Identification of Co-Morbid Mental Health Issues in Autism Spectrum Disorders

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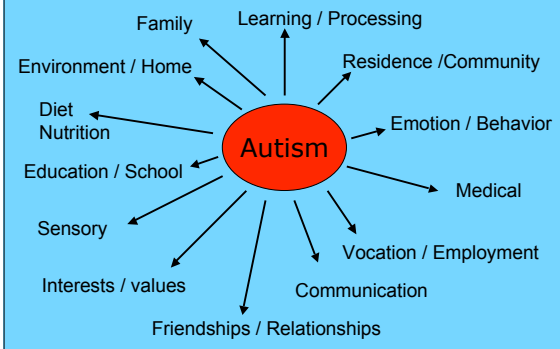
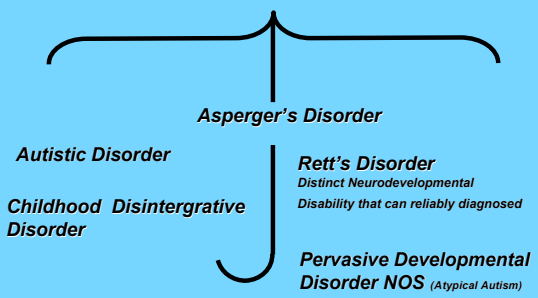
Complex Needs for Individuals with Autism



Pervasive Developmental Disorder



Domain and Range of Functioning of Persons with PDD / Autism

Kanner — Asperger

Measured IQ
Severe ↔ **Gifted / Superior**

Social Interactions
Aloof ↔ **Passive** ↔ **Active/Odd**

Communication
Nonverbal ↔ **Verbal**

Motor Skills
Awkward ↔ **Agile**
Uncoordinated ↔ **Coordinated**

Sensory Functioning
Hyposensitive ↔ **Hypersensitive**

Internal Arousal
Low / Non-responsive **or** **Extreme**

Psychiatric Diagnosis in persons with Autism and Intellectual Disabilities

-Behavior problems and psychopathological symptoms (reduced ability to handle stress) is more likely to occur in person's with ASD than in the general population

- The full range of psychiatric conditions that are present in the general population are expressed in person's with Autism Spectrum Disorders.

-Psychopathology tends to be more severe and persistent in person's with more severe degrees of autism and Intellectual Disabilities

Psychopathology in Children and Adolescents with Autism

Reports indicate that children with Autism present with more psychiatric symptoms or disorders than other children Gillberg & Billstedt (2000)

These symptoms and disorders include:
Obsessive-Compulsive disorder (McDougle et.al. 1995)
Mood Disorders (Bradley, Summers, Wood & Bryson, 2004)
Anxiety and Fears (Kim, Szatmari, Bryson, Streiner, & Wilson, 2000)
ADHD – impulsivity, low frustration tolerance, temper outbursts (Goldstein & Schwebach, 2004)
Adjustment difficulties
Self Absorbed and relationship difficulties
Sleep and appetite disturbances

Co-occurring Conditions in Autism Spectrum Disorders

Reports of a co existing psychiatric disorders in ASD:

Clinically significant emotional and behavior problems are 2 to 3 time more prevalent in individuals with ASD than in the general population (Einfeld & Tonge, 1992)

In 65% to 85% of individuals with an Autism Spectrum Disorders deBruin et.al; Ghazziuddin 1998), Leyfer (2006); with rates tending to be higher in ASD than in groups of individuals with Intellectual Disabilities. Brereton, (2006)

More common types of psychiatric diagnoses in the ASD population

- Affective Disorders (suggested range up to 64%)
- Depression - projected at 28% (Howlin,2002)
- Anxiety Disorders
- Adjustment Disorders
- Intermittent or Impulse Control Disorder
- Stereotypy Disorder
- Schizophernia (low incidence)
- Personality Disorders

Defining Comorbidity

There is a paucity of research and literature on the comorbidity of persons with Autism Spectrum Disorders

The term comorbidity refers to the occurrences of two or more disorders together. It is the documentation of more that one condition in the same person

Importance of identifying Psychiatric Comorbidity in ASD Ghaziuddin (2005)

1. The identification and treatment of co-occurring conditions affects the long term outcomes of the person

2. Examination of the factors underlying co morbidity can help us understand the etiology of the individual disorders

<u>Impact of psychiatric co morbidity can include:</u>
- Excess functional disability
- Increased morbidity and mortality
- Increased health care utilizations and costs
- Decrease adherence to treatment regimens
- Higher potential for drug interactions due to use of multiple medication
- Increased likely hood of medical complications

Co-Morbid Disorders or Symptoms

- Many individuals with autism may also have other associated developmental, behavioral, psychiatric and medical conditions. Behavior difficulties may be related to core features (e.g., perseveration or obsessiveness), co-morbid diagnoses or symptoms (e.g., aggression, disruption, depression, hyperactivity, self-injury, and others) sensory or motor abnormalities.

Examples of Co-morbid Disorders in Autism Spectrum Disorders

- Intellectual Disabilities
- Depression and mood Disorders
- Anxiety and OCD
- Attention Deficit Hyperactivity Disorder (ADHD)
- Seizures
- Allergies
- Hypoglycemia
- Sleep Disorders
- Gastrointestinal Disorders
- Sensory Integration
- Movement and Stereotypic Disorders/Tics

Associated Psychiatric and Medical Conditions for person's with Asperger's (Ghaziuddin, 2002)

Co-occurring Conditions
AS and Obsessive Compulsive Disorder / fine line
AS and ADHD
AS and Mood Disorders
AS and Schizophrenia
AS and Tic Disorder
AS and Seizure Disorder
AS and Sleep Disorder

Tics and Tourettte Syndrome in Autism Spectrum Disorders

Canitano and Vivanti (2007) Autism

N=105 children and adolescents with ASD

Results:
22% presented with Tics
11% with Tourette's
11% with chronic motor tics

Tic Characteristics versus stereotypies (Jankovic,1997)

Tics	Stereotypies
• Brief and Intermittent	Rhythmic and slower
• Face, neck, shoulders, arms and whole body when complex	Whole body, trunk, hands and fingers
• Not purposeful	May be purposeful
• Waxing and waining	More stable over time
• Urge and premonitory sensations	No premonitory sensation

Sleep Problems In Children with Autism

Williams, Sears, Allard (2004). Journal of Sleep Research

N=210 parents of children with Autism were surveyed

Prevalence estimates from parents report range from 44-83%

Most frequently reported sleep problems included;
•Difficulty falling asleep
•Restless sleep
•Not falling asleep in own bed
•Frequent awakenings

Associated with a poor sleep / wake cycle

Less reported sleep problems:
•Sleep walking (more in DD population)
•Morning headaches
•Apnea
•Crying during sleep
•Nightmares

Association between sleep problems and medical problems

With decreased nighttime sleep
•Vision problems
•Upper respiratory problems
•Runny nose

With increased night time waking
•Vision problems
•Poor appetite
•Poor growth

Disturbed sleep has been linked to attention difficulties, learning, memory, and decrease in creativity, irritability and aggression.

Problems with sleep onset and maintenance are also common to typically developing children up to 1/3 toddlers and preschoolers that have night time wakening that are a concern to parents.

Sleep problems / Disorders of concerns

Nightmare – often occur at time of transitions, stress or change in the child's routine. Majority of nightmares tend to go away on their own. Talking about nightmares, discussing positive images and avoiding negative images or television program prior to going to sleep are effective techniques in decreasing these episodes

Night terror / sleep walking – usually observe in neurotypical children between ages 4-8 years of age. The child is both Asleep and awake at the same time and often has no memory of the event. There episode are transit and will go a quickly as there are notices. Waking or comforting the child during this event will often prolong it (reinforces it) Interventions include making the environment safe and limiting space to roam

Narcolepsy
excessive daytime sleepiness and uncontrolled "sleep attacks"

Factors that influencing an accurate Psychiatric Diagnosis in Autism Spectrum Disorders

Belief that persons with Autism can not have Mental Illness

The psychiatrist can not secure an accurate diagnosis without relying on the patients self report

The psychiatrist / psychologist must formulate the diagnosis alone in one office visit

"Diagnostic Overshadowing" All problems are related to Autism

Medication masking

Medical condition that masks the psychiatric illness

Comprehensive Assessment can include:

History – family, developmental, school, work, medical

Self report , family and support staff rating scales

Interview and direct observations

Biographical Timeline (Life events)

Medical Work up / Physical exam/ Nutrition if indicated

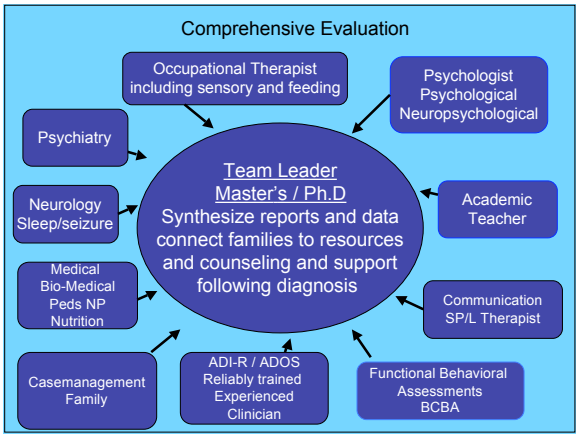
OT/SP/L/Communication

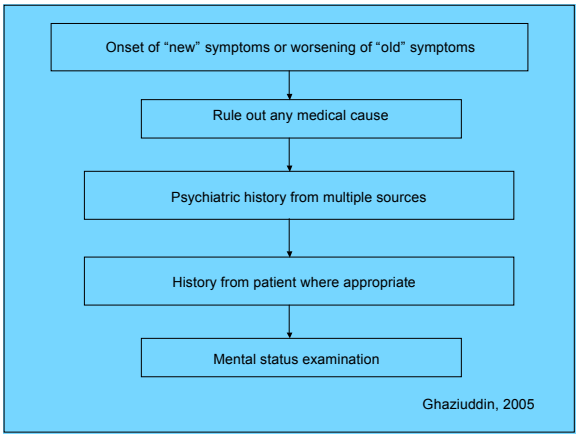
Psychological / Neuropsychological Evaluation

Neurodiagnostics if indicated (EEG/f-MRI/CT,PET)

Medications – combinations (effects and side effects)

Behavioral data and responses to interventions





Clinical Issues

Lovell & Reiss (1993)

Intellectual distortion – person is unable to label and report on his/ her own experience (feelings to words)

Psychosocial masking – as a result of improvised social skills, mis-assumption of nervous and illness as psychiatric symptoms (anxiety / paranoia)

Cognitive disintegration – a stress induced disruption of information processing that presents as psychotic features (self talk, or imaginary friend, thinking out loud)

Ten Diagnostic Principles

Sovner & Hurley (1989)

1. Person's with developmental handicaps suffer from the full range of psychiatric disorders
2. Psychiatric disorders usually present as maladaptive behavior
3. The origin of psychopathology is multi-determined
4. Acute psychiatric disorder may present as an exaggeration of a longstanding maladaptive behavior
5. Maladaptive behavior rarely occurs alone

Diagnostic Principles (continued)

6. The severity of the problem is not diagnostically relevant
7. The clinical interview alone is rarely diagnostic
8. It is extremely challenging to diagnose psychotic disorders in persons who are severely autistic and profoundly intellectually involved
9. Maladaptive behavior can be organized into a behavioral hierarchy (first, second and third order)
10. State and trait psychopathology frequently coexist

Psychopathology Screening Questions

Sovner

- Is there a significant change in the person's behavior or mood that occurs in all settings rather than in some settings?
- Is there little or no improvement in the person's behavior despite the application of consistent, high quality behavior intervention?
- Has the person experienced a decreased ability to adapt to the demands of daily living (e.g., decrease in self care and ADL's)?

Psychopathology Screening Questions continued

- Has the person experienced a decrease in involvement with others?
- Has the person lost interest in previously preferred activities?
- Has the person had an overall change (increase or decrease) in motivation levels?
- Has the person shown/ expressed impairments in his/ her perception of reality such as, responding to internal stimuli (voices or false beliefs)?

Assessing Psychopathology in Individuals with Intellectual Disabilities

- DSM - IV –TR
- Review of Records
- Interviews
- Observation Method
- Rating Scales

DSM IV-TR Diagnostic Symptoms and ASD Behavioral Equivalents: Looks are Deceiving

Disruptive Disorders in Autism

Attention deficit Hyperactive Disorder (ADHD)

Investigators report a range of 29 to 73% of the population studied

Typically children have long attention span when engaged in preferred activities
And short attention and distractibility in other situations

Attention Deficit and Disruptive Behavior Disorders

DMV-IV-TR	Consideration for ASD related features
Inattention Difficulty in sustaining attention in tasks or play activities	Preoccupation / passions
Has difficult organizing tasks/activities	Central coherent deficits
Easily distracted by extraneous stimuli	Sensory Overstimulating Environments
Impulsivity Difficulty with taking turns blurts out answers before questions Are completed	Deficits in reading social cues May respond to a word or phrase in the question

Oppositional Defiant Disorder (ODD)

DMV-IV-TR	Consideration for ASD related features
negative / defiant / hostile behavior	
Often looses temper	Transitions/ rules frequently change
Often deliberately annoys people	Perseveration / asks questions intrusive
Often annoyed by others	Breaking in on rituals/routines
Is often spiteful and vindictive	Not typical of ASD population Requires perspective taking and manipulation
Often blames others for his/her Behavior - tells lies	Also not typical of ASD group Will often stick to the facts

Autism and ADHD: Theoretical Considerations and Treatment Strategies

Melmen, R., D. & Reynolds, S., O. Advances in ADHD Vol. 1 (4), 2007

ASD and ADHD are viewed as distinct disorders with varied developmental trajectories.

ADHD symptoms first appear at 3 year of age
Peak diagnosis of ADHD occurring at 12.
The incidence of ADHD increase gradually throughout childhood.
The incidence of ADHD persist over time,
The incidence of the disorder decreases in adults
In contrast, ASD symptoms appear before 12 months or earlier
Diagnoses occurs earlier than ADHD with peak diagnosis at age 7

Characteristics Associated with Presence of Depressive Symptoms in Adults with Autism Spectrum Disorders

Sterling, Dawson, Estes & Greeson, (2008)

Depression factors when screening for person's with ASD

Individuals with less social impairments, higher cognitive ability and higher rates of other psychiatric symptoms were more likely to report depressive symptoms

Children presenting with ASD presenting with depressive symptoms are more likely to have a family history of depression and mood disorders

ASD Depressive Symptoms continued

Wing, 1981 suggested that those individuals with more social awareness are more likely to experience depressive symptoms

Children and adolescents who have social awareness and experience school related social failure are vulnerable to developing depressive symptoms

Depression in Autism Spectrum Disorders

Evidence suggests that depressive symptoms are the most common psychiatric concerns among individuals with ASD

Depressive Symptoms are more likely to occur in adolescence and adults Ghaziuddin,2002, Rutter 1970, Wing, 1981

Depressive symptoms have been noted to exacerbate the core ASD characteristics resulting in reduced communication, social withdraw and isolation, psychomotor agitation, self mutilation and self injury, obsessive compulsive and ritualistic behavior and sleep disturbance
Lainhart, 1999; Perry, et.al. 2001

Diagnostic areas of concerns with depression
overlap with some of the core ASD features

•Neurovegatative, (eating / sleeping)

•Affective (Flat affect / Withdraw/Isolative)

•Communication (perseverate, echolalia)

•Impaired verbal and nonverbal communication can mask the symptoms

•Anxiety (rituals/routines)

Depression in Autism and Asperger's Syndrome

Stewart, Barnard, Pearson, O'Brian (Autism, 2006)

Autism and Asperger's are associated with increased prevalence of psychiatric disorders; the most commonly reported are depression and anxiety (Howlin, 1997)

Diagnostic challenges when considering depression in individuals with Autism and Asperger's

- Social Isolation
- Withdrawal
- Flat affect / crying episodes
- peculiar eating habits
- Communication difficulties
- Sleep problems
- Circumscribed interests

Clinical Interview should focus on Onset / Regressions of symptoms and behaviors

What is Depression?

- Major Depressive Disorder
- Dysthymic Disorder (chronic depression)
- Depressive Disorder, NOS
- Adjustment Disorder w/ disturbance in mood

Dysthymia

Category
Mood Disorders

Symptoms
Depressed mood for most of the day, for more days than not, and ongoing for at least two years. During this time, there must be two or more of the following symptoms: under– or over eating, sleep difficulties, fatigue, low self-esteem, difficulty with concentration or decision making, and feelings of hopelessness. There can also not be a diagnosis of Major Depression for the first two years of the disorder, and has never been a manic or hypo-manic episode.

Types of Depression
Depressive disorders come in different forms. Three of the most common are Major Depression, Dysthymia, and Bipolar Disorder. There are variations in the number of symptoms, their severity, and persistence.

Dysthymia is a less severe type of depression that lasts a long time but involves less severe symptoms,and may be expressed as not functioning well or feeling good. People with dysthymia may also experience major depressive episodes.

Major depression is manifested by a combination of symptoms (neurovegatative, mood, affective, thinking / processing) that interferes with the person's ability to work, study, sleep, eat, and enjoy once pleasurable activities. Some people have a single episode of depression, but many have episodes that recur.

Depression is also often found in persons with **frequent physical complaints** such as stomach aches, headaches, nausea, or injury occur in children with separation anxiety disorder. The clinician must determine whether these complaints warrant further medical investigation.

Bipolar Disorder

(also called manic-depression) is another type of depressive disorder. If you have bipolar disorder you are troubled by cycling mood swings - usually severe highs (mania) and lows (depression). When in the manic stage, the individual may be overactive, overtalkative, and have a great deal of energy. Mania affects thinking, judgment, and social behavior, sometimes in ways that cause serious problems and embarrassment. A person in a manic phase may feel elated, And full of grand schemes. Mania, left untreated, may worsen to a psychotic state, where the person is out of touch with reality

Types of Symptoms

Neurovegetative: Sleep difficulties, changes in appetite, weight loss or gain

Affective: Sadness, euphoria, grandiosity, mood swings, decreased interest in pleasurable activities or excess interest.

Cognitive: Difficulty in concentrating, distractibility, memory and orientation

Perceptual: Thought distortion, delusions, hallucinations, racing thoughts

Behavior: Aggression, self injury, loss of ADL's, changes in speech patterns (volume, rate)

Mood Disorders in Autism and Asperger's Syndrome

Depression - Stewart, Barnard, Pearson, O'Brian (Autism, 2006)

Depression - behavioral equivalents

- depressed, irritable – immediate negative reaction
  - decreased smiling; increased whining, short fuse, everything rubs the person the wrong way
- decreased interests -
  - decreased responses to preferred activity and passions; increased time spent in room or alone (isolation)
- decreased, increased appetite -
  - Fixate on measured weight (125 lbs), meal portions
- decreased, increased sleep -
  - sleep chart

Depression continued - behavioral equivalents

- activity -slowed or agitated (aggression, SIB)
  Increase in verbal confrontations, pacing, perseveration, verbalizing, rituals that may do physical harm to the person
- worthlessness, negative self esteem -
  - verbalizations "I'm no good" "retarded" "marshmallow"
- decreased concentration -
  - Failing grades school, workshop performance, not completing homework
- death, suicidal thoughts -
  - focus on people who have died in the past,
    perseveration on videos with dangerous acts
    talk about not wanting to live or wish I was never born

Mania - behavioral equivalents

- euphoric, elevated mood or irritable -
  - increased smiling, silly, spontaneous laughing, SIB (tattoos/ self mutilation)
- grandiose -
  - inappropriate inflated self esteem / know it all, comparing self to celebrity status
- decreased sleep -
  - Up all night on Internet (addiction), increased preoccupation in passions - sleep chart
- pressured, rapid speech -
  - increased swearing, singing, screaming, stuttering

Mania continued - behavioral equivalents

- racing thoughts -
  - rapid, disorganized speech and ideas
    stammering, stuttering, sentences run together, end or words are not clear
- distractibility -
  - decrease in school performance and work productivity. pay checks are less
- agitation -
  - increased negativism, aggression, immediate refusal refusals on demand and requests

hypersexual-

- increased teasing, sexual behaviors (masturbation), stalking (both male and female), physical intrusiveness, explicit sexual conversations

Adjustment Disorder

Adjustment Disorders Common Characteristics
Relates to a significantly more difficult adjustment to a life situation than would normally be expected considering the circumstances. When these changes / adjustment causes significant problems for an abnormal length of time, it may be considered an adjustment disorder.
The disorders in this category can present themselves quite differently with varying degrees of duration and intensity.

The key to diagnosing is to look at:
(1) the issue that is causing the adjustment disorder
(2) the primary symptoms associated with the disorder.

Anxiety Disorders

- Separation Anxiety Disorder
- Obsessive Compulsive Disorder (OCD)
- Posttraumatic Stress Disorder (PTSD)
- Generalized Anxiety Disorder
- Panic Disorder w/ or w/o Agoraphobia
- Anxiety Disorder, NOS

Obsessive-Compulsive Disorder (OCD)

Category
Anxiety Disorders

Symptoms
The key features of this disorder include obsessions (persistent, Often irrational, and seemingly uncontrollable thoughts) and Compulsions (actions which are used to reduce anxiety of the obsessions). Examples of obsessions in ASD excessive rule governed behavior related to schedules, rules, etc., which are persistent and uncontrollable. For these behaviors to constitute OCD, it must be disruptive to everyday functioning (such as compulsive doing activities in order before leaving the house that results in being later or missing all or most appointments, or interferes with the individuals ability to perform everyday functions like work or school because of the obsessions or compulsions).

Obsessive-Compulsive Disorder

- **obsession** - intrusive, unwanted thoughts
  - perseveration on topics, past and future events
  - religion, sex, TV shows, internet, people
  - foods, bodily functions
- **Compulsion**
  unwanted actions, rituals habits
  - hoarding, packing / stuffing, rituals, routines
  - strict adherence to a schedule, activity, time, person or objects
  - frequently checking, touching, licking, mouthing, ordering things

Phobic Disorder
Sounds – Animals - Environments

Social Phobia

Separation Anxiety Disorder

What is Separation Anxiety Disorder?

Separation anxiety disorder is characterized by significant distress when a person is away from parents, caregivers, or home. Separation anxiety disorder can dramatically affect a person's / family's life by limiting the ability to engage in routine activities. Children with ASD become extremely upset whenever they separate from their primary caregiver, whether that person is a parent, relative, nanny, or other caregiver. Unlike children who are simply shy, children with separation anxiety disorder may become severely anxious and agitated even when just anticipating being away from their home or primary caregiver.

At school, a child with Autism Spectrum Disorder and co-occurring separation anxiety disorder may have a combination of the symptoms listed below.

Difficulty transitioning from home to school. Children may have great trouble separating from their Parents in the morning. This may lead to late arrival times, long and tearful morning drop-offs, or tantrums at school and ultimately school refusal.

Refusal or reluctance to attend school . Anxiety associated with this disorder is powerful and may lead a child to insist on staying at home, and home schooling

Separation Anxiety continued

Avoidance of activities with peers. Any additional before or after school time at school may be resisted.

Low self-esteem in social situations and academic activities

Difficulty concentrating due to persistent worry, which may affect a variety of school activities, from following directions and completing assignments to paying attention

Other conditions that look like separation anxiety disorder. These conditions include:

specific phobias - anxiety triggered repeatedly by the same object or situation, such as dogs, spiders, clowns, balloons, escalators, elevators.

generalized anxiety disorder (extreme anxiety throughout the day regarding many matters) daily news, 911, floods, hurricanes meteors, fires

social phobia (anxiety triggered by social situations), crowds, reading in front of class, confronting perpetrator

panic disorder (unpredictable panic attacks). Ambulance, police

The symptoms of mood disorders can also be similar to the symptoms of separation anxiety disorder.

Post Traumatic Stress Disorder

- major traumatic event
- acute or chronic
- symptoms of anxiety, distress, fear, panic, depression, irritability
- flashbacks of trauma - dreams, nightmares, repeated play or actions
- difficulty returning to location of trauma or seeing people involved, avoidance

Post-traumatic Stress Disorder (PTSD)
Category
Anxiety Disorders

Symptoms
Symptoms include re-experiencing the trauma through nightmares, obsessive thoughts, and flashbacks (feeling as if you are actually in the traumatic situation again). There is an avoidance component as well, where the individual avoids situations, people, and/or objects which remind him or her about the traumatic event (e.g., a person ASD experiencing PTSD after a negative experience in a school, workshop, hospital, or residential program might engage in significant challenging behavior to avoid entering the facility). Finally, there often is a general increase in anxiety, possibly with a heightened startle response (e.g., hyperviglent, checking Environment very jumpy, startle easy by noises).

What are Psychotic Disorders?

- Schizophrenia
- Schizoaffective Disorder
- Delusional Disorder
- Substance-Induced Psychotic Disorder
- Psychotic Disorder, NOS
- Depressive D. or Bipolar D. with psychosis

What is Psychosis?

Psychosis describes conditions which affect the mind where there has been loss of contact with reality

Symptoms of Psychosis:

- Confused Thinking
- False Beliefs
- Hallucinations
- Unpredictable Mood changes
- Sudden Behavior Changes

Experiences of person's with Asperger's that lead to the expression of Negative Symptoms and Schizoptypal traits

- Poor social adjustments and social competencies
- More likely to be unemployed in spite of superior range of intelligence and education levels
- More likely to be victimized / bullied
- Less likely to live independently
- Failure to develop and maintain relationships limiting a support network

Experiences from early on in life often lead persons with Asperger's to develop:

- Negative feelings about themselves and the world they live in
- Difficulty in developing and maintaining relationships
- Rules don't apply to everyone
- Difficulty predicting the behavior of others
- Low self esteem
- Increased self consciousness, increased anxiety, depressive symptoms which are associated with delusional ideation (Abell & Hare, Autism,2005)

Theory of mind and its relationship to schizotypy

Graham Pickup, Cognitive Neuropsychiatry – 2006

Asperger's

Schizophrenia
Reality distortion
•Delusions (grandiose / persecutory)
•Hallucinations

Negative symptoms - blunted emotions - poor hygiene – spontaneous expressive language, depressive and paranoid symptoms

Claridge et.al (1996) The factor structure of "Schizotypal" traits:

1. Unusual perceptual experiences, thinking style and beliefs
2. Cognitive disorganization with anxiety (including social anxiety and attention deficits and distractibility)
3. Asocial behavior including disinhibition and impulsivity
4. "Introvertive anhedonia, including solitariness and lack of feelings

The differences between autism and schizophrenia

(Rutter,1972;Ghaziuddin, 2005)

	Autism	*Schizophrenia*
Age of onset	Less than 36 months	Adolescence or early adulthood
Symptoms	No hallucinations and delusions	Hallucinations and delusions are common
Mental retardation	Often present	No relationship with mental retardation
Seizure disorder	Common	No relationship with seizure disorder
Family history	Increased history of autism spectrum disorders	Increased history of schizophrenia spectrum disorders
Treatment	Medications palliative	Antipsychotic medications specific and effective
Course	Generally life-long. Few cases of "recovery"	Generally life-long. But some cases recover more fully

Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR)

DSM-IV-TR Multiaxial Classification System

- Axis I Clinical Disorders (Treatable Syndrome)
- Axis II Personality Disorders, & Mental Retardation
- Axis III General Medical Condition
- Axis IV Psychosocial Stressors
- Axis V Global Assessment Functioning Scale (GAF)

Symptom: A phenomenon, which arises from and accompanies a particular disorder or disease and serves as an indication of it.

Syndrome: A constellation of symptoms or signs which are found together, and as a group may lead to a diagnostically significant hypothesis.

Diagnostic Formulation

Differential Diagnosis

DSM-IV Multiaxial Classification

Axis I - Clinical Disorders
- Other Conditions that can be focus of attention

Axis II - Personality Disorders
- Mental Retardation

Axis III - General Medical Condition

Axis IV - Psychosocial Environmental Problems

Axis V - Global Assessment of Functioning (GAF)

Revised DSM-IV Multiaxial Classification

Axis II - Intellectual Disability
- Personality Disorders

Axis III - General Medical Condition Neurological

Axis IV - Psychosocial Environmental Problems

Axis I - Clinical Disorders
- Other Conditions that can be focus of attention

Axis V - Global Assessment of Functioning (GAF)

Differentiating Behavior Problems from Psychiatric Syndromes in Autism Spectrum Disorders

Manifestations vs. Motivations

Manifestation

- **Symptoms / behaviors are a manifestation / expression or related to the illness and / or disability**

Motivation

- **Symptoms / behaviors related to the environment , communication, access to items, attention, escape/avoidance**

Functional Behavior Assessments

- **Interview:**
  - Caregiver / Teacher - Parent / Person Interview; Rating scales (MAS / Connors / CBCL, Aberrant Behavior Checklist)
- **Direct Observation:**
  Antecedent - Behavior - Consequence
- **Functional Behavior Analysis:**
  - Manipulation of Antecedent and Consequence
  - Requires direct and systematic observation of the antecedent and consequence conditions across a variety of settings

Physiological and medical factors that may influence behavior

Medical Condition
(pain, hypoglycemia, IBS, seizure, cluster headaches, concussion)

Medication Side Effects
(sedation, activation, toxicity)

Physical Deprivation
(sleep, thirst, hunger, fatigue)

Assessments of co-occurring conditions

Developmental History and Physical

Clinical Interview

Rating Scales

Functional Behavioral Assessments

Behavioral Health symptoms that are expressed in a variety of Medical Conditions

Medication side effects (Bill's case)

Pain

Hypoglycemia

Sleep Disturbance

Seizures

Motivations for Challenging Behaviors

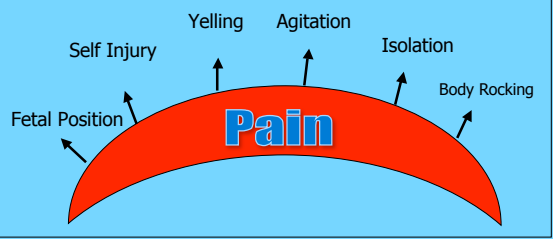
- Biological (Genetics – Behavioral Phenotypes)
- Physiological (Hunger, Thrust, Pain)
- Medical (Dental, Seizures)
- Psychiatric / Behavioral
- Medication (Side Effects)
- Environment
- Cognitive (Processing)
- Communication
- Attention
- Escape Avoidance
- Sensory (Self Stimulation)
- Internal Arousal

Functional Behavior Assessment Recording Sheet

NAME: _____ DATE: _____

date / time location	those present	activity	Antecedent Analyses events prior to behavior	Behavior Analyses topography describe	Consequence Analyses response from others	results

Etiology



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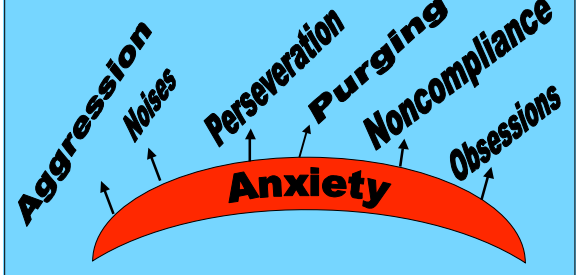
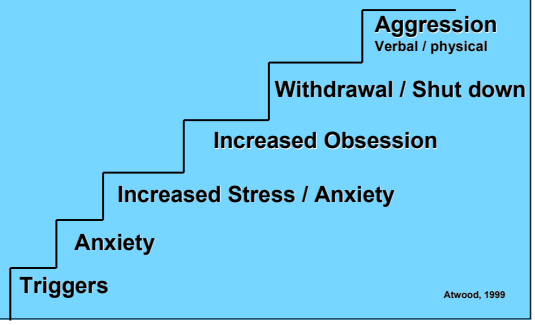
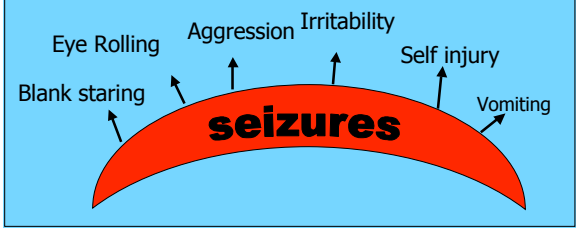


Stress in Persons' with Asperger's



Etiology



Epilepsy and Mental Retardation

- Persistent seizures may produce brain damage and contribute to progressive intellectual decline (Iivanainen,1999)
- Negative outcomes, including shorter lifespan (Hanson, Nord, & Weisler, 1997)
- Deficits in adaptive behavior (Matson,1999)
- Increased rates of psychopathology (Cadman,1987)

Functional Behavior Assessment Recording Sheet

Name:_____

Date Time Location	Those Present	Activity	Antecedent Analysis	Behavior Analysis	Consequence Analysis	Results
5-10 bedroom	alone	bedtime	rocking	scream holds head	nothing	stopped 2 minutes
5-12 living room	mom dad	watching TV	nothing observed	screaming head holding	interruption redirection	stopped 1 minute
8-15 mall	mom dad	shopping	out of blue	screaming lip biting	removal to quiet area	stopped in 3 minutes
8-18 back yard	alone	playing	dogs barking	screaming head holding	nothing	stopped in 1 minute

Motivation – seizures

Assessing behavioral domains related to seizures in persons with Intellectual Disabilities

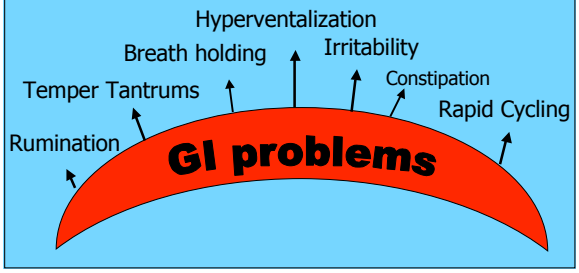
Topography – behaviorally describe how the seizure looks
i.e. fixed gaze, scream, body jerking

Triggering stimuli
Environmental events that may have influenced the seizure
Flashing light, fire alarm, self stimulation

Reinforcing consequence (internal/ external)
sensory, release of anxiety,
Attention-leads to pseudo-seizures,

Medication side effect
Cognitive blunting (blank staring) Toxicity, Delirium

Etiology



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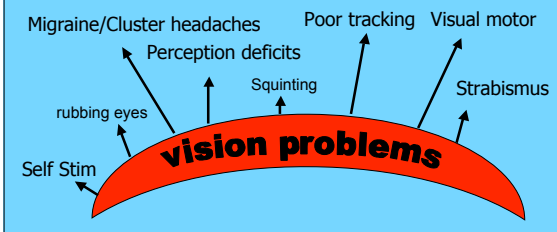
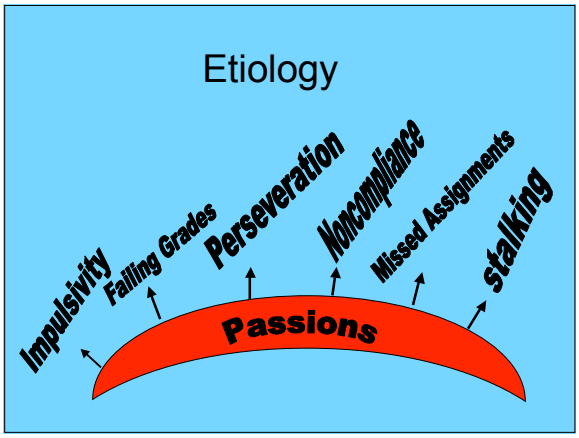
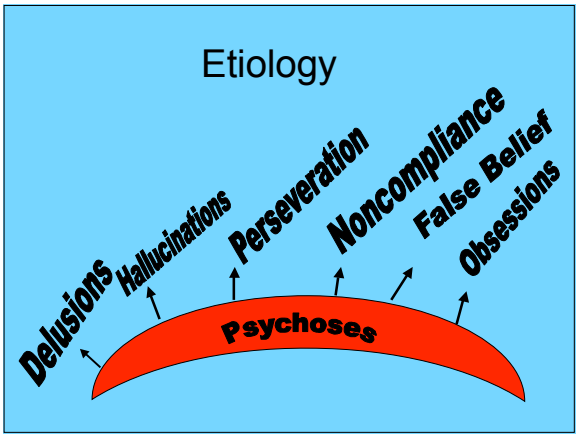






Passions

Positive thoughts
An intense or overpowering emotion
Intense enthusiasm – a strong liking for a subject or activity
The object of a persons intense interest
Can be converted into functional skills

Psychoses

Negative distorted thoughts
False beliefs – Delusions and Hallucinations
Can not convert into functional skills

Functional Behavioral Analysis Recording Sheet

Name:_____

Date Time	Those present	Activity	Antecedent Analysis	Behavior Analysis	Consequence Analysis	Results
11:30	staff	Sorting	Asked to change activities	yelled "no "	Ignore	Increased
11:45	Peers	Cleaning Room	Staff Direction	Aggression	Int/Red	Increased PM
4:30	Staff	Leisure Time	None	rapid motor pace	Orange Juice	Stopped
5:15	Alone	Waiting for Dinner	None	Hand Movements	Nothing	Continue increased
11:40	Alone	Reading	Looking at Book	Head Banging	Snack	Stopped

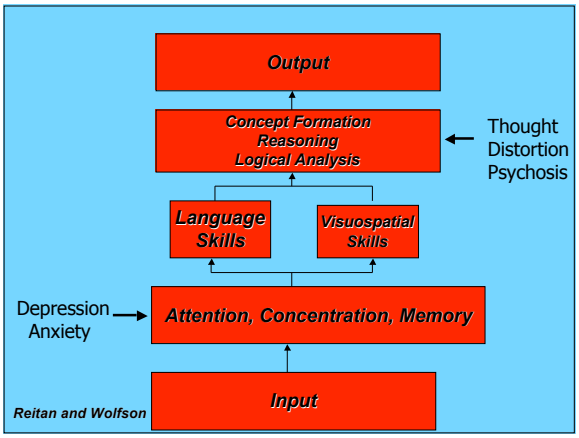
Motivation --- Hypoglycemia

Functional Behavior Analysis Recording Sheet

NAME:_____

Date Time location	Those present	Activity	Antecedent Analysis	Behavior Analysis	Consequence Analysis	Results
5-10 bedroom	alone	bedtime	rocking	Scream holds head	nothing	Stopped 2 minutes
5-12 Living room	Mom Dad	Watching TV	Nothing observed	Screaming head holding	Interruption Redirection	Stopped 1 minute
8-15 mall	Mom dad	shopping	Out of blue	Screaming Lip biting	Removal To quiet area	Stopped in 3 minutes
8-18 back yard	alone	playing	Dogs barking	Screaming Head holding	nothing	Stopped in 1 minute

Motivation – Medical – Seizure



Impulse Control Difficulties

Input | **Process** | **Output**

Setting
Events
Directives
People
Internal

Thoughts
Perception
confusion

Emotion → Behavior

Aggression
Self Injury
Noncompliance

Internal Arousal Increases

Decrease Threshold for aggression

Impulse Control Difficulties

Input | **Process** | **Output**

Setting
Events
Directives
People
Internal

Interference

Thoughts
Perception

Emotion → Behavior

Aggression
Self Injury

Internal Arousal Increases

Decrease Threshold for aggression

passions
medications
hallucinations /delusions

Impulse Control Difficulties

Input | **Process** | **Output**

Setting
Events
Directives
People
Internal

Communication

Thoughts
Perception
confusion

Emotion → Behavior

Aggression
Self Injury
Noncompliance

Internal Arousal Increases

Decrease Threshold for aggression

BEST PRACTICE MODELS

Diagnoses	Symptoms/ Behaviors
Axis I _____	_____
_____	_____
_____	_____
Axis II _____	_____
_____	_____
Axis III _____	_____
_____	_____
Axis IV _____	_____
Axis V GAF = ___	GAF = ____

History

Family : Genetics – siblings
Medical : Prenatal / Birth / Postnatal
Development : language, hearing, fine / gross motor
Behavior play skills / peer interactions / rituals / attention
Mental Health: anxiety / depression / trauma / mood
Education : cognitive / processing / psychological

Specific Information

Interviews and Direct Observation (Rating Scales, ADOS,FBA)
Functional Behavior Assessments
Antecedent – Behavior – Consequence
Onset – Regression
Acute – Chronic
Diagnosis & Differential Diagnosis

Clinical Interview

Treatment Principles

- Step 1: Conduct Functional Behavior Assessment
- Step 2: Develop Hypothesis about the etiology of the symptoms / challenging behavior
- Step 3: Select a medication/treatment or behavioral intervention which is directed to primary cause of the persons symptoms or challenging behavior

Treatment Principles continued

- Step 4: Specify what will constitute a therapeutic trial of the treatment or adequate response time for a behavior plan to take effect
- Step5: Start treatment / intervention only after an objective monitoring system is in place
- Step 6: Decide in advance what will constitute a positive treatment response

Barriers to Providing Quality Behavioral Healthcare for Care for individuals with Autism Spectrum Disorders

Providing Good Clinical Care includes:

- Establishing trust between all partners
- Respect the opinions of all team members
- Be consistent and predictable
- Include the consumer and family in developing the plan
- Secure expertise when necessary (consultants)
- Communicate / Disseminate latest research and treatment information
- Treatment is fully intergraded with other disciplines (medicine neurology, sleep, GI)
- Treatment plans are team based and developed in the Positive Approaches Philosophy
- Treatment plans are team based and developed in Positive Behavior Supports
- Be Creative / Think out of the box
- Team work

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