I have no biomedical or financial conflicts of interest to disclose.

I will discuss some medication treatments for youth that are off-label.

Please note that young people and families approach us in moments of vulnerability and we must be ethical, trustworthy custodians of their information. I have changed details to mask the identity of the individuals mentioned in today’s presentation. Still, I ask that participants not share the details included in this presentation.
Who am I?

Craigan Usher

• Program Director, Child & Adolescent Psychiatry Training at OHSU
• Kienle Scholar for Medical Humanities through Penn State College of Medicine
• Assistant Editor—Book Forum, *Journal of the American Academy of Child & Adolescent Psychiatry*
• Medical Education Consultant, Oregon Early Assessment & Support Alliance
• Grateful to my colleagues at EASA and thanks to Steven Adelsheim, MD and Judith Dauberman, PhD at Stanford University for inviting me
Why are we here?

- According to Schoenbaum et al, in the year following first-episode psychosis, insured individuals age 16-30…
  - were 24x more likely to die than the general population of same-age people, and 89x the general population
  - 41% did not receive any psychotherapy
  - 61% did not fill any antipsychotic medication prescriptions
- We also know that auditory verbal hallucinations (above/beyond the increased risk associated with psychiatric diagnoses) in teens increases the risk of suicide attempts.


We have reason to hope. But we need to identify and intervene early...and this is a lecture about children, teens and families who see us VERY early.

- RAISE: across 34 clinics in 21 states where ½ utilized specialized multidisciplinary treatment (NAVIGATE) and ½ TAU, outcomes were better for the NAVIGATE group.

- The NAVIGATE group had:
  - More improvement in symptoms and quality of life
  - Remained in treatment longer
  - Improved work and school participation

- Particularly for those with a duration of untreated psychosis (DUP) <74 weeks.

appi.ajp.2015.15050632.
What will we explore? LEARNING OBJECTIVES

• By the end of this session, participants should be able to:
• Identify three clinical features accompanying hallucinations in children which would lead evaluators to be more concerned about psychosis
• Identity three clinical features accompanying hallucinations in children which would lead evaluators to consider other diagnostic paradigms and causes
• List three therapeutic means of addressing hallucinations in children which may lead to young people and families to experience diminished stress and tension about them
• Recall two symptoms and two objective findings consistent with anti-NMDA receptor encephalitis
• Name two tools that can be used to help evaluators better understand the nature and nuance of hallucinations in children
How will we get there?
APPROACHES TO EVALUATING AND ADDRESSING THE NEEDS OF YOUNG PEOPLE WITH HALLUCINATIONS

Case 1 & 2
An 8-year-old with visual and auditory hallucinations
A 9-year-old with command AVH
Evaluation tools + Therapeutic Techniques

Case 3
A 12-year-old with detailed AVH, VH and trauma
Pearls for AVH

Case 4 & 5
A 13-year-old with AVH and hypnapompic and hypnagogic visual illusions
A 3-year-old with AVH and VH
Neurological + Psychiatric Concerns

Case 6
A 13-year-old with auditory hallucinations
Monitoring + Cannabis Risk

Pearls for AVH

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Pearls for AVH
Vocabulary & Starting Off Points

- Hallucinations: “erroneous percepts in the absence of identifiable stimuli”\(^1\) or “a sensory experience in which a person can see, hear, smell, taste, or feel something that is not there.”\(^2\)

- Illusion: a pattern/phenomenon which emerges from an identifiable stimuli, but which morphs into something only the individual senses

- AVH: auditory verbal hallucination

- Auditory Hallucinations in Youth are Common:\(^3\)
  - Up to 1/10 individuals have a lifetime experience of AH
  - 12.7% in children (ages 9-12)
  - 12.4% in adolescents (ages 13-18)
  - 5.8% in adults (ages 18-60)
  - 4.5% in the older adults (60+)

- Overall, AH tend to diminish over time

- With persistence into teens and adulthood, tend to be associated with more psychiatric (not necessarily psychosis) risk

---


Clinical Situation #1: Third-grader Terrified to Go to Bed At Night

- 8-year-old young person
- Custody battle
- 2mos of AH, VH, delusion
- Symptoms disruptive to sleep and at school
- No known trauma / abuse / neglect
- Vitals normal
- Neuro exam normal
- CT Scan normal
- CBC, CMP, TSH normal

“Stick Man”
Two tools for exploring AVH and AH with young children

• There are many tools for assessing psychosis risk from screening (PQ-B) to in-office assessment (SIPS) and to establish DSM diagnosis (DISC, K-SADS), but for the child/family (<age 13) in the ED or outpatient setting who is reporting AH, what practical tools might we use?

• SOCRATES
  • Source: Did the voice sound like it was inside or outside your head?
  • Onset, Duration, Frequency: When did it first occur? How long did it/does it last? How often did/does it occur?
  • Content & Character: What does the voice/do the voices say? Male/Female? Someone you know?
  • Reality Testing and Attribution: What do you thin is happening? Why? Is there anything else it could be? ←continuum from my own thoughts imaginations to NOT my own→
  • Timing: when do you hear it/them?
  • Effects on Functioning: What impact is this making on your life?
  • Severity of Distress: Rated 1 - 10

Kelleher I, Cannon M. SOC TES Assessment of Perceptual Abnormalities and Unusual Thought Content. 2014
<table>
<thead>
<tr>
<th>Themes</th>
<th>Frequency</th>
<th>Duration</th>
<th>Time</th>
<th>Location</th>
<th>Loudness</th>
<th>Individual or Multiple</th>
<th>Type</th>
<th>Content</th>
<th>Negativity</th>
<th>Suffering</th>
<th>Controllability</th>
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<td></td>
<td>Once-a-month: 2.8</td>
<td>Second: 9.9</td>
<td>Falling Asleep: 2.8</td>
<td>Inside Head: 76.7</td>
<td>Whispering: 26.5</td>
<td>Always one voice at a time: 57.5</td>
<td>Own Voice: 24.4</td>
<td>Comments: 18.1</td>
<td>Neutral: 13.3</td>
<td>Never: 0</td>
<td>Always: 0</td>
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<tr>
<td></td>
<td>Once-a-week: 25</td>
<td>Minutes: 32.4</td>
<td>Waking Up: 0</td>
<td>Inside and Outside Head: 15.1</td>
<td>As Loud as Own Voice: 41.2</td>
<td>Multiple voice, one at a time: 9.6</td>
<td>Own and Other Known Voice: 1.3</td>
<td>Assignments: 3.6</td>
<td>Positive: 2.4</td>
<td>Sometimes: 11.3</td>
<td>Most of the Time: 7.0</td>
</tr>
<tr>
<td></td>
<td>Once a day: 34.7</td>
<td>At least 1 hour: 12.7</td>
<td>Certain Situations: 12.9</td>
<td>Outside Head Close to Ears: 4.1</td>
<td>Louder than Own Voice: 16.2</td>
<td>Multiple Voices, Simultaneously: 32.9</td>
<td>Own and Other Unknown Voice: 3.8</td>
<td>Comments and Assignments: 13.3</td>
<td>Positive and Negative: 21.7</td>
<td>50% of the Time: 11.3</td>
<td>50% of the Time: 7.0</td>
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<tr>
<td></td>
<td>Once an hour: 8.3</td>
<td>A couple of hours or non-stop: 45.1</td>
<td>Random Moments: 84.3</td>
<td>Outside, further away: 4.1</td>
<td>Screaming: 16.2</td>
<td></td>
<td>Other Unknown Voice: 61.5</td>
<td>Dangerous Assignments: 8.4</td>
<td>Negative: 62.7</td>
<td>Most of the Time: 36.6</td>
<td>Never: 49.3</td>
</tr>
<tr>
<td></td>
<td>Continuous: 29.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Other Known Voice: 6.4</td>
<td>Comments and Dangerous Assignments: 48.2</td>
<td>Only noise: 8.4</td>
<td>Always: 42.3</td>
<td></td>
</tr>
</tbody>
</table>

Maijer K, Palmen SJ, Sommer IE. Children seeking help for auditory verbal hallucinations; who are they?. Schizophrenia research. 2017 May 1;183:31-5.
Multisensory Hallucinations Scale for Children (MHASC)

- Not to be confused with the MASC (Multidimensional Anxiety Scale for Children)
- Available in App Store
- Promising tool for the assessment of multimodal hallucinations
- Currently being validated
- Presently only in French

“Hi, I'm Lulu the masked rabbit. Some children see things that only they can see. Others feel things, others hear things...we’re going to ask you questions so that we better understand if these are the kinds of things that happen to you.”
“SOCRATIC” Method

- **Source:**
  - “Outside my head.”
  - “Coming from the foot of my bed, like feet on the floor and breathing.”

- **Onset, Duration, Frequency:**
  - “About three months ago. I first started seeing it when I moved to my new house with my dad.”
  - “Maybe for two hours.”
  - “Every night, but especially at my dad’s.”

- **Content & Character:**
  - Male: “I’m going to kill you and your family and there’s nothing that you can do about it.”

- **Reality Testing and Attribution:**
  - “I think he was maybe waiting at my new house or he followed me.”

- **Timing:**
  - “I hear it at night. Like I can hear the footsteps getting closer to my bedroom and I know he’s coming.”
  - “I can hear him and see him, like on the side or just outside. He’s out the window.”

- **Effects on Functioning:**
  - Sleepless, difficulty concentrating, productivity/grades dropped over the past three months
  - Teacher noted

- **Severity of Distress:**
  - “He’s great most of the time. Happy. But he’s getting more and more tired and rundown and we’re really worried about him.”
  - “At night, when it’s happening. It’s awful. Otherwise, no big deal. But I don’t like thinking about going to bed.”
Drawing Intervention – Panel 1
Drawing Intervention – Panel 2
Drawing Intervention – Panel 3
"Poof! He’s gone for good."
Some Clarification on this Intervention

Be Curious and Normalize

“...A lot of young people that we meet hear things that others sometimes cannot hear and see things that others cannot see. I’d love to learn more about what happens in your life and see if we can help. Is that okay?”

Draw and ask the child to draw

Mindfulness Exercise
Some Clarification on this Intervention

Use a Transitional Object

The “Riddikulus” Charm & Other CBT techniques

Normalize & Empower the Child & Parents

- Seeing things and hearing things is a very common experience.
- It can be brought on by something painful in your life.
- The amazing thing is, it comes from your brain AND therefore your brain can be part of the solution.
- But the part of your brain that CAN solve the problem, just doesn’t know it yet. It needs training.
Clinical Situation #2: A Fourth-Grader with Command AVH

- Brittany is a 9-year-old fourth grader with a history of inattentive-type ADHD
- Loves videogames, time with friends
- Often distracted, has difficulty sleeping at night
- Family history positive for aunt with “bipolar disorder”
- Brought in by parent after sleepless night, reporting to school that she heard a male voice repeating the phrase: “kill, kill, kill.”
- Overnight primary team very concerned, seeking hospitalization and work-up recommendations, though they’d already ordered an EEG and an MRI
Clinical Situation #2: “DOOMed”

• Sleep-deprived EEG = normal
• MRI w/ and w/o contrast = normal
• What we learned is that the onset occurred once the patient got home from Doom (2005)
• Doom is a violent, gory horror-action-adventure based on the videogame (46 people die)
• The patient had wanted to go with her older brothers and there was no sitter…
• Patient given some low-dose clonidine after sleepless night; awoke in afternoon in ED symptom-free and discharged to home to f/u with PCP
What risks should we consider?

- Studies suggest that children presenting with AVH suffer a deterioration in their functioning compared to peers and that suicide attempts/NSSI is higher in those with AVH. Regardless of diagnosis.
- Even when AVH fade, psychiatric (psychotic and non-psychotic) tend to persist at one year
- Regardless of psychosis risk status, psychiatric risk is most certainly present with children often feeling distress and little control
- It is generally felt that there is greater psychosis risk with youth who experience AVH with:
  - Great emotional valence (More derogatory, louder, commenting and making demands)
  - Higher frequency
  - Less control
  - Poor general functioning

Clinical Situation #3: A 12-year-old 6th grader with a hx of trauma

- A 12-year-old early middle-schooler has been working with a therapist at a community mental health center for six years.
- This followed a tragic boating accident wherein her father was held responsible for the death of a parent and children.
- Amber was referred by her therapist for a psychiatric evaluation as she felt anxiety (feeling tense, restless, having difficulty falling asleep, worrying about friends, siblings, her mother, some thoughts of superficial cutting) that was growing overwhelming.
- Started taking a low dose SRI and one week later called in a panic, reporting “they’re gone.”
- Basic labs (CBC, CMP, TSH, Vit D, Tox Screen) WNL.
- MSE notable for mild fidgetiness.
- Neuro exam normal.
- No headaches.
Detailed AVH and VH

- Amber explained that, for around five years, she enjoyed the company of others, she knew their names, outfits, hobbies, schools, favorite TV shows...

- Elected to stop SRI and to begin talking with therapist about the important role of this “mental family”
Two take-homes

Detailed Hallucinations more likely associated with PTSD

- “Overly elaborate and detailed, and/or occur absent of more overt evidence of thought disorder and disorganized behaviors are atypical for ‘true psychosis’.”

- Hlastala and McClellan’s study of those with “atypical psychosis” showed that, over 20 years, 0 converted to bipolar disorder or psychosis.

Distressing v Non-distressing AH N = (10,346)

- Distress is one of our best indicators of progression to psychosis and—importantly—may be used to guide treatment.

- Both Distressing and Nondistressing AH were linked to trauma and being distracted, but...

- Vulnerability factors to experiencing distress w AH include:
  - Negative Self Worth
  - Bullying, Trauma
  - Low Self-efficacy
  - Less family support

---


Clinical Scenario #4: a 13-year-old with AVH +

- Steve is a 13-year-old 7th grader with no relevant PMHx, PPHx
- No history of trauma
- No known family history of psychosis, schizophrenia-spectrum disorders, bipolar dx
- For six months he had been experiencing distressing multiple AVH that were harassing, commenting on his actions, and in conversation with one another, approximately 2-3 days/week
- Worse at night preventing sleep
- VH illusions, with shadows morphing into distinct figures
- Increasingly distracted, grades suffering, shared with parents
- Viral illness about two weeks before onset of AVH, no motor involvement
- Normal neurological examination
- Intermittent headaches
Clinical Scenario #4: Work-up

- New onset psychotic symptom work-up with thanks to Genalynne Mooneyham, MD (Duke University)
- ANA, Anti ds DNA, ESR and CRP
- Complete Blood Count
- Comprehensive Metabolic Panel
- Heavy metal panel (may take some time for result)
- Pb level
- STI panel – HIV, RPR, GC, CT
- TSH, free T4, anti microsomal antibodies, anti thyroglobulin antibodies
- UDS + Synthetic drug screen

Also…multimodal hallucinations:
  - MRI w/ and w/o contrast
  - Sleep-deprived EEG
Interpreting the findings: A Corpus Collosum Review

- CC is the largest white matter structure in the brain
- Connects the two hemispheres
- Consists of 200-300 million axonal projections
- Four parts:
  - Genu
  - Rostrum (beak like front part)
  - Trunk/Body
  - Splenium (Latin “Bandage”)
Mild Encephalitis with Reversible Splenial (MERS) Lesion Syndrome aka Reversible Splenial Lesion Syndrome (RESLES)

MERS associated with various infections:
- Influenza Virus, Rota Virus, Adenovirus, Measles, Herpes verius, Ebstein-Barr (“mono”), E coli, campylobacter

Neurologic symptoms:
- headache
- vertigo
- seizure
- disturbance of consciousness
- delirium
- Hallucinations

Very good prognosis, particularly those with lesions limited to SCC

Clinical Scenario #4: 13-year-old

On follow-up, conventional concerns dominated:

- Within 6 mos, no lesion identified on MRI
- Reduced frequency, intensity, duration of AVH and visual illusions
- Primary issue identified: profound “self-loathing” (remember the main psychosocial factor associated with distress vs non-distress)
- Cannabis Use & Our Conversation:
  - Try not to use at all
  - Use less frequently
  - Use higher dose CBD and lower dose THC
  - Monitor AVH and VH
- Patient found AVH, self-esteem, and grades worse when he used frequently used, so he quit
- Please see

Please see: https://cannabisandpsychosis.ca/
“Life can only be understood backwards; but it must be lived forwards.”
- Soren Kierkegaard
Clinical Scenario #5: A 3-year-old

- Phoebe: 3-year-old
- Normal development until 3-4 mos earlier
- URI followed by:
  - Receptive/Expressive Language Disturbance
  - Slight Gait Disturbance, Dyscoordination
  - Profound Insomnia
  - Growing anxiety, social inhibition, preschool refusal
  - Encopresis and Enuresis
  - Auditory, Visual and Tactile Hallucinations along with:
    - Bats flapping at her
    - Whispering to her and commenting on actions
    - Formication
    - Grabbing at air
    - Confused
- Family history of schizoaffective disorder

Initial Diagnoses:
- Delirium and (after extensive work-up)
  - DSM-IV's Childhood Disintegrative Disorder
- Autimmune Work-up
- Genetics/Metabolic
- Cunningham Panel
# Auto-Immune Encephalopathy Evaluation

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<th>Blood</th>
<th>CSF</th>
<th>Urine</th>
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<tr>
<td>-ACE</td>
<td>-Opening Pressure</td>
<td>-24 Urine Copper</td>
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<tr>
<td>-Ammonia</td>
<td>-Cell count</td>
<td>-Porphyrids</td>
</tr>
<tr>
<td>-ANA</td>
<td>-Glucose</td>
<td>-Urine Drug Screen</td>
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<tr>
<td>-Anti Sm, Ro, La Ab</td>
<td>-Protein</td>
<td></td>
</tr>
<tr>
<td>-Antithyroid Ab</td>
<td>-ACE</td>
<td></td>
</tr>
<tr>
<td>-Autoimmune Encephalopathy Panel including Anti-NMDAr</td>
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<td>-BHcg</td>
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<tr>
<td>-VonWillebrand factor antigen</td>
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</table>
Proximity to many cases of Anti-NMDAr

Around the time of this patient’s first presentation, we had a number of cases of anti-NMDAr encephalitis. Hence, this was on our radar:

• If a patient has a cold/flu then acute onset of seizures, psychosis, and movement disorders, consider autoimmune encephalitis
• Send autoimmune encephalopathy panel (CSF) or paraneoplastic panel (serum) to Mayo
• Do an EEG and look for Delta-Brush
• Consider possible teratoma (ultrasound)
• Neurological symptoms often improve with treatment, but psychiatric symptoms persist.
• Atypical antipsychotics may exacerbate motor symptoms.
• Best initial evidence is that Lithium and Valproic acid may be more appropriate and that insomnia may best respond to Valproic acid and Trazodone.

Back to Phoebe’s Course: features OCD, ASD, and CoS…

- **Treatment Phase 1 – Stabilization (ages 4 – 5)**
  - SLP support
  - OT support
  - Behavioral Psychology Support regarding toilet use
  - Low dose Clonidine to promote sleep

- **Treatment Phase 2 – Worsening AH and OCD-like Symptoms, bouts of acute psychosis, anorexia (ages 6-8)**
  - School-engagement
  - ABA
  - Marked OCD symptoms: Failed SRI trials Fluoxetine, Sertraline, and Fluvoxamine (activation)
  - On-going treatment of agitation and aggression with SGAs (Aripiprazole then Risperidone)

- **Treatment Phase 3 – Adopting PANS Paradigm (age 9 - )**
  - Treatment with NSAIDS, Azithromycin
  - Intermittent Steroid Use
  - IVIG tx
  - Mild Neurocognitive Disorder / Childhood-Onset Schizophrenia
Clinical Scenario #6 -- Sarah

- 13 year-old 7th grader who lives with parents from a rural town
- Referral from PCP:
  - A's and B's in school
  - “Marches to the beat of her own drum”
  - History of generalized anxiety disorder
  - For the past six months has been
    - Unable to focus
    - Failed to eat/drink regularly
    - Been moving incessantly alternating with times of being
      - Frozen
    - Episodes of freezing led to EEGs x 2 (both normal)
    - Intermittent quality led many to believe she is “faking”

- Nystagmus (4-5 beats up and to the left)
- Blank stare
- Non-purposeful drawing on magazine
- Very flat midface
- Incessant drumming of hands
- Dragging body with abnormal gait
Bush-Francis Scale

Total score of 22

- Symptoms of excitement → drumming
- Intermittent immobility → staring for hours
- Grimacing/Vocal changes → “sounding possessed”
- Intermittent mutism → nonresponsive
- Staring → little blinking, sitting for long stretches
- Mundane posturing → standing for long periods
- Stereotypies and mannerisms → writhing, wriggling, dancing, drumming
- Negativism → seeming obstreperous
- Withdrawal → failing to eat, sometimes for days (30lbs in six months, dropped 25 percentile points on growth curve)
- Impulsivity → wandering out of house, school, oblivious that this was problematic
MoCA

- Montreal Cognitive Assessment
- 8 out of 30
- Requiring 45min to complete
- Patient’s posture would freeze, mind drift
What happened next...

**Decision to Hospital**
- Lack of Availability for Testing
- Gait Disturbance
- Abnormalities on Neurological Examination
- Younger Age
- Marked weight loss (anorexia accompanying negative symptoms)
- Consider neuroimaging, basic autoimmune encephalopathy work-up, eating disorder protocol, and finally treatment with benzodiazepines

**Course and Findings**
- MRI w/ and w/o contrast: normal
- Sleep-deprived EEG and 24hr EEG: generalized slowing
- LP: Mayo Clinic Autoimmune Panel including anti-NMDAr Ab all negative
- Urine: Copper normal; negative Tox screen
- CBC, CMP, TSH, Free T4: normal
- Vit D: Low
- EKG: sinus bradycardia improving with weight restoration
- Genetics Microarray: Normal
- BFCRS: improved to 3 (from 24)
- MOCA: improved to 28/30 (from 8/30)
Schizophrenia Symptoms = DHS BeNs

- **Delusions**: None
- **Hallucinations**: None
- **Disorganized Speech**: Yes
- **Behavior** that is grossly disorganized or catatonic: Yes
- **Negative Symptoms**: Yes

- **No** attenuated psychotic symptoms when young (harassing imaginary friends)
- **No** history of brief psychotic bouts
- **No** drug use (THC + trauma may increase risk)

Risk Factors for Schizophrenia

- Some neurodevelopmental abnormality – inviting to few birthday parties since kindergarten
- Advanced paternal age
- Immigrated when very young
- Neighborhood violence
- Witnessed domestic violence
- ? Bullying
- **No** family history of schizophrenia/psychosis
Emergency Evaluation

- Patient appeared acutely anguished
- Unable to sustain eye contact, eyes darting to computer camera, eyes darting from side to side—clearly paranoid
- Schneiderian first-rank symptoms
  - Thought withdrawal
  - Thought insertion
  - Thought broadcasting
  - Made action
  - Made affect
  - Delusional perception / referential thinking: special meaning to song lyrics as predicting the future or sending special messages – “of course, you know what that means.”
  - Could hear own voice speaking to her, commenting on actions, unable to shut this off
Addressing Psychosis: antipsychotic choice

- Metabolically favorable SGAs typically turned to first: Aripiprazole, Lurasidone, Quetiapine
- For this patient, even history of catatonic symptoms, strove for low D2 affinity antipsychotics (quetiapine, olanzapine) OR partial agonist/antagonist (aripiprazole) + benzodiazepine (lorazepam)

“I don’t know what you gave her, but that was a 180 degree turnaround. That was amazing!”
ED Boarding: Began Supportive Psychotherapy Right Away!

- Encouraged patient to talk about feelings
- Helped the patient tell the story of the current situation
- Learn about patient’s strengths and ways they have handled stress in the past – *Rocked out a little!*
- Highlighted strengths and accomplishments (hospitalization would not be the end of the world, their success)
- Learn about key relationships and role played how to repair things with their parents
- Talk about next steps—what’s ahead in terms of hospitalization and treatment
We do not know precisely why people develop psychosis, but one reason that it might occur goes like this.

During puberty there is a reshaping of connections in the brain. Like someone might trim the limbs of a tree to shape it, the body uses our own immune system to cut some of the extra branches between nerves and whole networks in our brain in order to make the brain more efficient.

Sometimes that process can become hyperactive—particularly in this region called the dorsolateral prefrontal cortex (the side and back of the frontal lobes). It trims too much of the brain’s gray matter. This leads to people’s thoughts becoming less efficient; they become more confused, less able to make plans and carry them out.

The emotional part of the brain then starts to take over. This region, called the ventral tegmental area starts to mark everything we see, hear, feel as vitally important, often frightening…We use medications to try and turn the volume down on this part of the brain which tells us to be scared.
www.easacommunity.org/easa-art.php
Family Support: Discussing Long Acting Injectables

- **Study 1 (Subotnik et al):**
  - 12mos
  - 86 people with first-episode psychosis (FEP)
  - Oral vs LAI risperidone
  - Relapse and/or Exacerbation Rates:
    - 33% for PO group
    - 5% for LAI/IM group

- **Study 2 (Schreiner et al):**
  - Up to 24mos
  - 352 people with early psychosis (1-5yrs)
  - Oral meds (aripiprazole, haloperidol, olanzapine, quetiapine, paliperidone ER, risperidone) v LAI paliperidone
  - Relapse
    - 20% for PO group
    - 14.8% for LAI group


Family Support: Why not LAIs for FEPs?

• Many people feel that they are not suitable for those with first-episode psychosis or early psychosis.

• How we talk about medicines matters. One study showed that:
  • 11/33 refused but when LAIs presented negatively
  • 27/28 though initially declined, agreed with their physicians to start these and see how they go when presented with more information and more positively

• Some reasons to avoid LAIs
  • Lack of resources to make certain people can receive their injections
  • Needle-phobia
  • Inadequate trial periods of oral medications
  • History of NMS an inability to monitor closely
  • Financial barriers
  • Plan to taper
• Consider LAI treatment for now
• Aim for functional recovery opposed to symptom amelioration
• Considering a plan for tapering and discontinuing antipsychotics: “This is a temporary treatment. We’re not planning on this forever.” Balancing need for calming agents while also recognizing habit-forming quality/dependence-generation with benzodiazepines
• Monitoring closely for side-effects: BMI, Fasting Lipids, AIMS, Akathisia review
WHY TAPER?

*One study looked at 7-year follow-up of patient with FEP:

- Following up with 103 patients out of an original study of 128 wherein individuals were divided into a discontinuation/reduction (DR) group and maintenance therapy (MT) group
- Recovery occurred in:
  - DR = 40.4%
  - MT = 17.6%
- Initial relapse rates in the DR group were twice as high over the first three years, then evened out.
- This suggests that one should not be “scared away” by relapses precipitated by tapering/discontinuations.
- Consider instead—in the first three years—trying to reduce and stop D2 blocking therapy while maximizing psychosocial support and providing short-term med therapy through these relapses/exacerbations.

Wunderink I, Nieboer RM, Wiersma D, Systema S, Nienhuis FJ. Recovery in Remitted First-Episode Psychosis at 7 Years of Follow-up of an Early Dose Reduction/Discontinuation or Maintenance Treatment Strategy: Long-term Follow-up of a 2-Year Randomized Clinical Trial. JAMA Psychiatry, 2013;70(9):913-20
Family Support: School Support

- School-based counseling
- Medication accommodations
- Identifying triggers (loud noises in gym, the din of cafeteria voices)
- Providing alternative, quiet space at school for study or exams
- Extra time to complete exams
- Flexible deadlines
- In class support including executive function support with an emphasis on skills versus product
- Alternatives to public speaking
- Extra time to complete exams

Family Support: Guidelines

- Believe in your power
- One step at a time
- Consider using medication to protect your future…
- Reduce stresses for a while
- Anticipate life stress

- Keep it calm
- Give each other space
- Set a few simple limits
- Solve problems step by step

Family Support: They asked about books

- Connect with others and learn more through NAMI’s Family-To-Family
  - www.nami.org
- *The Complete Family Guide to Schizophrenia: Helping Your Love One Get the Most Out of Life* by Kim T Mueser and Susan Gingerich
- *The Center Cannot Hold: My Journey Through Madness* by Elyn Saks
Support: Psychotherapy

- Contemporary CBT and emerging therapeutic approaches involve an emphasis on one’s relationship to their mind
- Mentalizing: you have a mind, I have a mind
- Metacognitive Training: accepting mental phenomenon as not something one must control (Ego bolstering)
- Mindfulness Practice: bringing one’s awareness to thoughts, voices, sensations both those deemed “psychotic” and not, de-emphasizing attribution/meaning-making
- Committing to Have A Different Relationship to One’s Mental Experience: behavior change
- Compassion Focused Therapy
CASE “TAKE HOMES”

• In cases 1 and 2
  • Many children (up to 12% of 9 – 12 yo) have hallucinations
  • Distressing, but detailed and closely linked traumatic events. No thought disturbance. Relatively new onset.
  • Good history and nature of them ala SOCRATES interview proved helpful
  • Supportive psychotherapeutic intervention

• In case 3
  • Highly detailed AVH, linked to trauma, non-distressing
  • Supportive psychotherapeutic intervention sufficient
  • Absent some of the psychosocial links to AH/AVH distress: negative self-worth, bullying, low self-efficacy, little family support

• In Case 4
  • Neurological finding up front proved a McGuffin
  • Cannabis and increased risk with this as well as self-deprecating rumination emerged as most important

• In Case 5
  • Both common (developmental normal AH) and commonly uncommon (usual biomarkers, say for anti-NMDAr encephalopathy, including anti-NMDAr antibodies and extreme delta brush) turned out not to be responsible

• In Case 6
  • Thought and behavior disturbance anticipated emergence of AVH, highly suspicious for schizophrenia-spectrum disorder
  • Consider low dose SGA, LAI for stabilization with support (fam/ind) + taper plan
LEARNING OBJECTIVES REVISITED

- Identify three clinical features accompanying hallucinations in children which would lead evaluators to be more concerned about psychosis
  - Thought Disturbance
  - Behavior Change
  - Great emotional valence (More derogatory, louder, commenting and making demands)
  - Higher frequency
  - Less control
  - Poor general functioning

- Identity three clinical features accompanying hallucinations in children which would lead evaluators to consider other diagnostic paradigms and causes
  - Proximity to trauma (trauma)
  - Very organized, detailed (trauma)
  - Non-disturbing, non-harassing, ego-syntonic, younger age (developmental norm)

- List three therapeutic means of addressing hallucinations in children which may lead to young people and families to experience diminished stress and tension about them
  - Education
  - Mindfulness
  - Drawing
  - Inviting meta-cognition and control (how would you welcome them, how would you vanquish them?)

- Recall two symptoms and two objective findings consistent with anti-NMDA receptor encephalitis
  - Hallucinations, Seizures, Bizarre Behavior, Relationship to Recent Illness
  - Extreme Delta Brush on EEG, pleocytosis or oligoclonal bands in CSF, antiNMDAr Ab

- Name two tools that can be used to help evaluators better understand the nature and nuance of hallucinations in young children
  - SOCRATES and MHASC