Clinical Staging and the At-Risk Phase of Psychotic Disorder

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Key Findings in Early Psychosis Knowledge Sharing Initiative
Nova Scotia Early Psychosis Network
Cognitive deficits

Memory deficits
Poor attention
Poor organization
Concrete thinking

Mood disturbance

Anxiety
Depression
Irritability
Rapid swings
anger

Negative symptoms

Lack of:
Energy
Motivation
Drive
Socialization
reactivity
Emotion
Slowed thoughts
or speech

Positive symptoms

Hallucinations
Delusions
Disorganized and
Bizarre behavior

Schizophrenia
• Common among prison and homeless populations
  
  • 80% will abuse substances during their lifetime

  • 15-25x more likely to die from a suicide attempt than the general population

  • 10% or patients die from suicide most often in the first 10 years after diagnosis

World Health Report 2001 (WHO, 2002) schizophrenia and other forms of psychoses affecting young people rank third worldwide as the most disabling condition

• More hospital beds in Canada are occupied (8%) by people with schizophrenia than by sufferers of any other medical condition

“Youth’s Greatest Disabler”

If left untreated, there is a continuing slow increase in impairment for years
Prevalence of Psychotic spectrum disorders per 1000 children/adolescents

In males particularly, schizophrenia is a major disorder of adolescence

- Hits adolescents in their prime – leads to a disruption in education-attainment, career building, employment
- Alters relationships, family interactions, support
- Alters sense of self, esteem, productivity

Early Detection of Serious Mental Disorder

• Similar to familiar medical illnesses such as cancer, early detection of signs of illness prior to the development of a full neuropsychiatric disorder provides an exciting opportunity for prevention and rehabilitation.

• This is the standard for international early psychosis programs
  • Reducing the duration of untreated psychosis
    • Antipsychotic medication
    • Psychosocial and psycho-educational supports to patient and family
    • Psychotherapy & support

• Providing more comprehensive stage-specific treatment gives better results than generic ‘treatment as usual’.
  • But enhanced outcomes requires ongoing stage-specific specialized treatment programs throughout the critical period.
A substantial amount of the disability for which schizophrenia is heralded begins in the earliest stage of illness. For some, this is soon after puberty prior to the onset of identifiable psychotic symptoms (Hafner et al, 1995).

This period of growing functional impairment is now referred to as the prodrome (retrospective) or clinical high risk phase (prospective).

Focused effort exists now to identifying those at risk before they convert to reduce the morbidity and mortality associated with the onset of this illness and perhaps even delay its onset.
Early Detection of Serious Mental Disorder

- Akin to heart disease and cancers, psychotic disorders such as schizophrenia follow a staging process in terms of illness progression with the earliest signs of illness possibly being identifiable even before the onset of florid symptoms.

- The earliest signs are also possibly the less severe or subclinical symptoms of illness that have the potential to progress.

- Implications
  - Intervention (most appropriate and least invasive)
  - Prevention (indicated)
How to identify those “at risk”:

• Criteria have been introduced for the prospective identification of people at increased risk for developing schizophrenia

  • Based on a combination of genetic risk for psychosis, the presence of attenuated symptoms and evidence of functional decline related to the symptoms

  • Studies have suggested that about 20-35% of those meeting these criteria will transition from the attenuated phase to the first episode psychotic phase of schizophrenia without treatment
    • Studies suggest the criteria are valid and reliable for predicting psychosis onset in this population
How do we identify youth at risk?

- **Genetic High Risk**
  - No relatives with psychosis: 1-3%
  - Sibling of someone with psychosis: 10%
  - Child of one parent with psychosis: 13%
  - Child of two parents with psychosis: 45%
  - Monozygotic twin of someone with psychosis: 45-50%

- **Clinical High Risk (ultra high risk)**
  - Person has low level (sub-threshold or attenuated) psychotic experiences or brief limited psychotic experiences

- **Markers of functional decline**
How to identify those “at risk”:

- gene (G) X environment interaction (E) that increase susceptibility

- Psychotic outcomes are more associated with the following E risks:
  - urbanized area
  - social defeat/marginalization
  - cannabis use
  - developmental trauma

- unusual thought content (vs perceptual disturbances)

- risks now being further validated using prospective designs

  - Social cognition and psychosis proneness
  - mental operations which guide social behavior and self in society
    - when impaired may result in psychotic symptoms
  - early childhood trauma may lead to abnormal development of this ability
The psychosis continuum or spectrum of symptoms

Psychotic like experiences (normal variant)

PLEs associated with other disorders
- Anxiety/OCD
- Depression
- Stress
- Grief/loss
- Trauma
  -- autism
- Medical illness

PLEs + markers of risk for psychotic disorder
Family history
Cannabis
Urbanized area
Social defeat
Trauma

Threshold to psychotic disorder?
• What about the 80% who do not convert?
  – Remit
  – Plateau
  – Convert at a later time
  – Develop another illness

• What is the significance of their psychotic experiences or PEs for which they are help-seeking?
• PEs seem to be more commonly reported in adolescents
• More than 75-90% are transitory phenomena

However...
• One 15 year longitudinal study found that children with PEs have a roughly 5.1 greater chance of being diagnosed with schizophreniform disorder than those without PEs

The paradox is this:
- PEs do increase the risk of psychotic disorder (low prevalence) and yet are very common (high prevalence) in the community
- How can we distinguish whose or which PEs confer increased at risk?
- Do PEs confer increased risk for something else?

• In 2006 Yung et al. reviewed 140 patients between ages 15-25 who presented help seeking with PLEs to the early psychosis clinic.
• Used the Community Assessment of Psychic Experiences (CAPE), SCID and GAF.
• The 140 were identified to have clinical symptoms warranting attention but non psychotic.

  – 46% were found to have a current mood disorder
  – 42% were found to have a current anxiety disorder
  – 22% were found to have a substance use disorder
  – 11% were found to have an eating disorder
  – 11% were found to have a disruptive behavior disorder
    • Disorders may have been concurrent

  – Mean GAF score was low overall for the sample at 52.9
• Results at IWK Youth Psychosis (2010)
  – About 25% (N=47) were found to be in the first episode of a psychotic spectrum disorder (DSM-IV-TR criteria)
• Children/Youth with psychosis

• **Require ongoing focus**
  • Help-seeking
  • Unwell population
  • Heterogeneous population – PEs may herald other Axis I disorders
  • May also be at risk for worsening illness and progression to psychotic disorder
Treatment (indicated prevention)

• Psychotherapeutic intervention
  • Cognitive behavioral therapy
  • Supportive therapy
  • Family therapy/education
  • Minimizing risk/monitoring

• Pharmacotherapeutic intervention
  • Antidepressant medication
  • Amino acids (glycine)
  • Omega – 3 FAs
• **Recommendations**
  – No evidence at this time to use antipsychotic medicine in youth at risk
  – Treating presenting problem may be indicated prevention
  – Be vigilant – developing brain (critical period)

  – Be mindful of known risk factors for development of illness (GxE interaction)
    • Cannabis
    • Isolation
    • Depression
    • Trauma

  – **Continue research**
    • Avoids inappropriate treatment of youth with PEs
    • Avoids misdiagnosis
    • Enables us to one day intervene in the progression of serious mental illness
Stage-specific approach to identification and treatment of results in better outcomes

• Clinical staging can provide a useful framework for understanding illness progression, identifying targets for intervention and improving illness outcome in persons with psychotic disorders
  – Research shows that in psychotic disorders
    • Pathology is more abnormal in the earlier stages
    • There is evidence of progression of pathology with transition through illness stages
    • Treatment is more effective and more benign in the earlier stages
    • With earlier intervention progression to a first episode psychotic disorder may not be inevitable
WHEN IS THE WORLD GOING TO REALIZE THAT WE KNOW EVERYTHING?!