Understanding the Early Warning Signs of Psychosis: A Look at Attenuated and Prodromal Psychosis

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What is psychosis?

A break from reality

Thoughts

Sensory Experiences
Psychotic Disorders

- Schizophrenia
- Schizophrreniform Disorder
- Schizoaffective Disorder
- Other Specified Schizophrenia Spectrum Disorder
- Other Psychotic Disorder
SOME FACTS ABOUT SCHIZOPHRENIA
# Relative Prevalence of Schizophrenia

<table>
<thead>
<tr>
<th>Condition</th>
<th>Relative Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schizophrenia</td>
<td>1x</td>
</tr>
<tr>
<td>Alzheimer's</td>
<td>2x</td>
</tr>
<tr>
<td>Multiple Sclerosis</td>
<td>5x</td>
</tr>
<tr>
<td>Insulin-dependent Diabetes</td>
<td>6x</td>
</tr>
<tr>
<td>Muscular Dystrophy</td>
<td>60x</td>
</tr>
</tbody>
</table>

Adapted from J.A. Lieberman
Yearly Cost Per Patient in the United States

- Schizophrenia
- Cancer
- Stroke
- Coronary Heart Disease
- Diabetes
- Congestive Heart Failure
- Depression
- Osteoporosis
- Arthritis
- Hypertension
- Asthma

WHO, 2003
Risk of Developing Schizophrenia

• 1% of US population has schizophrenia
• 2-3% risk with a second degree relative
• 10-15% risk with a parent with schizophrenia
• 50% risk with a monozygotic (identical) twin
HOW CAN WE MINIMIZE THE IMPACT OF SCHIZOPHRENIA?
Why is Early Intervention Important?

The rationale for early intervention in schizophrenia and related disorders

Merete Nordentoft,¹,² Pia Jeppesen,¹,² Lone Petersen,¹,² Mette Bertelsen¹,² and Anne Thorup¹,²

Short DUP, N=31 (treatment <1 year after psychosis onset)

Long DUP, N=22 (treatment >1 year after psychosis onset)

Can we identify psychosis prior to its onset?

**Webster’s Definition of “prodrome”:**
An early symptom indicating the onset of a disorder

**Medical example of a “prodrome”:**
Fever is prodromal to measles

**Prodromal definition in relation to psychosis:**
“Period preceding the onset of the first florid psychotic episode, when there is increasing symptomatic presentation and functional deterioration (NIMH).”
How Early Can We Detect Psychosis?

<table>
<thead>
<tr>
<th>Childhood</th>
<th>Adolescence</th>
<th>Adulthood</th>
</tr>
</thead>
<tbody>
<tr>
<td>No symptoms</td>
<td>Non-specific symptoms noticed by patient</td>
<td>Sub-psychotic symptoms affects functioning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Full psychotic symptoms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Treatment success</td>
</tr>
</tbody>
</table>
Attenuated “Positive” Symptom Syndrome

• **Specific:**
  – Positive Symptoms
    • Hallucinations, delusions, disorganized communication

• **Non-Specific:**
  – Cognitive Symptoms
    • Poor attention and concentration, memory problems, executive impairment
  – Negative Symptoms
    • Social withdrawal, affect flattening, avolition
Examples of Attenuated Positive Symptoms

Unusual Thinking
- Confusion about what is real and what is imaginary
- Ideas of reference
- Preoccupation with the supernatural (telepathy, ghosts, UFOs)
- Other unusual thoughts: Mind tricks, somatic ideas, overvalued beliefs, delusions of control
- Suspiciousness

Perceptual Disturbances
- Increased sensitivity to light and sound
- Hearing things that other people don’t hear
- Seeing things that others don’t see
- Smelling, tasting, or feeling unusual sensations that other people don’t experience

Disorganized Communication
- Difficulty getting the point across; trouble directing sentences towards a goal
- Rambling, going off track during conversations
- Incorrect words, irrelevant topics
- Odd speech
P. 4. DESCRIPTION: PERCEPTUAL ABNORMALITIES/HALLUCINATIONS

a. Unusual perceptual experiences. Heightened or dulled perceptions, vivid sensory experiences, distortions, illusions.

b. Pseudo-hallucinations or hallucinations into which the subject has insight (i.e. is aware of their abnormal nature.)

c. Occasional frank hallucinations that may minimally influence thinking or behavior.

Anchors in each scale are intended to provide guidelines and examples of signs for every symptom observed. It is not necessary to meet every criterion in any one anchor to assign a particular rating. Basis for ratings includes both interviewer observations and patient reports.

<table>
<thead>
<tr>
<th>PERCEPTUAL ABNORMALITIES/HALLUCINATIONS</th>
<th>Severity Scale (circle one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 Absent</td>
<td>1 Questionably Present</td>
</tr>
<tr>
<td>Minor, but noticeable perceptual sensitivity</td>
<td></td>
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<tr>
<td>(e.g. heightened, dulled, distorted, etc.)</td>
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</tr>
<tr>
<td>1 Questionably Present</td>
<td></td>
</tr>
<tr>
<td>Unexpected, unformed perceptual experiences/</td>
<td></td>
</tr>
<tr>
<td>changes that are puzzling but are not</td>
<td></td>
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<tr>
<td>considered to be significant.</td>
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<tr>
<td>2 Mild</td>
<td></td>
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<tr>
<td>Repeated, unformed, images (e.g., shadows,</td>
<td></td>
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<tr>
<td>trails, sounds, etc.), illusions, or</td>
<td></td>
</tr>
<tr>
<td>persistent perceptual distortions that may be</td>
<td></td>
</tr>
<tr>
<td>worrisome or experienced as unusual.</td>
<td></td>
</tr>
<tr>
<td>3 Moderate</td>
<td></td>
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<tr>
<td>Recurrent illusions or momentary</td>
<td></td>
</tr>
<tr>
<td>hallucinations that are recognized as not</td>
<td></td>
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<tr>
<td>real yet can be frightening or captivating, and</td>
<td></td>
</tr>
<tr>
<td>may affect behavior slightly.</td>
<td></td>
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<tr>
<td>4 Moderately Severe</td>
<td></td>
</tr>
<tr>
<td>Hallucinations that occasionally affect</td>
<td></td>
</tr>
<tr>
<td>thinking or behavior, that are experienced</td>
<td></td>
</tr>
<tr>
<td>as possibly external to self or possibly</td>
<td></td>
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<tr>
<td>real. Skepticism can be induced.</td>
<td></td>
</tr>
<tr>
<td>5 Severe but Not Psychotic</td>
<td></td>
</tr>
<tr>
<td>Recurrent hallucinations perceived as real</td>
<td></td>
</tr>
<tr>
<td>and distinct from the person's thoughts.</td>
<td></td>
</tr>
<tr>
<td>Clearly influence thinking, feeling, and/or</td>
<td></td>
</tr>
<tr>
<td>behavior. Skepticism cannot be induced.</td>
<td></td>
</tr>
<tr>
<td>6 Severe and Psychotic</td>
<td></td>
</tr>
<tr>
<td>Recurrent hallucinations</td>
<td></td>
</tr>
</tbody>
</table>
Who Develops Psychosis?

- More severe positive symptoms
- Worse verbal memory
- Lower social functioning
- Substance use
- Family history of psychosis

Cannon, et al., 2009; Yung, et al., 2009
Case Examples

Think about your clients....
Example #1: Jane

- 18 years old
- ADHD diagnosis age 6.
- Always had trouble concentrating on school work.
- School work seems more difficult for her in college
- Several friends
- Enjoy extracurricular activities.
Example #2: Kelly

- 25 years old
- B-grade student with attention problems this year
- Recent difficulty staying on track during conversations
- Professor described her as “odd,” sometimes difficult to follow her comments in class
Example #3: John

- 19 years old
- Recent problems concentrating on schoolwork, failed 1 class
- Says he feels someone in his room when he’s alone with door closed, like his mother or the cat. He looks, but no one is there. Happens several times a week.
- Hears his name being called when no one is around, starting three months ago.
- Mother says these symptoms are worrying her
Example # 4: Julie

• 20 years old
• Reports lifelong mild anxiety, recent panic attacks
• Appears guarded, reports no close friends
• Says she worries classmates might do something to hurt her, but doesn’t know why
Example # 5: Shawn

- 22 years old
- Describes several years of mild depression
- In the last year hears a voice in his head say negative words like “dead” “filth.” He thinks it is his old roommate who moved to LA.
- Recently worried that his arm doesn’t work correctly, feels like he can’t control it
How Do I Know if My Client is At-Risk?

Psychosis risk screening with the Prodromal Questionnaire — Brief Version (PQ-B)

Rachel L. Loewy a,*, Rahel Pearson a, Sophia Vinogradov a,b, Carrie E. Bearden c,d, Tyrone D. Cannon c,d

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b San Francisco Department of Veteran’s Affairs Medical Center, San Francisco, CA, United States
c Department Psychiatry and Biobehavioral Sciences, University of California at Los Angeles, Los Angeles, CA, United States
d Department of Psychology, University of California at Los Angeles, Los Angeles, CA, United States
Psychosis Risk in “Clinical High Risk” Patients

65% of CHR individuals will NOT develop psychosis within 2.5 years
North American Prodromal Longitudinal Study

- U of Calgary
- Harvard
- Yale
- Zucker
- Hillside
- UCSF
- UCLA
- UCSD
- UNC
- Emory
What if My Client Already Has Psychosis?

TIP SHEET:

Tip 1: Don’t Panic

Tip 2: Don’t Panic

Tip 3: Normalize

Tip 4: Stay Curious

Tip 5: Encourage Further Evaluation

Tip 6: Encourage Hope
Recommended Treatment

Cognitive Behavioral Therapy for Psychosis
Cognitive Behavioral Therapy for Psychosis (CBT-P)

• Focus is on reducing the distress caused by positive symptoms including hallucinations and unusual thoughts

• How are current behaviors maintaining the problem?
  • Need to check the helpfulness of current behaviors

• Thoughts
  • Interpretation of the event that causes distress rather than the event itself
  • Need to check the accuracy of the interpretation Behaviors

(Moore, Hardy, & Howard, 2015)
Other Factors to Consider

• Symptoms of depression and anxiety
• Past traumatic events
• Social skills
• Negative symptoms including lack of motivation
• Problem solving and decision making – Developing coping skills
• Relapse prevention planning

(Moore, Hardy, & Howard, 2015)
Preliminary data: Cognitive Training

Significant improvement after 40 hours of laptop training compared to computer games

<table>
<thead>
<tr>
<th>Z-Score Change</th>
<th>AT (N=43)</th>
<th>CG (N=43)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Cognition**</td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
</tr>
<tr>
<td>Speed of Processing</td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
</tr>
<tr>
<td>Working Memory</td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
</tr>
<tr>
<td>Verbal Learning</td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
</tr>
<tr>
<td>Verbal Memory**</td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
</tr>
<tr>
<td>Visual Learning</td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
</tr>
<tr>
<td>Visual Memory</td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
</tr>
<tr>
<td>Problem Solving*</td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
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