
MED441
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REVIEWED BY

# Child Psychiatry

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## Objectives:

- To review normal psychosocial development, e.g. development of normal attachment and basic therapeutic strategies to repair attachment problems.
- To review major mental illnesses of childhood. e.g., Attention-Deficit Hyperactivity Disorder, and Autism Spectrum Disorder.
- To review other psychiatric disorders and how they present in child and adolescent patient population.

**Color index:**

- Important
- Golden
- Textbook
- Old notes (439/438)
- New notes (441)
- Extra

# Infancy and Early Childhood (Psychosocial Development and Attachment)

## ◄ Why is Attachment So Important?

Many species have young that can survive on their own but a human child must attach to parents (or caregivers) to survive! Protection, survival, learning and emotional need.

## ◄ Attachment Theory

- **Definition of attachment**: A biologically rooted [innate] attachment behavioural system or motivational-control system "so the baby will cry to get what he wants"
- Strong emotional bond that matures during the first several years of life, and motivates the young child to:
  1. Seek comfort, support & nurturance (affection, food, hygiene) from preferred attachment figures.
  2. Balance between:
     - ❖ Approach vs. Autonomy
       - ◇ Need for safety in proximity to a set of preferred attachment figures.
       - ◇ A boy in a playground would be reluctant to leave his attachment figure(s) at first, e.g. keep looking back, try to pull them.

**Phases of Attachment**

1. **Preattachment stage (birth to 8-12 weeks)**
   - Babies orient to their mothers (follow them with their eyes, turn towards her voice)
2. **Attachment in the making (8-12 weeks to 6 months)**
   - Infants are attached to one or more persons in their environment
3. **Clear-cut attachment (6 months to 24 months)**
   - Infants show signs of distress (e.g., crying) when separated from their mothers (can occur as early as three months)
   - Crawl to their mothers
   - Infant stops crying upon being returned to their mother
   - **Stranger anxiety (at about 8 months)** appears (infant is distressed when left in the care of strangers)
   - **Separation anxiety (at about 10-18 months)** appears, irritability and distress when separated from mother
4. **Reciprocal relationships (24 months and beyond)**
   - Mother is seen as an independent figure (theory of mind)
   - Infant is able to tolerate separation

| Secure Attachments | Insecure Attachment "Imp" |
|---|---|
| • Child with repeated experiences with caregivers who are **responsive to their needs** and thus expect their caregivers to be available and comforting when called upon.<br>• Leads to resilience. المرونة النفسية<br>Bouncing back to normal after hardships.<br>• Look at any example of a youth/adult who overcame challenges in life, and it inevitably leads to at least secure attachment.<br>• 50% response to have secure attachment (good enough mothering). | • Child with experiences in which requests are **discouraged, rejected**, or responded to inconsistently.<br>• Leads to vulnerability to problems including mood, behavioural.<br><br>**Types of insecure attachment** (described in the next page)<br>• Anxious-avoidant<br>• Anxious-ambivalent<br>• Disorganized attachment. |

## ◄ Attachment Behaviours

- These include:
  1. Visual searching.
  2. Active following. "Babies follow their families"
  3. Vocal signaling.
  4. Intense protest (crying, yelling, screaming, etc).
  5. Clinging.
  6. Worn down: despair, helplessness, detachment.

*Mary Ainsworth (1914-1999),* a Canadian developmental psychologist from the University of Toronto

## ◄ Ainsworth's Strange Situation Procedure

- A 20 minute lab procedure to test the infant's response to the reunion with mother and an unfamiliar adult after two brief separations.
- The infant is exposed to increasing levels of stress
- Procedure:
  1. Mother & infant introduced to the lab playroom.
  2. Unfamiliar woman (stranger) joins them.
  3. Stranger plays with the infant.
  4. Mother leaves briefly.
  5. Mother returns.
  6. Both Mother and Stranger leave, briefly.
  7. Stranger returns.
  8. Mother returns.

## ◄ Major Categories of Attachment (Strange Sit. Procedure)

- An infant could be one of the following 4 categories based on:
  - Amount of exploration (reaction).
  - Reactions to the departure and return of caregiver.

### Attachment Styles (One Year Old)

1. Secure attachment – 55% (most children).
- Want proximity, seek it out actively
2. Anxious-avoidant insecure attachment – 23%.
- Avoids proximity
- After experiencing aggressive or strict parenting
- Lingers near caregivers rather than embracing them when threatened
3. Anxious-ambivalent insecure attachment – 18%.
- Active resistance
- Inconsistent parenting
- Clings to parents even in the absence of danger
4. Disorganized attachment – 15%.
- No strategy, acts confused
- Most severe
- Emotionally absent or abusive parents
- React in bizarre ways when threatened
- A precursor for the development of a severe personality disorder

## ◄ When Child's Needs (Attachment) Are Met

- In the first year of age where attachment is most prominent, childhood experiences form the child's perception of themselves and the world (core belief)[1], as well as their working model (scheme)[2]. This is affected by attachment style.
- **Meeting the needs of the Child:**
  - View of world: "The world is a safe place, I can trust others".
  - View of self: "I feel better thus I am competent".
  - Secure attachment reduces anxiety **(Ainsworth's secure base effect)**
    - An early secure attachment can serve as a mental safety blanket for future adversities

## ◄ When Child's Needs (Attachment) Are Not Met

- Infants who are abandoned and separated from their mothers become unhappy and depressed, sometimes to the point of panic.
- After long periods of separation and isolation, they show symptoms of either apathy and withdrawal or restlessness, hyperactivity, inability to concentrate, and craving for affection.
- **Not Meeting the needs of the child** (Abused or discouraged).
  - View of the world: "The world is NOT a safe place, I can not trust others".
  - View of self: "I am a bad person" not good enough.

A Child's Reaction to Separation (>3 months)

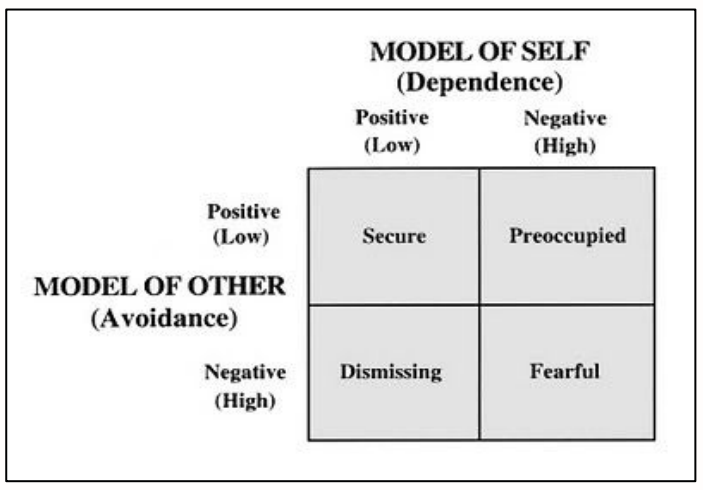
1. **First stage:** Protest; calling out and searching for their mothers
2. **Second stage:** Despair; a child begins to lose hope that their mother will ever return
3. **Third stage:** Detachment, the child separates him/herself emotionally from the mother
   - The child both wants his/her mother and angry at her for leaving him/her
   - The child puts up a veil of indifference whereas in reality they are angry at their mothers for deserting them

**Anaclitic Depression (Hospitalism)**

- A disorder in pediatrics caused by prolonged hospital stay (>2 weeks)
- Leads to **10-fold increase in mortality**
- The mechanism isn't clear, but it is thought that deprivation from parental care adversely affects a child's health
- The children become depressed, irritated, withdrawn and vulnerable to medical illnesses (despite excellent hospital hygiene)
- **Treatment:** Re-establish contact with mothers or mother figures

## ◄ Views of Self/Others in Different Attachment Styles

- People reenact their attachments to their caregiver.
- Secure patient are most likely trusting. They would commit to their appointments, and adhere to instructions.
- Avoidant patients might refuse procedures, until they show with an emergency to the ER with complications.
- Preoccupied patients would ask a lot of questions, taking longer time than expected, postpone appointments.
- Fearful patients might be unpredictable, one time they show up, one time they don't.




FOOTNOTES

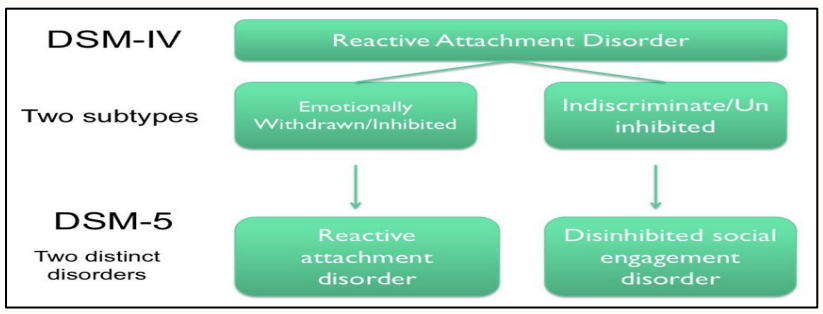
1. Core beliefs are a person's most central ideas about themselves, others, and the world.
2. Scheme is organized plan for doing something, especially something dishonest or illegal that will bring a good result for you.

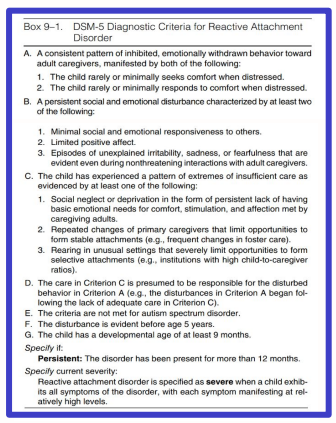
# ◄ Attachment Disorders: DSM-IV to DSM-5

- In DSM-4 there was one attachment disorder (Reactive Attachment Disorder). In DSM-5, there is two distinct disorders (Reactive Attachment Disorder and Disinhibited Social Engagement Disorder).
- **What is the difference between these two disorders?**
  - We see 'Disinhibited Social Engagement Disorder' patients in orphanages.
    - The most common symptom is unusual interaction with strangers.
    - A child with DSED shows no sign of fear or discomfort when talking to, touching, or accompanying an adult stranger.
    - DSED is a result of inconsistent or absent primary caregivers, or having many caregivers.
    - However, 'Reactive Attachment Disorder' results from a lost (ruptured) attachment, where the child has a 'reaction' toward a new attachment. E.g. child's mother dies suddenly and his older sister acts as a new caregiver but he can't accept her.

# ◄ Reactive Attachment Disorder and Disinhibited Social Engagement Disorder

- Both disorders result negligent parenting and maltreatment
- Reactive attachment disorder is characterized by a **persistent emotional withdrawal** from adult caregivers and limited social responsiveness to others
- Disinhibited social engagement disorder is characterized by **interacting with strangers in an overly familiar way** **"for example illegitimate child or foundings considering any woman is his/her mother.**
- Both disorders result from **pathological parenting**



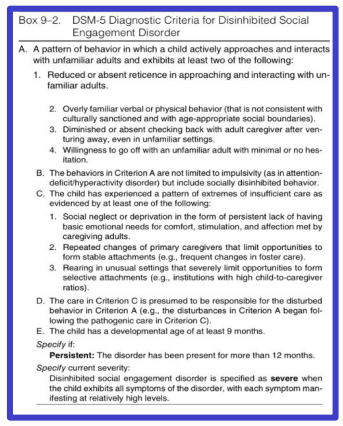



Box 9–1. DSM-5 Diagnostic Criteria for Reactive Attachment Disorder

A. A consistent pattern of inhibited, emotionally withdrawn behavior toward adult caregivers, manifested by both of the following:
   1. The child rarely or minimally seeks comfort when distressed.
   2. The child rarely or minimally responds to comfort when distressed.
B. A persistent social and emotional disturbance characterized by at least two of the following:
   1. Minimal social and emotional responsiveness to others.
   2. Limited positive affect.
   3. Episodes of unexplained irritability, sadness, or fearfulness that are evident even during nonthreatening interactions with adult caregivers.
C. The child has experienced a pattern of extremes of insufficient care as evidenced by at least one of the following:
   1. Social neglect or deprivation in the form of persistent lack of having basic emotional needs for comfort, stimulation, and affection met by caregiving adults.
   2. Repeated changes of primary caregivers that limit opportunities to form stable attachments (e.g., frequent changes in foster care).
   3. Rearing in unusual settings that severely limit opportunities to form selective attachments (e.g., institutions with high child-to-caregiver ratios).
D. The care in Criterion C is presumed to be responsible for the disturbed behavior in Criterion A (e.g., the disturbances in Criterion A began following the lack of adequate care in Criterion C).
E. The criteria are not met for autism spectrum disorder.
F. The disturbance is evident before age 5 years.
G. The child has a developmental age of at least 9 months.

*Specify* if:
**Persistent:** The disorder has been present for more than 12 months.

*Specify* current severity:
Reactive attachment disorder is specified as **severe** when a child exhibits all symptoms of the disorder, with each symptom manifesting at relatively high levels.



Box 9–2. DSM-5 Diagnostic Criteria for Disinhibited Social Engagement Disorder

A. A pattern of behavior in which a child actively approaches and interacts with unfamiliar adults and exhibits at least two of the following:
   1. Reduced or absent reticence in approaching and interacting with unfamiliar adults.
   2. Overly familiar verbal or physical behavior (that is not consistent with culturally sanctioned and with age-appropriate social boundaries).
   3. Diminished or absent checking back with adult caregiver after venturing away, even in unfamiliar settings.
   4. Willingness to go off with an unfamiliar adult with minimal or no hesitation.
B. The behaviors in Criterion A are not limited to impulsivity (as in attention-deficit/hyperactivity disorder) but include socially disinhibited behavior.
C. The child has experienced a pattern of extremes of insufficient care as evidenced by at least one of the following:
   1. Social neglect or deprivation in the form of persistent lack of having basic emotional needs for comfort, stimulation, and affection met by caregiving adults.
   2. Repeated changes of primary caregivers that limit opportunities to form stable attachments (e.g., frequent changes in foster care).
   3. Rearing in unusual settings that severely limit opportunities to form selective attachments (e.g., institutions with high child-to-caregiver ratios).
D. The care in Criterion C is presumed to be responsible for the disturbed behavior in Criterion A (e.g., the disturbances in Criterion A began following the pathogenic care in Criterion C).
E. The child has a developmental age of at least 9 months.

*Specify if:*
**Persistent:** The disorder has been present for more than 12 months.

*Specify* current severity:
Disinhibited social engagement disorder is specified as **severe** when the child exhibits all symptoms of the disorder, with each symptom manifesting at relatively high levels.

# ◄ Treatment

- **Establish an attachment** relationship for the child when none exists.
- Improve disturbed attachment relationships with caregivers when they are evident. E,g in DSED.
- Coercive treatments with children with attachment disorders are potentially dangerous and not recommended (we notify caregivers not to rebuke the child).
- The treatment for both conditions involves a combination of education and psychotherapy

# Attention Deficit Hyperactivity Disorder (ADHD)

## ◄ Prevalence of ADHD

- School age children: 6-9%.
- Gender differences: 9.0% in boys (4-16 yrs old) and 3.3% in girls (OCHS, 1989).
- More common in males (DSM 5) Children = 2:1 vs Adults = 1.6:1
- ADHD accounts for 30-50% of mental health referrals to child psychiatrists, (MTA Cooperative Group, 1999).
- ADHD presentation in children: (Polanczyk et al., 2007) these tend to change with time.
  1. Combined (50%-75%).
  2. Inattentive (Deficit in Attention) (20%-40%).
  3. Hyperactive-impulsive (<5-15%).
- Which level of education (grade) would ADHD boys and girls present? Hyperactivity is more noticeable than inattention. Most ADHD boys present with 'combined' prominent in early grades (grade 1 or 2) teachers usually notice it. Most ADHD girls present with 'inattentive' prominent in higher grades (grade 3 or 4) with more academic challenge e.g. Maths.

**Females more likely to present with Inattentive presentation.**

## ◄ DSM-5 Criteria for ADHD

❖ Persistent pattern of inattention and/or hyperactivity or impulsivity that interferes with functioning or development:

1. Inattentive symptoms (≥6/9), AND/OR hyperactive-impulsive symptoms (≥6/9) (for age 17 and older at least 5 symptoms are required).

Symptoms of inattention include (**ATTENTION**):

- **A**ttention difficulty,
- **T**rouble listening to others even when spoken directly,
- **T**asks that require sustained mental effort are difficult,
- **E**asily distracted,
- **N**ecessary things for tasks are lost,
- **T**o finish what he/she starts is difficult,
- **I**s forgetful in daily activities,
- **O**rganisational skills lacking
- **N**ot concerned about details or makes careless mistakes

Symptoms of hyperactivity include (**RUN FIDGET**):

- **R**uns, climbs or restless,
- **U**ninhibited in conversation
- **N**ot able to play quietly
- **F**idgets or squirms in seat
- **I**nterrupts or intrudes on others
- **D**ifficulty waiting his or her turn
- **G**et going or acting as if driven by a motor
- **E**vacuates seat unexpectedly
- **T**alks excessively

Specify whether:

- **Combined presentation**: If both Criterion A1 (inattention) and Criterion A2 (hyperactivity-impulsivity) are met for the past 6 months.
- **Predominantly inattentive** presentation: If Criterion A1 (inattention) is met but Criterion A2 (hyperactivity-impulsivity) is not met for the past 6 months.
- **Predominantly hyperactive/impulsive presentation:** If Criterion A2 (hyperactivity-impulsivity) is met and Criterion A1 (inattention) is not met for the past 6 months.

- How many symptoms do you need to diagnose a child with combined presentation? 12/18. (if older than 17 years you need only 10).

2. Several symptoms must have been present <12 y.o.
3. Several symptoms must be present ≥2 settings (home, school, work, friends, other activities).
4. Clear interference in functioning (school, social, family, work).
5. Symptoms not better explained by another mental health disorder or medical condition.

FOOTNOTES

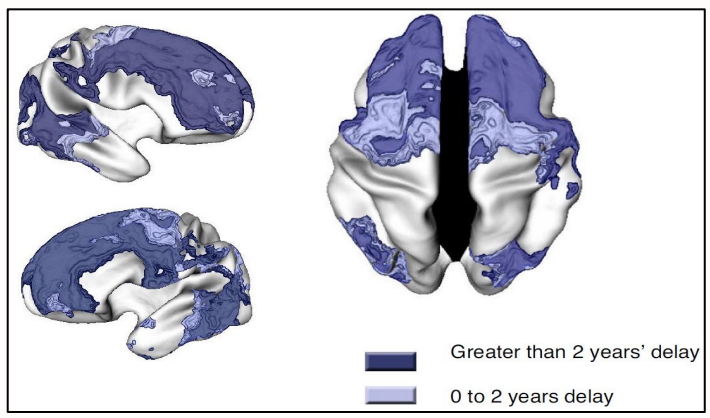
1. ADHD & ASD & learning disability & intellectual disability are more common in males.

## ◄ Environmental Factors

| In Utero | Early Postnatal Exposure |
|---|---|
| • Maternal stress.<br>• Exposure to tobacco, alcohol, drugs (especially cocaine) or toxins.<br>• Low birth weight & prematurity.<br>• Viral infections<br>• Males are generally more prone to perinatal injuries than females (hence partially explaining incidence in males) | • Neonatal anoxia or brain injury.<br>• Exposure to lead and other toxins. |

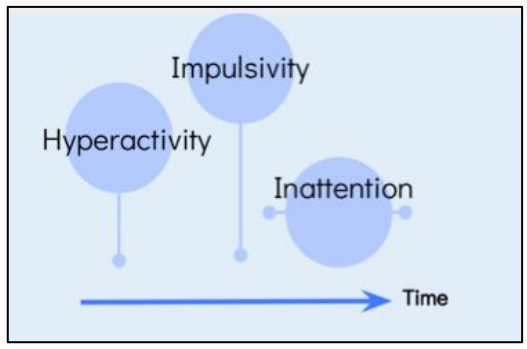
## ◄ Delayed Cortical Maturation in ADHD

- Functional MRI.
- They give the patient certain tasks to perform while imaging.
- Here, comparison of normal children (controls) to ADHD patients, then combined the images into one image. White areas are common (similar) areas between both controls and ADHD patients, while the spectrum of blue areas represent deficits in ADHD patients.
- The darker the color the more distinctive the deficit is.
- Hypometabolism in the basal ganglia (task shifting and organization of attention), and the prefrontal cortex (executive functions), stimulants are given to increase their activities.
  - **All are reversible with treatment**
- In this image, there is more than 2 years delay.




## ◄ ADHD Course of The Disorder

- Hyperactive-impulsive symptoms are more likely to improve or become internalized (e.g. changed into nervous tension, anxiety).
- Inattentive symptoms are more likely to persist.




## ◄ Diagnosis

- The diagnosis is clinical, based on history.
- Need information about the individual in more than one setting.
- ADHD is a diagnosis of exclusion.
- Standardized rating scales (teacher's and parent's scale) and psychological tests can assist but aren't diagnostic.

# ◄ Treatment (Psychosocial Intervention + Medication)

- **Combined therapy gives the best outcome.**
- As per the fMRI image in the previous page. We correct delay with stimulants. A parent may ask, how come you're giving them stimulants if they have ADHD (already hyperactive)?[1]
  - We rather improve areas with deficits (hypofunctioning) by stimulating them. Plus, hyperactivity and impulsivity improve over time, while inattention persists.
- Types of treatments:

A. Educational/Vocational Accommodations:
   - Developmental neuropsychiatric disorder warranting access to educational accommodations:
     - Academic remediation.
     - Specialized educational placements.
     - Academic/workplace interventions.

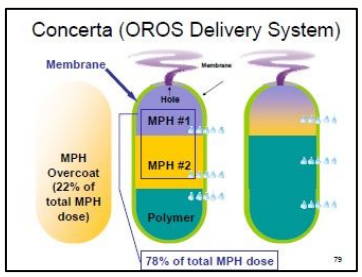
B. Stimulants (Pharmacotherapy) (First-line and most effective monotherapy)

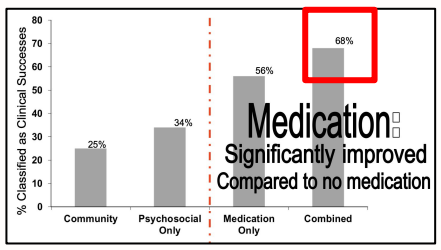
| Methylphenidate (MPH)[1] (First-Line) | Amphetamines (Alternatives) |
|---|---|
| • NE and dopamine reuptake inhibitor<br>• Ritalin, Ritalin SR.<br>• Biphentin.<br>• Concerta. | • NE and dopamine reuptake inhibitor and promoter of dopamine release<br>• Dexedrine (d-amphetamine).<br>• Dexedrine spansule (d-amphetamine).<br>• Adderall XR (mixed salts amphetamine [d-amphetamine & amphetamine salts in a ratio of 3:1]).<br>• Vyvanse (Lisdexamfetamine > d-amphetamine). |

Request a growth chart for children on stimulants

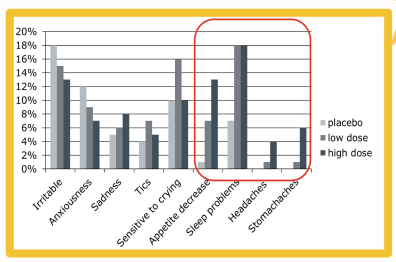
If neither is effective

- **Atomoxetine** (NE reuptake inhibitor) should be tried
- **Guanfacine** or **clonidine** (same mechanism but more sedating) (alpha-2 agonists).
- Other options: **bupropion** (NE and dopamine reuptake inhibitor), **imipramine** (TCA)
- Treatment of side-effects
  - Insomnia (side-effects of MPH and amphetamine): **diphenhydramine** (panadol night), **trazodone** or the **addition of an alpha-2 agonist**




Percentage of children responding to various treatments (MTA results).




Side effects of stimulants medication.

# ◄ Possible Consequences of Untreated ADHD

- Impairments in: academic, occupational, financial & social.
- Problems with self-esteem/mood/anxiety.
- Smoking & Substance Use Disorder.
  - The use of stimulants in the treatment of ADHD **reduces** future risk of substance abuse
- Accidents: physical & MVA.
- Sexual behavior (earlier, ++ partners, STDs, teen pregnancies).
- Criminality.

FOOTNOTES

1. The cerebral cortex relies in its excitability on a number of subcortical structures (thalamus, basal ganglia and brainstem structures)
   a. ADHD characteristically possess a hypoactive locus coeruleus (NE projections that particularly excites the prefrontal cortex)
   b. The prefrontal cortex exerts control over more primitive structures (e.g., limbic system) to allow impulse control and the ability to delay gratification
   c. In short, ↑ prefrontal cortex activity → ↑ impulse control and prefrontal cortex activity is heavily influenced by NE which is lacking in ADHD

# Autism Spectrum Disorder

## ◄ A Case Scenario

- 10 year old boy, parents separated, he refusing to complete school work, he has no friends, feels lonely at recess, he is not interested in extracurricular activities, significant conflict with parents include verbal abuse and destruction of property, difficulties with transitions, seen as being "rigid", enjoys playing on his X-Box.
- Ddx?
- What questions can you ask to parents/child to clarify the diagnosis?

## ◄ Early Red Flags

Symptoms become clear between 18 and 24 months old.

| Social Communication Red Flags | Non-Verbal Communication Red Flags |
|---|---|
| • Little social smiling.<br>• Limited social eye contact.<br>• Little comfort seeking.<br>• Little separation anxiety.<br>• Limited greeting.<br>• Impaired joint attention. Only playing alone, not interactive. | • Speech delay cut-off: spontaneous 2 word phrases with a verb by 24 months. If reach 2-years of age with just speaking 2 words> needs ASD assessment.<br>• No pointing.<br>• No change in facial expression.<br>• No gestures.<br>• Can't guess what he/she wants.<br>• Drag by the hand, used as a tool. |

## ◄ Epidemiology

- Prevalence ~ 1% (CDC 1/44) (Can. J. Psych. 55(11), 2010, 715-20; Arch Gen Psych 2011, 68(5), 459-65).
- Male to female ratio: 4: 1.
- <25% have Intellectual Disability (it is a misconception that ASD patients are very smart).
- Affects social interactions +/- communication, play, interests and behaviour.

## ◄ Natural History and Impairment

- Most people with ASD improve over time; language increases, symptoms decrease but adaptive functioning[1] remains poor.
- 10% free of dx as adults.
- Severely affects many aspects of a child's life; emotional, behavioural, medical.
- Impact on family; causes more stress on the family than any other disorder of childhood; 1000 extra hours of care per year.

FOOTNOTES

1. Adaptive functioning means how well a person handles common demands in life and how independent they are compared to others of a similar age and background.

# ◀ DSM-5 Criteria of Autism Spectrum Disorder (ASD)

A. Persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following (must be 3/3):
   1. Deficits in social-emotional reciprocity (exchange).
   2. Deficits in nonverbal communicative behaviors used for social interaction.
      - Facial expressions, eye contact, and tone of voice.
   3. Deficits in developing, maintaining, and understanding relationships.
      - Playing alone, not interested in peers.

B. Restricted, repetitive patterns of behavior, interests, or activities, as manifested by at least two of the following (must be ≥ 2/4):
   1. Stereotyped or repetitive motor movements, use of objects, or speech.
   2. Insistence on sameness, inflexible adherence to routines, or ritualized patterns or verbal nonverbal behavior.
      Eating only white food.
   3. Highly restricted, fixated interests that are abnormal in intensity or focus.
   4. Hyper- or hypo reactivity to sensory input or unusual interests in sensory aspects of the environment.
      - Can't tolerate loud noises or very high pain tolerance, also hyposensitivity to pain

*Specify* if:
**With or without accompanying intellectual impairment**
**With or without accompanying language impairment**
**Associated with a known medical or genetic condition or environmental factor** (**Coding note:** Use additional code to identify the associated medical or genetic condition.)
**Associated with another neurodevelopmental, mental, or behavioral disorder** (**Coding note:** Use additional code[s] to identify the associated neurodevelopmental, mental, or behavioral disorder[s].)
**With catatonia** (refer to the criteria for catatonia associated with another mental disorder for definition) (**Coding note:** Use additional code [for] catatonia associated with autism spectrum disorder to indicate the presence of the comorbid catatonia.)

## Pre DSM-5: Pervasive Developmental Disorders

| | |
|---|---|
| Autistic disorder | • Speech and communication impairment<br>• Inflexible adherence to routines<br>• Stereotypies<br>• Classic autism |
| Asperger's disorder | • Speech is normal but communication is impaired<br>• Inflexible adherence to routine<br>• Intelligence and cognitive abilities are **normal**<br>• Treatment: Similar to classic autism |
| Childhood disintegrative disorder (Heller's syndrome) | • Onset: 3-4 years<br>• **Regression of cognitive, behavioral and language skills after at least 2 years of normal development**<br>• Affective symptoms (anxiety)<br>• Stereotypies<br>• Treatment: Similar to classic autism |
| Rett's syndrome | • Predominantly affects females<br>• Must have 2 of the following impairments: language, social or adaptive behavior, bowel or bladder control and motor skills<br>• **Encephalopathy**<br>• **Microcephaly**<br>• Other classical symptoms of autism<br>• Treatment: supportive and symptomatic and treatment of autism |
| Pervasive developmental disorder not otherwise specified | • Autistic features but doesn't belong to the above |

## DSM-5: Autism Spectrum Disorder

# ◀ Evaluation

- **Psychiatric History:**
  - Pregnancy, neonatal and developmental hx, medical hx, family and psychosocial factors, intervention hx.
- Observation of child including play.
- Collateral of observations of child in social settings.
- **Physical evaluation:**
  - Identify dysmorphic features, including neurological exam, head circumference, vision and hearing.
- **Psychological evaluation:**
  - Cognitive testing, adaptive skills.
- Speech/language/communication assessment.
- OT (occupational therapy) evaluation (sensory/motor).
- Imaging studies may show microcephaly and polymicogyria (gyral malformation)

# ◀ Treatment Plan

- Multimodal.
- Establish goals for educational interventions.
- Establish target symptoms for intervention (Prioritize target symptoms and/or co-morbid conditions).
- Monitor multiple domains of functioning (behavioural adjustment, adaptive skills, academic skills, social/communicative skills, social interactions).
- Monitor pharmacological interventions for efficacy and side-effects.
- ABC's of ABA (Applied Behavioral Analysis): **(not required)**
  - ABA uses the following 3 steps process to understand behaviour and teach new skills:
    - E.g. Child told his mother he wants something, she was on a phone call and asked him to wait, he took an expensive vase and broke it, after that the mother gave him what he wanted.

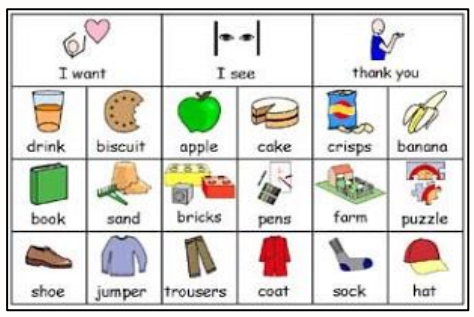
A. Antecedent/instructions.
   - What happens right BEFORE the behaviour? Child wanted something and he was asked to wait.

B. Behaviour/the child's response.
   - What the child does (breaking).

C. Consequence/teacher feedback.
   - What happens right AFTER the behaviour? Given what he wanted. So do not reward bad behaviour.

- **Pharmacotherapy:**

  - No treatment for core symptoms of social and relationship problems in Autism.
  - Risperidone (5-16 y) and Aripiprazole (6-17 y) are FDA-approved for **irritability** in children and adolescents with autism.
  - **Seizures: anticonvulsants. Mood symptoms, OCD: SSRIs, Inattention/hyperactivity: ADHD medications**
  - Periodic attempts to decrease or discontinue medication is prudent since most require long-term treatment.
  - You need to know that the medication is given until the patient adapt to the new environment and irritability decreases.
  - Visual supports to facilitate communication:
  - Picture Exchange Communication Systems (PECS). Children are taught to select pictures of de




Picture Exchange Communication Systems


Social Stories

Snoezelen Room

# Mood Disorders in Children & Youth

## ◄ Epidemiology of Depressive Disorders (AACAP; NIMH Data)

| Age | Prevalence All cases | Incidence New cases |
|---|---|---|
| Preschool | 0.3% | - |
| Childhood (age <12) | 2% M<br>2% F | 1% |
| Adolescence (age 12-18) | 4% M<br>8% F | 3% |
| Adult (age 18+) | 2.5-5% M<br>5-10% F | 7% |

- Prevalence increases with age.
- Incidence increases with age.
- Peak: adolescence.
- Before 12, M & F are equal.
- Cumulative incidence by age 18 = 20%.

## ◄ Etiology of Depressive Disorders (Same as Adults)

- Biological.
- Psychological
- Social.
- Environmental.

## ◄ Predisposing and Protective (Resiliency) Factors (Same as Adults)

| Predisposing Factors | Protective Factors (AKA Resiliency) |
|---|---|
| • Family history of mental health problems, i.e. genetics.<br>• Medical problems.<br>• Adverse early childhood experiences.<br>• Parental separation/divorce.<br>• Losses.<br>• Abuse/neglect.<br>• Extremes in parenting, e.g. overly authoritarian, or indulgent.<br>• Poverty. | • Family history of mental health.<br>• Lack of medical problems.<br>• Positive early childhood experiences, i.e. positive attachment.<br>• Intact family.<br>• Emotionally healthy parents.<br>• “Ideal parenting”, e.g. Authoritative parenting, or attachment-based parenting.<br>• Adequate finances and resources. |

## ◄ DSM-5 Criteria of Disruptive Mood Dysregulation Disorder (DMDD)

1. Severe, recurrent temper outbursts that are grossly out of proportion in intensity or duration to the situation. Similar to Bipolar so previously they are misdiagnosed with it
2. Occur 3 or more times each week for one year or more.
3. Between outbursts, mood persistently negative (irritable, angry or sad), most of the day and nearly every day.
4. Symptoms must be severe and present in at least two settings (home, school or with peers) for 12 or more months and has not had a period of more than 3 consecutive months without symptoms
5. Onset must be before age 10, in a child at least aged 6.
6. Diagnosis should not be made in a <6y/o or >18 y/o

**Note:** This diagnosis cannot coexist with oppositional defiant disorder, intermittent explosive disorder, or bipolar disorder, though it can coexist with others, including major depressive disorder, attention-deficit/hyperactivity disorder, conduct disorder, and substance use disorders. Individuals whose symptoms meet criteria for both disruptive mood dysregulation disorder and oppositional defiant disorder should only be given the diagnosis of disruptive mood dysregulation disorder. If an individual has ever experienced a manic or hypomanic episode, the diagnosis of disruptive mood dysregulation disorder should not be assigned.

## ◄ Rationale for DMDD

- To reduce overdiagnosis of bipolar by providing another diagnostic category (because it was diagnosed and treated as bipolar in the past).
- Longitudinal follow-up of DMDD shows they do not change into bipolar as they age. Some get MDD
- Intent of DMDD diagnosis is to capture children with frequent temper tantrums that previously were misdiagnosed with bipolar disorders.

## ◄ DSM-5 Criteria of Major Depressive Disorder (MDD) in Children/Youth

1. **Low** mood (or irritable mood or reduced interest) plus ≥ 4/8 over ≥ 2- wks of **SIGECAPS:**
   - Sleep, Interest, Guilt, Energy, Concentration, Appetite, Psychomotor agitation, Suicidal ideation.
2. Same criteria as adults, with 2 exceptions:
   - Mood state includes **irritability**.
   - Weight loss not absolute; failure to make expected gains recognized. Based on growth chart, so if stable weight> abnormal).

## ◄ Depression in Children/Youth Vs Adults

| Children/Youth | Adults |
|---|---|
| • Pt: "Nothing's wrong; its my parents who are the problem".<br>• May externalize symptoms (e.g. irritability, behavior problems, defiance).<br>• May have somatization (e.g. abdominal pains, headaches).<br>• Child/youth brought by others to the appointment.<br>• Problems with school, home.<br>• Self-cutting is common and indicative of depression in children. | • Pt: "I'm sad all the time and I don't want to feel this way".<br>• More classical internalizing symptoms.<br>• Adults patient asks for help.<br>• Problems with work, school.<br>• Self-cutting is indicative of personality disorder. |

## ◄ Treatment

A. Psychoeducation:
   - Discuss key concerns such as self-cutting or suicidal ideation.
   - Negative behaviors (such as self-injury attempts) are common in children/youth.
   - Explain that such behaviors are usually an attempt to deal with a stress.
   - Identify the underlying stress/problem, and find healthier ways to cope.

B. Bio-Psychological approaches:
   - **Mild to moderate depression: 1st line is psychotherapy.**
   - Moderate to severe depression: 1st line is Medications plus psychotherapy OR just psychotherapy especially with psychotic depression.
   - Monitoring:
     - Once weekly (unlike in adults) for first few weeks when first starting medications as suicidal risk greatest during first 2 weeks (close monitoring, frequent visits).
   - A Placebo has a 35% response rate.

- **Antidepressant Medications:**
   - **First-line: SSRI:** What is your first drug of choice?
     - **Fluoxetine** (FDA approved) Preferred because it's liquid, therefore a very specific dose can be given.
   - Second-line: Switch to another SSRI Tried (Fluoxetine, did not work. What is your second drug of choice? 4 Drugs:
     - Escitalopram (FDA approved for youth aged 12-17).
     - Sertraline (RCT by Wagner).
     - Citalopram (RCT by Wagner).
     - Fluvoxamine.
   - Compared to adult psychiatry, there are much less studies in child/youth psychiatry.

- **General Pharmacotherapy Principles.**
   - Start low and go slow up to adult dosages.
   - Only make one change at a time.
   - Target symptom clusters, not just the diagnosis (e.g. patient with sleeping problems).
   - Think Alliance rather than Compliance.

## ◄ Summary

- Mood disorders common in children/youth.
- Early intervention is key to prevent children/youth problems from becoming adult problems.
- Treatments include:
  - Mild to moderate depression:
    - 1st line: Counseling/psychotherapy, non-medication strategies.
    - 2nd line: Add antidepressants (Monitor and re-evaluate CBT. If needed, move to the 2nd line).
- High placebo response rates support the importance of having a good therapeutic alliance.

# Oppositional Defiant Disorder & Conduct Disorder

## ◄ DSM-5 Criteria of Oppositional Defiant Disorder

- Pattern of angry/irritable mood. Less severe than DMDD. **If a child meets both criteria, they should only be given the diagnosis of DMDD.**
- Argumentative/defiant behaviour, or vindictiveness انتقام lasting at least 6 months as evidenced by at least 4 symptoms from any category, exhibited during interaction with at least one individual who is not a sibling.
- Characterized **by at least four** symptoms **present for more than or equal to 6 months** (with at least one individual who is not a sibling):
  - **Anger/Irritable mood**—loses temper frequently; often angry and resentful.
  - **Argumentative/Defiant** behavior—breaks rules, blames others, argues with authority figures, and deliberately aggravates others.
  - **Vindictiveness**—spiteful/vindictive at least two times in the past 6 months.

## ◄ Diagnosis

- Important not to confuse ODD with normal development.
- Toddlers and adolescents go through oppositional phases.
- Behaviors occur in patient more frequently than with peers at same developmental level.

## ◄ Associated Features

- Symptoms are almost invariably present in the home setting.
- May or may not be evident at school or in the community.
- Symptoms are typically more evident in interactions with those they know well (e.g. mother).
- Justify behaviour as a response to unreasonable demands.

## ◄ Epidemiology

- Prevalence rates (lots of different data!).
  - 1 - 16%, most surveys 6-10%.
- More common in males.
  - 2:1 males: females.
- Onset usually by **8 years of age.**

## ◄ Course

- 5-10% of preschoolers with ODD will end up with ADHD, not ODD.
- 25% with ODD at the end of grade 6 will have comorbid significant mood or anxiety problems.
- Most with ODD don't develop CD or ASPD (Antisocial Personality Disorder).

## ◀ Prevention

- Parent management strategies are the most empirically supported programs:
  - Social skills training.
  - Conflict resolution.
  - Anger management.

## ◀ Treatment no treatments, just for the co-morbidities

- Forming therapeutic alliance:
  - With child & With parents.
- Consider cultural influences.
  - Different standards of obedience and parenting.
- Gather collateral information.
- Assess for comorbidities.
- **2 types of evidence based treatments:**
  - **Problem solving skills training.**
  - **Parent management training:**
    - Effective discipline.
    - Age-appropriate supervision.
- Medications:
  - To treat comorbidities (**ADHD**, mood, anxiety).
  - Social Skills training.

## ◀ DSM-5 Criteria of Conduct Disorder "CD"

- Childhood equivalent of sociopathy (antisocial personality disorder)
- A pattern of **recurrently violating the basic rights of others or societal norms.**
- The individual has displayed at least three of the following behaviors exhibited over the last year and at least one occurring within the past 6 months:
  - **Aggression** to people and animals: Bullies/threatens/intimidates oth ers; initiation of physical aggression, including use of a weapon; rape; cru elty to animals; robbery.
  - **Destruction of property** (e.g., fire setting).
  - **Deceitfulness or theft**: Burglary; lying to obtain goods/favors.
  - **Serious violations of rules**: Runs away from home, stays out late at night, and often truant from school before age 13 years old.

## ◀ Treatment

A multimodal treatment approach with behavior modification, family, and community involvement.

- **PMT** can help parents with limit setting and enforcing consistent rules.
- **Medications** can be used to targe**t comorbid symptoms and aggression** (e.g., SSRIs, guanfacine, propranolol, mood stabilizers, antipsychotics)

# Anxiety Disorders in Children and Adolescents

## ◄ Epidemiology

- Specific phobias, SAD, GAD most common.
- **Multiple anxiety disorders common in children.**

## ◄ Risk Factors for Anxiety Disorders in Children

- Family History.
- Inhibited Temperament (esp. Social Anxiety).
- Insecure/Resistant Attachment.
- Overprotectiveness in parent.
- Stressful life events.

## ◄ Four Most Common Anxieties in Children and Adolescents

- Separation anxiety. Most common in KSA.
- Generalized anxiety.
- Social phobia (Social Anxiety Disorder).
- Specific Phobia.

## ◄ Separation Anxiety (Full DSM-5 criteria in Anxiety Lecture)

- Earliest onset anxiety disorder of childhood ( 8-10% of all children).
- Age-inappropriate, excessive and disabling anxiety about being separated from parents or home > 4 weeks duration.
- Often comorbid with another disorder.
- May appear suddenly or follow stressful event.
- Often resolves but likely to develop another disorder later, e.g. Social phobia and depression.
- 3/8 symptoms required.
- Unable to tolerate parents on different floor of house.
- Nightmares with separation/kidnapping themes (fear of anticipated separations when awake).
- Often parental history of early separation anxiety.

## ◀ Selective Mutism

- Usually shows up in Kindergarten or first grade onset 5-6 years of age.
- **Restricted or lack of speech in one or more social situations with normal speech at home.**
- Not due to developmental delay or delay limited to second language acquisition.
- Worse prognosis if not resolved by age 10.
- Selective Mutism: may be a precursor to social phobia; failure to speak in specific social situations, usually school not due to language disorder.
- Children likely highly emotional, fearful, inhibited, and lonely.
- Usually resolves in months.
- 1/3 go on to other psychiatric disorders (usually social phobia or depression). When they go back home they talk more than normal

**DSM-5 criteria**

A. **Consistent failure to speak in specific social situations** in which there is an expectation for speaking (e.g., at school) despite speaking in other situations.
B. The disturbance interferes with educational or occupational achievement or with social communication.
C. T**he duration of the disturbance is at least 1 month** (not limited to the first month of school).
D. The failure to speak is not attributable to a lack of knowledge of, or comfort with, the spoken language required in the social situation.
E. The disturbance is not better explained by a communication disorder (e.g., childhood-onset fluency disorder) and does not occur exclusively during the course of autism spectrum disorder, schizophrenia, or another psychotic disorder

**Treatment (difficult)**

1. Psychotherapy: CBT, family therapy.
2. Medications: SSRIs (especially with comorbid social anxiety disorder)

## ◀ Classroom Sequelae to Anxiety (Just for Your Understanding)

1. Poor school Attendance, higher dropout rates.
2. Refusing to enter class unaccompanied.
3. Teasing by other children due to above.
4. Leaving class to call home, missing school with related somatic complaints، e.g. headache and stomach ache.
5. Mondays and return from holidays the worst.
6. Refusal to go on school trips, sleepovers with friends and even birthday parties.

## ◀ With Anxiety and School Avoidance Be Sure To Assess For

- Learning disabilities.
- Bullying.
- Student/Teacher mismatch.
- Comorbid undiagnosed ADHD.

# ◀ Other Disorders

| | |
|---|---|
| Intellectual Disability | • Previously known as mental retardation<br>**DSM-5:**<br>- **Deficits in intellectual functioning**, such as reasoning, problem solving, planning, abstract thinking, judgment, and learning.<br>- **Deficits in adaptive functioning,** such as communication, social participation, and independent living<br>**Causes**<br>- Hypothyroidism, hyperbilirubinemia<br>- Down syndrome: most common genetic cause<br>- Fragile X syndrome: most common heritable cause (Macrocephaly, joint hyperlaxity, and macroorchidism)<br>- Fetal alcohol syndrome: small eyes,thin upper lip, a short, upturned nose, and a smooth skin surface between the nose and upper lip<br>- Prader-Willi: Obese, short and almond-shaped eyes<br>- TORCH infections<br>**Management:** Individualized, cognitive assessment to determine educational placement |
| Communication Disorders | - **Language disorder**—difficulty acquiring and using language due to expressive and/or receptive impairment (e.g., reduced vocabulary, limited sentence structure, impairments in discourse). Increased risk in families of affected individuals.<br>- **Speech sound disorder (phonological disorder)**—difficulty producing articulate, intelligible speech.<br>- **Childhood-onset fluency disorder (stuttering)**—dysfluency and speech motor production issues. Increased risk of stuttering in first-degree relatives of affected individuals.<br>- **Social (pragmatic) communication disorder**—challenges with the social use of verbal and nonverbal communication. If restricted/repetitive behaviors, activities, or interests are also present, consider diagnosis of ASD. Increased risk with family history of communication disorders, ASD, or specific learning disorder |
| Specific learning disorder | • Affected areas: reading **(e.g., dyslexia)**, writing, or arithmetic **(e.g., dyscalculia).**<br>• Not better accounted for by intellectual disabilities, visual/auditory deficits, language barriers, or subpar education<br>• Diagnose early and treat aggressively (brain plasticity): Systematic, individualized education tailored to child's specific needs, behavioral techniques may be used to improve learning skills. |
| Tic Disorders | Tourette's Disorder<br>- **Multiple motor and at least 1 vocal tics** present (not required to occur concurrently) for more than 1 year since onset of first tic.<br>- Examples of vocal tics: Coprolalia—utterance of obscene, taboo words as an abrupt, sharp bark or grunt. Echolalia—repeating others' words<br>- **Onset prior to age 18 years.**<br>- Not caused by a substance (e.g., cocaine) or another medical condition (e.g., Huntington disease).<br>- **Treatment:** Psychoeducation and behavioral interventions—habit reversal therapy.<br>- Medications (in severe cases) (1) Alpha-2 agonists: guanfacine (first choice), clonidine (more sedating). In severe cases, can consider treatment with atypical (e.g., risperidone) or typical antipsychotics (e.g., pimozide)<br>Other tic disorders:<br>- **Persistent (chronic) motor or vocal tic disorder**: Single or multiple motor or vocal tics (but not both) that have never met criteria for Tourette's.<br>- **Provisional tic disorder:** Single or multiple motor and/or vocal tics less than 1 year that have never met criteria for Tourette's. |

# ◀ Other Disorders

| | |
|---|---|
| Elimination disorders | Enuresis<br>- Recurrent urination into clothes or bed-wetting.<br>- **Occurs two times per week for at least 3 consecutive months or results in clinical distress or marked impairment.**<br>- **At least 5 years old developmentally.**<br>- Treatment: psychoeducation, limited fluid and caffeine intake<br>- Pharmacotherapy if the above is ineffective): **desmopressin (treatment of choice), imipramine (alternative)**<br><br>Encopresis<br>- Recurrent defecation into inappropriate places (e.g., clothes, floor).<br>- **Occurs at least one time per month for at least 3 months.**<br>- **At least 4 years old developmentally.**<br>- Treatment: Psychotherapy and fibers, stool softeners if accompanying constipation |

## Team leader

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## Team members

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- Faisal Alhusaini
- Alwaleed Bin shaya
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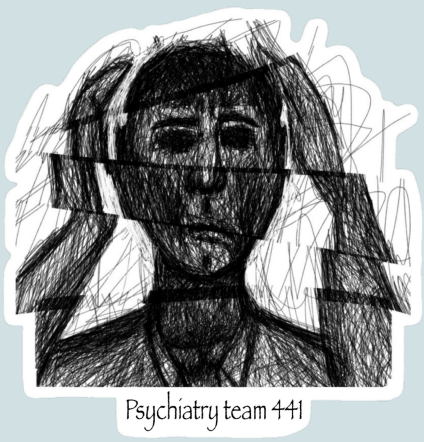


**Good luck!!**

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*Special thanks to 439 & 438 psychiatry teams*