A REFERENCE HANDOUT FOR

CHILDHOOD ONSET SCHIZOPHRENIA

OFFICIAL NAME

Schizophrenia: “fragmented mind” (Gur & Johnson, 2006), a disorder that lasts for at least 6 months and includes at least 1 month of psychotic symptoms (APA, 2000)

COMMON DEFINITIONS ASSOCIATED WITH SCHIZOPHRENIA

Psychotic: delusions, any prominent hallucinations, disorganized speech, or disorganized or catatonic behavior (APA, 2000)

Positive Symptoms: an excess or distortion of normal functions (i.e. delusions, hallucinations, disorganized speech, self-monitoring behavior) (APA, 2000)

Negative Symptoms: a diminution or loss of normal functions (i.e. restrictions in the range and intensity of emotional expression (affective flattening), in the fluency and productivity of thought and speech (alogia), and in the initiation of goal-directed behavior (avolition)) (APA, 2000)

DIAGNOSTIC CRITERIA

A. Characteristic Symptoms of the Active Phase: two or more of the following must be present for a significant portion of time during 1-month (or less if successfully treated):

   a. Delusions: distortions in thought content. In children, these will be “less complex and systemized” (Clark & Lewis, 1998), and will often involve day-to-day concerns and commonly feared objects (Gonthier & Lyon, 2004). May include a variety of themes:
      i. Persecutory: most common, belief that he or she is being tormented, followed, tricked, spied on, ridiculed
      ii. Referential: also common, belief that common gestures comments, passages from books, newspapers, song lyrics or other environmental cues are specifically directed at him or her
      iii. Somatic: false beliefs about your body (i.e. terrible illness, foreign substance in body)
      iv. Religious: a special relationship with a religious figure (i.e. they are god’s messenger)
      v. Grandiose: belief that one is very special, has special powers or abilities

   b. Hallucinations: distortions in perception. May occur in any sensory modality:
      i. Auditory: most common (i.e. voices)
      ii. Visual (i.e. seeing things that are not there)
      iii. Olfactory (i.e. smelling things others can not)
iv. **Gustatory** (i.e. tasting things that are not there)
v. **Tactile** (i.e. something touching he or she that is not there)
c. **Disorganized Thought/Speech:** primarily assessed through speech, frequent derailment or incoherence of language, (i.e. word salad: rambling, disjointed speech, loose associations)
d. **Grossly Disorganized or Catatonic Behavior:** difficulties in self monitoring of behavior (i.e. *Disorganized*: silliness, unpredictable agitation, disheveled behavior, inability to perform goal-directed behavior, displaying clearly inappropriate sexual behavior. *Catatonic*: marked decrease in reactivity to environment, almost complete unawareness, maintaining a rigid posture and resisting efforts to be moved, assumption of bizarre postures, purposeless and unstimulated motor activity)
e. **Negative Symptoms:** unresponsive in facial features or body language, inappropriate emotional responses (i.e. laughing at sad events), difficulty relating to and communicating appropriately with others

**NOTE:** only one Criterion A symptom is required if delusions are bizarre or hallucinations consist of a voice keeping a running commentary on the person’s behavior or thoughts, or two or more voices are conversing with one another

B. **Social/Occupational Dysfunctions:** failure to achieve expected level of interpersonal, academic, or occupational achievement

C. **Duration:** continuous signs of the disturbance must persist for at least 6 months with at least 1 month (or less if successfully treated) of Criterion A symptoms. Periods of prodromal or residual symptoms may be included and may be manifested by negative symptoms only, or two or more less severe, Criterion A symptoms.

D. **Exclusion of:** schizoaffective disorder, mood disorder, substance induced impairment, developmental disorders, or a general medical condition

Criteria summarized from the DSM-IV-TR (APA, 2000)

**Epidemiology**

- COS is rare. Most experience onsets during late adolescence and early adulthood.
  - Prevalence rates range from 0.19 child in 10,000 children between ages 2-12 developing schizophrenia (Burd & Kerbeshian, 1987), to 1 child in 10,000 developing schizophrenia (Remschmidt et al., 1994)
  - Sex Differences:
    - Predominantly male among COS with estimates of male-to-female ratios ranging from 2:1 to 5:1
    - This difference tends to even out in adolescence (Remschmidt et al., 1994; Hollis, 1995)
  - Socioeconomic Differences:
    - Studies concerning COS have shown equal estimates across SES, further research is needed (Asarnow & Asarnow, 2003)
Cultural Variations:
- Similar symptom profiles and incidence rates across different countries and cultures (between ages of 15-54) (Sartorius et al., 1987)
- Younger age groups with schizophrenia had more favorable outcomes in developing countries rather than developed countries (Leff et al., 1991)
- Level of Cognitive Functioning and Symptomology (Gonthier & Lyon, 2004):
  - Higher cognitive functioning = more positive symptoms
  - Lower cognitive functioning = more negative symptoms

Common Co-Morbidities
- The most common co-diagnoses are:
  - Conduct disorder or oppositional disorder (31%)
  - Atypical depression or dysthymic disorder (37%) (Russell, Bott, & Sammons, 1989)
  - ADHD
    - It is particularly important to identify ADHD when it occurs with COS because of negative effects associated with use of psychostimulants on positive symptoms of COS (Gonthier & Lyon, 2004)
- Other possible overlaps in diagnoses or symptomology:
  - Autism: occasional overlap between autistic and schizophrenic syndromes and symptoms (i.e. hand-flapping), but no elevated risk of schizophrenia in youth with autism exists (Volkmar & Cohen, 1991)
  - Seizures, learning disabilities, mental retardation, neurological symptoms, hyperactivity, and other behavioral problems (Torrey, 1995)

Possible Causes
- Biological Factors:
  - Schizophrenia is primarily a brain disease
    - Family History
    - Chromosomal Abnormalities
    - Neurocognitive Deficits
- Environmental Stressors:
  - Pregnancy and Birth Complications
  - Psychosocial Stress
  - Relationships within the family

Summarized from Asarnow & Asarnow, 2003

Prognosis
- Preschool: first signs involve concerning changes in behavior (Gonthier & Lyon, 2004)
- School Age: impairments in attention and behavior that affect school performance (making it probable that the child's teacher will first notice the changes) (Brown, 1999)
- Four Stages of the Onset of Schizophrenia:
Prodromal Phase: deterioration in ability to function that occurs before symptoms of psychosis (i.e. social withdrawal, isolation, bizarre preoccupations, deteriorating self-care skills, physical complaints such as changes in appetite or sleeping patterns
  ▪ This deterioration may occur quickly or steadily over time (Gonthier & Lyon, 2004)

Acute Phase: prevalence of positive symptoms that involve a decrease in cognitive and social functioning lasting 1-6 months (AACAP, 2001)
  ▪ Many children are hospitalized and formally diagnosed at this time

Recuperative/Recovery Phase: positive symptoms cease and negative symptoms become more prevalent (i.e. poor attention, bizarre behavior, depression, anxious symptoms, flat affect, uncharacteristically withdrawn with no interest in previously enjoyable activities) (AACAP, 2001)
  ▪ Many able to function outside of the hospital and return to school during this phase

Residual Phase: absence of positive symptoms and decrease in negative symptoms (Gonthier & Lyon, 2004)

NOTE: Although with each cycle deterioration increases, approximately 10 years after the initial cycle, the acute phase tends to diminish (Gonthier & Lyon, 2004).

Most with COS will remain moderately impaired and the disorder tends to be more chronic than adult-onset schizophrenia
  o Examples of impairments: lower educational achievement, inability to attend school and complete education, less financial and emotional independence, unemployment, poor social relationships because of inability to develop social skills, inability to adapt, consistent need for treatment, suicide attempts and completions

Factors influencing outcome:
  o Positive Outcome: female gender, good functioning prior to onset of disorder, higher IQ, prevalence in positive symptoms
  o Poorer Outcomes: uncertainty in diagnoses and therefore a delay in treatment, dysfunctions prior to onset of disorder, more severe symptoms during positive stage, lower IQ

Summarized from Gonthier & Lyon, 2004

Assessments & Interventions
  o Assessments:
    o Structured interviews, symptom scales, diagnostic decision trees, family history, changes in mental state and functioning, developmental history, life events (APA, 2000; Clark & Lewis, 1998)
      ▪ Schedule for Affective Disorders and Schizophrenia-Present and Lifetime Versions (K-SADS), National Institute of Mental Health
Diagnostic Interview Schedule for Children (NIMH DISC), Child and Adolescent Psychiatric Assessment (CAPA), Interview for Childhood Disorders and Schizophrenia (CDS), Children's Psychiatric Rating Scales (CPRS) (Asarnow, Tompson, & McGrath, 2004)

- Interventions and Treatment Ideas (lack of literature to support COS specifically):
  - Stages of Treatment:
    - **Acute Phase:** emphasis on bringing acute psychotic symptoms under control by use of medications and inpatient care
    - **Stabilization Phase:** outpatient pharmacologic and psychosocial treatment in order to stabilize patient
    - **Maintenance Phase:** help maintain stability through multimodal treatment
  
    *Goldstein & Miklowitz, 1995*

- Interventions during Stabilization and Maintenance Phases:
  - Family Psycho-educational interventions: information provided to help families through issues they may experience and problems that may arise when dealing with an individual with schizophrenia
  - Cognitive Behavioral Therapy and Supportive Reality Oriented Therapy: skills training, education, strategies for evaluating and testing interpretations of reality, coping skills, social skills
  - Rehabilitation and Assertive Community Treatment: enhance coordination, integration and continuity of services between providers and over time for patient

  *Summarized from Asarnow, Tompson, & McGrath, 2004*

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**Case Study**

"Mary had always been a very shy child. She would become mute at times, had severe difficulties making friends, was frequently oppositional, and had occasional enuresis. By the time she had reached roughly 10 years of age, Mary showed academic difficulties in addition to continuing social isolation. She became depressed, felt that the devil was trying to hurt her, and became preoccupied with germs. Her behavior became increasingly disorganized; she talked of killing herself, appeared disheveled, and ran in front of a moving car in an apparent suicide attempt.

This episode precipitated an inpatient psychiatric evaluation, during which Mary continued to show bizarre behavior. She lapsed into periods of intense anxiety and had one episode of uncontrolled animal-like screaming. At other times she would stare blankly into space and was frequently mute. Although Mary's functioning improved during hospitalizations and she returned to her family, throughout her childhood and adolescent years she was tormented by fears, hallucinations, the belief that others were out to get her, and occasional bouts of depression often accompanied by suicide attempts. She continued to be socially isolated and withdrawn, and to perform poorly at school. At age 17 (after several brief impatient hospitalizations), Mary was admitted to a state hospital, where she remained until the age of 19. During this period her affect was increasingly flat, and her psychotic symptoms persisted. One week after discharge from the hospital, Mary went into her room, locked the door, and overdosed on her medications. She was found dead the next morning" (Asarnow & Asarnow, 2003).
Parent Friendly Resources

Books:

Websites:
American Academy of Child and Adolescent Psychiatry:
http://www.aacap.org/cs/root/facts_for_families/schizophrenia_in_children

American Academy of Child and Adolescent Psychiatry:
<http://www.aacap.org/page.ww?name=Resources+for+Families&section=Resources+for+Families>

Web MD:
<http://www.webmd.com/schizophrenia/guide/schizophrenia-young-adults>

Annotated Bibliography

The authors of this article focus on the recognition and treatment of childhood-onset schizophrenia. They provide treatment and interventions ideas appropriate for the multiple stages of the disorder.


The authors of this article provide reader friendly prevalence information as well as multiple treatment options for those diagnosed with childhood-onset schizophrenia.


The authors of this article provide a very comprehensive view of childhood-onset schizophrenia including, symptomology, course of the disorder, long-term functioning, diagnostic criteria, assessment tools, and treatment ideas. Also, the role of the school psychologist when working with schizophrenic individuals was described. The article is very reader friendly.

Gur, R., & Johnson, A. B. (2006). If your adolescent has schizophrenia: An essential resource

The authors of this book provide, in a reader friendly format, information including warning signs for the disorder, obtaining a diagnosis, treatment ideas, how to cope at home and school, and advice to parents from parents concerning schizophrenia.


The authors of this article provide a review of recent literature concerning the diagnoses of childhood-onset schizophrenia. The review provides information predominantly concerning biological differences in those with the disorder.

REFERENCES


