagnostic assessment***

B. Address issues with regard to differential diagnosis

## Differential Diagnosis: OCD

- OCD is just that: *obsessive* and *compulsive* symptoms
  - compulsions to neutralize obsessive anxiety (e.g.: Obsession: mom will get hit by a car; Compulsion: Count to 1 backwards from 100)
- Differentiate OCD and ASD compulsive and *ritualistic* behaviour
  - Need for sameness
  - Lack of associated obsessive anxiety
  - Course of symptoms (OCD emerges in school years)
- Challenges:
  - Repetitive thoughts and behaviours of ASD may seem indistinguishable from those of OCD
  - Most have difficulty describing subjective mental phenomena

## Differential Diagnosis: Tics / Stereotypies

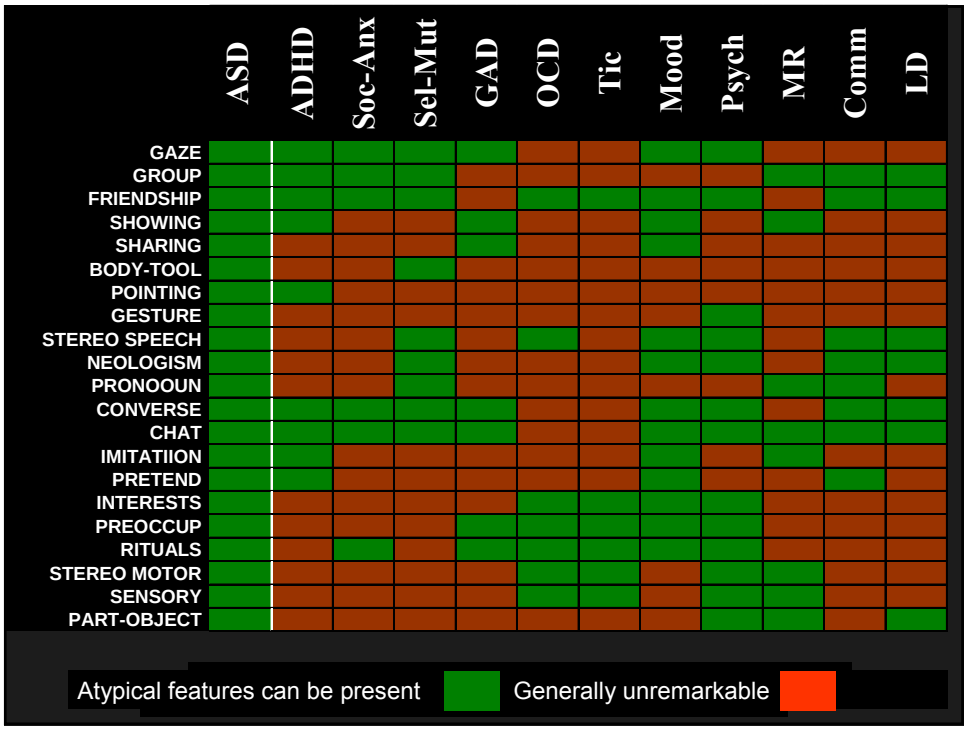
- Stereotypies can be seen as a means to adjust arousal (↑ or ↓)
- Compared to stereotypies, tics tend to:
  - Emerge later
  - Involve the face, neck, shoulders, and arms (in that order)
  - More likely aggravated by agitation or anxiety
  - Wax and wane (stereotypies are more stable)
  - Be more sudden, rapid, and brief
  - Interrupt speech and behaviour
  - Be preceded by a premonitory sensation
  - Complex tics are more spasmodic, as opposed to rhythmical
- Stereotypies also improve on tic medications

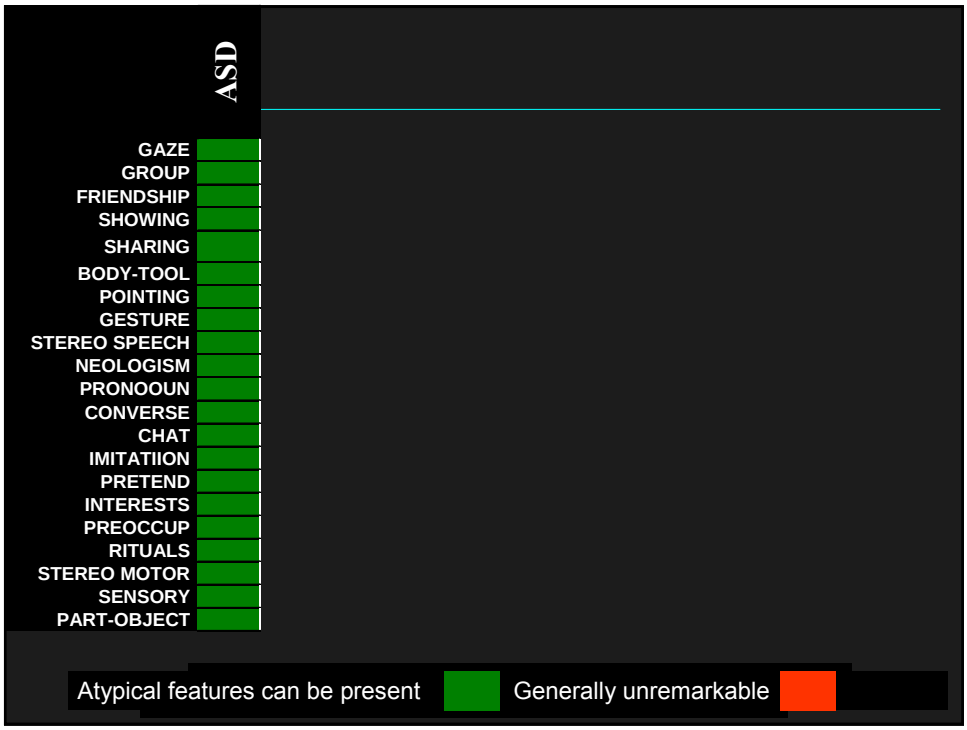
## Differential Diagnosis: ADHD and ASD

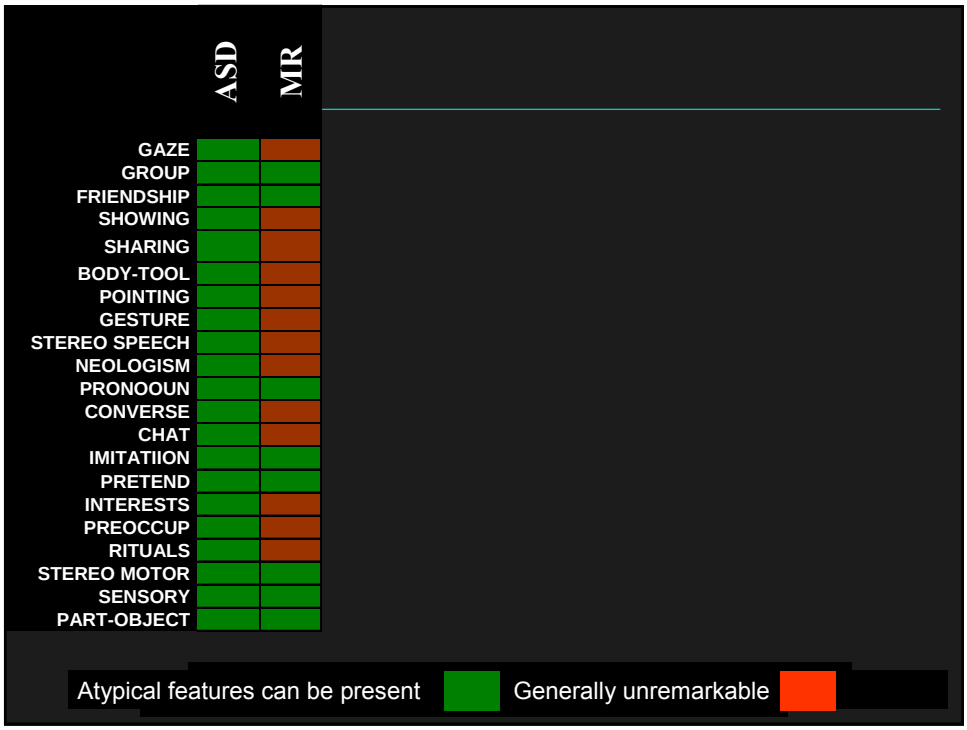
- According to the DSM-IV, ADHD should not be diagnosed with PDD
- Attentional problems of ASD often involve excessively narrow focus of attention (or overselectivity)
  - stimulants can be deleterious in an overly focused child
  - stimulants in general less effective for difficulties with shifting attention, joint attention, alternating attention

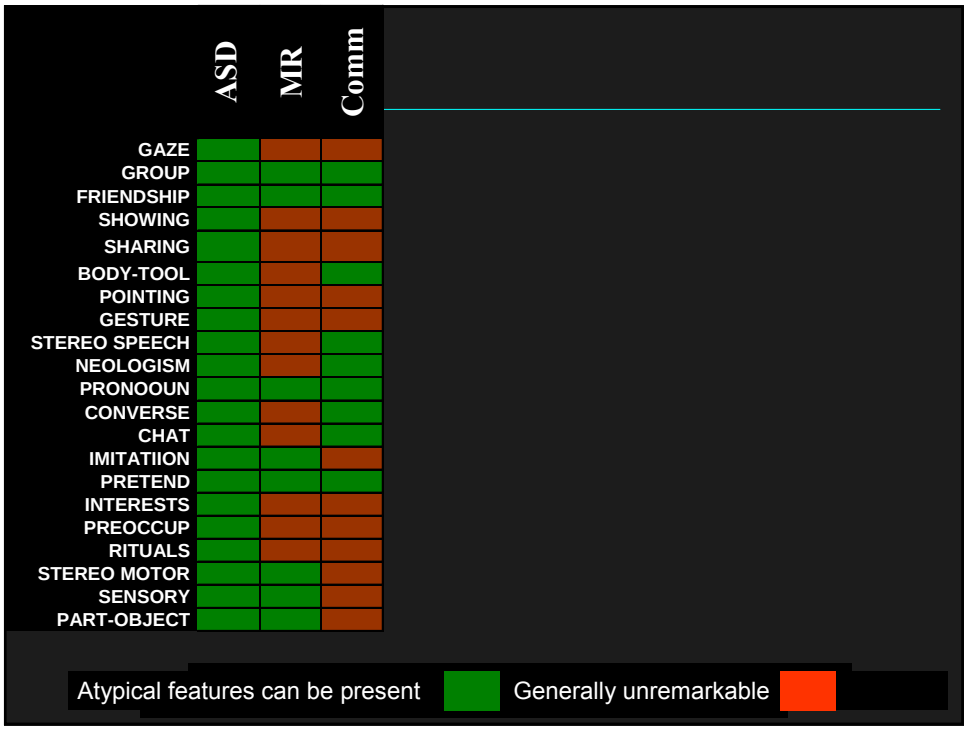
## Differential Diagnosis: Anxiety and ASD

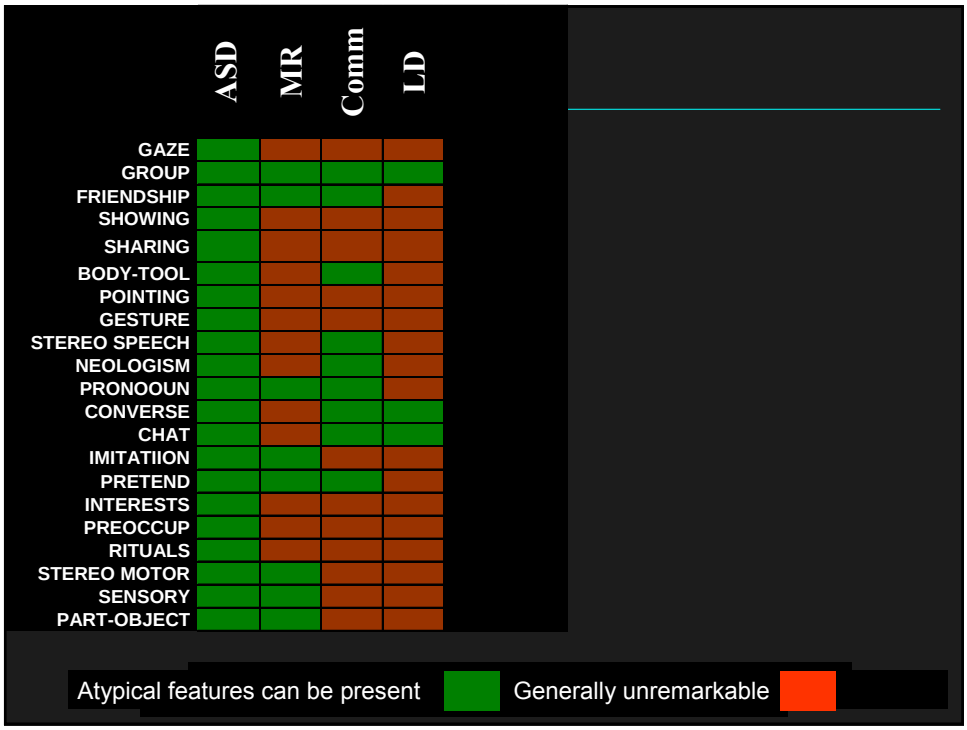
- *Potential* strategies to resolve diagnosis:
  - Obtain data of child's functioning in less anxiety provoking environment
  - Perform mind experiment: "if but the anxiety…"
  - Treat anxiety disorder, then re-evaluate child

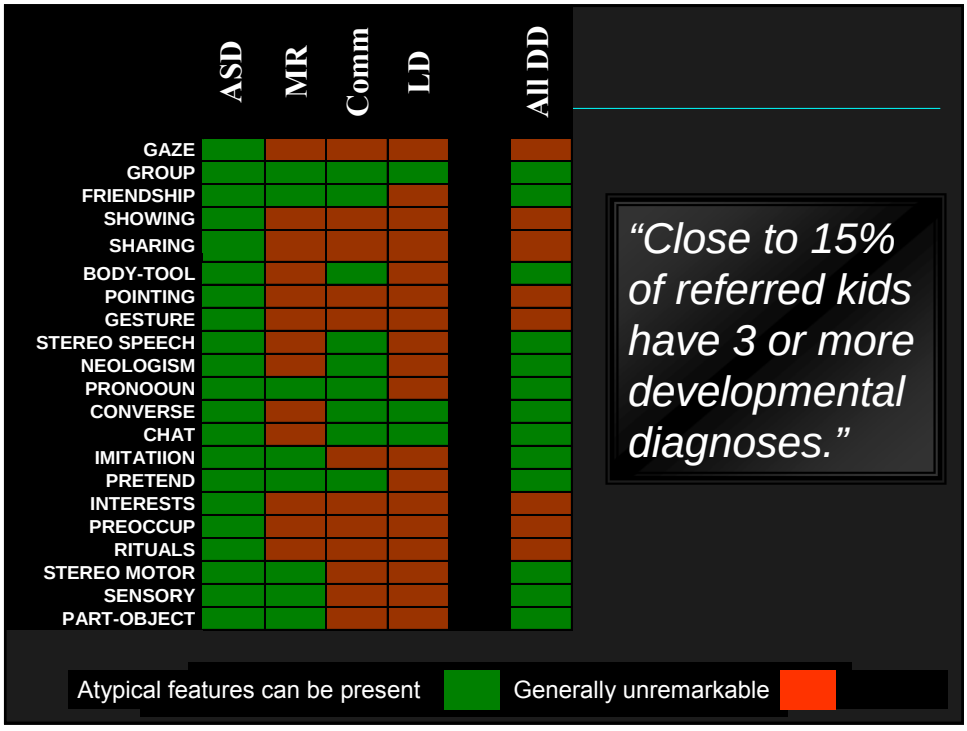


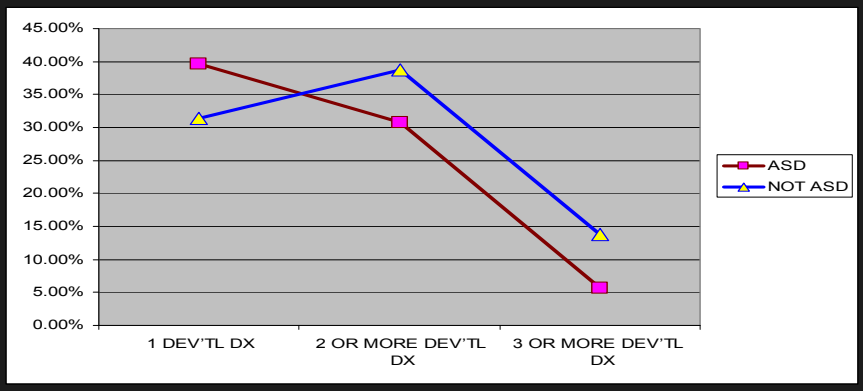




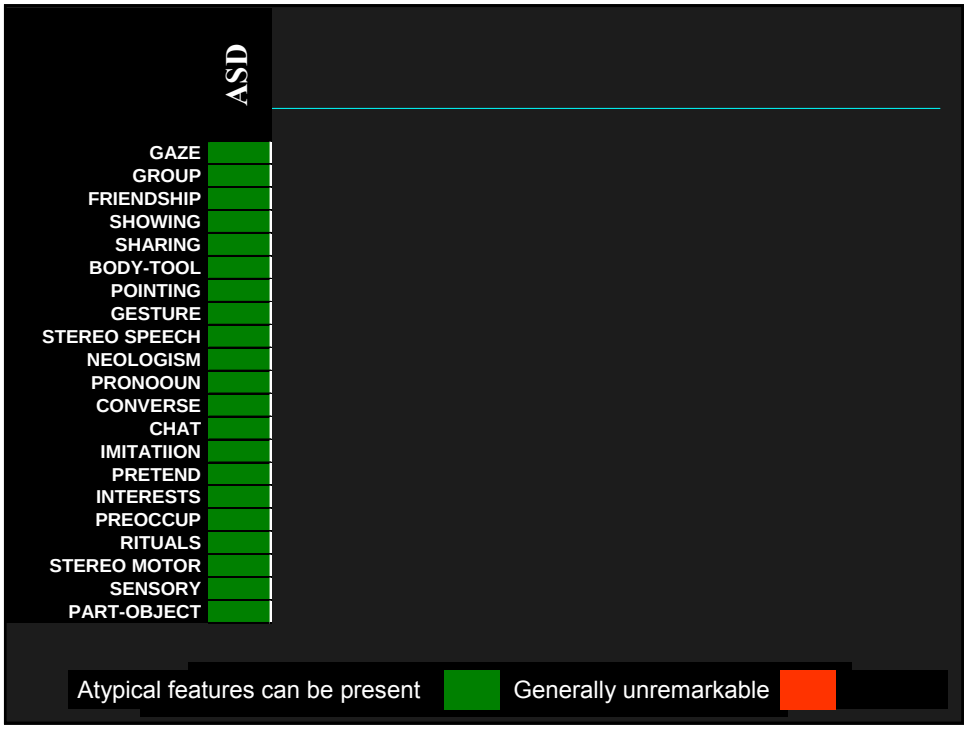



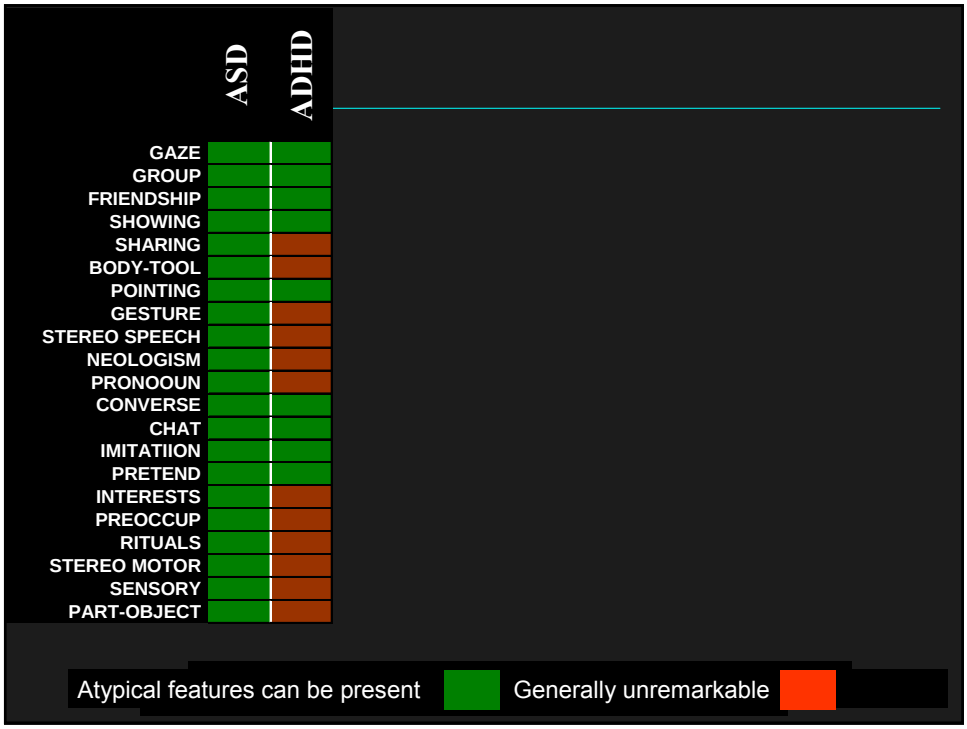
# Developmental Comorbidity Patterns In C/Y Referred For Query ASD

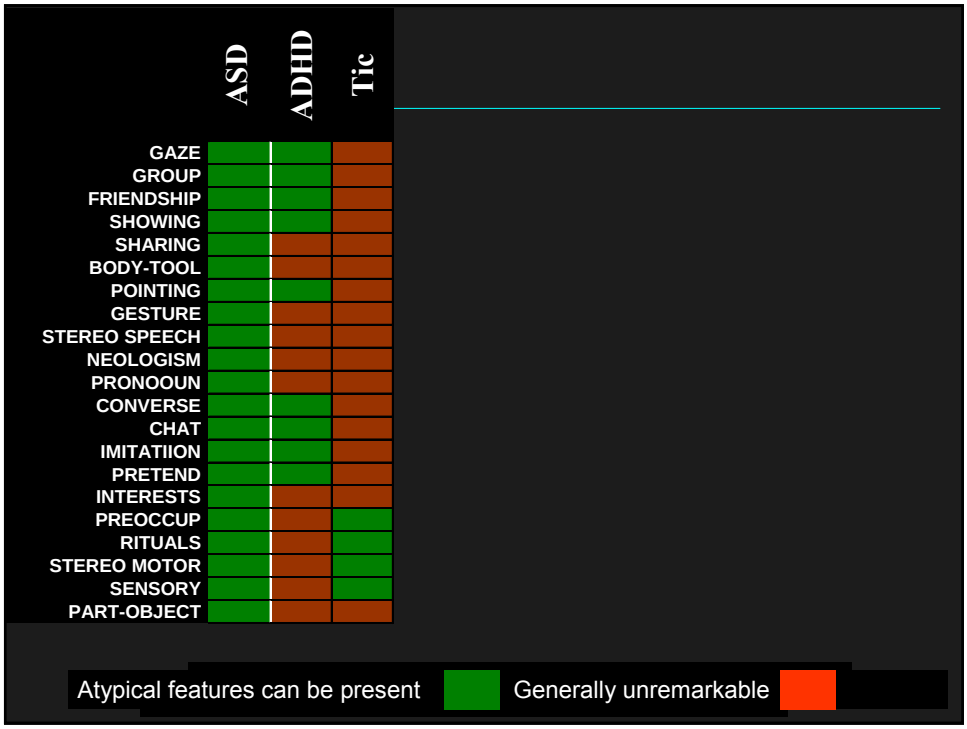


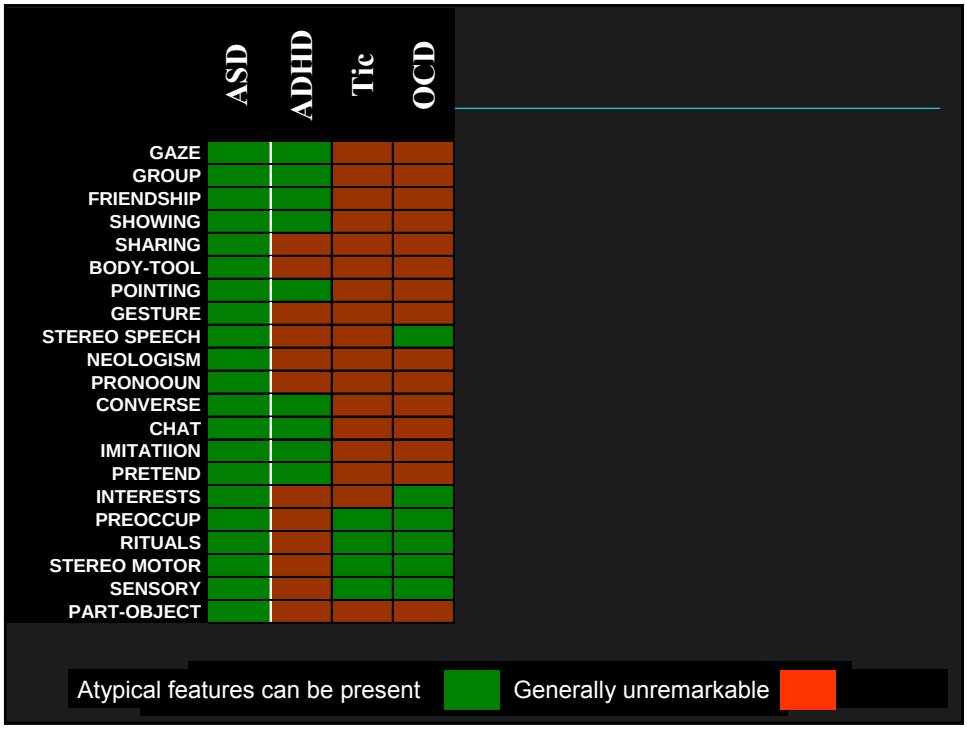

*Developmental Diagnosis =*
*MR/ID or Learning Disability or Communication D/O or DCD*

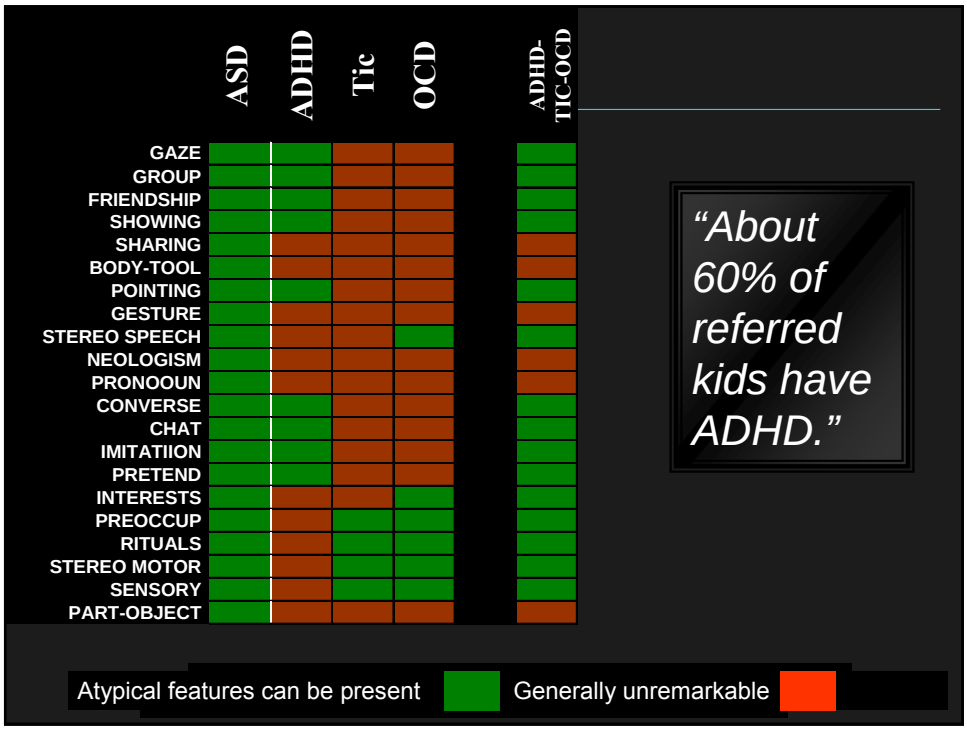


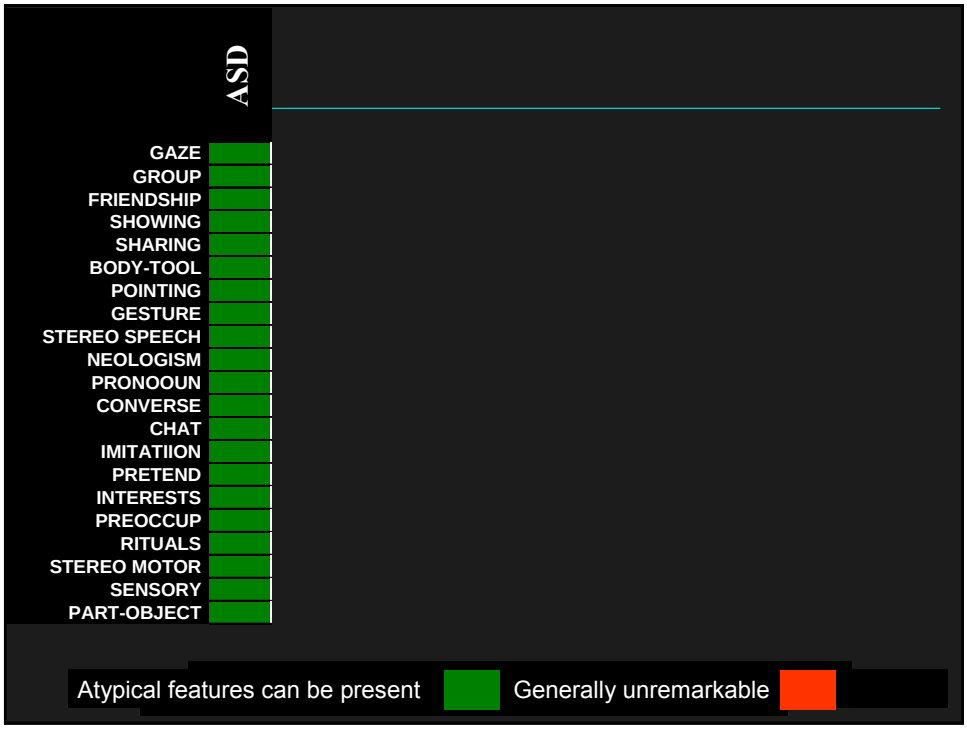


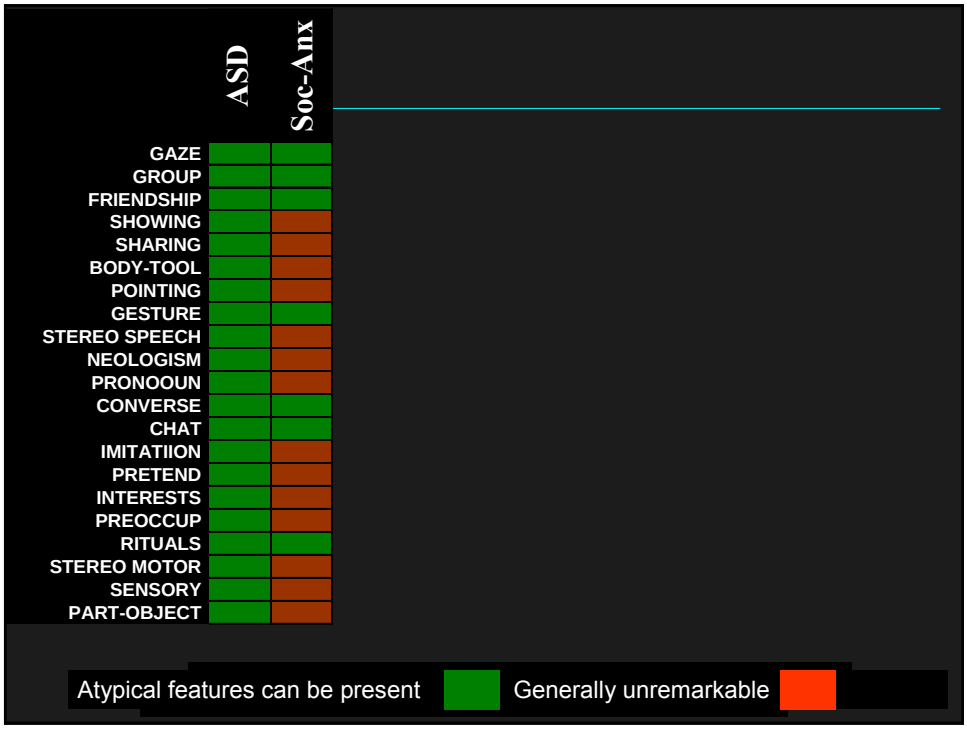


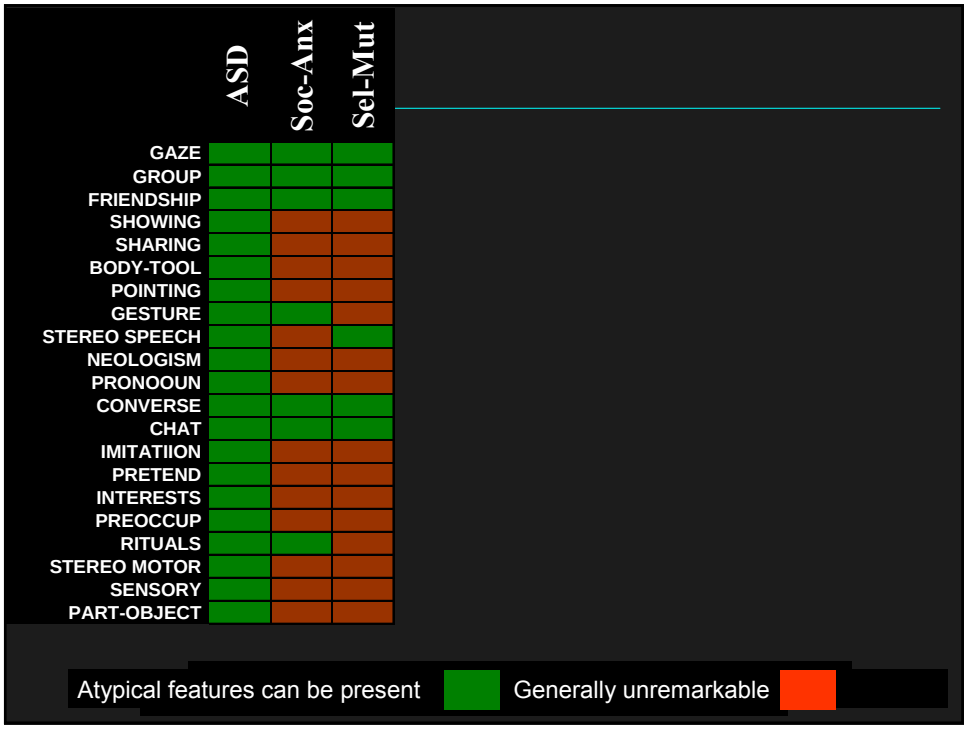



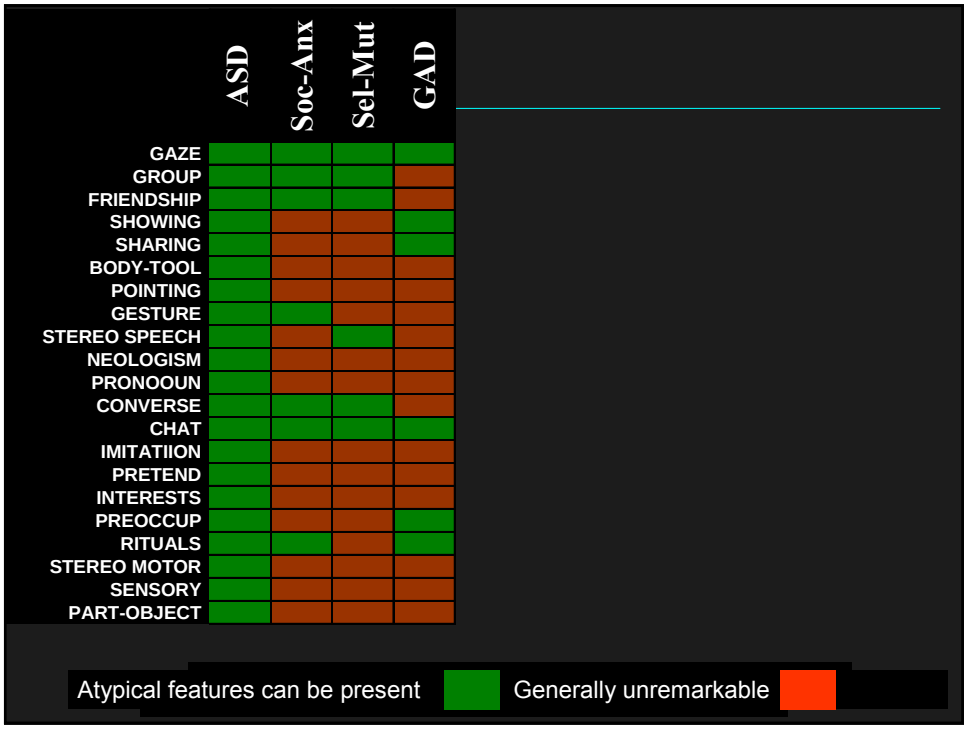


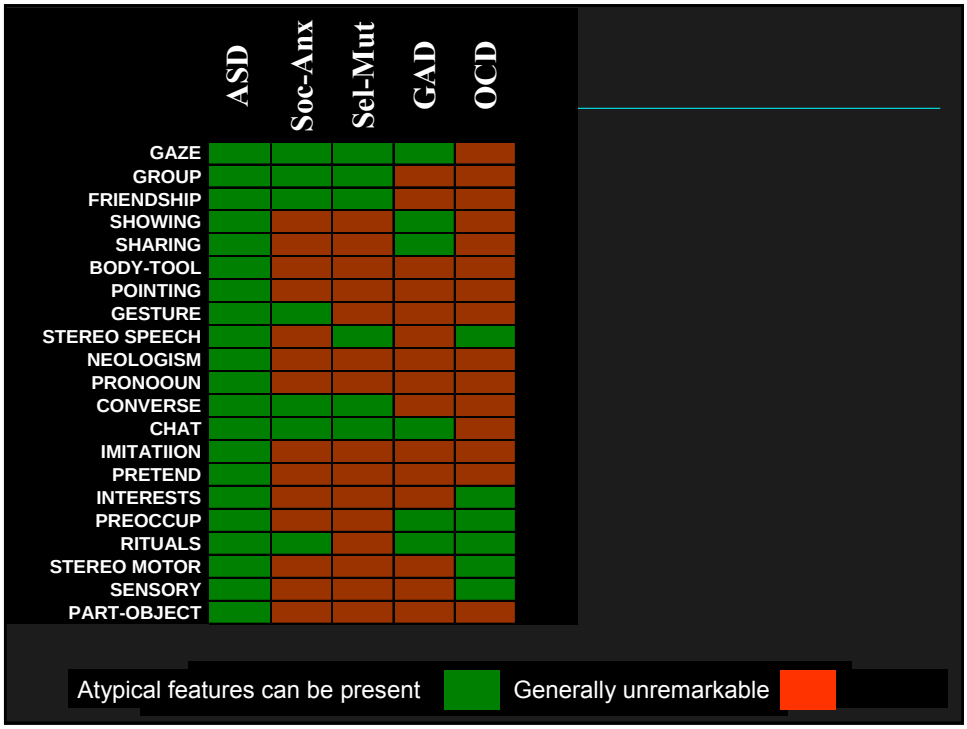



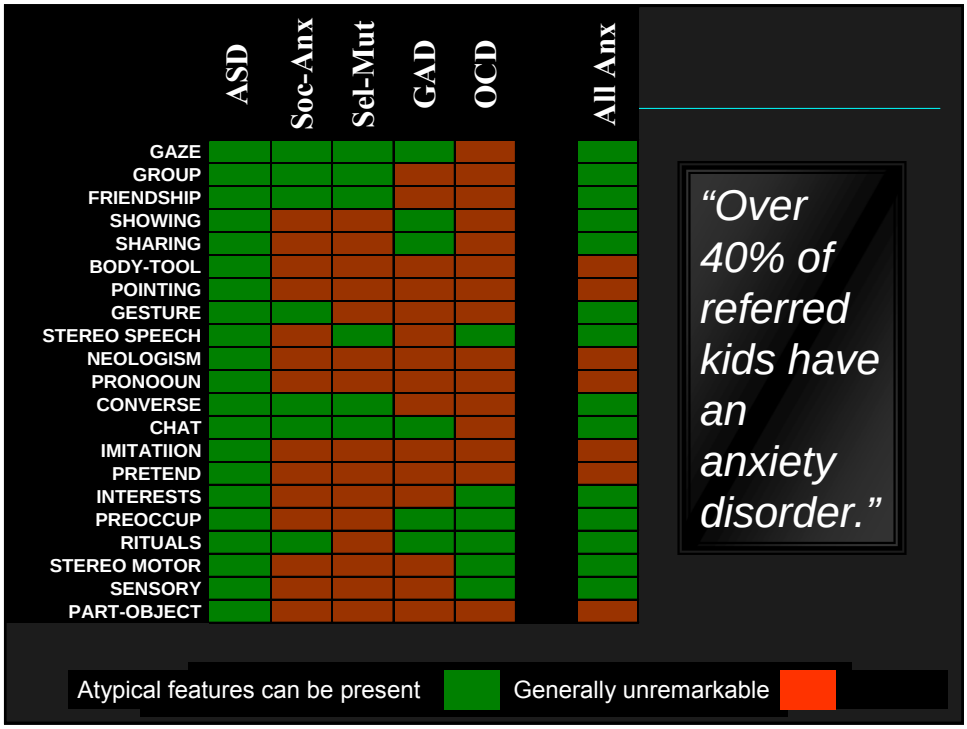


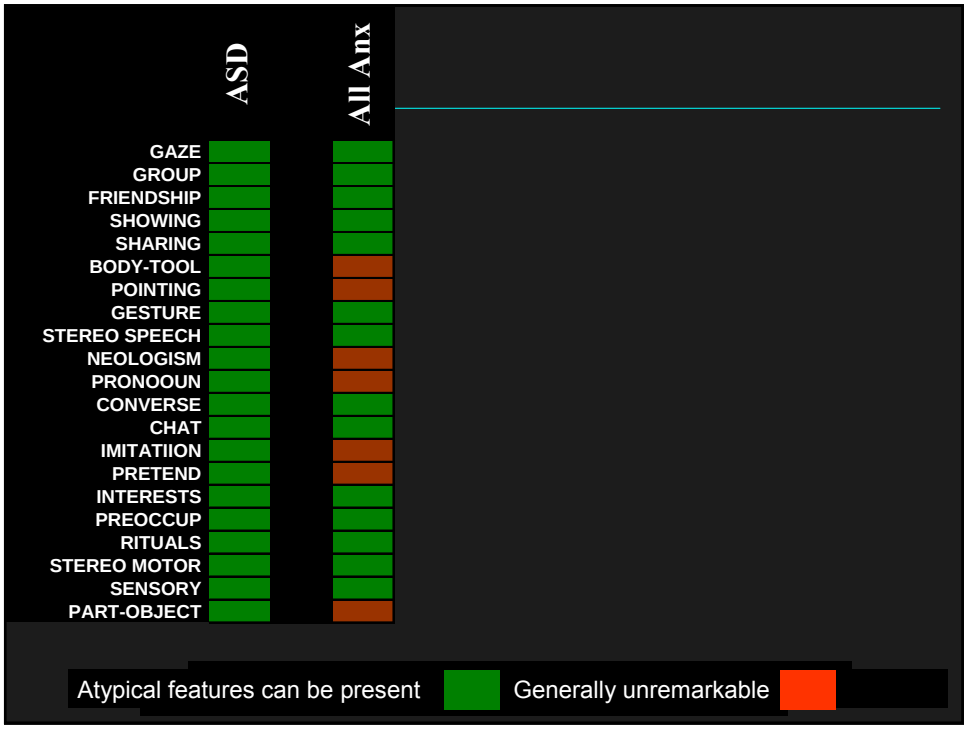



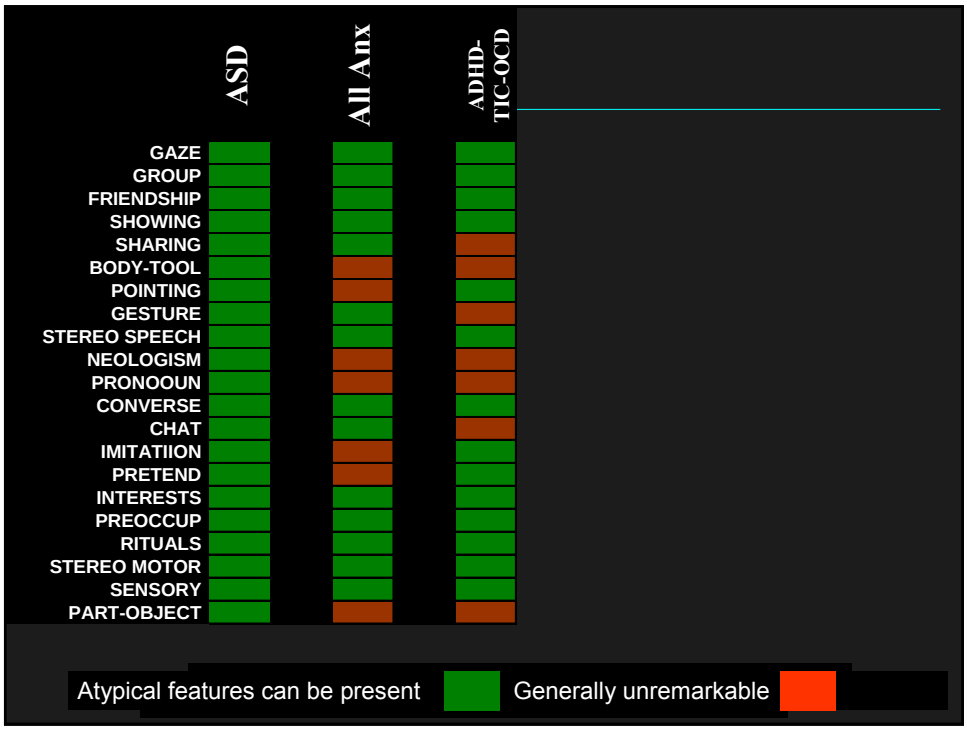


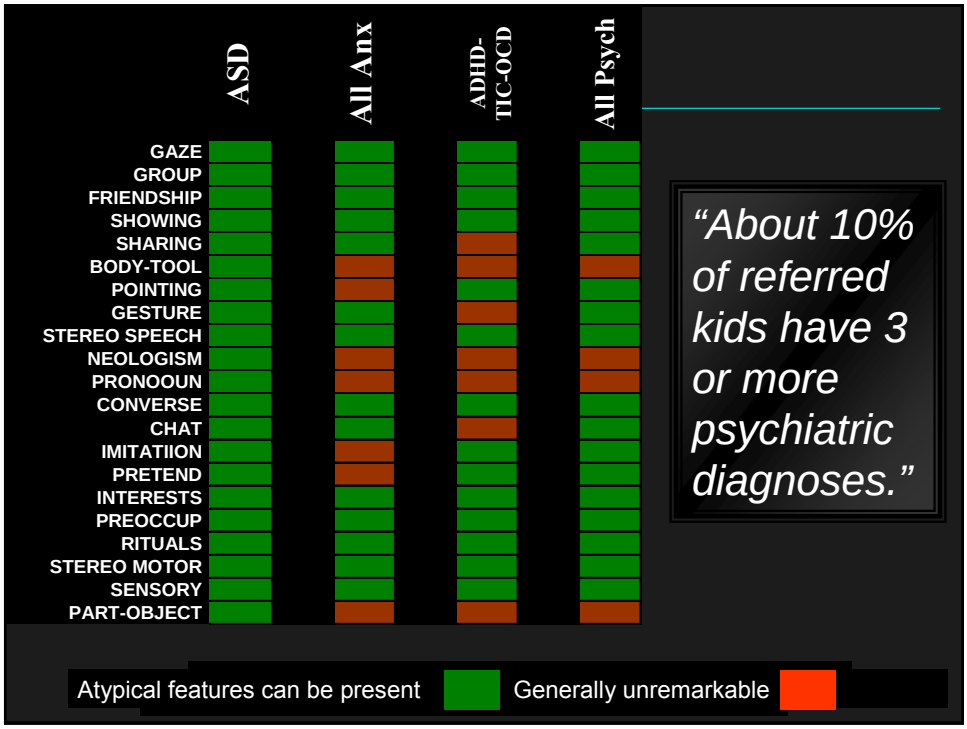



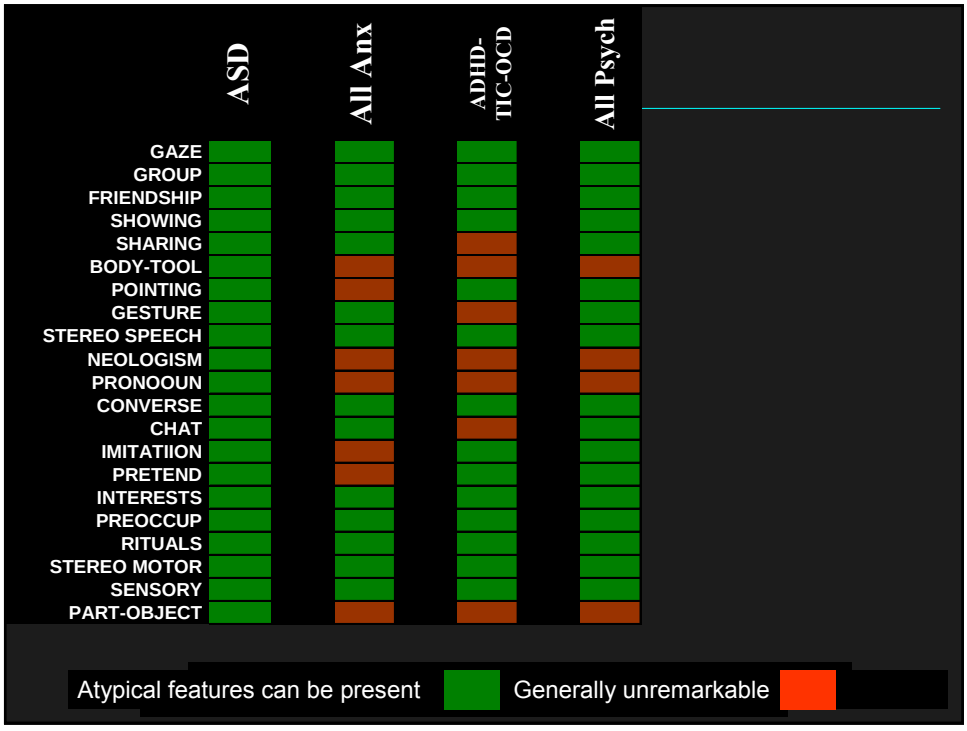


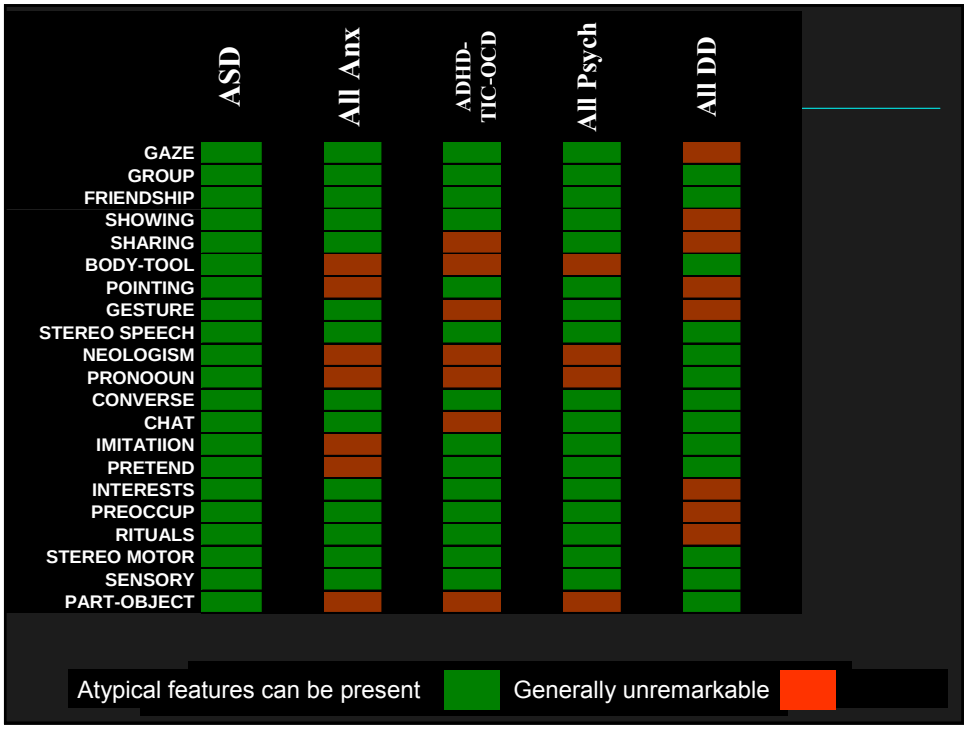



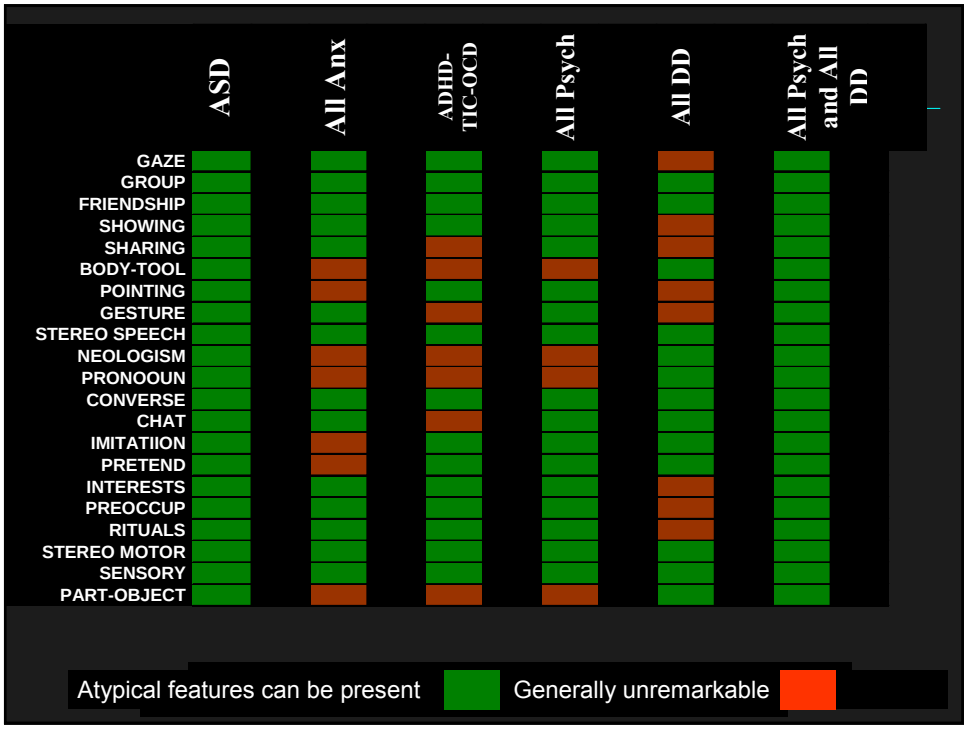






# Mental Health and Individuals with Autism

*A Primer for Community Professionals and Parents*

Presented by

Vikram Dua, MD, FRCP (C)

# PART 3

ACT - Autism Community Training
Suite 240 – 2250 Boundary Road, Burnaby, BC, Canada V5M 3Z3
Toll-free 1-866-939-5188 or 604-205-5467
info@actcommunity.net

*"About 1/3 of referred kids have 4 or more psychiatric and/or developmental diagnoses."*

# ASD Comorbidity Algorithm

***STEP 3-C:***
***Structured psychiatric diagnostic assessment***

C. If a psychiatric disorder is identified, answer questions:

- "Is it developmentally pathologic?"
- "Does the presence of the symptoms negatively effect this child's development or ability to utilize other interventions?"
- "Is it treatable?"

## ASD Comorbidity Algorithm

### STEP 4-A: Treatment Initiation

- *Clarify treatment model (theoretical principals)*
- Establish hierarchy of treatment priority:
  - What is most functionally disabling NOW?
  - Which disorder may be aggravating others?
  - Which medication regimen has best safety record?

## Approaches to Using Medications in ASD

- "Shotgun"
- Symptom complex
- Biochemical "correction"

## The shotgun approach: theory

- ASD core features do not respond dramatically to medication
- Common targets in studies are hyperactivity, aggression, and SIB
- Research tends to involve most impaired ASDs
- Age and developmental level often minimized
- Misinterpretation of data: reduction in self-stimulatory behavior allows child to be more amenable to intervention and learning
- Side effects of sedation may bias raters: may be more likely to rate as more social if is less engaged in self-stimulatory behaviors

## The shotgun approach: practice

- Most typically involves antipsychotic medication
- Generally driven by "problem" behaviour
- Belief that a medication is good for the "disorder"
- Aggression, self-injury, inattention, and stereotyped movements may respond to pharmacological intervention
- but the interventions do not directly ameliorate the basic deficits in social interaction and communication.

# Biochemical "correction" approach

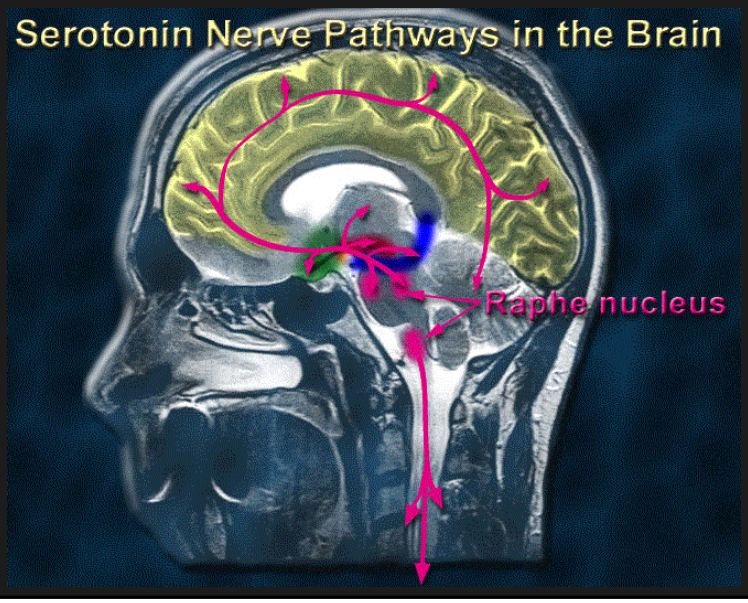
Psychopharmacological treatment aimed specific neurotransmitters

Panel 2: **Probable drug action used to improve psychopathology**

| Symptoms | Noradrenaline | Dopamine | Serotonin | Other effects |
|---|---|---|---|---|
| Delusions and hallucinations | | Decrease | Possible decrease | Possible glutamate increase |
| Depression | Increase | | Increase | |
| Obsessions and compulsions | | | Increase | |
| Self-harm behaviour | Possible increase | Possible decrease and downregulation of $D_1$ receptors | Increase | Possible decrease of β-endorphins |
| Tardive dyskinesia | | Possible increase | | Increase of GABA |
| Aggression | Possible decrease | Possible decrease | Increase | Possible increase of GABA |
| Hyperactivity | Increase | Possible decrease | Possible increase | |
| Inattention | Increase | Increase | | |
| Impulsivity | Increase | | Increase | |
| Anxiety | Central and peripheral decrease | | Increase in panic disorder | Possible increase of GABA |
| Tics | | Decrease | | |
| Stereotypies | | Possible decrease | Possible increase | |

GABA=γ aminobutyric acid, an inhibitory neurotransmitter.

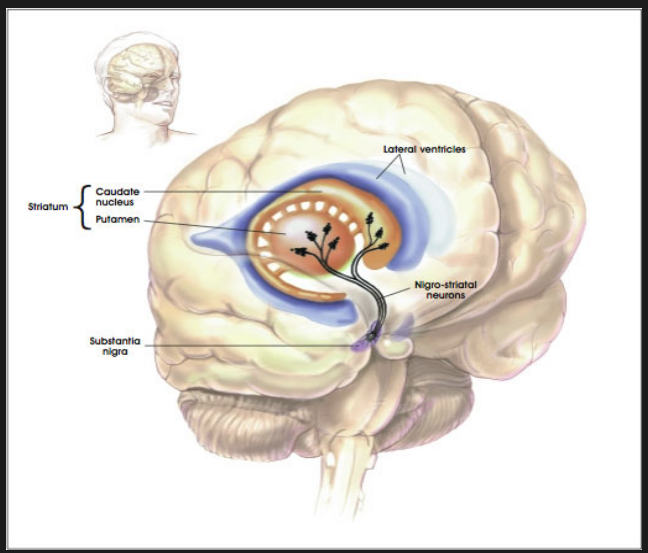
# Biochemical "correction": Serotonin



## Biochemical "correction": Serotonin – The Theory

- Elevated blood 5-HT levels in autism well replicated
- Acute dietary depletion of tryptophan, associated with an exacerbation of stereotyped and aggressive behaviours

## Biochemical "correction": Dopamine



## Biochemical "correction": Dopamine – The Theory

- Most animal models of self-injury involve perturbation of brain dopaminergic systems.
- Human studies of the dopaminergic systems in autism have failed to reveal consistent abnormalities.
- Dopamine antagonists have demonstrated efficacy in reducing aggression and self-injury evident in controlled trials.
- Agents that stimulate DA activity (e.g., stimulant medications ) sometimes worsen behavioral functioning
- Is that suppression of self-injury and aggression is nonspecific (sedation)?

## The symptom complex approach

- A more sophisticated version of the "shotgun" approach

*"The symptom-directed approach to treatment—in the selection of a first choice drug treatment, it is reasonable to work out theoretically the medication that is most likely to have a positive effect. Although there is limited evidence to support this classification, many experienced clinicians use this approach to assist them in their selection of first-line medications."*

- "hyperactivity" (rather than ADHD)
  - Overactivity and/or attentional problems 21-72 %
- "Mood instability" (rather than depression /mania)
  - Mood stabilizers (Valproate and Lithium) shown to improve affective instability and aggression

## ASD Comorbidity Algorithm

### STEP 4-B: Treatment Initiation

- Treatment assumptions:
  - scant reliable research;
  - no medication treats autism's core impairments
  - most prescribed off-label
  - Infrequent before age 5 years
  - Non-pharmacological treatments in this population have weaker evidence

## ASD Comorbidity Algorithm

### STEP 4-C: Treatment Initiation

- Avoid reactive pharmacology – i.e.: ”treat symptoms only as a last resort”
- Follow same treatment algorithms as for unitary psychiatric syndromes
  - Lower overall rate of response
  - Higher likelihood of side-effects: *start low go slow*
- Common to see more than one comorbid psychiatric syndrome (e.g.: anxiety + ADHD)
- Be aware that one disorder can aggravate another (e.g.: anxiety increasing inattention)

## Psychopharmacology Principals

- Early identification and avoidance of complications
- Developmental competence
- Research on psychotherapeutic treatment in ASD
- Psychiatric monitoring
- Medications: Where and when?
  - scant reliable research
  - Infrequent before age 5 years
  - Most drugs prescribed off-label
  - no medication treats autism's core impairments



## Treatment Principals: Anxiety

- Treatment similar to "uni-morbid" anxiety
- SSRI's first line agents (sertraline, fluvoxamine)
- Start low (i.e.: ¼ lowest available dose)
- Move slowly; 3 - 6 months
- Dissolve capsule for young children
- Be attentive to activation side-effects
- Side-effects sometimes limit effectiveness
- Consider different SSRI or venlafaxine
- Consider CBT in older and/or more able patients
  - *SSRI's may improve ASD `transition-associated anxiety'*
  - *SSRI's may improve ASD compulsive behaviours (or rigidity)*

## Treatment Principals: ADHD

- Treat as with pure ADHD:
  - 1st stimulants,
  - then atomoxetine
  - then antidepressants (TCA or buproprion),
  - +/- clonidine (similar dosage)
- Lower likelihood of medication success;
  - if 90% with pure ADHD, closer to 50% with ASD + ADHD
- Higher risk of aggravation of stereotypies, tics, mood
- Attentional problems of ASD often involve excessively narrow focus of attention (or overselectivity)
  - stimulants can be deleterious in an overly focused child with autism.
  - stimulants in general less effective for difficulties with shifting attention, joint attention, alternating attention

## Treatment Principals: Tics / Tourette's

Treat in exceptional circumstances:

- SIB
- Frequency and intensity high enough to cause interference in functioning
- Patient's experience of stigmatization (usually higher functioning older youth)
- Complicating comorbid OCD

- Start with atypical antipsychotics or tetrabenazine, alternatives include typical neuroleptics or clonidine

## Treatment Principals: Depression

- Extremely limited data to suggest medication-responsiveness of childhood depression (SSRI>>TCA**)
- First consideration is to review the home, school, community situation
- Consider psychotherapeutic alternatives
- If medications are indicated, follow similar algorithms as for adults (SSRIs, atypical newer antidepressants, TCA's)

## Treatment Principals: Bipolar Disorder

- Consider trial of valproate (1st) or lithium (2nd)
- WAIT
- Little, if any, evidence to support use of other anti-seizure agents (carbamazepine, gabapentin, Topamax)

## "Behaviour Problems: Please See!"

- "Behaviour Problem" is not a unitary disorder
- Aggression / SIB
  - not uncommon
  - not core to ASD
- Among institutionalized, SIB as high as 15–40%
- First response: Follow ASD Comorbidity Algorithm
- Fastidious attention to support needs: initiate or revise psychosocial (behavioural, educational, environmental) intervention
- Look for specific comorbid psychiatric conditions

## Treatment Principals: "Behaviour"

- Empiric treatment with medication discouraged:
  - Lower rate of response in midst of crisis
  - Impact on cognitive functioning
  - Higher risk of adverse effects
  - Likelihood maintained on medication for prolonged period increasing probability of *irreversible* effects
  - Probability that behavioural containment will discourage addressing psychosocial adjustments
- Consider if placement is threatened
- Large number of agents studied: α-adrenergic agents, β-blockers, mood stabilizers,
- Good evidence that anti-psychotics reduce frequency/intensity of SIB/aggression in ASD

## ASD Comorbidity Algorithm

### STEP 5: Treatment Follow Through

- Always remind that medications will not alter core ASD features, but may improve responsiveness to other interventions
- Be clear that adequate trial(s) may take up to one year
- Warn that multiple medications may be needed
- Be active in treatment planning for non-pharmacologic interventions
- Remain open to other treatments

## Psychiatric Illness in ASD

- Assume ASD can and does frequently co-exist with other psychiatric diagnoses
- Centrality of focus on developmental competence
- Early identification of comorbidity in order to avoid complications
- That the natural history of co-morbid and "uni-morbid" syndromes is similar

## Psychiatric Treatment of ASD Comorbidity

- If a psychiatric disorder is identified, answer questions:
  - **"Is it developmentally pathologic?"**
  - **"Does the presence of the symptoms negatively effect this child's development or ability to utilize other interventions?"**
  - **"Is it treatable?"**
- Avoid reactive pharmacology – i.e.: "treat symptoms only as a last resort"
- Follow same treatment algorithms as for unitary psychiatric syndromes

## The Intersection of Psychiatry and Autism

- Psychiatric illness and autism are intensely inter-woven
- The more we understand about the early, sometimes sub-clinical, manifestations of later psychiatric disorders (bipolar, anxiety, schizophrenia), we see more and more overlap with developmental dysfunction

## Psychiatry, Autism, and Function

- Even from a purely functional view; in children and youth with ASD, it is frequently the presence of psychiatric comorbidity that has the greatest impact
- Equally frequently, the most substantial improvements in functioning of the ASD child or youth and family is through assertive identification and treatment of psychiatric comorbidity

## Psychiatric Involvement in Autism

- When ASD is even a question in school age children and youth, so are psychiatric questions.
- Both accurate diagnosis of an ASD, and meaningful medical recommendations *require* psychiatric involvement at all stages of assessment and support
- Delivering psychiatric services in the integrated in broader medical and developmental services has remained challenging

# *AUTISM AND* MENTAL HEALTH:

## ***FAQ'S and PEARLS***

### *Why Medicine has a role in treatment of ASD*

- *Of modern medical treatments, psychiatric and particularly psychopharmacologic treatments have increasing research support of effectiveness*
- *Most medications, if used judiciously, can have profound impact on functioning.*

### *Why have you only discussed medication treatment of psychiatric illness in ASD?*

- *I believe in the effectiveness of non-pharmacologic interventions, and also believe some of these have more evidence support than others*
- *I have not discussed them primarily because it is not what I have special expertise in delivering*
- *ACT has brought some outstanding speakers to talk about these interventions better than I can*

## *Which non-medication treatments work for psychiatric illness in ASD?*

- *I think the following can be considered 'proven' MH treatments:*
  - *Cognitive Behavioral Therapy for anxiety and depressive disorders*
  - *Group Therapy for some challenges in youth*
  - *Family Therapy*
  - *Functional/Positive Behavioral Support for maladaptive behaviours*

## *Which non-medication treatments work for psychiatric illness in ASD?*

- *I also think we have to be as critical in appraising psycho-social interventions as we are for medications*
  - *We have to understand that in most cases these intervention have not been evaluated in individuals with autism, so we don't know for sure that the work.*

## *What's the best SSRI?*

- *I don't think there is a single best SSRI*
- *They all have proven efficacy in some –sub-population of people with an anxiety and/or mood disorder (e.g.: fluvoxamine for OCD)*
- *However as a general rule it is difficult to find a patient who resembles the study subjects (young age or lack of comorbidity being the most common exclusions)*

## What's the best SSRI?

- *I think the more important thing for a prescribing physician to do is pick 2 or 3 and get familiar with how they behave*
- *I generally use sertraline, fluvoxamine, and fluoxetine in about that order of frequency*
- *They are the 3 oldest SSRI's on the market, giving us about 25 years of data on use*
- *They also have some meaningful real-life differences*

## What's the best SSRI?

- *I often start with sertraline because it comes in a capsule that can be easily opened and the fine powder dissolved in liquid which is often necessary with younger school-age kids with ASD*
- *Patients can switch to swallowing the capsule when able*
- *Has a shorter half-life*

## What is the Sertraline OJ mix?

- *One can measure the volume of OJ (say 1 cup) and mixing dispense a fraction of the juice (say ¼ cup)*
- *Store the remainder sealed container in the refrigerator to use for the next few days.*
- *This also allows you to dispense very small doses (e.g.; 6.25 mg or ¼ of the smallest available dose of sertraline)*

## What is DDMHS?

- *Developmental Disability Mental Health Support*
- *1 "team" in each of 5 health authorities*
- *Generally has psychologist, psychiatric, other specialized consultation available*
- *Mandate is kids age 12 to adult, with BOTH a "developmental disability" and a mental health condition*

## Do you always start with a stimulant in treating ADHD?

- *Almost always.*
- *I rarely will use a 2nd line ADHD medication to <u>begin</u> treatment of a child (e.g.; atomoxetine, buproprion)*
- *In my experience, if medication is going to result in real-life meaningful benefit for ADHD (i.e.; justifying costs and risks), it is usually with a stimulant*

## Which is the best stimulant in treating ADHD?

- *Both MPH and DEX have equal research support for efficacy*
- *I generally prefer methylphenidate (MPH), mostly because I have the most experience with it – others reasonably choose to start with dextroamphetamine*

## What is the best formulation for a stimulant in treating ADHD?

- *I prefer to start, especially younger school age children, on the simple "immediate release" form of a psychostimulant*
- *The main reason for this is that if the child has an adverse reaction, it is possible that it was because of the medication's unique delivery system (e.g.; Concerta OROS) or because of the active ingredient*
- *As well, in most younger children, they do not gain much from 12 hours as opposed to 8 hours of coverage*

## What is the best formulation for a stimulant in treating ADHD?

- *I eventually switch most of my patients to a sustained release version by middle school, mostly because of increased after-school obligations and the nuisance of ensuring multiple-daily dosing consistently*

## How many medications is too many?

- *The more important consideration is the indication for medication - not number of medication*
- *Drug-Drug interactions are not uncommon, but it most cases, these are nuisance side effects*
- *You increase the risk several fold each time you add another agent*
- *Many children are on 3 or more different medications, and receive substantial benefits*

## *When should psychiatric medications be a consideration in the treatment of an individual with ASD?*

- *When they have a reasonable potential (i.e.; greater that chance) of improving functioning, development, or quality of life*
- *Most individuals with an ASD will benefit from psychopharmacologic treatment at some time in their life.*

## *Do you always treat psychiatric phenomena?*

- *In a few cases the adverse effects or risks of a treatment far outweigh any benefits (even if present) – for example metabolic syndrome on atypicals, or agranulocytosis on clozapine (this is usually only discovered after a treatment has been started)*

## *Is psychopharmacologic treatment dangerous?*

- *All medication/supplement treatment has inherent risk, however small*
- *In almost all situations, careful medication selection, titration, close monitoring, and good communication with the treatment provider will limit any potential adverse effects to a few hours or a few days ( i.e. are reversible – not irreversible)*

# Mental Health and Individuals with Autism

*A Primer for Community Professionals and Parents*

Presented by

Vikram Dua, MD, FRCP (C)

# PART 4

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## *My child is on risperidone, and it really helps him, but he has put on 20 kg since he started. Should I be concerned?*

- *Yes, but that may not mean he/she should be taken off the medication.*
- *The metabolic side-effects of most, atypical antipsychotics (and many first generation antipsychotics as well) are well recognized and not uncommon*
- *Not all children suffer from this adverse effect, and we do not have reliable ways deterring which children are more likely to gain morbid weight before-hand*

## *My child is on risperidone, and it really helps him, but he has put on 20 kg since he started. Should I be concerned?*

- *The main problems are with blood sugar/glucose and lipids, and the physical impact of having that much extra weight*
- *If your child is putting on substantial weight, he/she should have metabolic blood work*
- *We know less about what to recommend for abnormal results should it be necessary to keep the child on the medication – except nutrition counseling*

## *My child is on risperidone, and it really helps him, but he has put on 20 kg since he started. Should I be concerned?*

- *There is some suggestion that a newer medication zisaprazidone does not have a significant metabolic effect but there are other risks and most of us do not have much personal experience with it*

## *Do we need a psychologist or a psychiatrist to help our child?*

- *A psychiatrist is medical doctor, and licensed to prescribe medication. Most are trained in psychotherapies as well, but many do only a little of that*
- *Once stabilized, many children can have their medications safely and effectively managed by their pediatrician or family doctor*

## *What is the impact of psychopharmacology on development?*

- *There are a number of "habiltative" treatments that have a strong evidence base – psychological, speech pathology, physiotherapies, but being able to implement the treatment requires certain behavioural expectations for the child*

## *What is the impact of psychopharmacology on development?*

- *Our children's social lives are generally governed by some general rules of compliance and available support – especially if fully integrated*
- *This also means your child's peers will be going through predictable learning and expectation leaps at various points in their lives*
- *In order for a child to fully benefit from peer interaction, they need to participate in the learning process, but in an adapted way*

## *What is the impact of psychopharmacology on development?*

- ***A number of psychiatric syndromes have features that directly interfere with implementing habiltative interventions (e.g.; ADHD symptoms precluding clinically faithful ABA, or selective mutism symptoms making SLP intervention impossible)***

## *What's the best way to integrate psychiatric treatment into a broader intervention program?*

- ***For me, the most important value of communications with other intervention team members is obtaining data about the child's functioning in different settings.***
- ***One sees only a snapshot of a patient in an office appointment (and to their parents chagrin are often uncharecteristally well-behaved for the doctor)***

## *What's the best way to integrate psychiatric treatment into a broader intervention program?*

- ***The caregivers provide a lot of data, but are not clinicians, that have a common lexicon to describe behaviours***
- ***Effective communication can be established through emails, checklists, questionnaires, phone calls, or face-to-face meetings (at least a couple of the latter is helpful to establishing "teamness")***

## *Do you recommend school visits?*

- *Yes.*
- *I used to do them regularly and they are invaluable in establishing alliances with school professionals.*
- *I plan to resume doing them again…….sometime soon…..*

## *How will we know the medication is working?*

- *There are a number of rating scales that can be used to track changes in target symptoms*
  - *Often I find crating an individual one for the child is the most meaningful in terms of monitoring for desired effects*
- *In the end the whether a medication is effective or not should not be a "head-scratcher"*
  - *As well, treatment response should not be determined only by checklists*

## *What side-effects should I be concerned about?*

- *These vary according to medication*
- *The vast majority of these are nuisance side-effects that do not cause substantial functional problems and can often be dealt with by adjustments*
- *Some medications have predictable and significant adverse effects, that can sometimes require periodic monitoring (e.g.; blood tests, EKG, EEG) to reduce the risk*
- *There are a few very infrequent but serious adverse reactions that are sporadic and impossible to predict*

## How long does it take to establish a stable medication regimen for an individual with autism?

- *A good rule of thumb is 1 year per medication*
- *Typically it takes about 2 years when multiple medications are being used*
- *But benefits accrue much sooner, though, so you aren't waiting 2 years to see improvement*

## How long does it take to establish a stable medication regimen for an individual with autism?

- *In general medications will begin to have noticeable effects within a few weeks*
- *However we all have natural variations in how we are thinking or feeling, so it may require a longer period to be certain that an observed change is not coincidental or unrelated*

## If these individuals have so many disorders, which one do you treat first?

- *Referred children and youth commonly have features of several different disorders, such as ADHD, anxiety, mood*
- *The culprits in this situation are usually either anxiety or ADHD as the primary problem, though occasionally a depression is the first time a youth (12-25) presents for psychiatric assessment.*

## *If these individuals have so many disorders, which one do you treat first?*

- *In a "medication-naïve" patient (generally school age), the first objective should be correcting any developmental impact – be it learning/school, communication, emotional development*
- *A stimulant trial, especially with the availability of long-acting stimulants is often the easiest and quickest medication to try*

## *If these individuals have so many disorders, which one do you treat first?*

- *However for a "medication-naïve" child and family, this is often not the best first encounter with psychiatry*
- *this is especially true in young or very delayed children Or where the presence of anxiety overwhelms all other symptoms*

## *Do you use first-generation or "typical" antipsychotic medications?*

- *Reluctantly.*
- *This group includes haloperidal, chlorpromazine, and others.*
- *We have extensive experience with their use, but unfortunately they are associated with higher risks for irreversible movements disorders (TD), and a number adults with autism treated with these medications in the 60's through 80's suffer from permanent TD*
- *I do have some patients on them; mostly if they have complicated and impairing tics*

## How do weights and doses need to be adjusted?

- *The major weight adjusted medications in psychiatry are stimulants, lithium, and benzodiazepines (the latter 2 unlikely in younger children)*
- *For most medications, the impact of smaller body size is off-set by the fact that children's livers are more active, and clear out the drugs more efficiently – meaning around adult recommended dosages*

## How do weights and doses need to be adjusted?

- *Also means that once a most-effective medication and dose is found (which can take a couple of years) it is likely to remain there into early adult-hood*

## Does "start low and go slow" mean smaller doses in children?

- *Not generally.*
- *The idea is to allow the body to acclimatize to the medication slowly, which minimizes or avoids side-effects (which tend to be most common at initiation and dose increases)*
- *As a rule of thumb I will try and start at a ¼ of the lowest available dose of many medications*

## *Does start low and go slow mean smaller doses in children?*

- *I also "titrate" the dose up more slowly than generally recommended*
- *For example, I may start at 6.25 mg of sertraline, when the ultimate treatment dose is 150 mg (achieved many months later)*

## *Does start low and go slow mean smaller doses in children?*

- *The biggest risk of this approach is that one doesn't push the dose to adequate levels in the end*
- *Because it takes times, and often several doctors visits to adjust dosing in this way, the patient must have ready and regular access to the doctor, at least for the treatment initiation phase*
- *What sometimes happens is that appointments are had to obtain, or get cancelled or missed for some reason, and the child is never dosed optimally*

## *How does bipolar disorder present in autism?*

- *We don't know very much about the condition called juvenile bipolar disorder – either in typically developing children or children with autism*
- *There is disagreement about whether the diagnosis (not the symptoms) even exists – or is just renaming other conditions*
- *If it exists, we not sure that it bears any relationship to what is called adult bipolar disorder*
- *In the US there is more enthusiasm for diagnosing and treating bipolar kids, not without controversy*

## *How does bipolar disorder present in autism?*

- *In my experience bipolar disorder is uncommon, like less that 10% of my case-load will I consider a bipolar diagnosis.*
- *When I do, it is often by a process of exclusion of other conditions as "primary" disorders (for example complicated ADHD)*
- *Rarely do I diagnose this in pre-adolescents*
- *The hallmark of bipolar disorder is a cyclic pattern of affective fluctuations (can be sadness, anger, over-activity) than are not only caused by environmental triggers*
- *I want to see evidence of sustained disturbance beyond a few minutes or even hours*

## *How does psychosis present in a teen with ASD?*

## *How often do siblings of children with ASD have anxiety?*

***Do "stimming" behaviours change form over time & should one not try to "shape" them?***

***Is stuttering related to tics and/or autism?***

***Is IQ testing reliable in kids with autism or other co-morbidity***

***Do stimulant medications result in tolerance or addiction?***

***When should medications be tapered and/or discontinued?***

***How do you deal with parents who refuse psychiatric assessments or treatment?***

***Melatonin***

***How do you taper?***

***How much to share with other people because of the stigma?***