## Schizophrenia Spectrum and Other Psychotic Disorders

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### Introduction

- The word schizophrenia is derived from the Greek words skhizo (split) and phren (mind).
- Schizophrenia is probably caused by a combination of factors.
  - Genetic predisposition
  - Biochemical dysfunction
  - Physiological factors
  - Psychosocial stress



### Introduction (continued\_1)

- There is not now and may never be a single treatment that cures schizophrenia.
- Schizophrenia requires treatment that is comprehensive and presented in a multidisciplinary effort.



## Introduction (continued\_2)

- Of all mental illnesses, schizophrenia probably causes more
  - Lengthy hospitalizations
  - Chaos in family life
  - Exorbitant costs to people and governments
  - Fears
- Risk for suicide is a major concern.
  - About one-third of people with schizophrenia attempt suicide and about 1 in 10 die from the act.



### Nature of the Disorder

#### Psychosis

- A severe mental condition in which there is disorganization of the personality, deterioration in social functioning, and loss of contact with, or distortion of, reality.
- May be evidence of hallucinations and delusional thinking
- Can occur with or without organic impairment



## Nature of the Disorder (continued\_1)

- Schizophrenia causes disturbances in
  - Thought processes
  - Perception
  - Affect
- With schizophrenia, there is a severe deterioration of social and occupational functioning.
- In the United States, the lifetime prevalence of schizophrenia is about 1 percent.



## Nature of the Disorder (continued\_2)

- Schizophrenia may be viewed in four phases
  - The premorbid phase
  - The prodromal phase
  - The active psychotic phase (acute schizophrenic episode)
  - The residual phase

### Phase I-Premorbid Phase

- Personality and behavior indicators:
  - Shy and withdrawn
  - Poor peer relationships
  - Poor school performance
  - Antisocial behavior
- Current research is focused on the premorbid phase to identify potential biomarkers and atrisk individuals in an effort to prevent transition to illness or provide early intervention.



### Phase II-Prodromal Phase

- Personality and behavior indicators (continued):
  - Significant deterioration in function
  - 50 percent have depressive symptoms
  - Social withdrawal
  - Cognitive impairment
  - Obsessive-compulsive behavior



### Phase III-Active Psychotic Phase

- Personality and behavior indicators (continued):
  - Psychotic symptoms are typically prominent.
  - Delusions
  - Hallucinations
  - Disorganized speech and behavior
  - Decreased level of functioning in work, personal relationships, or self-care



### **Phase IV-Residual Phase**

- Personality and behavior indicators (continued):
  - Active psychotic phase symptoms are either absent or no longer prominent.
  - Positive symptoms may remain.
  - Flat affect and impairment in role functioning are common.
- Current research indicates that negative symptoms can improve over time; residual impairment often increases with additional episodes of active psychosis.



### Prognosis

- A return to full premorbid functioning is not common.
- Factors associated with a positive prognosis include:
  - Good premorbid functioning
  - Later age at onset
  - Female gender
  - Abrupt onset precipitated by a stressful event
  - Associated mood disturbance
  - Brief duration of active-phase symptoms



### Prognosis (continued\_1)

- Positive prognosis factors (continued):
  - Minimal residual symptoms
  - Absence of structural brain abnormalities
  - Normal neurological functioning
  - Family history of mood disorder
  - No family history of schizophrenia



### **Predisposing Factors**

- Biological influences
  - Genetics
    - A growing body of knowledge indicates that genetics play an important role in the development of schizophrenia.
      - Lifetime risk in population studies (1%)
      - Sibling of identified patient risk (10%)
      - Child of identified parent risk (5% to 6%)



## Predisposing Factors (continued\_1)

- Biological influences (continued)
  - Biochemical influences
    - One theory suggests that schizophrenia may be caused by an excess of dopamine activity in the brain.
    - Abnormalities in other neurotransmitters have also been suggested.



## Predisposing Factors (continued\_2)

- Biological influences (continued)
  - Physiological influences
    - Factors that have been implicated include
      - Viral infection
      - Anatomical abnormalities



## Predisposing Factors (continued\_3)

- Psychological factors
  - These theories no longer hold credibility. Researchers now focus their studies of schizophrenia as a brain disorder.
  - Psychosocial theories probably developed early on out of a lack of information related to a biological connection.



## Predisposing Factors (continued\_4)

- Environmental influences
  - Sociocultural factors
    - Poverty has been linked with the development of schizophrenia.
  - Stressful life events may be associated with exacerbation of schizophrenic symptoms and increased rates of relapse.
  - Studies of genetic vulnerability for schizophrenia have linked certain genes to increased risk for psychosis and particularly for adolescents who use cannabinoids.



# Other Schizophrenia Spectrum and Psychotic Disorders

- Delusional disorder
  - Erotomanic type
  - Grandiose type
  - Jealous type
  - Persecutory type
  - Somatic type
  - Mixed type



Other Schizophrenia Spectrum and Psychotic Disorders (continued\_1)

- Brief psychotic disorder
  - Sudden onset of symptoms
  - May or may not be preceded by a severe psychosocial stressor
  - Lasts less than 1 month



# Other Schizophrenia Spectrum and Psychotic Disorders (continued\_2)

- Substance-induced psychotic disorder
  - The presence of prominent hallucinations and delusions that are judged to be directly attributable to substance intoxication or withdrawal



Other Schizophrenia Spectrum and Psychotic Disorders (continued\_3)

- Psychotic disorder associated with another medical condition
  - Prominent hallucinations and delusions are directly attributable to a general medical condition.



Other Schizophrenia Spectrum and Psychotic Disorders (continued\_4)

- Catatonic disorder due to another medical condition
  - Metabolic disorders (e.g., hepatic encephalopathy, diabetic ketoacidosis, hypo- and hyperthyroidism, hypo- and hyperadrenalism, hypercalcemia, and vitamin B<sub>12</sub> deficiency)
  - Neurological conditions (e.g., epilepsy, tumors, cerebrovascular disease, head trauma, and encephalitis)



Other Schizophrenia Spectrum and Psychotic Disorders (continued\_5)

- Schizophreniform disorder
  - Same symptoms as schizophrenia with the exception that the duration of the disorder has been at least 1 month but less than 6 months



Other Schizophrenia Spectrum and Psychotic Disorders (continued\_6)

- Schizoaffective disorder
  - Schizophrenic symptoms accompanied by a strong element of symptomatology associated with either mania or depression

### symptomatology

### Positive symptoms:

- Disturbances in thought content
  - Delusions: False personal beliefs
  - Paranoia: Extreme suspiciousness of others
  - Magical thinking: Ideas that one's thoughts or behaviors have control over specific situations



# (continued\_1)

- Disturbances in thought processes manifested in speech
  - Loose associations: Shift of ideas from one unrelated topic to another
  - Neologisms: Made-up words that have meaning only to the person who invents them
  - Clang associations: Choice of words is governed by sound



# (continued\_2)

- Disturbances in thought processes manifested in speech (continued)
  - Word salad: Group of words put together in a random fashion
  - Circumstantiality: Delay in reaching the point of a communication because of unnecessary and tedious details
  - Tangentiality: Inability to get to the point of communication due to introduction of many new topics



# (continued\_3)

- Disturbances in thought processes manifested in speech (continued)
  - Perseveration: Persistent repetition of the same word or idea in response to different questions
  - Echolalia: Echolalia refers to repeating words or phrases spoken by another



# (continued\_4)

- Disturbances in perception
  - Hallucinations may involve any of the five senses:
    - Auditory
    - Visual
    - Tactile
    - Gustatory
    - Olfactory
  - Illusions are misperceptions or misinterpretations of real external stimuli.
  - Echopraxia imitates movements made by others.



# (continued\_5)

### Negative symptoms

- Disturbances in affect: Feeling state or emotional tone
  - Inappropriate affect: Emotions are incongruent with the circumstances
  - Bland: Weak emotional tone
  - Flat: Appears to be void of emotional tone
- Avolition: Inability to initiate goal-directed activity



# (continued\_6)

- Negative symptoms (continued)
  - Lack of interest or skills in interpersonal interaction
  - Lack of insight
  - Anergia
  - Lack of abstract thinking ability
  - Associated features
    - Waxy flexibility
    - Posturing
    - Pacing and rocking
    - Regression
    - Eye movement abnormalities

# (continued\_7)

- Outcome criteria
  - The patient:
    - Demonstrates an ability to relate satisfactorily to others
    - Recognizes distortions of reality
    - Has not harmed self or others
    - Perceives self realistically
    - Demonstrates the ability to perceive the environment correctly
    - Maintains anxiety at a manageable level



# (continued\_8)

- Outcome criteria (continued)
  - The patient (continued):
    - Relinquishes the need for delusions and hallucinations
    - Demonstrates the ability to trust others
    - Uses appropriate verbal communication in interactions with others
    - Performs self-care activities independently



### **Treatment Modalities**

- Psychological treatments
  - Individual psychotherapy
  - Group therapy
  - Family therapy
- Behavior therapy

### Treatment Modalities (continued\_1)

- Psychopharmacological treatment
  - Antipsychotics
    - Used to decrease agitation and psychotic symptoms of schizophrenia and other psychotic disorders

### Treatment Modalities (continued\_2)

- Psychopharmacology (continued)
  - Indications
    - Antipsychotic medications are used in the treatment of schizophrenia and other psychotic disorders.
  - Action

Dopaminergic blockers

### Antipsychotics

- Side effects
  - Anticholinergic effects
  - Nausea, gastrointestinal upset
  - Skin rash
  - Sedation
  - Orthostatic hypotension
  - Photosensitivity
  - Hypersalivation
  - Weight gain

- Agranulocytosis
- Extrapyramidal symptoms



## Antipsychotics (continued\_1)

- Extrapyramidal symptoms (EPS)
  - Pseudoparkinsonism
  - Akinesia (the inability to perform a clinically perceivable movement.)
  - Akathisia (inability to remain still)
  - Dystonia (person's muscles contract uncontrollably)
  - Oculogyric crisis (the involuntary upward deviation of both eyes due to spasms and increased tone in the extraocular muscles)
  - Antiparkinsonian agents may be prescribed to counteract EPS.



# Thank You



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