
MODULE 52

Schizophrenia

Module Preview

The symptoms of schizophrenia include disorganized thinking, disturbed perceptions, and inappropriate emotions. Researchers have linked certain forms of schizophrenia to brain abnormalities. Studies also point to a genetic predisposition that may work in conjunction with environmental factors.

Module Guide

Symptoms of Schizophrenia

- ▶ Lecture: Infantile Autism
- ▶ Exercises: Magical Ideation Scale; Virtual Hallucinations—An Audiotape
- ▶ Project: *The Eden Express* and Schizophrenia
- ▶ PsychSim 5: Losing Touch With Reality
- ▶ Videos: Modules 26 and 29 of *The Brain* series, 2nd ed.: *Schizophrenia: Symptoms* and *Autism*; Module 39 of *Psychology: The Human Experience: Schizophrenia*
- ▶ ActivePsych: *Digital Media Archive*, 2nd ed.: *Schizophrenia: New Definitions, New Therapies; Overcoming Schizophrenia: John Nash's Beautiful Mind*
- ▶ Instructor Video Tool Kit: *John Nash: "A Beautiful Mind"*

52-1. Describe the symptoms of schizophrenia, and differentiate delusions and hallucinations.

Schizophrenia is a group of severe disorders characterized by disorganized and delusional thinking, disturbed perceptions, and inappropriate emotions and actions. Literally, schizophrenia means “split mind,” which refers to a split from reality rather than multiple personality. The thinking of people with schizophrenia may be marked by **delusions**, that is, false beliefs—often of persecution or grandeur. Sometimes, they also experience **hallucinations**, sensory experiences without sensory stimulation. Hallucinations are usually auditory and often take the form of voices making insulting statements or giving orders.

Onset and Development of Schizophrenia

52-2. Distinguish the five subtypes of schizophrenia, and contrast chronic and acute schizophrenia.

Schizophrenia patients who are disorganized and deluded in their talk or prone to inappropriate laughter, tears, or rage are said to have positive symptoms. When appropriate behaviors are absent (for example, the schizophrenia patient has a toneless voice, expressionless face, and a mute or rigid body), the person is showing negative symptoms. The subtypes of schizophrenia include paranoid (preoccupation with delusions or hallucinations, often of persecution or grandiosity), disorganized (disorganized speech or behavior, or flat affect or inappropriate emotions), catatonic

(immobility, extreme negativism, and/or parrotlike repetition of another's speech or movements), undifferentiated (many and varied symptoms), and residual (withdrawal after hallucinations and delusions have disappeared). *Chronic*, or *process*, schizophrenia develops gradually, emerging from a long history of social inadequacy. Recovery is doubtful. *Acute*, or *reactive*, schizophrenia develops rapidly in response to particular life stresses. Recovery is much more likely.

Understanding Schizophrenia

► Videos: Module 27 of *The Brain* series, 2nd ed.: *Schizophrenia: Etiology*; Video Clip 29 of *Digital Media Archive: Psychology*, 1st ed.: *The Schizophrenic Brain*

- 52-3. *Outline some abnormal brain chemistry, functions, and structures associated with schizophrenia, and discuss the possible link between prenatal viral infections and schizophrenia.*

Researchers have linked certain forms of schizophrenia with brain abnormalities such as increased receptors for the neurotransmitter dopamine. Impaired glutamate activity appears to be another source of schizophrenia symptoms. Modern brain-scanning techniques indicate that people with chronic schizophrenia have abnormal activity in multiple brain areas. Out-of-sync neurons may disrupt the integrated functioning of neural networks. Some patients appear to have abnormally low brain activity in the frontal lobes or enlarged, fluid-filled areas and a corresponding shrinkage of cerebral tissue. Another smaller-than-normal area in persons with schizophrenia is the thalamus. A possible cause of these abnormalities is a midpregnancy viral infection that impairs fetal brain development. For example, people are at increased risk of schizophrenia if, during the middle of their fetal development, their country experienced a flu epidemic. People born in densely populated areas, where viral diseases spread more readily, also seem at greater risk for schizophrenia.

- 52-4. *Discuss the evidence for a genetic contribution to the development of schizophrenia, and describe some psychological factors that may be early warning signs of schizophrenia in children.*

The nearly 1-in-100 odds of any person developing schizophrenia become about 1 in 10 if a family member has it, and close to 1 in 2 if an identical twin has the disorder. Adoption studies confirm the genetic contribution to schizophrenia. An adopted child's probability of developing the disorder is greater if the biological parents have schizophrenia. A complex disorder such as schizophrenia is surely influenced by multiple genes with small effects, but identifying these genes has proven difficult.

No environmental factors have been discovered that invariably produce schizophrenia in persons who are not related to a person with schizophrenia. However, researchers have pinpointed possible early warning signs of schizophrenia in children. These include a mother whose schizophrenia was severe and long-lasting; birth complications; separation from parents; short attention span and poor muscle coordination; disruptive or withdrawn behavior; emotional unpredictability; and poor peer relations and solo play.