Early Stages of Psychosis

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Learning Objectives

• Summarize the five domains of psychosis
• Describe how psychotic symptoms present
• Determine the limitations of biological markers in the early stages of psychosis
• Describe the treatment of the early stages of psychosis
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What is Psychosis?

1. Delusions & Hallucinations, without insight
2. Delusions & Hallucinations
3. Disorganization (Thought, Behavior)
4. Catatonia / Abnormal psychomotor behavior
5. Gross functional impairment
6. Loss of ego boundaries
Schizophrenia Spectrum (DSM-5)

1) Schizotypal Personality Disorder
2) Delusional Disorder
3) Brief Psychotic Disorder
4) Schizophreniform Disorder
5) Schizophrenia
6) Schizoaffective Disorder
7) Substance/Medication-Induced Psychotic Disorder
8) Psychotic Disorder due to another GMC
9) Catatonia

Schizophrenia (DSM-5)

A Characteristic symptoms (one of top three + one)
   – Delusions
   – Hallucinations
   – Disorganized speech
   – Grossly disorganized or catatonic behavior
   – Negative symptoms (diminished emotional expression or avolition)
B Social dysfunction
C Duration (6 m, 1 m with criteria A symptoms)
D Schizoaffective and Mood Disorder exclusion
E Substance / GMC exclusion
F Relationship to Pervasive Developmental Dis.
What is psychosis?

- Hallucinations and delusions
- Disorganization of thought and behavior
- Negative symptoms (avolition, flat affect)
- Differential diagnosis:
  - Schizophrenia vs. Bipolar disorder
  - Functional vs. Secondary psychosis

Dimensional assessment of psychosis

Heckers et al, 2013
Phenomenology (1)

- Reality Distortion:
  - Hallucination (Perception-like experience without stimulus)
  - Delusion (Fixed false belief)

- Disorganization
  - Thought (logical, linear, goal directed ?)
  - Behavior (incl. Catatonia)

Imaging the hallucinating brain

Dierks et al., 1999
Phenomenology (2)

- Affective symptoms:
  - Avolition
  - Anhedonia
  - Restricted affect
- Cognitive deficits

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First-person account

- Conversations
- Series in *Schizophrenia Bulletin*
- “In our own voice” ([http://www.nami.org/](http://www.nami.org/))
- Autobiographies
- Art

Art: Adolf Wölfl (1864 - 1930)
Autobiographies

Elyn R. Saks, JD
Professor of Law, USC

The center cannot hold, 2007

Fusar-Poli, 2013
Fusar-Poli, 2015
Course of psychosis

- At-risk state
- Prodrome
- First episode
- Acute phase
- Remission
- Relapse

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Imaging the risk for psychosis

n=23 Psychosis, n=52 no psychosis  Pantelis et al., 2003
Hippocampal volume in psychosis

Velakoulis et al., 2006

Imaging the at-risk mental state

ALE meta-analysis of 19 VBM studies Fusar-Poli et al., 2011
Brain Changes in Early Stage of Psychosis

Diagnosing a psychotic disorder

Support vector machine (SVM) classification:
Control > Late ARMS

Koutsouleris et al., 2009
Schizophrenia: Outcome

- There is not one, predictable outcome for an individual who has schizophrenia
- Recovery is possible (Rule of the 3 thirds)
- Predictors of good outcome (female, acute onset, high premorbid IQ)

The Critical Period (Birchwood 1998)

- Where deterioration occurs, it does so aggressively in the first 2-3 years
- Plateau-effect
- Psychosocial influences critical during this period
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Essential Evidence-Based Components of First-Episode Psychosis Services

Donald Emile Addington, M.B.B.S.
Emily McKenzie, M.Sc.
Ross Norman, Ph.D.
Jianli Wang, Ph.D.
Gary R. Bond, Ph.D.

32 components: 6 A, 9 B, 14 C, 3D

Pharmacotherapy
• Selection of medication
• Single antipsychotic
• Low-dose, slow increment
• Clozapine for treatment resistance

Supported employment
Multifamily group psychoeducation
ETP (Early Treatment Program)
RAISE (Recovery after an initial schizophrenia period)
NAVIGATE versus community care

1) Personalized medication management
2) Family psychoeducation
3) Resilience-focused individual therapy
4) Supported employment and education (SEE)

<table>
<thead>
<tr>
<th>Skill area and goals</th>
<th>NAVIGATE</th>
<th>Key elements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shared decision-making skills</strong></td>
<td></td>
<td>Information provided about treatment options and likely consequences</td>
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<tr>
<td>Facilitate active engagement in treatment</td>
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<td>Client preferences elicited and respected</td>
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<tr>
<td>Establish and maintain good working alliance between client and team members</td>
<td></td>
<td>Treatment decisions negotiated and made jointly; family members involved (with client permission)</td>
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<tr>
<td>Support self-determination and personal autonomy</td>
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<tr>
<td><strong>Strengths and resiliency focus</strong></td>
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<td>Identify personal qualities, knowledge, skills, and resources</td>
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<tr>
<td>Improve positive feelings and self-esteem</td>
<td></td>
<td>Draw attention to strengths and consider how to capitalize on them to achieve goals</td>
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<tr>
<td>Instill hope for the future</td>
<td></td>
<td>Explore how person coped with and bounced back from previous challenges</td>
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<tr>
<td>Promote use of all available resources for achieving goals</td>
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<td>Build upon and enhance skills for dealing with stress and rebounding from setbacks</td>
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<tr>
<td>Help person move forward in life after disruption of psychotic episode and any persistent difficulties</td>
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Mueser et al., 2015
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<tr>
<td><strong>Motivational enhancement</strong></td>
<td>Increase effort to work on personal goals</td>
<td>Empathic listening</td>
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<td></td>
<td>Enhance desire to improve illness management</td>
<td>Elicit goals and support self-efficacy for achieving them</td>
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<td></td>
<td>Resolve ambivalence about behavior change</td>
<td>Explore how improved illness management could help achieve goals</td>
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<td></td>
<td>Help find a sense of purpose in one’s life</td>
<td>Instill hope for achieving goals</td>
</tr>
<tr>
<td><strong>Psychoeducational skills</strong></td>
<td>Provide important information to enable shared decision making</td>
<td>Provide information in different formats (for example, handouts, discussion, and whiteboard)</td>
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<tr>
<td></td>
<td>Ensure relevant information is understood and retained</td>
<td>Break up information into small “chunks”</td>
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<tr>
<td></td>
<td>Facilitate ability to access and use information when needed</td>
<td>Interactive teaching and discussion format, with frequent breaks to ask and answer questions, check understanding, and explore person’s experience</td>
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Mueser et al., 2015

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<td><strong>Collaboration with natural supports</strong></td>
<td>Enlist family support for client goals and participating in treatment; improve monitoring of client’s disorder; and reduce stress in the family</td>
<td>Broad definition of “family” based on client’s wishes; outreach to engage family members; provide information to family about illness and treatment similar to that in the standard work on IRT; elicit and respond to family members’ questions and concerns; avoid judgment; express empathy about challenging experiences and focus on resiliency; ensure that treatment team members are accessible to family; responsive to family requests for help</td>
</tr>
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Mueser et al., 2015
Comprehensive Versus Usual Community Care for First-Episode Psychosis: 2-Year Outcomes From the NIMH RAISE Early Treatment Program

A. Supported Employment/Education: Have you met with a person who is helping you get a job in the community or furthering your education?

B. Individual Resiliency Training: Have you had individual sessions with a mental health care provider who helps you work on your goals and look positively toward the future?

- NAVIGATE
- Community Care

Comprehensive Versus Usual Community Care for First-Episode Psychosis: 2-Year Outcomes From the NIMH RAISE Early Treatment Program

A. GSE total score

- DUP < 14 weeks, NAV
- DUP < 14 weeks, UC
- DUP > 24 weeks, NAV
- DUP > 24 weeks, UC

B. RANSS total score

- DUP < 14 weeks, NAV
- DUP < 14 weeks, UC
- DUP > 24 weeks, NAV
- DUP > 24 weeks, UC

- NAVIGATE
- Community Care
Early Psychosis: 4 Goals

1) Stabilization (acute crisis)
2) Outpatient management
3) Recovery (Employment, School)
4) Preventing relapse

https://www.vumc.org/early-psychosis-program/
Team

1) Psychiatrists (Attending, Fellow)
2) Nurses
3) Therapists (LMFT, Intern, Residents)
4) Social workers
5) Neuropsychologists (Faculty, Intern)

Vanderbilt Early Psychosis Program

1) Clinical Care
2) Education
3) Research
Vanderbilt Psychiatric Hospital

~ 3500 admissions per year
~ 700 psychotic patients
~ 100 first episode psychosis patients

Diagnostic work-up

• Lab tests
• Brain MRI
• EEG
• Neuropsychological testing
Clinical Care

- Inpatient unit
- Partial Hospital
- Clinic

Recovery

Education

Therapy

Medication
Engagement

1) Medication
2) Group/Individual therapy
3) Discharge planning

Education

1) Patients
2) Family
3) Providers
Research

1) Brain imaging

2) Cognition

3) Outcome

Niteo (Boston University)
Niteo (Boston University)

<table>
<thead>
<tr>
<th>Monday</th>
<th>Wednesday</th>
<th>Friday</th>
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<tbody>
<tr>
<td>Ideas Worth Discussing</td>
<td>Writing Seminar</td>
<td>PhotoVoice</td>
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<tr>
<td>9:30-10:00</td>
<td>9:30-11:00</td>
<td>9:30-11:00</td>
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<tr>
<td>Career Seminar</td>
<td>Wellness Seminar</td>
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<tr>
<td>10:00-11:00</td>
<td>11:00-12:00</td>
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<tr>
<td>Wellness Seminar</td>
<td>Developing Mindfulness &amp; Stress Resilience</td>
<td>Advanced Academic Seminar</td>
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<td>11:00-12:00</td>
<td>11:00-12:00</td>
<td>11:00-1:00</td>
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<tr>
<td>Lunch</td>
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<td>12:00-1:00</td>
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<td>Open Studio</td>
<td>Academic Seminar</td>
<td>Coaching</td>
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<tr>
<td>1:00-2:00</td>
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<td>1:00-4:00</td>
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<td>Coaching</td>
<td>Supported Study Hall</td>
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<td>2:00-4:00</td>
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<td>2:00-4:00</td>
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<tr>
<td>Coaching</td>
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<td>1:00-4:00</td>
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Take home messages

- Five domains of psychosis
- Evolution of psychotic symptoms
- Value and limitations of biological markers in the early stages of psychosis
- Specialty-care treatment of early stage psychosis is effective
- Goal is early detection and treatment