Assessment and Management of Hallucinations and Psychosis in Primary Care

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Webinar I June 11, 2022
No relevant financial relationships with the manufacturer(s) of any commercial product(s) and/or provider of commercial services discussed in this CME activity.

I will not reference off-label or investigational use of medications in this presentation.
Goals and Objectives

- Attendees will increase confidence and comfort in assessing hallucinations and other symptoms of psychosis.

- Attendees will appreciate the distinction between hallucination and psychosis and increase clinical skills to help distinguish between psychotic and non-psychotic hallucinations.

- Attendees will gain confidence in developing a treatment plan to investigate and/or address symptoms of psychosis, including hallucinations.
Beginning at the End

- Hallucinations ≠ Psychosis (≠ Schizophrenia)
- Hallucinations are not necessary or sufficient for psychosis
- Hallucinations are associated with increased risk of suicide with or without psychosis
- Assessing the significance of hallucinations in the context of ASD/ID/DD is especially challenging.
- Non-psychotic hallucinations do not respond to antipsychotic medications.
- Antipsychotic medications are not always indicated for hallucinations.
- There are few validated tools to evaluate hallucinations and psychosis, so CLINICAL JUDGEMENT IT KEY.
- No standard treatment – support is very individualized depending on underlying cause, functional impact, available resources and patient/caregiver goals.
What is a hallucination?

- A (very) REAL, vivid and involuntary sensory experience
- Auditory hallucinations (AH) are the most common but can involve any sensory modality.
- Definitions
  - “erroneous percepts in the absence of identifiable stimuli”
  - “sensory experience in which a person can see, hear, smells, taste or feel something that is not there.”
- A sensory phenomena that exists on a continuum from normal to pathological

*This construct runs contrary to DSM 5 but is much more clinically useful and better matches experience*
Hallucinations

- Exist on continuum/spectrum from healthy to pathological
- Vary in frequency and significance across cultures
- More common and generally less concerning in young children
- Common cause of distress and seeking (primary) care
- More concerning in adolescence compared to younger children
- Persistence and age-of-onset correlate with higher levels of lifetime psychopathology but cut-offs are unclear
- Increase the risk of suicide independent of risk of underlying cause
What conditions are associated with hallucinations?

- Normal Development
- Stress/Trauma
- Affective Disorders: Anxiety, Depression, Bipolar
- Psychotic Disorders
- Drugs use/withdrawal
- ASD/ID/neurodevelopmental conditions

- Prescription Medications
- Lack of sleep
- Medical conditions (seizures, dementia, encephalopathy, liver/kidney problems)
- Personality Disorders
- Parent-parent and parent-child interaction problems
Challenges to assessing hallucinations

• Clinician comfort
• Lack of disclosure – patient and caregiver stigma/shame
• Fear of consequences – stress of acknowledging to self/others, negative reactions, limit life opportunities
• Lack of tools/instruments have the flexibility to be used at different ages and stages of development
• Fear of treatment – seeing a shrink, meaning of taking antipsychotic medications, (very legitimate) concern about side effects
Asking about Hallucinations: SOCRATES

**Source** – “inside” or “outside” your head

**Onset** – duration, frequency, recent changes

**Content/Characteristics** – what is [said], how many voices, commands, male/female, volume, tone, familiar

**Reality Testing/Attribution** – perceived origin, explanation, variability

**Timing** – time of day, circumstances, sleep associates, triggers, (perpetuating factors)

**Effects on functioning** – level of impairment/disability, impact on responsibilities, relationships, sleep

**Severity of distress** – yes/no; 1-10
Importance of “Reality Testing”?

- Significance of intact insight is unclear – especially in younger children and DD/ND populations due to more fluid boundaries between “real” and “unreal”
- Perception can change quickly
- Intact reality testing does not mean no risk for psychosis
- Intact reality testing does not mean no risk for acting on misperceptions whether hallucinations or delusions
### How worried should I be?

<table>
<thead>
<tr>
<th>Less Concerning</th>
<th>More Concerning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child (&lt; 12)</td>
<td>Adolescent (&gt;13)</td>
</tr>
<tr>
<td>Transient</td>
<td>Persistent</td>
</tr>
<tr>
<td>No other symptoms</td>
<td>Other psychotic and non-psychotic symptoms</td>
</tr>
<tr>
<td>ASD/ID</td>
<td>Normal cognition/IQ</td>
</tr>
<tr>
<td>Non-auditory; auditory non-verbal</td>
<td>Command (verbal) AH</td>
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<tr>
<td>Occur when waking up or falling asleep</td>
<td>Suicidal Ideation</td>
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<td></td>
<td>Substance Use</td>
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</table>
Psychosis

• Psychosis = state of being unable to distinguish between real and unreal

• Psychotic disorder = brain disease characterized by subjective symptoms that reflect impaired reality testing and objective signs of impairment

• Hallucinations are the most common symptom of psychosis BUT not necessary or sufficient for psychosis
How common is Psychosis?

• Lifetime prevalence 5-14% in general (all ages) population
• Up to 25% kids experience hallucination i.e., potential psychotic symptoms
• Population based studies identify symptoms at far higher rate than diagnosed psychotic disorders.
• Missed diagnosis or misdiagnosis? Not all symptoms (hallucinations) indicate psychotic illness (e.g., “non-psychotic hallucinations”)
• Is psychosis increasing? Impact of decreased stigma, increased awareness, improved screening, sharing of information through collaborative care models and EMRs.
pyschosisscreening.org

**Functional Decline** – school/work, social withdrawal, sleep changes

**Atypical Perceptions** – seeing things, hearing things, distorted perceptions (of real stimuli)

**Affective Changes** – irritability, anxiety, dysphoria

**Cognitive Challenges** – memory, attention, organization, missing social cues

**Thought Disturbance or Unusual Beliefs** – suspiciousness, somatic/religious preoccupation, feeling of being controlled

**Speech and Behavior** – disorganized, odd, erratic, unique words and speech patterns
Positive Symptoms ≈ “psychosis”

- Perceptual abnormalities (hallucinations)
- Unusual thought content (delusions)
- Disorganized speech, thoughts and behaviors
- *Accelerated thought patterns – perseveration, obsessions*
Negative Symptoms

- Lack of interest/pleasure (anhedonia)
- Low social motivation
- Affective flattening - few expressions; minimal emotion, paucity of gestures
- Low energy/Apathy
- Slowed thinking – thought delay/blocking; difficulty generating ideas (and responses)
- Slowed movement – little interest in initiating tasks
- Slowed speech – abnormal prosody; monotone; brief answers
Differential Diagnosis for Psychosis

- Stress/Trauma
- OCD
- Primary Psychotic Disorders
- Affective Disorders: Anxiety, Depression, Bipolar Disorder
- Drugs toxidrome/withdrawal state
- Prescription Medications
- Medical conditions (seizures, dementia, encephalopathy, liver/kidney problems)
- Personality Disorders
- ASD/ID/neurodevelopmental conditions
Hallucinations vs. Psychosis

- Hallucinations are common (10-25%), primary psychotic disorders are not (schizophrenia 1%)
- 1 in 8 experience auditory hallucinations
- Hallucinations (auditory verbal) are common enough to be considered part of normal development in younger children
- Hallucinations are most often transient (95%) and self-limiting
Hallucinations vs. Psychosis

- Limited information on how to distinguish “harmless” AH from precursors of psychiatric conditions
  - More concerning in adolescents versus children
  - AH in children increases risk of psychopathology later in life
    - (3X depression, 16X schizophrenia spectrum disorders)
- Approximately 25% need clinical care

Which 25%?
Hallucinations, Psychosis and Trauma

- Trauma and early life stress are associated with hallucinations
- Most children who experience trauma do not experience hallucinations
- Not every child who experience hallucinations has experienced trauma or negative life events
- Trauma is associated with persistence of hallucinations – often recur with stress
- Decreasing exposure to triggers/improving management of triggers DECREASES hallucinations: TF-CBT
- Role for medications is highly variable depending on circumstances – SSRIs, AAPs, alpha agonists
- Psychosis can be a psychological defense/response to trauma – especially early life stress and complex trauma
What does psychosis look like in ASD?

• Sleep changes
• Loss of adaptive skills
• Self-harm
• Irritability – aggression, low frustration tolerance
• (Further) social withdrawal
• Cognitive decline/drop-off in academic performance
• Others?
Psychosis and ID

- ID confers increased risk of psychosis
- Diagnostic overshadowing complicates diagnosis (attribute symptoms to ID/DD)
- Associated challenging behaviors distract/deflect efforts to identify underlying causes
- Symptoms management is often prioritized over diagnostic clarity
- Assessment requires increased reliance on input from caregivers and evaluation of functional impairment.
- In the case of genetic syndromes (VCF syndrome, Prader-Willi), determining whether psychosis is related or indicates separate condition is difficult
Cannabis and Psychosis

• Neurotoxic affect on teenage brain
• Regular use increases risk of schizophrenia and all-cause psychosis
• Use in early adolescence + genetic risk = increased risk of schizophrenia
• Dose dependent relationship
• Exacerbates symptoms regardless of cause
• Use increases morbidity, disability, relapse and hospitalization in patient with primary psychotic disorders
Schizophrenia and Autism

- Both are increasingly recognized as neurodevelopmental “spectrum” disorders
- Symptom/trait overlap – deficits in social communication and social-emotional reciprocity
- Shared environmental risk factors (e.g., in utero and perinatal stress)
- Shared genetic risk (multiple CNVs)
- High rates of heritability between disorders
- Epidemiological and family studies show an association
  - Parental schizophrenia is associated with the risk of autism
  - ASD confers 3.5 X risk of schizophrenia (Zheng et al. 2018)
- Clinical Experience!
Supporting children with Psychosis and their caregivers

• No standardized approach
• Lack of research to guide interventions
• Huge regional variability based on availability of MH services
• Very individualized needs based on:
  • underlying cause
  • perpetuating factors
  • level of distress
  • safety issues
  • related disability
• Treatment may include anti-psychotic medications but not always
Supporting children with psychosis and caregivers

• Children and parents may have different needs and goals
  • Children – prefer normalizing and destigmatizing approach
  • Parents – want counseling, peer groups, medication information, alternative education opportunities

• Minimize stress
  • Decrease expectations/demands
  • Decrease environmental stimulus
  • Decrease negative expressed emotion

• Monitor safety – high risk of suicidal thinking and behavior

• Support coping strategies to deal with hallucinations and delusions
Psychosocial Treatments for Psychosis

- Psychoeducation – supports compliance, reduces relapse
- Support social interactions – routine, familiar activities
- Standardize routine and language across environments and teams (school, mental health, caregivers, etc.)
- Monitor cognitive function/support learning – increase surveillance and testing at school
- Rehabilitation services – adaptive deficits, academic remediation, vocational
- Structured psychological treatments
Structured Therapies

• CBT for psychosis (CBTp)
• Family Therapy – improving family functioning, problem solving, communication, relapse signs and prevention, medication compliance
• Emotion Management Therapy – identify and regulate emotions, manage stress of psychosis, develop coping skills
• Cognitive Enhancement Therapy (CET) – recovery strategy when psychiatrically stable, enhance mental capacities and social functioning
CBT for Psychosis (CBT-P)

- Not a stand-alone treatment
- Not widely available
- May slow progression
- May reduce risk of recurrent episodes by 50% when part of comprehensive approach along with medication management, family and vocational support.
- May support less reliance on medication and reduce side effects
CBT for Psychosis (CBT-P)

- Framework for finding context, meaning and strategies based on original CBT model (ABC)
  - What? When? Why? to identify feelings/automatic thoughts that precipitate or perpetuate symptoms or lead to maladaptive behaviors
  - This leads to opportunities to identify effective strategies to increase control of symptoms and reduce negative consequences
- Treatment is very individualized – identify goals with patient; important to understand “meaning” of hallucinations to the patient
- Does not try to eliminate or get rid of symptoms – goal is to manage symptoms and improve functioning
CBT for Psychosis (CBT-P)

- Normalization – decatastrophize psychotic symptoms and allows for possibility of recovery
- Critical collaborative analysis – requires trust; questioning/challenging PE needs to be driven by patient; typically, do NOT challenge impaired reality testing; focus on patient’s interpretation not the experience
- Search for alternative explanation – must be driven by patient; develop alternatives to maladaptive assumptions
Negative Expressed Emotion

• Considered form of “toxic family stress” – frequent, sustained and uncontrollable family stress in the absence of protective factors; impacts biological, neurological and psychological development

• Includes elements of criticism, hostility and emotional over-involvement

• High parental EE is associate with many forms of childhood psychopathology – anxiety, depression, psychosis
Family Interventions for Psychosis

• Important opportunity for psycho-education about psychosis, treatment and prognosis

• Common elements include skill building around problem solving, stress management and communication

• Provide opportunity for emotional processing and support around impact of psychosis on family members and relationships
Family Interventions for Psychosis

- With this knowledge and information, promote adaptive coping and lower EE
  - Improve medication adherence
  - Reduce relapse and hospitalization
  - Reduce psychotic symptoms in some cases
  - Improve caregiver well-being and burden
Ending at the Beginning

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Selected Bibliography


SOCRATES Assessment of Perceptual Abnormalities and Unusual Thought Content (Kelleher and Cannon. 2014)

Children Seeking Help for Auditory Hallucinations: Who are they? (K Maijer. Schizophrenia Research. 2017) – includes description of Stronger Than Your Voices


Online Resources:

https://strong365.org
www.psychosisisscreening.org
Hope. Care. Cure.