Chapter 13

Schizophrenic Disorders

🕮 *Chapter-at-a-Glance*

DETAILED OUTLINE	INSTRUCTOR RESOURCES	PROFESSOR NOTES
Symptoms: p. 335 Positive Symptoms Negative Symptoms Disorganization	**Lectures:** Positive and negative symptoms **Classroom:** Myths about schizophrenia **Speaking Out Videos:** Video Case: Schizophrenia, Larry	
Diagnosis: p. 339 Brief Historical Perspective DSM-IV-TR Subtypes Related Psychotic Disorders Course and Outcome	**Discussion Ideas:** Objectifying schizophrenia **Classroom:** Focusing through the voices **Speaking Out Videos:** Video Case: Schizoaffective Disorder, Josh,	
Frequency: p. 343 Gender Differences		
Causes: p. 344 Biological Factors Social Factors Psychological Factors Interaction of Biological and Environmental The Search for Markers of Vulnerability	**Lectures:** Schizophrenia: A neurodevelopmental approach Labeling theory **Discussion Ideas:** Cognition in schizophrenia Implications for vulnerability	
Treatment: p. 354 Antipsychotic Medication Psychosocial Treatment	**Speaking Out Videos:** Video Case: Patients as Educators, schizophrenia, Georgianna, age 33	

CHAPTER OUTLINE

I. Overview of schizophrenia

A. Symptoms of schizophrenia involve deterioration of basic functions affecting individuals' thoughts and perceptions

B. Symptoms must occur in the absence of other disorders (mood disorders, delirium, dementia, substance abuse disorders); among mental disorders, it is the second leading cause of disease burden, and the financial costs for the US are around $63 billion

C. Phases of schizophrenia

1. **Prodromal phase**—obvious deterioration in functioning, change in personality with characteristics similar to schizotypal personality disorder, including peculiar behaviors and perceptual experiences

2. **Active phase**—symptoms such as hallucinations, delusions, and disorganized speech are present

3. **Residual phase**—signs and symptoms similar to that of the prodromal phase—positive symptoms may improve, but negative symptoms and impairment often continue

D. The most common symptoms of schizophrenia include changes in the way a person thinks, feels, and relates to other people and the outside environment

II. Symptoms

A. There is no specific set of symptoms characteristic of all schizophrenic patients, but classes of symptoms include

1. **Positive (psychotic) symptoms**—presence of abnormal functioning—e.g., hallucinations, delusions

2. **Negative symptoms**—absence of normal functioning—e.g., social withdrawal, lack of initiative, and deficits in emotional responding

3. **Disorganization—**verbal communication problems and bizarre behavior

B. Positive symptoms

1. **Hallucinations**—sensory experiences not caused by actual external stimuli

a. Usually auditory (hearing voices)

b. Often include voices commenting on patient's behavior or giving instructions

c. Does not imply that these symptoms are beneficial or adaptive, but rather suggests that they are characterized by the presence of an aberrant response

2. **Delusional beliefs**—idiosyncratic beliefs that are rigidly held despite their illogical and unreasonable nature

    a. Defended even when shown contradictory evidence; false belief based on incorrect inferences about reality

    b. Person is preoccupied with these irrational beliefs and unable to understand another person's perspective with regard to the belief

    c. Common delusions include the belief that thoughts are being inserted into the person's head, that others can read his/her thoughts, and grandiose or paranoid delusions

C. Negative symptoms

1. Affective and emotional disturbances

    a. **Blunted affect**—failure to exhibit signs of emotion or feelings

    b. **Anhedonia—**inability to experience pleasure, emotional deficit

2. Apathy, avolition, and alogia

    a. **apathy**—social withdrawal, isolation common

    b. **avolition**—indecisiveness, ambivalence, and a loss of will power, a lack of volition or will

    c. **alogia**—impoverished thinking and poverty of speech, along with thought blocking; patients have little to say, cannot maintain a train of thought, etc., meaning speechlessness

D. Disorganization

1. **Disorganized speech**—saying things that don't make sense, also called a thought disorder

    a. **Loose associations**—abruptly shifting topics or derailment

    b. **Tangentiality**—irrelevant responses

    c. **Perseveration**—saying things over and over, repeating the same word or phrase over and over again

2. Bizarre behavior

    a. **Catatonia**—immobility and muscular rigidity, or excitement and overactivity often associated with a stuporous state or generally reduced responsiveness

b. **Inappropriate affect**—incongruity between emotional state and behavior or the lack of adaptability in emotional expression

III. Diagnosis

A. History

1. Emil Kraepelin (late nineteenth century) used the term **dementia praecox**—psychoses that end in intellectual deterioration with early onset (in adolescence)

2. Eugen Bleuler (1911) suggested the name schizophrenia to refer to "splitting of mental associations"

B. DSM-IV-TR

1. Primary features are positive, negative symptoms, and disorganized speech and behavior

2. At least two active symptoms for at least one month (only one if bizarre delusion)

3. Negative symptoms assume a prominent role in diagnostic criteria

4. Decline in social or occupational behavior for at least three months

5. Total duration of symptoms (including prodrome and residual phase) is at least six months

C. Subtypes

1. **Catatonic type**—symptoms of motor immobility or excessive and purposeless motor activity

2. **Disorganized type**—characterized by disorganized speech, behavior, and inappropriate affect (all three must be present)

3. **Paranoid type**—systematic delusions with persecutory or grandiose content; frequent auditory hallucinations

4. **Undifferentiated type**—meets the criteria for schizophrenia but does not fit other subtypes

5. **Residual type—**patient who doesn't meet the criteria for active-phase but still exhibits negative symptoms

D. Related disorders

1. **Schizoaffective disorder**—is an ambiguous and somewhat controversial category; symptoms of schizophrenic disturbance overlap with a depressive or manic episode, but

psychotic symptoms are present at some point without mood disorder symptoms

2. **Delusional disorder**—do not meet the full symptomatic criteria for schizophrenia preoccupation with nonbizarre delusions, hallucinations, disorganized speech, or grossly disorganized or catatonic behavior for at least one month

3. **Brief psychotic disorder**—exhibit psychotic symptoms for at least one day but no longer than one month, often following a markedly stressful event

E. Course and outcome

1. Typically begins during adolescence and early adulthood and typically has a poor outcome

2. Has historically been seen as severe and progressive, but some people with schizophrenia have more positive outcomes

3. Best predictor of symptom severity at follow-up is severity of psychotic symptoms at initial assessment

4. Recent evidence indicates that while some patients do have positive outcomes, relatively few are able to achieve successful aging

IV. Frequency

A. Lifetime morbidity risk is approximately 1% , one out of every 100 people will experience or display symptoms of schizophrenia at some time during their lives

B. Gender differences in onset and course

1. Men are about 30 to 40% more likely to develop schizophrenia than women are

2. Early onset affects men more often than women, with a later onset that affects women more than men

C. Cross-cultural comparisons

1. Although observed in virtually every culture, frequencies vary from 8 to 43 cases for every 100,000 people

2. Higher incidence occurs in urban than rural areas but socioeconomic status does not appear to play a substantial role in frequency

3. Clinical and social outcomes better in developed countries than in less developed countries

V. Causes

A. Biological factors

1. Strong support for a genetic influence

    a. **Family studies**—as genetic similarity increases between two people, the risk for schizophrenia increases

    b. **Twin studies**—higher concordance rates among schizophrenics for monozygotic (48%) than for dizygotic twins (17%)

    c. **Adoption studies**—children of schizophrenic parents who are adopted by nonschizophrenic parents are as likely to be diagnosed with schizophrenia as if their schizophrenic parent raised them

    d. **Linkage studies**

        1.) Theoretically, genetic influence could be due to a single gene or a number of genes; polygenic influence is most likely

        2.) Research has not been able to specify a gene(s) responsible for schizophrenia, but specific regions of chromosomes have been implicated

        3.) The enzyme, catechol-O-methyltransferase (COMT), involved in breaking down dopamine, may play an important role in schizophrenia; the COMT gene is on chromosome 22

    e. **Pregnancy and birth complications**—mothers of people who develop schizophrenia were more likely to have experienced problems before and during birth; it is possible that pre- and perinatal problems interact with genetic factors

    f. **Viral infections**—people with schizophrenia are more likely to have been born during the winter months; it is possible that they had more viral infections during winter months, but this hypothesis has not received direct support

2. **Neuropathology**—identifying differences in the structure of the brain

    a. **Structural brain imaging—Magnetic resonance imaging** (MRI) has found smaller total brain tissue volume, enlarged ventricles, and smaller size of limbic system structures in people with schizophrenia

        1.) It is unclear if these differences are a sign of generalized brain deterioration

        2.) It is unclear if these differences are associated with specific types of schizophrenia

    b. **Functional brain imaging—Positron emission tomography** (PET)—suggests dysfunction in frontal cortex and temporal lobes of people with schizophrenia and mood disorders

    c. Conclusions on neuropathology

1.) Schizophrenia is associated with diffuse patterns of neuropathology

2.) Many patients with other psychiatric and neurological disorders show similar patterns of brain dysfunction and structure, including some regions of the prefrontal cortex and several regions in the temporal lobes

3.) Brain imaging techniques identify group, not individual, differences in schizophrenia and are not useful diagnostic tools

3. Neurochemistry

a. **Dopamine hypothesis**

1.) Developed while trying to understand how antipsychotic drugs called **neuroleptics** decrease symptoms of schizophrenia

2.) It is unclear if people with schizophrenia show differences in dopaminergic activity and D_2 receptors prior to taking antipsychotic medication

3). Dopamine hypothesis focuses on the function of specific dopamine pathways in the limbic area of the brain

b. The dopamine hypothesis is overly simplistic

1.) Some patients do not respond to drugs that block dopamine

2.) With antipsychotics, dopamine blockage is immediate, but symptoms do not remit for days to weeks

3.) New antipsychotic drugs act primarily on other neurotransmitters, but are also effective

4.) Schizophrenia may involve a complex interaction between dopamine and serotonin receptors

c. Current theories focus on other neurotransmitters, including serotonin, glutamate, and GABA

B. Social factors—environmental events play an important role

1. Social class—an inverse relationship exists between social class and schizophrenia

a. **Social causation hypothesis**—social class hardships cause schizophrenia

b. **Social selection hypothesis**—people with schizophrenia gradually fall into the lower social classes

2. Research has supported both hypotheses to some extent

3. Higher risk has been reported among social immigrants (people who have moved to a new country)

C. Psychological factors

1. Family interactions— Previously, it had been hypothesized that communication and behavior within families was a causal factor; this is not the case, however (most of these initial studies lacked control groups)

2. For people with schizophrenia, relapse is associated with family patterns of interaction characterized by high levels of **Expressed Emotion**—negative or intrusive attitudes and behavior toward the patient

3. High EE also predicts relapse for other disorders

4. Cross-cultural studies reveal that high expressed emotion tends to be more prominent in Western countries (possibly serving to explain the more severe course/outcome of the disorder in the West)

5. Patients with mood disorders, eating disorders, panic disorder with a agoraphobia, and obsessive-compulsive disorder are also more likely to relapse following discharge if they are living with a high EE relative

D. Interaction between genetics and environment provides most sensible model to explain schizophrenia

VI. Markers of vulnerability

A. Ideally, any markers will be:

1. Able to distinguish between those who have developed schizophrenia and those who have not

2. Stable characteristic over time

3. Able to identify biological relatives of people with schizophrenia

4. Able to predict who will develop schizophrenia

5. Vulnerability markers have been called endophenotypes

B. Possible markers include:

1. Working memory impairment

a. People with schizophrenia show deficits on the Nback task, in which subjects are asked to identify which symbols they have seen previously

b. Working memory problems are stable for schizophrenia patients, and are also found within unaffected first-degree relatives of schizophrenic persons

2. Eye-tracking dysfunction

a. People with schizophrenia exhibit rapid eye movements instead of smooth-pursuit tracking, specifically difficulty in tracking the motion of a pendulum or a similarly oscillating stimulus

b. Eye-tracking deficits may identify people with a particular form of schizophrenia

c. Approximately 50% of the first-degree relatives of schizophrenic persons show similar smooth-pursuit impairments

VII. Treatment

A. Antipsychotic medication

1. Use of medications with people with schizophrenia began in 1950 with phenothiazines (e.g., Thorazine), which had a calming effect and allowed for deinstitutionalization

2. Antipsychotic drugs reduce the severity of and sometimes eliminate psychotic symptoms

a. About half of patients show significant improvement within four–six weeks; some show only mild improvement (30–40%); about a quarter show no improvement

b. Continued maintenance medication after the acute phase may reduce relapse rate from 65–70% to about 40%

c. Unfortunately 25% do not improve on antipsychotic drugs

3. Motor side effects

a. **Extrapyramidal symptoms** (EPS)—muscular rigidity, tremors, restless agitation, involuntary postures, and motor inertia are quite common; may diminish after three to four months; other medications can minimize the severity of EPS

b. **Tardive dyskinesia** (TD)—involuntary movements of the mouth and face, spasmodic movements of the trunk and body; sometimes it is irreversible; approximately 20% of patients develop TD after long-term neuroleptic use

B. Second-generation antipsychotics—introduced in the US in the 1990s

1. As effective in treating positive symptoms; less likely to produce tardive dyskinesia

2. Are no more effective in reducing negative symptoms, though, contrary to early expectations and reports; also, many serious side effects are common for the second-generation antipsychotics—weight gain and risk for medical conditions such as diabetes, hypertension, and coronary artery disease

3. They produce a broader range of neurochemical actions in the brain than do the first-generation antipsychotic—acting on both serotonin receptors and dopamine receptors, leading to more success with reduction of positive symptoms and, perhaps, less risk of motor symptoms developing

C. Psychosocial treatment—long-term strategies

1. Family-oriented aftercare involves an education component to improve coping skills of family members

    a. Goals are to eliminate unrealistic expectations and improve communication

    b. Reduces relapse rates only if available on an ongoing basis

2. Social skills training (SST)

    a. Involves modeling, role-playing, and reinforcement of positive behaviors

    b. Seems to improve social adjustment but may not reduce relapse rates

3. Cognitive therapy

    a. Interventions may focus on cognitive procedures that evaluate, test, and correct distorted ways of thinking about self and environment; some cognitive approaches are specific to deficits often found in schizophrenic patients

    b. Cognitive enhancement therapy aims to improve cognitive capacities—both cold cognitive functions (e.g. working memory) and social cognitive skills are targeted

4. Assertive Community Treatment (ACT)

    a. Focus is on providing an array of psychological interventions and medication on a regular and continuous basis in the community

    b. Studies suggest it is effective in reducing inpatient hospital days and despite its expense it is cost-effective

    c. Psychosocial intervention that is delivered by an interdisciplinary team of clinicians

5. Institutional programs

    a. Hospitalization (at least two–three weeks) is often needed for acute psychosis

    b. Social learning behaviorally-based programs (e.g., using a token economy system) are effective for increasing adaptive behaviors and decreasing problem behaviors

    c. Institutionalization with social learning programs has been shown to lead to positive long-term outcomes

LEARNING OBJECTIVES

Students should be able to:

1. Describe the positive symptoms, negative symptoms, and disorganization of schizophrenia.
2. Describe the characteristics of the prodrome, active, and residual phases of schizophrenia.
3. Define and distinguish between hallucinations, delusional beliefs, and disorganized speech.
4. Provide examples of typical motor disturbances, affective and emotional disturbances, and avolition.
5. Describe the contributions of Kraepelin and Bleuler in defining schizophrenia.
6. Describe the major symptoms of disorganized, catatonic, paranoid, undifferentiated, and residual types of schizophrenia using DSM-IV-TR criteria.
7. Describe the following related disorders: schizoaffective, delusional, and brief psychotic disorders.
8. Know the basic epidemiological statistics for prevalence of schizophrenia, gender differences in age of onset, and identify risk rates in first and second-degree relatives of people with schizophrenia.
9. Describe the findings of family, twin, and adoption studies of schizophrenia and summarize current thinking regarding the contributions of genes and environment to schizophrenia.
10. Describe what is known about structural and functional brain differences of people with schizophrenia.
11. Explain the dopamine hypothesis and current beliefs about the role of dopamine and other neurotransmitters in schizophrenia.
12. Identify some social and psychological factors that may contribute to the development and/or maintenance of schizophrenia.
13. Present a model for the development of schizophrenia that includes genetic and environmental factors.
14. Describe the effectiveness of neuroleptic and atypical antipsychotic medications and the side effects that are involved in such treatments.
15. Describe family-oriented aftercare programs, social skills training, and institutional programs in which token economy systems may be used.

LECTURE SUGGESTIONS

Positive and negative symptoms

Students generally have a difficult time distinguishing between positive and negative symptoms of schizophrenia. As with positive and negative reinforcement, they often consider the terms "positive" and "negative" to refer to "good" and "bad" rather than "present" and "absent." Therefore, it may be helpful to devote some additional time to this method of classifying symptoms. Remind students that positive symptoms are symptoms that are present that should not be, and negative symptoms refer to aspects of behavior and relating that should be there but are not, and that these terms have nothing to do with "good" or "bad" aspects of the disorder. Positive symptoms of schizophrenia are the aspects of the disorder that people most clearly equate with "craziness," such as hearing voices, having delusional beliefs, and odd behaviors. However, the negative symptoms are in some ways more disabling, as they represent the loss of core aspects of the ability to socially relate. Negative symptoms are also the more difficult to treat and associated with the poorest prognosis.

Schizophrenia: A neurodevelopmental perspective: Current Directions APS Reader (E1, p. 122)

Conklin and Iacono present some of the current biologically-based schizophrenia research. One of the most prominent hypotheses is that schizophrenia "results from a disruption in forebrain development during the perinatal period" (pg. 122). The symptoms are then triggered or manifest in adolescence as the brain reaches full maturity. Of course, we have long suspected that schizophrenia is a "biologically-based" disease, mostly because of the strong evidence from family, twin, and adoption studies. Specific genetic linkage studies, however, have not yet identified an actual link, but a promising development has occurred in examination of chromosome 1 (Brzustowics et al., 2000). Still another recent line of research has looked at the risk of hypoxia-associated obstetric complications (that result in oxygen deprivations) with some evidence that schizophrenia may result from a combination of a genetic predisposition coupled with obstetric complications. For many years, we have also suspected that in utero viral exposure may play a role in the development of schizophrenia because of the high number of winter births among schizophrenia patients and the increase in viral epidemics in the fall that may have influenced pregnancies.

Enlarged ventricles (fluid-filled spaces in the brain) have been identified in schizophrenia patients as a causative factor or simply a correlate of the disease. Imaging studies also reveal blood-flow abnormalities in the medial-temporal and frontal lobes of schizophrenia patients. It is possible that temporal lobe dysfunction contributes to positive symptoms (e.g. hallucinations and delusions), whereas frontal lobe dysfunction may contribute to negative symptoms (e.g., impoverished thought and social withdrawal). Memory functions are also impaired in schizophrenia and research continues to grow suggesting that cognitive impairments can be clearly identified, which is consistent with brain imaging research results. The dopamine hypothesis, "has been revised to suggest a dysregulation of dopamine resulting in an excess of dopamine in temporal areas and a depletion of dopamine in frontal areas" (pg. 124).

Conklin and Iacono also discuss some early indicators that are being examined, which could lead to earlier identification of schizophrenic tendencies. In a British study by Jones and colleagues (1994), preschizophrenic children exhibited delayed motor development, lower test scores at ages 8,11, and 15, preferred solitary play at ages 4 and 6, and were rated as more anxious in social situations at age 15. Eye movement dysfunction continues to be an area of investigation because we find abnormalities not only in

schizophrenic patients themselves but also in relatives of the patients, suggesting a genetic basis. Finally, the connection between schizophrenia and velocardiofacial syndrome (VCFS) presents some fascinating and promising opportunities for understanding the origins of schizophrenia. The rate of schizophrenia amongst people afflicted with this congenital syndrome is about 25 times higher than the overall incidence rate of schizophrenia in the population. Children with VCFS and preschizophrenic children show "strikingly similar developmental characteristics" (pg. 126). This article does an excellent job of summarizing recent developments in schizophrenia research and does so in a very readable manner.

Labeling theory:

Many sociocultural theorists have argued that schizophrenic symptoms may be caused by the diagnosis itself. They use "labeling theory" to explain at least some of the etiology of schizophrenia. The logic is as follows: once a patient is diagnosed as "out of touch with reality," he or she is more likely to conform to the diagnosis. They may even be positively reinforced for "schizophrenic behavior" since the diagnostician wishes to confirm his/her diagnosis. Rosenhan's (1973) study provides a graphic illustration of the tendency for people to see what they expect based on a label. Volunteers presented themselves to psychiatrists with the manufactured "symptom" of hearing voices that said "empty," "hollow," and "thud." They were hospitalized and continued to be viewed as having schizophrenia despite the fact that they were, and were behaving as, normal people. Many current theorists grant that labeling can be dangerous and can have a deleterious effect on psychiatric patients. Few, however, agree that schizophrenia is "created by society" or is the result of a self-fulfilling prophecy due to labeling. The cross-cultural, biological, and genetic evidence is simply too powerful.

Rosenhan, D.L. (1973). On being sane in insane places. *Science*, 179, 250–258.

Szasz, T.S. (1977). *Psychiatric Slavery*. New York: Free Press.

DISCUSSION IDEAS

Objectifying schizophrenia:

We may refer to a person who suffers from schizophrenia as "schizophrenic," and we say that such a person "is a schizophrenic" rather than they "have schizophrenia." This tends to imply that once people exhibit the symptoms of schizophrenia they will always suffer from those symptoms. Perhaps more importantly, labeling in this manner defines the person by his or her disorder, and may be seen as suggesting that the disorder is the most salient, or the defining aspect of the person. Should we continue to use this language? Does it make sense to assume that people with schizophrenia will always have the disorder, or to view them as victims of a temporary illness, like depression, phobias, and anxiety disorders? Remind the students that many people who have episodes of schizophrenia do not have subsequent symptoms (about one-third). Should we use the term "schizophrenic" at all? (We don't refer to people with leukemia as "leukemics.")

Cognition in schizophrenia: Current Directions APS Reader (E1, p. 130)

Deanna Barch's article on cognitive deficits in schizophrenia provides a good summary of some of the recent literature on cognitive impairments involved in schizophrenia. Their discussion of cognitive problems schizophrenic patients experience, especially with working memory, can easily lead to a reflection on causative vs. correlative factors. Are these cognitive impairments the cause of schizophrenia or simply byproducts of the disease? Describe some of the deficits that are apparent in schizophrenic

patients and then ask students to consider some of the factors that have been identified as tied to schizophrenia—prenatal and perinatal disturbances, dopamine dysregulation, dysfunctional family systems with overly critical parental behavior, working memory deficits, eye movement abnormalities, temporal and frontal lobe blood flow irregularities—and decide which are potential causes and which are correlatives.

Implications of vulnerability:

If linkage studies are able to determine more clear genetic markers and/or brain imaging techniques can identify abnormalities in the brain of infants predisposed to schizophrenia, what would students recommend to reduce the probability of mental illness in the young child who is at risk of developing symptoms? Ask students to (a) consider what is known about the influence of environmental factors on the development and maintenance of schizophrenia in particular, (b) consider known and hypothesized effects of specific stressors, (c) differentiate between factors that may reduce the development of problems and those that may compensate for their presence, and (d) develop a plan that they might suggest for parents of children determined to be at high risk for the development of schizophrenia.

CLASSROOM ACTIVITIES

Myths about schizophrenia:

Break the class into small groups and ask the groups to respond to the following commonly-held beliefs about schizophrenia:

(1) People with schizophrenia have a split personality.
(2) People with schizophrenia are dangerous.
(3) People with schizophrenia cannot be cured.
(4) People with schizophrenia cannot live independently or care for themselves.
(5) People with schizophrenia come from dysfunctional families.

Ask the groups to rewrite each of these "myths" to properly qualify each statement, e.g., people with schizophrenia are believed to have a split between thoughts and feelings. Groups should then tackle the question of how and why these myths have been propagated, and how they can be challenged and overcome.

Focusing through the voices:

Ask students to speculate on what it would be like to live with auditory hallucinations common to schizophrenia. It is often difficult to truly empathize with the challenge of this experience. The following exercise offers a small glimpse into the challenge of focusing one's attention within the context of auditory hallucinations.

Exercise: Ask for six volunteers from the class. Without telling the rest of the class, tell the volunteers that they will each represent a 'voice' in the mind of someone with schizophrenia. Ask them each to pick a topic they will discuss in front of the class. It works best if one or two students choose to make a noise or say a word repeatedly, (e.g., 'boom") one tries to give a running dialogue on everything he/she sees happening in the classroom, and another makes random comments about ancillary events (such as the weather). Instruct them that they will stand in front of the class and begin to talk simultaneously and get louder over time as if fighting to be heard. Ask students to try and keep notes on what the group is

saying. Let this continue for approximately one minute.

After the activity is completed, have students reflect on the experience. Were they frustrated? Did they notice physical and emotional responses to the experience and their frustration? What would it be like to live with auditory hallucinations most of the time?

A Song to Capture the Essence of Schizophrenia:

Divide the students into small groups and ask them to reflect on the lecture, class discussion, and from the readings for this activity related to the chapter on schizophrenia. Then ask the students to select a popular song that would best illustrate the diagnosis of schizophrenia, perception, or treatment of schizophrenia and be able to give an explanation as to why they selected the particular song. Allow five to seven minutes for the students to brainstorm and come up with a song idea, then ask the groups to share with the class.

Pictionary: Schizophrenia

Use the bolded terms in the textbook chapter to put on cards to be drawn such as positive symptoms, negative symptoms, etc. This activity can be done through small groups, as a whole class, or you can break the class into small groups and pair the small groups together so that there will be a team A and team B. Provide some blank paper and writing utensils for the students such as markers, colored pencils, or crayons. Then ask the students to go one by one after it has been determined which team will go first, and draw the concept or definition on the selected note card for their team to guess. The students will take turns from their respective teams.

Case Study:

For this activity you can have the same case study or a variety of case studies for the students to assess related to the chapter on schizophrenia and psychotic disorders. After dividing the students into small groups, pass out a case study to each small group. Ask the students to identify the following in their group:

1. Diagnosis—evaluate the signs and symptoms based on the vignette.
2. Evaluate the multiaxial of the DSM Axis I–Axis V
3. If the vignette meets criteria for schizophrenia, what subtype and why?
4. What would be the best treatment methods?
5. What is the prognosis for this individual?

PEARSON VIDEOS

SPEAKING OUT VIDEOS IN ABNORMAL PSYCHOLOGY:

Larry—Schizophrenia (16:54)

Larry has been given a diagnosis of paranoid schizophrenia. He admits to hearing occasional voices, stating that he has "all kinds of companions." He describes having created fictional baseball players as a child. Symptoms began in the seventh grade but fully surfaced in his senior year of high school when he suffered from a "nervous breakdown." By the time he reached his junior year of college, he says he had difficulties even making it to classes. He also describes having "lost all contact with reality" and that, without medication, he tends to "lose all contact with reality."

Larry's descriptions of his paranoid thoughts are typically not very well articulated. There is an edge in his voice in response to questions, though, which may be an indicator of his difficulties with trust. He says that he has never "acted physically" on any of his hallucinations or in response to any of his negative voices. He maintains two clerical volunteer positions, lives alone, and seems to be coping relatively well with his disease. He regrets, however, not being able to have a son, not having a more free life, and not having been able to pursue some of his grandiose dreams such as becoming a professor of Political Science at Harvard.

Discussion Questions for the case of Larry:

1. Do you think Larry's creation of "fictional baseball players" could have been viewed as an early indicator of his pathology?

2. Larry says he is basically pretty happy with his life as it is now. Do you believe him? Do you think he suffers more than we are able to observe in this interview?

3. How do you think Larry would present himself if he were not on his medications or was having an acute episode?

4. Does Larry have primarily positive symptoms or negative symptoms? Describe aspects of each of them.

Josh—Schizoaffective Disorder (20:23)

Josh suffers from obsessive thoughts that often have paranoid content. He says that, currently, medications control his psychotic symptoms, but, when not medicated, he is likely to have powerful hallucinations and delusions. He believed the mafia was after him, and he was in the middle of a war. He has also had grandiose thoughts of winning the Nobel Prize and running in the Boston Marathon. His symptoms began as a freshman in high school. He describes reading a book about the Beatles and finding that the book was telling him what people in his class were saying. He also states that he began abusing alcohol in eighth grade, which may have contributed to his symptoms. At 19, he was brought to a mental hospital in handcuffs. He says he was suffering from "paranoia and panic to the max" at that time.

Currently, Josh suffers from cycles of mood changes, which are fairly classic bipolar fluctuations. He describes feeling "really high and manic" at times, and then, at other times, suffering from feeling

"really low, can't get out of bed, don't shower, don't shave." He says that he is still "too paranoid to be close to anyone" but has maintained a steady job for about nine years. At present, he still has hopes to have a wife but acknowledges that he will probably never have a family and says of his illness, "It is not fun at all—it's not funny at all."

Discussion Questions for the case of Josh:

1. What do you think the impact of alcohol use was on Josh's symptoms? What about his discussion of the use of marijuana? Do you think this worsened his condition?

2. How are Josh's symptoms different from those who suffer from simply a mood disorder or from schizophrenia? What does schizoaffective disorder mean, and how does this case exemplify this diagnosis?

3. Do you think it is realistic for Josh to consider a romantic relationship with a woman? Is he capable of having a successful relationship?

Patients as Educators, Case #6—Georgianna, schizophrenia age 33 *(12:35)*

Georgianna is a 33-year-old woman with schizophrenia who first knew something was wrong at the age of fourteen. She has experienced delusions, hallucinations, and catatonic episodes; now she controls her episodes by medication.

Discussion Questions for Case #6

1. Georgianna describes her schizophrenia as developing in order for her to escape from reality. Describe specific situations in which a schizophrenic episode allowed her to do so.

2. Describe the role Georgianna's family played in her schizophrenia; note both positive and negative influences.

VIDEO RESOURCES

A True Madness, (1971, 35 minutes, black and white Time-Life Films). Researchers discuss possible causes of schizophrenia. Film includes conversations with schizophrenics.

Abnormal Behavior: A Mental Hospital, (1980, 28 minutes, color, CRM/McGraw-Hill). Portrays life in a mental hospital, including interviews with people who have schizophrenia, their treatment, and an example of electroconvulsive treatment.

Haywire: Children Living With Schizophrenia, (2010, 41 minutes, color, Films for Humanities and Sciences). This film explores how schizophrenia presents in childhood**.**

Madness (Part of the PBS series "The Brain"), (1984, 60 minutes, color, PBS Video). An overview of the research and treatment of schizophrenia.

Understanding Schizophrenia, (1994, 21 minutes, color, Films for the Humanities and Social Sciences). This film describes the research related to schizophrenia.

Unlocking the Secrets of Schizophrenia, (1996, 21 minutes, color, Films for the Humanities and Sciences). This film examines what causes schizophrenia, the research involved, and treatment methods for schizophrenia.

When Someone You Love Has Schizophrenia, (1996, 34 minutes, color, Films for the Humanities and Sciences). Provides an overview of how the family and caregivers handle the diagnosis of schizophrenia and how it impacts the family.