EarlY PSYCHOSIS INTERVENTION: LOOKING BACK AT THE FUTURE

Patricia Harrison-Monroe, Ph.D.
Clinical Associate Professor
Vice Chair
Director, Early Psychosis Intervention Center
Department of Psychiatry
College of Medicine
University of Arizona
DISCLOSURE

- Presenter has nothing to disclose
OVERVIEW

- Historical treatment of psychosis
- Current approaches
- Rationale for Early Psychosis Intervention
- Brief description of UA Early Psychosis Intervention Center (EPICenter)
TREATMENT APPROACHES THEN & NOW

- Hippocrates considered disorders in terms of disturbed physiology; treatments included a quiet peaceful environment, active engagement in activities.

- Middle Ages until the mid-1800’s - confinement, shacking, extremely inhumane treatment.

- Mid-1800’s to 1920’s - focus on more humane treatment and the establishment of State psychiatric facilities in the US (Utica Psychiatric Center, 1848)
  - Work
  - School
  - Social interaction
  - Activities/learning skills
Participating in normal life activities will result in increased feelings of usefulness and competence.
Dance and sound therapy became popular in the 1920’s.

“Miss Ethel Tamminga of Chicago, sings at the Manhattan State Hospital for the Insane on Ward's Island, New York, in an attempt to relieve some of the inmates of their obsessions.”
TREATMENT APPROACHES THEN & NOW

- 1930’s - Electroconvulsive therapy (ECT) and surgery, such as lobotomy, organ removal and tooth pulling
- Late 1940’s focus shifted from curing severe mental illness to controlling some of its symptoms – Psychotropic medications (Lithium, Thorazine)
- Mid-1950’s - Dramatic increase in inpatient population (560,000) is followed by a move toward de-institutionalization
- 1960’s on – Community-based treatment focus, however increasingly experiencing homelessness and incarceration
## Global Burden of Disease Study 2010: Disability Weights

<table>
<thead>
<tr>
<th>Illness/Injury</th>
<th>Disability Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schizophrenia: Acute State</td>
<td>0.756</td>
</tr>
<tr>
<td>Multiple Sclerosis: Severe</td>
<td>0.707</td>
</tr>
<tr>
<td>Spinal Cord Lesion at Neck: Untreated</td>
<td>0.673</td>
</tr>
<tr>
<td>Epilepsy: Severe</td>
<td>0.657</td>
</tr>
<tr>
<td>MDD: Severe Episode</td>
<td>0.655</td>
</tr>
<tr>
<td>Heroin/Other Opioid Depend.</td>
<td>0.641</td>
</tr>
<tr>
<td>TBI: Long Term Consequences Severe</td>
<td>0.625</td>
</tr>
<tr>
<td>Musculoskeletal Problems: Severe</td>
<td>0.606</td>
</tr>
<tr>
<td>Schizophrenia: Residual State</td>
<td>0.576</td>
</tr>
<tr>
<td>End Stage Renal Disease: On Dialysis</td>
<td>0.573</td>
</tr>
</tbody>
</table>

J. A. Salomon et al. The Lancet 2013;380:2129-2143
20-YEAR COURSE OF SCHIZOPHRENIA

Elevated rates of depression, anxiety, and cognitive decline (Birchwood, 2000; Birchwood et al., 2007; Kahn et al., 2013)

Chronic unemployment and low social support (Marwaha et al., 2004; Bengtsson-Tops et al., 2001)

Poor physical health and reduced lifespan (Brown, 1997; Srihari et al., 2013)

5% will commit suicide during their lifetime (Palmer et al., 2005)
ECONOMIC CONSIDERATIONS

- Cost of schizophrenia in 2002: **62.7 Billion**
  - Direct Health Care Costs: 22.7 Billion
    - Outpatient & LTC
  - Direct Non-Health Care Costs: 7.6 Billion
    - Homeless shelters, legal system, social services
  - Indirect Costs: 32.4 Billion
    - Lost productivity & cost to care giving relatives


Harrison-Monroe, PhD
SEEDs 2016
WHAT IS FIRST-Episode Psychosis?

- Premorbid
- Prodrome
- Psychosis
- Remission
- Relapse
- Recovery

Age (years)

Onset of illness

First episode

N.J.K. Breitborde et al. Early Interv Psychiatry, 2009

Harrison-Monroe, PhD
SEEDs 2016
CRITICAL PERIOD HYPOTHESIS

- Targeted early intervention may have a disproportionately positive effect on the course of illness
  - Individual more responsive to treatment early in course of psychosis illness (Goldstein, 1996; Robinson et al., 1999)
  - Response rate to antipsychotic medication up to 90% (Agid et al., 2013)
  - Greater benefits from psychosocial treatment (Goldstein, 1992; McFarlane, 2002)
  - Most of the clinical and psychosocial deterioration occurs in first 5 years (Lieberman et al., 2001)
    - Symptom duration in first 2 years is predictive of later outcomes (Harrison et al., 2001)
## WEIGHT GAIN IN EARLY PSYCHOSIS

### Short Term Studies (10-12 Weeks)

<table>
<thead>
<tr>
<th></th>
<th>FEP</th>
<th>Chronic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Olanzapine</td>
<td>7.2-9.2kg</td>
<td>1.8-5.4kg</td>
</tr>
<tr>
<td>Risperidone</td>
<td>4.0-5.6kg</td>
<td>1.0-2.3kg</td>
</tr>
<tr>
<td>Haloperidol</td>
<td>2.6-3.8kg</td>
<td>&lt;0.1-1.4kg</td>
</tr>
</tbody>
</table>

### Long Term Studies (1-2 Years)

<table>
<thead>
<tr>
<th></th>
<th>FEP</th>
<th>Chronic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Olanzapine</td>
<td>10.2-15.4kg</td>
<td>2.0-6.2kg</td>
</tr>
<tr>
<td>Risperidone</td>
<td>6.6-8.9kg</td>
<td>0.4-3.9kg</td>
</tr>
<tr>
<td>Haloperidol</td>
<td>4.0-9.7kg</td>
<td>-0.7-0.4kg</td>
</tr>
</tbody>
</table>

M. Álvarez-Jiménez et al. CNS Drugs 2008;22:547-562
CHARACTERISTICS OF THE EARLY COURSE OF PSYCHOTIC DISORDERS

- Risk of relapse & re-hospitalization is greatest during first few years of illness (Eaton et al., 1992)
- 80% of individuals will experience clinically significant depressed mood (Upthegrove et al., 2010)
- Rate of suicide is highest in first year after diagnosis (Brown, 1997)
  - \( \approx 30\% \) will attempt suicide prior to start of treatment (Bertelsen et al., 2007)
CHARACTERISTICS OF THE EARLY COURSE OF PSYCHOTIC DISORDERS

- Substance use, abuse, and dependence are high (Barnett J. H. et al., 2007)
- Physical illness and risk for physical conditions (e.g. cardiovascular disease) are high. (Srihari et al., 2013)
PREVALENCE OF LIFETIME SUBSTANCE USE IN FIRST-EPILOGUE PSYCHOSIS

EARLY PSYCHOSIS SERVICES IN ARIZONA: EPICenter

- Arizona’s only specialized clinical service
- Services
  - Cognitive Behavioral Therapy
  - Meta-Cognitive Remediation
  - Family Interventions
  - Supported Employment
  - Supported Education
  - Medication Management
After six months of EPICenter treatment clients experienced:

- Significantly reduced depression and anxiety
- Increase in their number of friends
- Better overall cognitive functioning
- Reduced overall substance use

Overall costs of mental healthcare reduced by approximately $18,000
## Service Utilization

<table>
<thead>
<tr>
<th>Measure</th>
<th>6-Month Period Prior to EPICENTER Care</th>
<th>First 6 Months of EPICENTER Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outpatient Mental Health Visits (Non-EPICENTER)</td>
<td>$M = 14.59$</td>
<td>$M = 26.13$</td>
</tr>
<tr>
<td>Outpatient Mental Health Visits (EPICENTER)</td>
<td>N/A</td>
<td>$M = 14.94$</td>
</tr>
<tr>
<td>Antipsychotic Medication (chlorpromazine equivalent)</td>
<td>$M = 331.74mg$</td>
<td>$M = 288.72mg$</td>
</tr>
<tr>
<td>Inpatient Hospitalization (Number of Episodes)</td>
<td>$M = 0.88$</td>
<td>$M = 0.33$</td>
</tr>
<tr>
<td>Inpatient Hospitalizations (Number of Days)</td>
<td>$M = 13.18$</td>
<td>$M = 4.80$</td>
</tr>
<tr>
<td>Contact with the Legal System (Number of Episodes)</td>
<td>$M = 2.00$</td>
<td>$M = 0.73$</td>
</tr>
</tbody>
</table>
TREATMENT MODEL

- Distress & Disturbance
  - Understanding and modifying factors that lead to emotional distress and behavioral disturbance

- Symptom based formulation
  - Symptom vs. syndrome focus

- Prioritize self-management and prevention of episodes
TREATMENT GOALS

- Patient’s choice AND some/all below
- Increased understanding of and insight into psychotic experiences
- Improved coping with residual psychotic symptoms
- Reduction in distress associated with AH
- Reduction of degree of conviction/preoccupation with delusional beliefs
- Maintenance of gain & relapse prevention
KEY TREATMENT COMPONENTS

- Engagement Strategies
  - Emphasis on building rapport
  - Flexibility

- Psycho-education
  - Normalize experience of symptoms
  - Provide alternative perspectives
  - Assess individual’s understanding of their own illness
KEY TREATMENT COMPONENTS

- Cognitive Therapy (Individual & Group)
  - Learn to distinguish between thoughts and feelings
  - Verbal challenge/Behavioral experiments
  - Over-learning, simulation, and role play

- Self-Management Planning
  - Identify early warning signs of psychotic episodes
  - Develop self-monitoring strategies & action steps
  - Review pre-existing and newly acquired coping skills
KEY TREATMENT COMPONENTS

- Behavioral Skills Training
  - Relaxation
  - Graded exposure
  - Activity scheduling/Distraction
  - Problem solving
- Social Skills Training
  - Social Club
KEY TREATMENT COMPONENTS

- Meta-Cognitive Remediation
  - Computerized cognitive training program
  - Therapist facilitates discussion
  - Improve cognition AND other functioning domains
- Four areas of cognitive functioning:
  - Attention
  - Visual-spatial
  - Memory
  - Problem-solving
FAMILY-BASED SERVICES

- Provides individuals with schizophrenia and their family:
  - Education about schizophrenia
  - Emotional support
  - Strategies to cope with symptoms
  - Strategies to improve communication and problem-solving skills
IDENTIFYING ADDITIONAL FAMILY NEEDS

- As participants may experience a crisis that impacts family coping skills or is precipitated by family dysfunction, individual short-term family therapy is available.

- Families have the option of remaining in the multi-family group during that time or to opt out temporarily until the crisis has passed.
MULTI-FAMILY GROUP

- Structured problem solving
- Speakers on specific topics of interest
- Social activities
- Feedback
- Mentoring new families
Questions

Thank You

Patricia Harrison-Monroe, PhD
pharriso@email.arizona.edu