MC3 ECHO Evaluation and Treatment of Psychosis in Pediatric Primary Care Setting

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Objectives

- Psychosis in childhood & adolescence
- Stress-Diathesis Model of schizophrenia and risk factors
- Prodrome and Attenuated psychosis
- PQ-B and SIPS
- Coordinated Specialty Care (CSC)
- Common presentations that mimic psychosis

What is psychosis?

- Not one disorder
- It is a symptom complex that may include:
  - altered perception of reality (hallucination, delusions)
  - disturbances in thought processes and generation (disorganized speech, thought, behaviors, catatonia)
- Three concepts:
  - Psychosis/Psychotic disorders
    - High level of conviction, frequency, duration, level of distress and impairment
  - Attenuated psychosis / Prodrome
    - Subthreshold psychosis
  - Psychotic-like symptoms
    - NOT psychosis

Types of Psychotic Illnesses

Primary (psychiatric)

- Schizophrenia Spectrum and Other Psychotic Disorder
  - Brief psychotic disorder, Schizophreniform, Schizophrenia, Schizoaffective disorder,
- Severe mood disorder with psychotic features (Bipolar Disorder and MDD)

Secondary (medical/organic)

- Anti-NMDA-Receptor encephalitis – psychosis can be the first and sometimes the only symptom
- Delirium
- Seizures, head trauma
- Cerebrovascular disease

Substance and Drug induced

- Cannabis, methamphetamine, hallucinogens
- Steroids

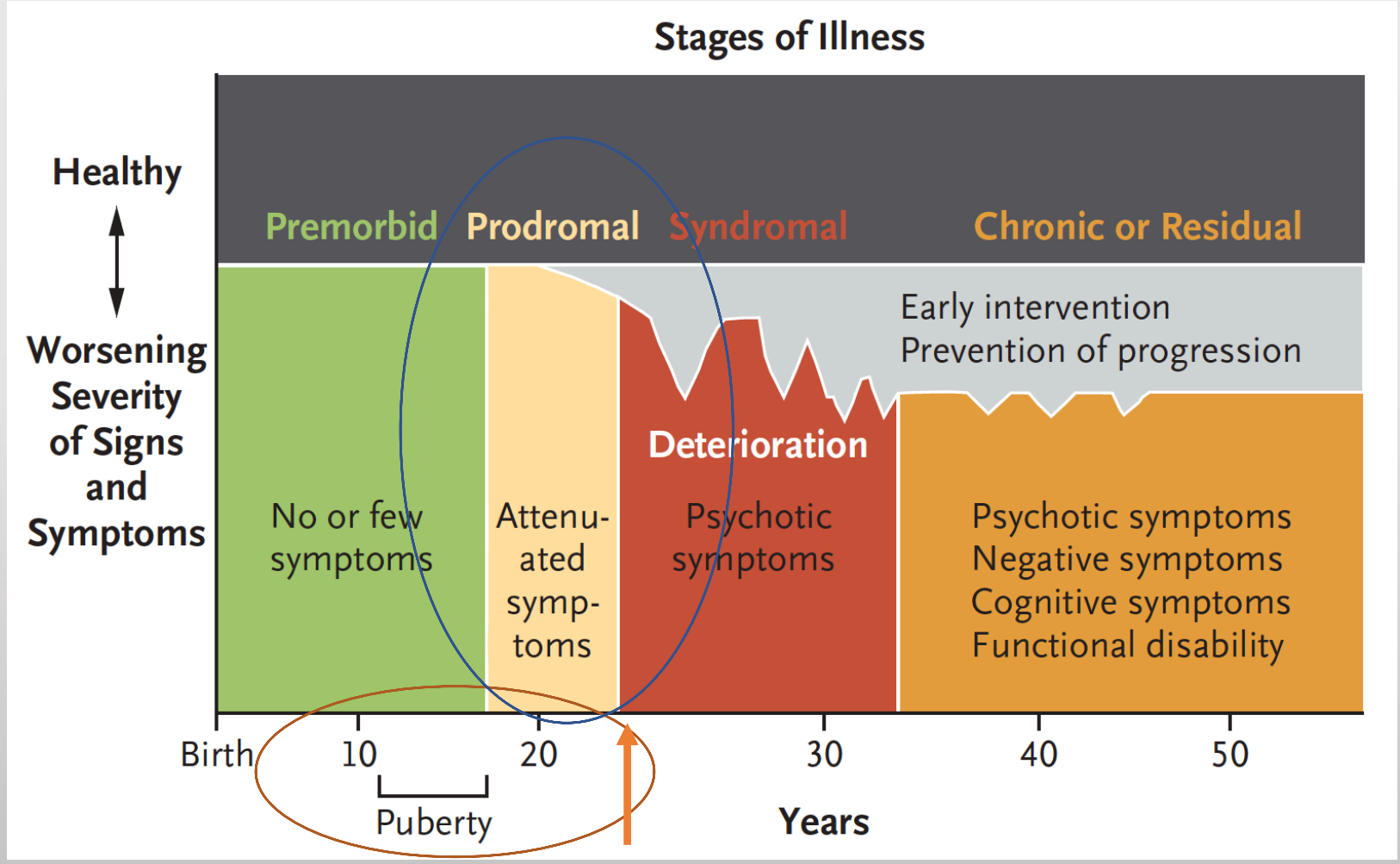
Schizophrenia in pediatric population

- Life-time prevalence is about 1%
- Typical age of onset is between age 14 to 35
- More than 50% before age 25
- 20% before age 18 (Early Onset)
- Only ~4% is prior to age 13 (childhood onset); prevalence is about 1:40,000
- Criteria the same as adult in DSM but typically more severe with poor prognosis
- Although there is a prodrome, first episode psychosis is usually a quite sudden deterioration of functioning

Management of schizophrenia in primary care setting

- Careful evaluation to rule out any medical etiologies or psychiatric disorders that resemble psychosis
- First episode psychosis often requires inpatient hospitalization
- Antipsychotic treatment as soon as possible to decrease ”Duration of Untreated Psychosis” (DUP)
  - Average in the U.S. is 21 months. WHO recommends 3 months or less
  - Associated with worse outcome (poorer initial response, more negative symptoms)
- Side effect management
- Referral to Psychiatry

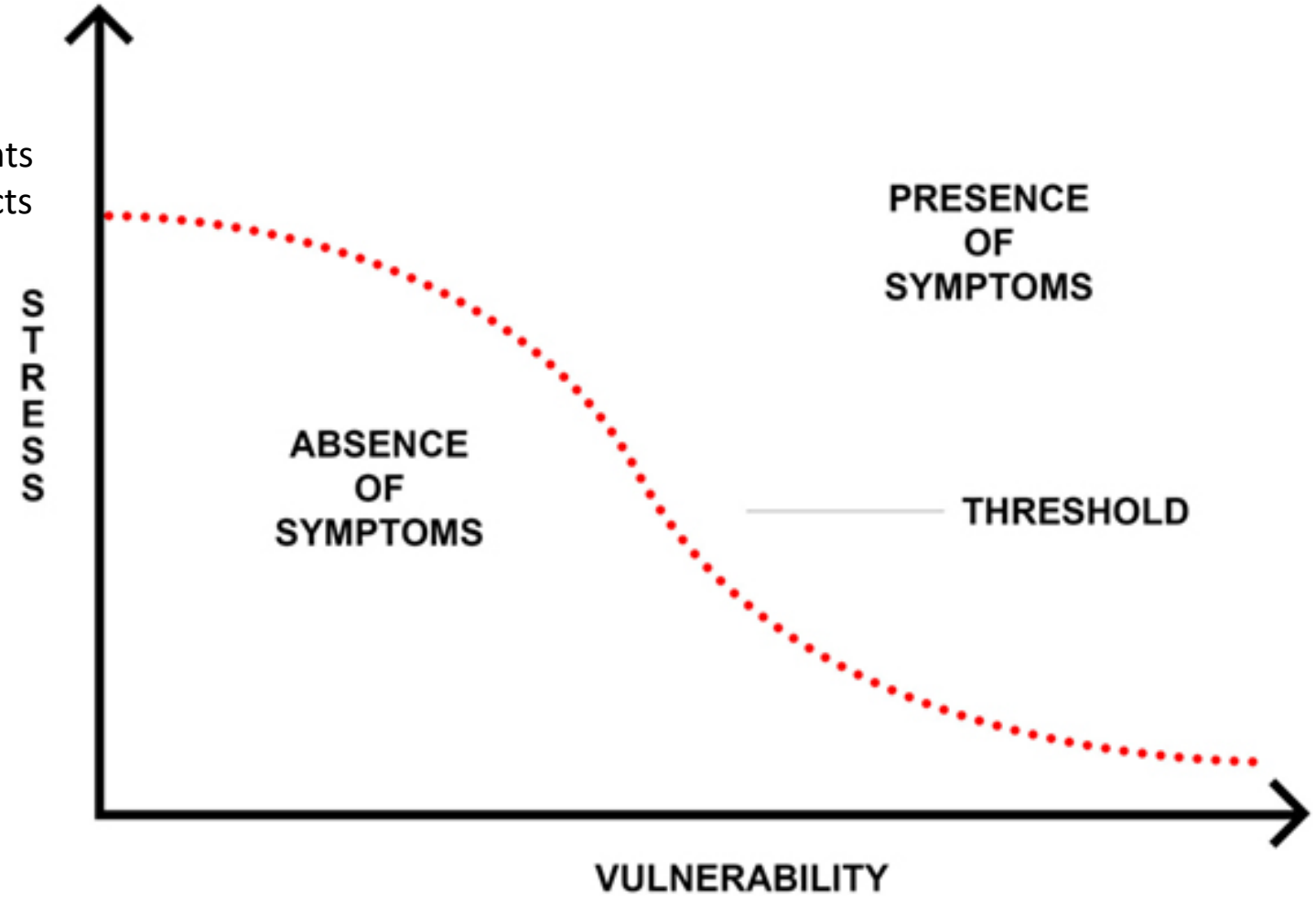
Stages of Schizophrenia



First episode psychosis

Diathesis - Stress model

Cannabis use
Trauma
Stressful events
Family Conflicts



Genetic predisposition

Zubin J, Spring B. Vulnerability: a new view of schizophrenia. *J Abnorm Psychol* (1977) 86(2):103–26. doi:10.1037/0021-843X.86.2.103

Attenuated Psychosis Syndrome

DSM 5 Other Specified Schizophrenia Spectrum and Other Psychotic Disorder

A. Delusions, hallucinations, or disorganized speech present with enough severity or frequency for clinical attention, but with relatively intact reality

B. Present at least 1x/week for past month

C. Has begun or worsened in last year

D. Sufficiently distressing and disabling to warrant clinical attention

E. Not better explained by another mental disorder, effects of substance use, or another medical condition

F. Criteria for any psychotic disorder have never been met

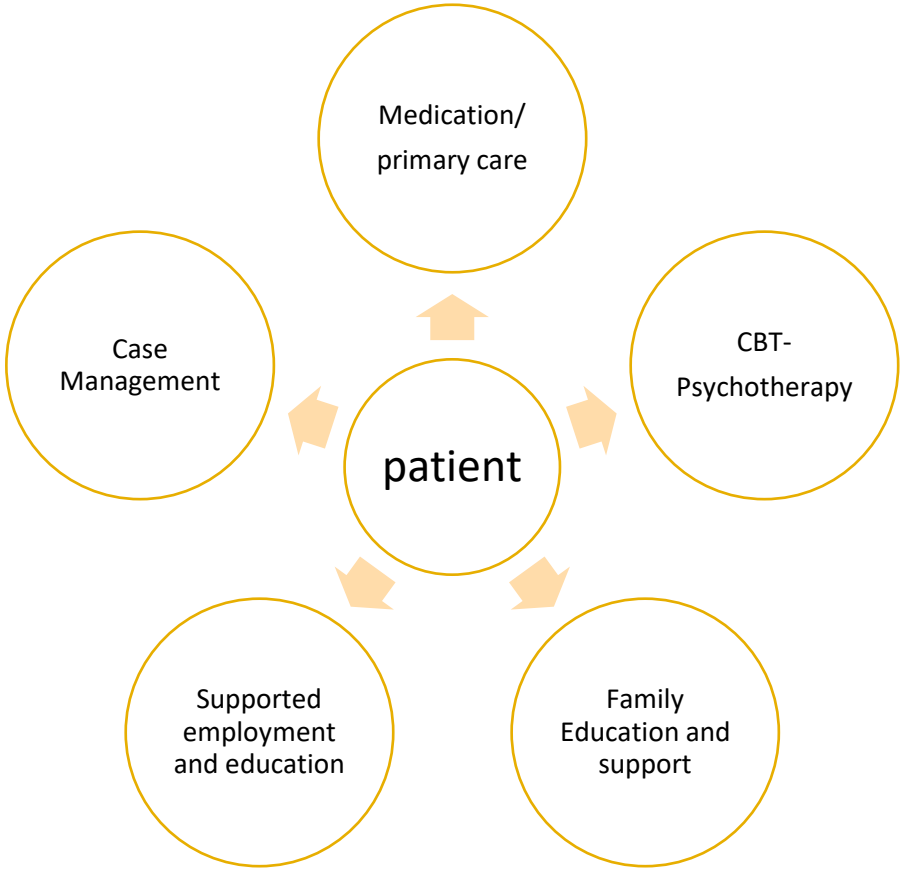
Clinical Features of APS

- Psychotic-like symptoms that are below a threshold for full psychosis
  - the symptoms are less severe and more transient, and insight is relatively maintained
  - Examples: overvalued ideas, simple auditory hallucination
- Recent study: 3.5% in college students
- The risk for progression to a clear psychotic disorder (usually schizophrenia) was 23% at 36 months; meaning ~70% don't convert!
- Prodrome Questionnaire
  - 21 self-report questionnaires of positive symptoms so screen for UHR individuals
- Structured Interview for Psychosis-Risk Syndrome (SIPS)
  - Formal interview

Management of APS in primary care setting

- Careful evaluation to rule out any medical etiologies or psychiatric disorders that resemble psychosis
- Usually does not require inpatient hospitalization
- Antipsychotic not more effective than placebo
- CBT-P significantly reduces likelihood of transition & FFT-CHR
- ? Fish oil
- Psychoeducation/ Motivational Interviewing re: cannabis use
- Treat any comorbidities and psychosocial stressors
- Monitor
- Referral to psychiatry, ideally Coordinated Specialty Care for psychiatry, psychotherapy, family intervention, school support, peer/family groups

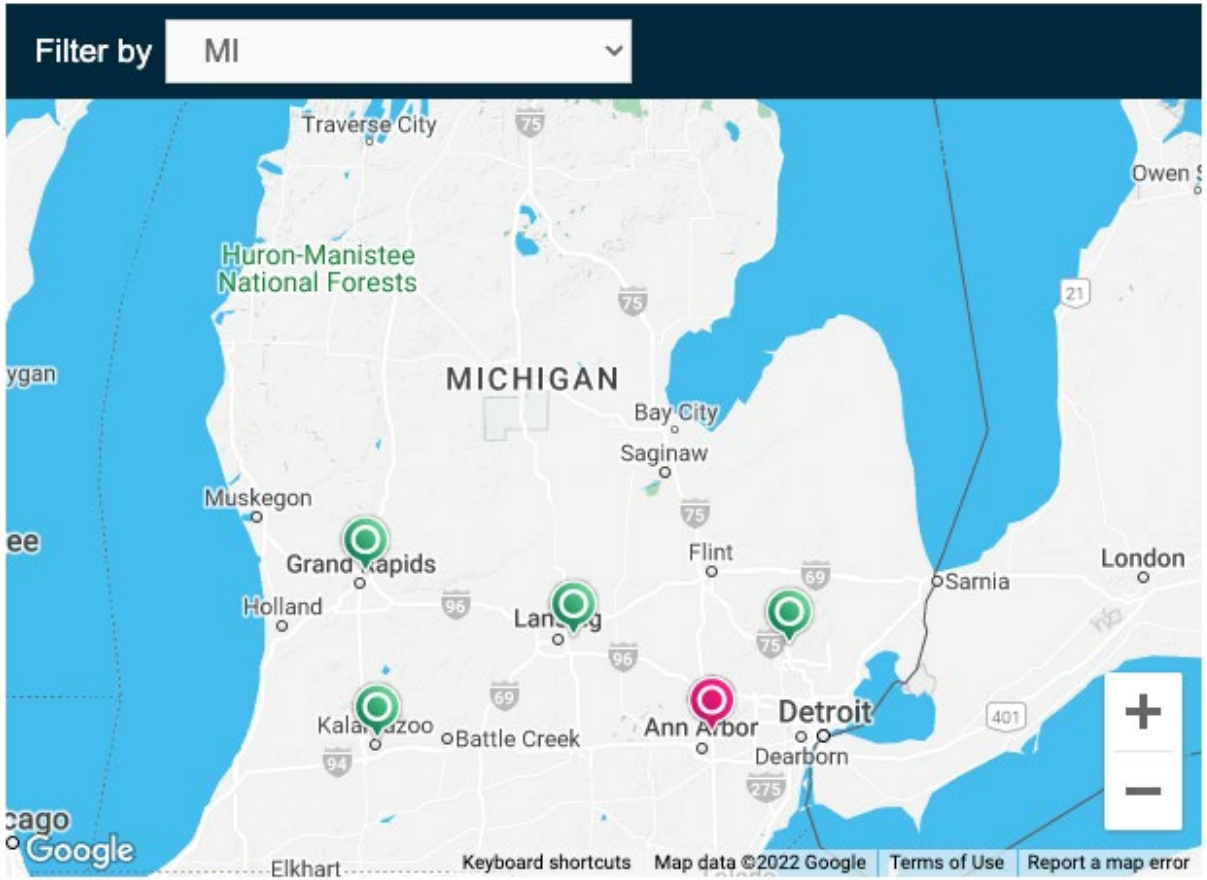
Coordinated Specialty Care (CSC)



- NIMH showed that by intervening early and providing Coordinated Specialty Care (CSC), young people with psychosis get significantly better
- Only 2 states had CSC in 2008, by 2016 ~120 clinics in 32 states

Adapted from NIH

Early Psychosis Intervention Network (EPINET) Clinics



Clinics by State

Michigan

Program for Risk Evaluation and Prevention (PREP)- University of Michigan
Ann Arbor, MI
Regional Hub: AC-EPINET

Early Treatment & Cognition Health (ETCH)
East Lansing, MI
Regional Hub: ESPRITO

Network 180
Grand Rapids, MI
Regional Hub: ESPRITO

Integrated Services of Kalamazoo
Kalamazoo, MI
Regional Hub: ESPRITO

Easterseals Michigan
Southfield, MI
Regional Hub: ESPRITO

Psychotic-Like Presentation

- 17% children aged 9-12 years and 7.5% among adolescents aged 13-18 years report “psychosis”.
  - Majority of them don’t develop into psychotic disorder.
- Context
  - Developmental, cultural, psychosocial stressors, other psychopathologies
- Onset
  - When and how did it start?
- Progression
  - Frequency and intensity
  - Worsening, improving, or the same
- Behavioral changes
  - Internally preoccupied and responding vs no behavioral changes
- Level of distress and impairment
  - Visibly distressed

Non-pathological psychotic-like experiences

- Can be appropriate in developmental/ cultural context
- Difficulty separating thoughts/dreams vs voices/reality during early development
- imagination and fantasy vs reality
  - “Maladaptive day-dreaming”
  - Imaginary friends
- hypnagogic and hypnopompic hallucinations

Psychopathologies that mimic psychosis

- Developmental Disorder / ASD
  - Perseverative thoughts
- Trauma
  - De-realization, hypervigilance, dissociation, seeing shadow, hearing voices
- Severe anxiety/panic attacks
- Severe social anxiety
- Obsessions in OCD
- Rumination in depression
  - Voices tell them to hurt self
- Disruptive behavior disorder
  - Voices tell them to do bad things
- Schizotypal traits

Take Home Points

- Childhood onset schizophrenia (or true psychosis) is extremely rare, and prognosis is very poor. If your patient is less than 13 y/o, most likely it is not psychosis.
- Simple hallucination, psychotic-like experiences are more common than psychosis; they can be non-pathological and developmentally appropriate
- From age 14 to early 20s, be aware of changes in cognition, motivation, social interests, mood, anxiety, and attenuated psychotic symptoms.
- Majority (> 70%) of UHR individuals do not covert to psychosis but we still don't really know who are the 30% that converts.
- We know that cannabis use, trauma, family history, and family conflicts are some of the risk factors and points for interventions
- Do not treat with antipsychotics unless it is psychosis; not even attenuated psychosis; but if it is psychosis, treat as soon as possible to decrease Duration of Untreated Psychosis and improve outcome.
- Ideal treatment right now are CSC but not so readily available.
- Psychotic like experiences are far more common than psychosis. They can be non-pathological and appropriate in the context of development and culture. They can also present in other psychopathologies. The younger the child, the more prevalent and less concerning as opposed to a new onset of symptoms in adolescence. Do not treat those with antipsychotics.

References and Resources

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- https://www.semel.ucla.edu/sites/default/files/pdf/High%20Risk%20Psychosis%20Screener.pdf
- https://easacommunity.org/PDF/SIPS_5-5_032514%5b1%5d%20correct.pdf

Case Example 1

- Sophie is a 15-year-old girl who reports that in the past 18 months, she had been hearing knocking on her bedroom door and occasional whispering, when there was no one there. Around the same time, she saw shadowy figures in the corner of her room.
- Although it spooked her briefly, she thought that it must be her eyes and ears playing tricks on her and was able to ignore them.
- However, over the past 2 months, the whispering had become clearer. It is calling her name, it is now happening once a week, lasting longer, and begun to happen at school during the day too. She is not sure what it is but, had started to become more afraid, did not want to be in her room alone, and told mom about it.
- What is the most likely diagnosis? What else would you like to know? What would you do next?
- This is an example of APS (attenuated psychosis syndrome)

Case Example 2

- MC3 psychiatrist is consulted about a 7-year-old female.
- Consultation question is that child sees a “strange lady” in her room at night and she always “tells her to go away” but she doesn’t. She wonders if it is a ghost.
- She is a sweet little girl but PCP notes that she has always seemed quirky and immature and is somewhat language delayed. Her parents haven’t had this checked as they live in a rural area and there are few resources for those with commercial insurance.
- PCP noted that she scored in the moderate range on mchat as a toddler. She is a somewhat dreamy and inattentive child, and teachers say she is performing below grade level, but she does not get any special services. She is completing her usual tasks, and parents say her sleep is OK and note no changes in her appetite. No changes in academics.

- Is this psychosis?
- Above is a case of a child with mild MR/ASD who had visual “hallucinations” that were related to ASD – not true psychosis

Case Example 3

- MC3 psychiatrist is consulted about a 13-year-old girl, who suffered a recent rape at the hands of her cousin at a family gathering.
- She has been moved from the home of her biologic family to that of her maternal grandmother because of concerns for her safety.
- She has been bullied at school, and blamed for the rape, with kids calling her a slut, and passing derogatory information on social media.
- She has quit school and is isolating in her room.
- She is irritable and blaming her family. She has profound insomnia, and gets easily agitated, startling with noises. She sees shadowing figures at night and is afraid to sleep by herself.
- Is this psychosis?
- Above is a child with PTSD/MDD and visual illusions likely related to trauma vs. an emerging depression with some psychotic figures

Case Example 4

- Johnny, an 18-year-old male, was brought to the emergency room by his parents.
- They report that he had been isolating himself at home since quitting college a month ago.
- Although he has been part of his church his whole life, he had been reading the Bible excessively and had started saying that there are demons in the house.
- Tonight, he broke all the mirrors in the house. Mom said he had been refusing food and water, and at times saw him mumbling to himself. Johnny said he can't eat because it's a sin.
- Is this psychosis?
- YES – this is an example of true psychosis