There are three inescapable “facts” about schizophrenia (Weinberger, 1987):
1. Age at onset: It is almost always during late adolescence or early adulthood.
2. Role of stress: Onset and relapse are almost always related to stress.
3. Efficacy of dopamine antagonists: Drugs that block dopamine receptors are therapeutic.

Psychosis is a disruptive mental state in which an individual struggles to distinguish the external world from internally generated perceptions. An impaired ability to relate to others makes it worse. Common symptoms of psychosis include hallucinations, delusions, and difficulty with thought organization. Psychosis can be present in schizophrenia, acute mania, depression, drug intoxication, dementia, and delirium and can be caused by brain trauma. Schizophrenia is one of the most common causes of psychosis.

Therefore, this popular notion of a dramatic personality change comes far short of capturing the devastating effect that schizophrenia has on the life of a person and the person’s family. Simply stated, schizophrenia is one of the most profoundly disabling illnesses, mental or physical, that the nurse will ever encounter.

Schizophrenia is a diagnostic term used to describe a major psychotic disorder characterized by disturbances in the following:
- Perception (e.g., hallucinations)
- Thought processes (e.g., thought derailment)
- Reality testing (e.g., delusions)
- Feeling (e.g., flat or inappropriate affect)
- Behavior (e.g., social withdrawal)
- Attention (e.g., inability to concentrate)
- Motivation (e.g., cannot initiate or persist in goal-directed activities)

NORM’S NOTES
This might be the most important chapter in this book. Schizophrenia is such a devastating disorder that—though it affects just 1% of the adult population (Table 27-1)—it has ripple effects that have a disproportionate impact on society. These are the people that you might walk by (or around) in our cities, not wanting to interact with them at all. They might scare you at times or offend in other ways. After reading this chapter and after having a good clinical experience, I think your attitude about these individuals will change.
Contributing to the overall deterioration is a decline in psychosocial functioning. Schizophrenia typically first appears in late adolescence or early adulthood. Schizophrenia affects men and women almost equally; however, gender differences do exist (Seeman, 2010). Box 27-1 highlights a few of those gender differences in expression of this disorder.

Studies have shown that approximately 1% of the population will experience schizophrenia during their lifetime. Although the prevalence rate and symptom presentation for schizophrenia are fairly constant worldwide, inner-city residents, those from lower socioeconomic classes, and individuals who experience prenatal difficulties (Box 27-2) are more likely to be affected (American Psychiatric Association [APA], 2001; Bachmann et al., 2005; Opler et al., 2004; Sadock and Sadock, 2003). Economic costs are in the tens of billions of dollars each year. The cost in human suffering is incalculable. Box 27-3 outlines the statistical epidemiologic realities of schizophrenia.

Morel was the first to name the psychiatric symptoms of schizophrenia. In 1860, while treating an adolescent boy, Morel used the phrase dementia praecox (precocious senility) to describe the group of symptoms he observed (Kolb and Brodie, 1982). Kahlbaum (in 1871) and Hecker (in 1874) added to the diagnostic nomenclature with their categories catatonia and hebephrenia (Sadock and Sadock, 2003). In 1878, Kraepelin added the term paranoia and engaged in a
rigorous study of what is now called schizophrenia. Kraepelin found commonalities among these three mental disorders (catatonia, hebephrenia, and paranoia) and, in 1899, grouped them under the diagnostic term that Morel had coined 40 years before—dementia praecox (Sadock and Sadock, 2003). Kraepelin believed that schizophrenia was the result of neuropathologic factors; he envisioned a progressive deteriorating course, resulting in disabling mental impairment with little hope of recovery.

It was left to Bleuler in the early 1900s to coin the term schizophrenia in a book subtitled The Group of Schizophrenias. Bleuler believed that schizophrenia does not always follow a course of deterioration (thus, dementia was inappropriate), nor does it always occur early in life (hence, praecox was inappropriate). Bleuler broadened Kraepelin’s concept by focusing on symptoms, and identified four primary symptoms that he believed were present in all individuals with schizophrenia. All of these classic symptoms begin with the letter A, which facilitates memorization (Box 27-4).

These two giants of psychiatric history founded two divergent views of schizophrenia. In using the diagnostic category of dementia praecox, Kraepelin revealed a conceptual alignment between schizophrenia and disorders such as Alzheimer’s disease, which have a less optimistic prognosis. Bleuler, on the other hand, developed a school of thought that was much broader and more optimistic than that of Kraepelin. Based on Bleuler’s wider grouping, pessimism eased, and some clinicians began to see improvements in their patients. Although Kraepelin based his views on biology, Bleuler, influenced by the master analyst Freud and other psychodynamic theorists, sought psychological explanations for schizophrenia. For most of the twentieth century, Freud’s psychoanalytic explanations and, by extension, Bleuler’s thinking, dominated the understanding of schizophrenia. However, as the limitations of talking cures became more evident, the psychodynamic approach began to lose its grip on mental health professionals. In the past 25 years or so, a resurgence of interest in biologic research has resulted in renewed respect for Kraepelin’s work.

**Course of Illness**

Schizophrenia typically first occurs in adolescence or early adulthood, a time during which brain maturation is almost complete. There are the following three overlapping phases of the disorder:

- **Acute phase:** The patient experiences severe psychotic symptoms.
- **Stabilizing phase:** The patient is getting better.

### BOX 27-4 BLEULER’S FOUR As

| Affective disturbance: Inappropriate, blunted, or flattened affect |
| Autism: Preoccupation with the self, with little concern for external reality |
| Associative looseness: The stringing together of unrelated topics |
| Ambivalence: Simultaneous opposite feelings |

### BOX 27-5 EVOLUTION OF SCHIZOPHRENIC SUBTYPING

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1860</td>
<td>Morel coins the term dementia praecox.</td>
</tr>
<tr>
<td>1871</td>
<td>Kahlbaum uses the term catatonia to describe patients immobilized by psychological factors.</td>
</tr>
<tr>
<td>1874</td>
<td>Hecker uses the term hebephrenia to describe patients with silly, bizarre, and regressed behaviors.</td>
</tr>
<tr>
<td>1878</td>
<td>Kraepelin adds the term paranoia to describe highly suspicious patients.</td>
</tr>
<tr>
<td>1889</td>
<td>Kraepelin groups all three patient categories under the heading dementia praecox.</td>
</tr>
<tr>
<td>1900s</td>
<td>Bleuler introduces the term schizophrenia to describe these mental disorders.</td>
</tr>
<tr>
<td>1952</td>
<td>DSM-I: Includes 9 subtypes for schizophrenia.</td>
</tr>
<tr>
<td>1968</td>
<td>DSM-III: Includes a total of 11 subtypes.</td>
</tr>
<tr>
<td>1980</td>
<td>DSM-III-R: Reduced to five subtypes: disorganized, catatonic, paranoid, undifferentiated, and residual.</td>
</tr>
<tr>
<td>1982</td>
<td>Andreasen and Olsen (1982), Crow (1982), and others categorize schizophrenia based on symptoms: positive (type I) and negative (type II).</td>
</tr>
<tr>
<td>1994</td>
<td>DSM-IV: Includes same subtypes as DSM-III.</td>
</tr>
<tr>
<td>1997</td>
<td>American Psychiatric Association recognizes the addition of the subtype “disorganized” to the positive and negative subtyping concept.</td>
</tr>
<tr>
<td>2000</td>
<td>DSM-IV-TR: Same subtypes.</td>
</tr>
</tbody>
</table>

DSM, Diagnostic and Statistical Manual of Mental Disorders.

- **Stable phase:** In this phase, the patient might still experience hallucinations and delusions, but the hallucinations and delusions are not as severe or disabling as they were during the acute phase. Most patients alternate between acute and stable phases.

#### Clinical Example

Billy is a 39-year-old man living in a psychiatric residential facility who attends a day treatment program Monday through Friday. Although Billy experiences hallucinations frequently, most often visual hallucinations, he is indeed stabilized. All staff members agree that Billy is not a danger to himself or others and that the day treatment program is more appropriate for him than a state hospital would be.

#### CRITICAL THINKING QUESTION

1. Why do you think Kraepelin was so pessimistic about the patients he saw with dementia praecox?

**DSM-IV-TR Terminology and Criteria**

Since the inception of schizophrenia as a diagnostic entity, attempts have been made to divide it into subtypes. These early attempts resulted in subtypes called catatonic, hebephrenic, and paranoid schizophrenia. As noted in Box 27-5, this early thinking is still reflected in official diagnostic classifications. Currently, the DSM-IV-TR identifies five subtypes of schizophrenia: (1) paranoid, (2) disorganized, (3) catatonic, (4) undifferentiated, and (5) residual. Criteria for schizophrenia and the five subtypes are found on p. 249.
Although the DSM-IV-TR criteria have been thoughtfully deliberated, we find the subtyping approach based on positive versus negative symptoms clinically helpful because it can be predictive of medication response. The student should realize that most patients are not either-or, but have a mixture of positive and negative symptoms.

Positive Versus Negative Schizophrenia

Positive (type I) schizophrenia has a different constellation of symptoms than negative (type II) schizophrenia (Box 27-6). Type I is positive in the sense that symptoms are an embellishment of normal cognition and perception. The symptoms are additional. Positive symptoms are believed to be the result of elevated dopamine levels affecting the limbic areas of the brain.

Clinical Example: Positive Symptoms

John is sitting in the dayroom on the psychiatric unit when his eyes begin to dart back and forth, and he becomes increasingly anxious. You ask, “John, are you hearing something that I cannot hear?” “Can’t you hear them?” he replies. “They are going to get me.” John’s auditory hallucination is a positive symptom because it is an exaggeration of a normal perception (he is “hearing” without an auditory stimulus).

Type II is labeled negative because symptoms are essentially an absence or diminution of that which should be—that is, lack of affect, lack of energy, and so on. Type II is related, at least in part, to a hypodopaminergic process. These symptoms also can be caused by cortical structural changes. Pathoanatomy consistently mentioned in the literature includes decreased cerebral blood flow (CBF) and increased ventricular brain ratios (VBRs). Decreased fronto-temporal blood flow is most pronounced in the dorsolateral prefrontal cortex. Ventricular enlargement can be detected on computed tomography (CT) and magnetic resonance imaging (MRI) with the naked eye. Other pathoanatomic features observed that might contribute to negative symptoms include a modest reduction in brain weight and cerebral atrophy.

Clinical Example: Negative Symptoms

Philip Wilson has a long history of mental problems. Mr. Wilson is a patient in the state hospital system. The summary note written by the nursing team leader includes the following observation: “Mr. Wilson is isolative and, for the most part, expressionless. He spends long hours sitting and staring out of the window. Attempts to engage Mr. Wilson in unit activities have not been successful.”

An unfortunate side effect of the positive versus negative subtyping approach has been the tendency by a few professionals to be too pessimistic about the prognosis of type II patients. Kopelowicz and Bidder (1992), who cautioned nurses and others against such rash and uninformed thinking, divided negative symptoms into primary and secondary. The secondary symptoms are therapeutically accessible, particularly early in the course of the illness. These symptoms include those caused by the following:

- Medications
- Hospitalizations
- Loss of social supports
- Socioeconomic decline

If assessed early, secondary negative symptoms can be arrested.
Clinical Example: Lack of Connectedness

Merritt is a homeless man with a long history of mental illness. He has not seen his family in many years. Although his family was supportive at one time, they simply grew tired of trying to cope with him. At this point, even modest improvements in his mental health are compromised by his lack of social support.

According to biologic theory, typical antipsychotic drugs (drugs that antagonize primarily dopamine D₂ receptors) are likely to be beneficial for positive symptoms because positive schizophrenia is a hyperdopaminergic process. Negative schizophrenia, on the other hand, is thought to be more structurally related and a hypodopaminergic process. Traditional antipsychotics have relatively less effect and might actually cause the negative symptoms to worsen. Accordingly, the more excessive the symptoms are (as in positive schizophrenia), the greater the likelihood of a favorable response to antipsychotics. As noted in Chapter 18, atypical antipsychotic drugs such as clozapine (Clozaril), risperidone (Risperdal), olanzapine (Zyprexa), quetiapine (Seroquel), ziprasidone (Geodon), and aripiprazole (Abilify) benefit negative symptoms because they affect dopamine receptors and antagonize serotonin 5-HT₂a receptors, which liberate dopamine in cortical areas. The latter corrects the hypodopaminergic state. Unfortunately, most of these newer drugs are expensive. For example, a 30-day supply of Zyprexa could cost over $500, whereas the same amount of Haldol might cost $20 (see Table 18-5 for more information).

Behavior

People who are treated for mental problems come to the attention of mental health professionals in one of two ways. The first is when patients seek help. They do so because they have experienced such troubling subjective symptoms that they want professional intervention. Often, however, professional help is not sought until patients have exhausted self-help aids, friends, and family, leading to the second. The second way in which people come to the attention of the mental health system is by drawing attention to themselves through behaviors that bother, concern, or frighten other people. These indicators of a mental disorder are apparent to others and are called objective signs. As discussed in Chapter 4, help is sometimes resisted, and the person must be treated on an involuntary basis.

Subjective and objective categories are not as discrete as they might appear at first. Hallucinations, for example, are subjective phenomena but might easily cause objective signs that get the attention of others (e.g., a person who talks back to an auditory hallucination). Nonetheless, dividing the expressions of schizophrenia into subjective symptoms and objective signs is a rational and convenient approach for understanding this mental disorder. It should also be noted that several rating scales for severity of schizophrenia have been developed, and it is important that all psychiatric nurses be familiar with them. See Box 27-7 for a listing of those scales.

Six significant alterations occur in schizophrenia and can be grouped into objective signs or subjective symptoms (Box 27-8). Alterations in personal relationships and alterations of activity are highly visible to others (objective signs), whereas altered perception, alterations of thought, altered consciousness, and alterations of affect are more subjective in nature.

Objective Signs

Alterations in Personal Relationships. Patients with schizophrenia have troubled interpersonal relationships. Often, these problems develop over a long period, well before schizophrenia is diagnosed, and become more pronounced as the illness progresses. It is not uncommon to hear that a person was asocial, a loner, or a social misfit before being diagnosed.
Frequently, patients become less concerned with their appearance and might not bathe without persistent prodding. Table manners and other social skills might diminish to the point at which patients are disgusting to others. These behaviors are related to introspection (autism) and apathy. Patients are focused on internal processes to the extent that their external social world collapses. Schizophrenia can cause a diminished energy level (anergia), which also complicates social interactions.

Interpersonal communication becomes inadequate and might be inappropriate. Again, internal processes are at work. Hostility, a somewhat common theme, also distances patients from others. Finally, patients with schizophrenia withdraw, further compromising their ability to engage in meaningful social interactions.

Clinical Example: Loneliness and Schizophrenia

William is a Caucasian man in his early forties who suffers from schizophrenia. He can be seen walking near the university where I work. He nearly always wears the same clothes. Most every morning he arrives early at Starbucks. He never buys anything, but the young women working there give him a glass of water. He doesn’t talk. He sits and sips. He is obese and typically smelly. He has nowhere to go, no one to see, and no friends.

Alterations of Activity. Patients with schizophrenia also display alterations of activity. Patients might be too active (psychomotor agitation); that is, they are unable to sit still and continually pace, or they might be inactive or catatonic. These signs respond to antipsychotic drugs but can also be caused by them. The following example illustrates this point.

Clinical Example: Symptoms or Side Effects?

The nurse must be careful in assessing alterations in activity. Restlessness might be caused by akathisia (an extrapyramidal side effect [EPSE] of antipsychotic drugs) or might be a manifestation of schizophrenia. Rigidity, on the other hand, might be a warning sign of neuroleptic malignant syndrome (NMS), not catatonia. Both EPSEs and NMS are side effects of antipsychotic drugs. Hence, accurate assessment is critical; although it is appropriate to administer an as-needed (prn) dose of haloperidol for psychomotor agitation or catatonia, it only serves to intensify akathisia and might prove fatal for patients with NMS.

Subjective Symptoms

Subjective symptoms are, by definition, experienced by patients in a personal way. Patients might hide these symptoms from others. For example, if patients suffer from the delusion that they are a famous person, they might be able to keep it to themselves. In fact, some clinicians advise patients who resist psychiatric care to “keep your symptoms to yourself, and no one will ever know.” Presumably, there are individuals in society who are not reporting their subjective symptoms to anyone and thus are avoiding psychiatric intervention. (Good for them!) For the most part, however, subjective symptoms of schizophrenia spill over into behavior in public view. Subjective symptoms can be grouped into four categories.

Altered Perception. Altered perception includes hallucinations, illusions, and paranoid thinking. Hallucinations are false sensory perceptions and can be auditory, visual, olfactory, tactile, gustatory, or somatic (strange body sensations). Auditory hallucinations are the most common in schizophrenia and often take the form of accusations (“You slut,” “Hey, queer”) or commands (“Get away from these people”). Visual hallucinations are not as common in schizophrenia. (The nurse might suspect a toxic process such as drugs or fever if visual hallucinations are present.) Hallucinations are probably caused by a hyperdopaminergic state in the limbic areas.
Illusions are misinterpretations of real external stimuli. For example, a tree might be mistaken for a threatening person. Illusions are often associated with physical illness, as well as schizophrenia.

Clinical Example: Delirium vs. Schizophrenia

*Delirium:* While lying in bed with a low-grade fever, Gladys, a 68-year-old woman, asks, “Are those cobwebs on the wall?” Her son responds, “No, Mama, those are just shadows from your bedside lamp.” Gladys laughs and says, “I guess my mind is going.”

*Schizophrenia:* Tim, a patient in a day treatment program, mistakes a tennis shoe on the porch for a rat.

Paranoid thinking is characterized by a persistent interpretation of the actions of others as threatening or demeaning. Paranoid themes can color delusions and hallucinations, as well as the ordinary behavior of others. It is important for the student to differentiate paranoid thinking associated with a paranoid personality disorder from paranoid delusions. Paranoid thinking is less severe than paranoid delusions. Paranoid thinking might be corrected with facts, whereas paranoid delusions cannot. Interestingly, the phenomenon of paranoia is increasing in our society (Keltner and Davidson, 2009).

Clinical Example: Paranoid Personality vs. Paranoid Schizophrenia:

1. *Paranoid personality:* Bill, a voluntary patient on the adult unit, has sought help because of trouble on the job and at home. His ability to get along with people has deteriorated to the point that he has no friends. Bill’s wife has started divorce proceedings, and he has sought treatment, hoping that she will change her mind. Over the last few years, Bill has been obsessed with the thought that his wife is cheating on him. He follows her when she leaves the house, sometimes listens to her telephone calls, and has confronted her with accusations of infidelity. Whenever he finds he is mistaken, he is relieved for a while and apologizes for not trusting her, but soon he begins to have the same paranoid thoughts. His paranoid thinking has caused alterations in his personal relationships.

2. *Paranoid schizophrenia:* Fred is a 28-year-old unemployed laborer. The police recently brought Fred to the emergency department. Fred had been at the downtown bus station preaching loudly to all who passed. He spoke of a conspiracy of African-Americans and Jews who plan to take over America. Fred tells the emergency room nurse that he feared for his life. He goes on to explain that he had proof that the FBI was behind President Kennedy’s assassination.

A final example of altered perception is based on the observation that the ability to adapt perceptually (or attend selectively) is altered in patients with schizophrenia.

Clinical Example: Altered Perception

A patient is looking out of a seventh-floor window. The nurse approaches to look and notices activity in the yard below. The patient assumes that the nurse is observing the same activity and comments. The patient, however, is not looking beyond the wire mesh screen in the window. He is unable to filter out what would not be a distraction for most people. The inability to filter out extraneous stimuli (ability to attend selectively) is a perceptual problem for some patients.

Alterations of Thought. Alterations of thought are common in schizophrenia and are disturbing and frightening at times. Antipsychotic drugs are often beneficial. Common thought disorders include thought retardation, blocking, autism, ambivalence, loose associations, delusions, poverty of speech, and concrete thinking.

Thought retardation is a slowing of mental activity. A patient might state, “I just can’t think.” Blocking is the interruption of a thought and the inability to recall it. This disorder is very disturbing to patients and, at times, frightening. Blocking might be caused by the intrusion of hallucinations, delusions, or emotional factors. The following is a common example of blocking that could happen to anyone.

Clinical Example: Blocking

Joe, a 49-year-old teacher, is in the middle of a lecture when he loses his “train of thought.” He cannot remember what point he is developing or where to go next. He stalls for time, realizing that he is in a potentially embarrassing situation. Finally, he finds his notes and proceeds, a little shaken and distracted but able to continue.

Autism occurs when patients are introspective to the extent that they are distracted from external events. Patients are preoccupied with themselves and might be oblivious to the reality around them, which results in a personalized view of reality.

Ambivalence is a state in which two opposite, strong feelings exist simultaneously. Patients might be both attracted to and repelled by a person, object, or goal. Ambivalence (e.g., love-hate) toward a domineering parent is common. Another common example is the simultaneous need for and fear of people, resulting in immobilization. Schizophrenic patients might be immobilized by their ambivalence regarding a matter as simple as deciding whether to drink orange juice or apple juice for breakfast. In these cases, it is therapeutic for the nurse to make decisions for patients, if patients will allow this. The following clinical example illustrates ambivalence that occurs in some families, and it is not meant to depict schizophrenic ambivalence.

Clinical Example: Ambivalence Toward Dear Old Dad

Joyce, a 38-year-old librarian, has ambivalent feelings toward her father. He still tells her what to do, and she has a hard time standing up for herself. Joyce realizes that her periodic need for financial assistance is partially responsible for her predicament. Joyce also finds that she avoids calling her father, and, because he calls her excessively to find out what she is doing, she cringes when the telephone rings. Although Joyce is not suffering from schizophrenia, she does experience ambivalence. She loves her father but, in her words, “He is driving me crazy.”

Loose association is a pattern of speech in which a person’s ideas slip off one track onto another that is completely unrelated or only slightly related. An occasional change of topic without obvious connection does not indicate loose associations.
Delusions are fixed, false beliefs and can take many forms. Delusions are described as fixed beliefs because they cannot be changed by logical persuasion. Delusions are described as false because they are not based in reality. Delusional content often relates to life experiences and can include somatic, grandiose, religious, nihilistic, referential, and paranoid content. An example of each type follows:

- **Somatic delusions:** After medical tests confirm otherwise, a patient still insists, “I have cancer in my stomach.”
- **Grandiose delusions:** A patient states, “I am the president.”
- **Religious delusions:** A woman attempts to kill her children because she believes the devil wants her to do so: “The devil told me to kill my children.”
- **Nihilistic delusions:** A patient states, “I am dead.” In response to saying, “If you are dead, how can you talk?” the patient says, “I don’t know, but I’m dead.”
- **Delusions of reference:** “The TV is talking about me. The devil told me to have sex with the TV.”
- **Delusions of influence:** “I can control her with my thoughts.”
- **Paranoid delusions:** “They all think that I am a homosexual.”

Related phenomena sometimes encountered are the schizophrenic delusions that thoughts can be inserted or withdrawn by others: “Other people can read my mind”; “My thoughts are being broadcast so that everyone can hear.”

Poverty of speech is manifested by the inability to formulate and articulate thoughts that are relevant to the discussion at hand. Vocabulary is markedly limited in individuals who experience poverty of speech.

Concrete thinking is the inability to conceptualize the meanings of words and phrases. For example, a concrete response to the proverb “People who live in glass houses should not throw stones” might be construed as “The glass would break.” These individuals are likely to misinterpret jokes or similes. For example, the meaning of “a diamond in the rough” or “cool as a cucumber” might be lost completely on a person exhibiting concrete thinking.

**EXAMPLE OF LOOSE ASSOCIATIONS**

The following example of loose associations is based on a conversation with Bill, a 46-year-old patient attending day treatment. Because of the severity of his disorder, he was admitted to a state hospital shortly after this interaction.

*Nurse:* “How are you doing today, Bill?”


As is readily apparent, Bill’s communication pattern at this time is incoherent. With effort, one can see some of the underlying connections of these disconnected words and phrases but, overall, Bill’s dialogue cannot be followed.

**Altered Consciousness.** Altered consciousness is perhaps the symptom that is most troubling to patients; fortunately, it is also the most responsive to antipsychotic drugs. Manifestations of altered consciousness include confusion, incoherent speech, clouding, and a sense of going crazy. The last manifestation of altered consciousness, going crazy, deserves special mention. Many students are surprised when they enter a psychiatric facility to find that patients are not crazy. In fact, although psychiatric patients are, by definition, struggling with mental disorders, psychiatric units are not wild, bizarre environments. Patients can readily differentiate between the normal struggle of dealing with a mental disorder and the feeling of going crazy (loss of control). The student will observe that patients on the psychiatric unit define a fellow patient who has become wild or who is loudly talking to himself or herself as crazy. In other words, this behavior is unusual—even on a psychiatric unit. Referring to the discussion of incompetence in Chapter 4, the student can appreciate why the designation of incompetence is reserved for only a few individuals.

**Alterations of Affect.** Alterations of affect are varied and include inappropriate, flattened, blunted, or labile affects; apathy; ambivalence; and overreaction. For example, responding to bad news with laughter is an affective response that does not match the circumstances and is inappropriate. If a patient is unable to generate much affect, and the response to the bad news is weakly appropriate, the affect is blunted or dull. The inability to generate any affective response is referred to as a flattened affect. Labile affect is a condition in which emotional tone changes quickly. A patient might be telling a happy story, suddenly begin to cry, and then quickly return to a happy disposition.

Apathy, which can be defined as a lack of concern or interest, is the inability to generate a normal response to people, situations, or the environment.

Another alteration of affect is the tendency to overreact to events. An analogy is the small child who must put so much energy into closing a car door that the door slams shut, offending the ears and nerves of adults nearby. Because of physical limitations, the child has to push as hard as possible to overcome inertia. Because of emotional limitations, schizophrenic patients overreact to normal events to overcome mental and social inertia, and, like the child, these patients might offend the sensitivities of those nearby.

**Etiology**

Many authorities suggest that multiple factors must cause schizophrenia, because no single theory satisfactorily explains the disorder. Explanations can be categorized broadly into biologic or psychological (psychodynamic) causes. These two categories parallel the nature versus nurture debate discussed in Chapter 26. Biologic theories and psychodynamic theories are discussed here, followed by a vulnerability-stress model, an eclectic approach that seems to describe the major forces at work in the genesis and outcomes of schizophrenia.
Biologic Theories: Biochemical, Neurostructural, Genetic, and Perinatal Factors

People don’t cause schizophrenia, they merely blame each other for doing so.

E. Fuller Torrey (British Columbia Schizophrenia Society [BCSS], 2008).

Biologic theorists posit that schizophrenia is caused by anatomic or physiologic abnormalities. Biologic explanations include biochemical, neurostructural, genetic, and perinatal risk factors and other theories. Biologic explanations have driven the development of biologic interventions such as psychotropic drugs.

Some clinicians have been reluctant to endorse biologic theories because the exclusive use of biologic approaches, such as psychotropic drugs, excludes interpersonal factors. The psychotherapeutic management model, however, recognizes the importance of both biologic and interpersonal interventions.

A positive result of biologic theories has been the minimization of the blaming that is inherent in other explanations. Just as viewing alcoholism as an illness has helped clinicians, families, and patients to get beyond blaming and on to treatment, biologic theories have facilitated the treatment of schizophrenia. To illustrate, just as diabetic patients must learn to cope with illness (e.g., a change in lifestyle), psychiatric patients must learn to cope with the limitations of their illness.

Biochemical Theories. Biochemical theory can be traced to 1952, when Delay and Deniker reported the antipsychotic effects of the dopamine receptor antagonist, chlorpromazine. The prevailing biochemical explanation is referred to as the dopamine hypothesis. According to this hypothesis, excessive dopaminergic activity in limbic areas causes acute positive (type I) symptoms of schizophrenia (hallucinations, delusions, and thought disorders). Excessive dopamine might be a result of increased dopamine synthesis, increased dopamine release, or an increase in the number and activity of dopamine receptors. It is also known that drugs that increase dopamine, such as levodopa, Chantix, and the amphetamines, can cause a psychotic state (see the box entitled Cigarette Smoking and Schizophrenia). This hypothesis is attractive because it is easy to grasp, and because drugs that block dopamine seem to be extremely effective in the treatment of schizophrenia. However, these drugs take days, weeks, or even months to establish their clinical effectiveness, whereas the central nervous system (CNS) dopamine receptors are blocked within a few minutes. Therefore, it seems that the dopamine hypothesis is too simplistic and that other factors are involved in explaining the effectiveness of antipsychotic drugs.

Keltner and Grant (2006) outline the apparent positive effects of smoking on schizophrenia caused by stimulation of nicotinic receptors in the brain:

1. Improved cognition
2. Improved negative symptoms
3. Protective effects against EPSEs

4. Improved auditory gating
5. Improved memory and attention

The dopamine hypothesis, although limited in explanatory power, continues to have great educational value for the following reasons:

1. Drugs that increase dopamine (i.e., dopaminergics such as levodopa, Chantix, and amphetamine) can cause psychotic symptoms.
2. Drugs that block dopamine (i.e., antipsychotics) alleviate psychotic symptoms.

Other proposed neurotransmitter contributors to schizophrenia include serotonin and glutamate. Serotonin inhibits dopamine synthesis and release; therefore, serotonin antagonists potentially increase dopamine levels. This characteristic is one of the neurophysiologic properties presumed to cause atypical antipsychotics to be effective. These agents are referred to as serotonin-dopamine antagonists (SDAs) by some clinicians and manufacturers.

Glutamate, a product of the Krebs cycle, has been proposed as a factor in schizophrenia as well (Kim et al., 1980). Glutamate contributes to the regulation of N-methyl-d-aspartate (NMDA) receptors, which are necessary for cognitive processes. Too little glutamate can lead to hallucinations. For example, the street drug phencyclidine (PCP) antagonizes NMDA receptors and can cause a psychotic state. On the other hand, excessive levels of glutamate lead to overstimulation of the NMDA receptors, thus increasing intracellular levels of calcium and causing increased neuronal firing. This cellular excess is referred to as excitotoxicity and causes neuronal death. Cell death plays a role in schizophrenia (Keltner...
and Lillie, 2009). Treatment with glutamate has not proven particularly promising at this point.

**Neurostructural Theories.** The neurostructural theorists have proposed that schizophrenia, particularly negative (type II) schizophrenia, is a result of pathoanatomy. The three specific neurostructural changes mentioned most often are increased VBRs, brain atrophy, and decreased CBF. CT, MRI, positron emission tomography (PET), and single-photon emission computed tomography (SPECT) are techniques used for visualizing the brain. CT and MRI provide images of brain structure (e.g., for VBRs and brain atrophy). PET and SPECT provide information on both brain structure and brain activity.

**Ventricular Brain Ratios.** The finding that a significant subgroup of individuals with schizophrenia has enlarged ventricles was first reported by Johnstone and colleagues (1976). Individuals with enlarged ventricles have a poor prognosis and exhibit negative symptoms.

Although ventricular enlargement is not peculiar to schizophrenia, anatomic findings are substantially different from those for neurodegenerative disorders, such as Alzheimer’s disease. Ventricular enlargement in schizophrenia is not associated with a neurodegenerative process (Bogerts et al., 1993; Casanova et al., 1993; Marsh et al., 1994); that is, one would not necessarily expect to find a gradual increase in ventricular volume over time in a patient with schizophrenia. In the patient with Alzheimer’s disease, however, ventricles continue to increase in volume as brain cells die. It must be noted that not all patients with schizophrenia have abnormally enlarged ventricles. About 50% of these patients fall within the range of control or normal subjects (Cannon and Marco, 1994). This overlapping effect has led researchers to study monozygotic twins when one twin suffers from schizophrenia. In documented cases in which the affected twin had ventricles falling within the normal range, pathoanatomic deviance can be demonstrated only when contrasted with the ventricles of the unaffected (i.e., nonschizophrenic) twin. Roberts and colleagues (1993) clearly demonstrated that an otherwise normal-appearing ventricle is in actuality enlarged when compared with the perfect control—the ventricles of the monozygotic twin.

**Brain Atrophy.** Over 100 years ago, Alzheimer described brain cell loss in schizophrenia. Anatomic pathology in cortical and subcortical areas has been suggested by brain imaging techniques and confirmed by postmortem examinations of individuals with schizophrenia. Limbic, hippocampal, and thalamic structures; temporal lobes; the amygdala; and the substantia nigra are specific lobes and nuclei found to have undergone neuropathologic changes.

**Cerebral Blood Flow.** Individuals with atrophic changes also have decreased cortical blood flow, particularly in the prefrontal cortex, with a consequent decrease in metabolic activity (BCSS, 2008). Cognitive demands, such as organizing, planning, learning from experience, problem solving, introspection, and critical judgment, are compromised.

**Genetic Theories.** Individuals with schizophrenia seem to inherit a predisposition to the disorder because schizophrenia runs in families. The relatives of individuals with schizophrenia have a greater incidence of the disorder than chance alone would allow. Although an amazing amount of resources have been directed at finding the genetic cause of schizophrenia, the results are far from specific. In fact, almost every chromosome has been linked to schizophrenia (Williams, 2003). Genetic studies may hold great promise, but much remains to be discovered about this illness. At this point, it is probably safe to say that multiple genetic deficits converge to give rise to schizophrenia.

The genetic risk for schizophrenia is shown in Box 27-9. Of particular interest to clinicians is the risk associated with having a parent afflicted with schizophrenia. Although the risk reaches 35% if both parents have schizophrenia, this higher incidence alone does not adequately address the debate of nature (genetics) versus nurture (upbringing). For instance, a mentally disordered parent might rear children inadequately to the extent that the children are predisposed to schizophrenia based on the parenting skills, not genetics.

To control the nurture variable, researchers have studied twins, both monozygotic (identical) and dizygotic (fraternal) twins. Monozygotic twins have consistently shown a higher concordancy rate (meaning both twins do or do not have symptoms of schizophrenia). Concordancy rates are 50% for monozygotic twins. This rate is 50 times higher than the risk for the general population, and it is three times higher than the risk for dizygotic twins.

These findings seem to establish the genetic or nature basis of schizophrenia; however, there are still extraneous variables that cannot be explained. For example, many monozygotic twins are dressed alike and often are misidentified; their upbringing might be identical, too. Some argue that it is no wonder that monozygotic twins have a high concordancy.
rate. Unless researchers can control the environmental variable, the relative impact of nature and nurture cannot be reported with confidence.

To control for the variable of environment, studies have been conducted of monozygotic twins who were separated at birth and reared apart. Monozygotic concordancy rates remained significantly higher in these studies.

**CRITICAL THINKING QUESTION**

2. Why do people with type I schizophrenia often evolve into type II schizophrenia?

**Perinatal Risk Factors.** Multiple nongenetic factors influence the development of schizophrenia. Some researchers believe that schizophrenia can be linked to prenatal exposure to influenza, birth during the winter, prenatal exposure to lead, minor malformations developing during early gestation, exposure to viruses from house cats, and complications of pregnancy, particularly during labor and delivery (Andreasen, 1999; McNeil, 1995; Opler et al, 2004; Talan 2001; Torrey and Yolken, 1995). The research about influenza epidemics is far from conclusive, but there is evidence that individuals with schizophrenia are more likely to have been born in the winter months. Research of cohorts conceived during devastating influenza epidemics has revealed a meaningfully higher incidence of schizophrenia in products (i.e., children) of conception during this time. Other researchers have suggested a high incidence of birth trauma and injury among individuals with schizophrenia. These studies suggest a relationship between schizophrenia and birth problems, particularly when adverse events occur during the second trimester of pregnancy (Roberts et al., 1993).

**Psychodynamic Theories**

Psychodynamic theories of schizophrenia focus on the individual’s responses to life events. The common theme of these theories is the internal reaction to life stressors or conflicts. These explanations include developmental and family theories. **Developmental Theories of Schizophrenia.** During the early part of the twentieth century, two men—Adolph Meyer and Sigmund Freud—held to the significance of developmental psychiatry. They believed that the seeds of mental health and illness are sown in childhood. An extension of their arguments is that events in early life can cause problems that are as severe as schizophrenia. Freudian concepts are still used meaningfully in discussions of schizophrenia. These include poor ego boundaries, fragile ego, ego disintegration, inadequate ego development, superego dominance, regressed or id behavior, love-hate (ambivalent) relationships, and arrested psychosexual development.

Two later developmental theorists whose work more directly explains schizophrenia are Erikson (1968) and Sullivan (1953). Erikson, who theorized an eight-stage model of human development, saw the first step, trust or mistrust, as crucial to later interpersonal relationships. The child who is deprived of a nurturing, loving environment or is neglected or rejected is vulnerable to mental disturbances. Inadequate passage through this stage predisposes the person to mistrust, isolated behaviors, and other asocial behaviors—the very behaviors found in schizophrenia. Therapeutic intervention focuses on the reestablishment of trust through consistent, anxiety-free relationships.

Sullivan, using different terms, expressed essentially the same ideas. The absence of warm, nurturing attention during the early years blocks the expression of these same affective responses in later years. Without this capacity, a person exhibits disordered social interactions, as well as other disturbances. These individuals learn to avoid interpersonal interactions because these interactions are painful.

**Family Theories of Schizophrenia.** Family theories of schizophrenia are linked naturally to developmental theories. If early life experiences are crucial in development, the argument is made that the family—the environment in which most people grow—is significant to the development of mental health or illness. Lack of a loving and nurturing primary caregiver, inconsistent family behaviors, and faulty communication patterns are thought to be responsible for mental problems in later life.

Outdated and harmful theories specifically tailored to the families of schizophrenic individuals were the schizophrenogenic mother theory and the double-bind theory. The word *schizophrenogenic* literally means “to cause schizophrenia.” Perhaps this definition has been the greatest single disservice of psychodynamic theories. Essentially, this notion states that the blame for schizophrenia can be placed on the mother. The double-bind theory described family practices in which the child was damned if he did and damned if he didn’t. An example often used was the child who was expected to do well in school but was criticized for taking time away from the family to study. Acocella (2000) captured some of the ideology behind these assertions:

*Psychoanalysis took a while to conquer the United States, but once it did, after the Second World War, its dominance was unquestioned, and its arrogance breathtaking. Schizophrenia, autism, and numerous other disorders were blamed on the mother, with no evidence, just utter certainty (p. 11).*

Geiser and associates (1988) noted that family theories were actually blame theories. Families have been viewed as causative agents, saboteurs of treatment, toxic influences, and as patients themselves. Sometimes, families have been treated with hostility and distrust. Because families bear the brunt of preprofessional and postprofessional care of these patients, it is important to work with families without alienating them.

While most professionals have abandoned these harmful notions, many laypeople still labor under these misconceptions. Hence, they are mentioned in this textbook.

**Clinical Example: Unbelievable but True**

Many of us think back to our childhood and remember birthday parties and games, such as hide and seek and baseball games. Al thinks back to his past and remembers molestation, cruelty, and punishment.
As noted earlier, schizophrenia is overrepresented among poor people. Individuals with schizophrenia tend to drift downward socioeconomically. This unenviable status enhances their vulnerability by exposing them to constant stressors. Box 27-10 lists some of the daily stressors confronted by poor, mentally ill people (Segal and Vander Voort, 1993).

**Student Example: The Straw That Broke…**

This situation is easily applied to you and your peers. Students who only need to deal with the stress of nursing school have it hard enough. Students who must deal with the stress of nursing school plus significant financial and family responsibilities have a heavier load to manage. When a surprise assignment or change in schedule comes along, the student who already has multiple stressors often has a more difficult time adjusting to school demands.

**SPECIAL ISSUES RELATED TO SCHIZOPHRENIA**

A number of special issues need to be clarified to help the student focus on the breadth of concerns involved in the psychiatric nursing care of patients with schizophrenia. Box 27-11 lists key objectives when working with patients and families.

**Co-Morbid Medical Illnesses**

There are many special issues related to schizophrenia, but the issue of most concern currently is the high concordance rate of other medical problems superimposed on schizophrenia.

**Vulnerability-Stress Model of Schizophrenia**

It is generally believed by most clinicians and researchers that schizophrenia has multifactorial causes, with many susceptibility genes interacting with numerous environmental factors to yield what is called schizophrenia (Keltner, 2005; Siever and Davis, 2004; Uhl and Grow, 2004). Dr. Thomas Insel (2004), Director of the National Institute of Mental Health, referred to it as a “perfect storm” of events. Suspected environmental influences have been previously discussed.

As previously stated, no single theory adequately answers the questions about the genesis of schizophrenia. The vulnerability-stress model addresses the variety of forces that cause schizophrenia in some cases and in other cases cause the broader schizophrenia spectrum problems of schizoaffective disorders and schizophrenia-related personality disorders. This model recognizes that both biologic (including genetic) and psychodynamic predispositions to schizophrenia, when coupled with stressful life events, can precipitate a schizophrenic process. According to this model, people with a predisposition to schizophrenia might (but not always) avoid serious mental disorder if they are protected from the stresses of life. Individuals with a similar vulnerability might succumb to schizophrenia if exposed to stressors. To illustrate the point, a wealthy person might be spared the brunt of some stressors because of wealth, whereas a poor member of society, struggling to meet basic needs, finds confrontation with stressors a daily event. According to this model, the poor person is more likely to display symptoms of schizophrenia.
schizophrenia. This is referred to as co-morbidity. About 50% to 60% of people with schizophrenia suffer a co-morbid condition (Chwastiak, et al., 2006; Batki, et al., 2009). Specifically a higher incidence of hypertension, diabetes, cardiovascular disease, and metabolic syndrome is found among these individuals (Newcomber, 2008). An overall life expectancy drop of about 20% has been consistently found in mortality studies among this diagnostic group (Allison, et al., 2009; Gittelman, 2008). All of this (i.e., poor health, premature death) is confounded and perpetuated by poor lifestyle choices. For example, it is clear from both the literature and personal experience that people with schizophrenia tend to be more sedentary, make poorer food choices (high fat, high carbohydrates), abuse substances at higher rates, and smoke more cigarettes than the general public (Vreeland, 2007). The metabolic syndrome, as noted, is a very serious issue among patients taking antipsychotic drugs. Chapter 18 addresses this issue in greater depth.

Families of Schizophrenic Individuals

As noted, families have often been blamed for the problems of individuals with schizophrenia. It is no wonder that some families are suspicious of professionals who might view the family as the villain, nor is it any wonder that many of these families have little desire to be studied.

Although research has substantiated the state of turmoil in these families, many clinicians argue that dysfunctional families are not the cause of schizophrenia but, rather, the result of having a family member with this illness (Ghosh and Greenberg, 2009). Nevertheless, once a family becomes destabilized, there is a high probability that the dysfunctional family will have a negative effect on the schizophrenic member.

Individuals with schizophrenia can be a disruptive influence on the family, particularly when they are noncompliant with prescribed medications or when they use mind-altering drugs. Although there is a consensus that negative features (e.g., emotionally overinvolved, hostile, critical) are present in many families of schizophrenic patients, it should be noted that these families are studied after schizophrenia has been identified—years after the family might have been disrupted by the illness. This observation leads to the chicken or egg question raised previously: do disruptive families cause individuals to have schizophrenia, or do individuals with schizophrenia cause families to become disruptive?

Although blame might be warranted in some family situations, in most cases it is not. Blaming the family leads to a sense of alienation between the family and treatment team. Nurses should remember that families bear the brunt of care outside the hospital. Most discharged psychiatric patients are sent home to live with their families; therefore, the family’s stake in the patient’s care is obvious. As time goes on, these families tend to become more and more isolated and feel more and more frustrated, helpless, and hopeless, even though they care very much about the patient.

Clinical Example: A Burned-out Family

Pete is 24 years old. At age 19, he began having symptoms that eventually led to a diagnosis of schizophrenia. Through several hospitalizations and outpatient treatment programs, he continued to live at home with his parents. Pete started having delusions that people were watching him. His paranoid thinking reached such levels that his presence in the home completely disrupted family life. Pete would barricade himself in his room, believed that his parents were part of a conspiracy to spy on him, and became physically violent on occasion. Two years earlier, after a fourth hospitalization, Pete’s parents informed the treatment team that he was no longer welcome in their home. They verbalized fear of Pete and worried about how he was affecting his younger siblings in the home. Although his parents live within 50 miles of Pete, they seldom visit.

Depression and Suicide in Schizophrenia

Depressive symptoms are frequently a part of the psychopathology of schizophrenia, with some studies suggesting that approximately 75% of schizophrenic patients experience depression (Lee, et al., 2009). These symptoms can occur at any time during the illness, including years after the acute phase, but they do respond to antidepressants. A related phenomenon is the high incidence of suicide (10%) among schizophrenic patients (American Psychiatric Association, 1997). Suicide is the leading cause of premature death in schizophrenia. There are three explanations for the high prevalence of depression (American Psychiatric Association, 1997):

1. Depression is a natural part of schizophrenia.
2. Depression is a reaction to schizophrenia.
3. The biologic nature of the disorder (i.e., schizophrenia is more than a dopamine problem) and the drugs used to treat it produce a depressive syndrome.

Cognitive Dysfunction

It is well-established that patients with schizophrenia suffer cognitive impairment. For example, memory, attention, and executive function are affected. Research has shown that cognitive deficits are a better predictor of declining abilities to engage in basic activities of daily living than are positive or negative symptoms (Velligan et al., 2000). Because cognitive ability directly influences so many aspects of successful living, it is important to discuss this aspect of schizophrenia. Traditional antipsychotics do not reduce cognitive symptoms and, in fact, might exacerbate them. For example, EPSes such as akinesia cause cognitive slowdown. Atypical agents are known to improve performance of some aspects of cognitive ability (Velligan et al., 2000).

Relapse

Nonadherence to medications and exposure to significant stressors are the most common causes of relapse. Obviously, psychoeducation aimed at these issues is important. Box 27-12 outlines strategies to help patients adhere to their drug regimen.
Stress
One of the three inescapable facts noted in the opening paragraph is the role of stress in onset and relapse. According to the vulnerability-stress model, people with schizophrenia are vulnerable to stress. Common stressors can be categorized as follows:
1. Biologic (e.g., medical illness)
2. Psychosocial (e.g., loss of a relationship)
3. Sociocultural (e.g., homelessness)
4. Emotional (e.g., persistent criticism)

The therapeutic mandate is to minimize the impact of stress on vulnerable individuals. The following two basic strategies are used:
1. Reducing stress and stressor accumulation
2. Developing coping skills

Because of their economic and social status, many individuals face major stressors routinely. Stated another way, some of those most vulnerable to stress have more stress to handle. Helping patients learn to identify and avoid stressful events is an important task for the psychiatric nurse.

Substance Abuse Among People with Schizophrenia
Substance abuse is the most common co-morbid psychiatric condition associated with schizophrenia, and it seems to be increasing. A high percentage of people with schizophrenia abuse alcohol, drugs, or both. Alcohol, marijuana, and cocaine account for most of the drugs abused. Unlike the general population, schizophrenic individuals have little chance of using alcohol in a social manner. This abuse might be related to an underdeveloped reward pathway in the brain (Anonymous, 2003).

Drug abuse has a negative effect on the treatment of these patients and is associated with poor outcomes. Once substance abuse begins, the individual is less likely to take medications and accept other treatments, and more likely to become hostile, violent, and suicidal (Anonymous, 2003). It probably accounts for the overrepresentation of schizophrenic individuals who are jailed. Alcohol, for example, causes disinhibition, aggressiveness, and poor judgment. These symptoms are already present in patients with severe mental illness. Furthermore, these very symptoms and related lack of social skills hinder patients with schizophrenia from fully benefiting from treatment programs such as Alcoholics Anonymous and Narcotics Anonymous.

Critical Thinking Question
3. Why do you think the rate of substance abuse is so high among individuals with schizophrenia?

Work
The lack of work, the inability to work, and the lack of a desire to work are all features of schizophrenia. Because work, or what one does for a living, is a major defining characteristic in this society, the fact that many people with schizophrenia do not work adds to their inability to fit in. The major problem confronting these individuals is not so much a lack of skill but an inability to cope on the job socially. Routine behaviors such as joking, inviting someone out, or having insight into the way one is affecting others are the major obstacles to a productive work life for the schizophrenic population.

Psychosis-Induced Polydipsia
Psychosis-induced polydipsia, or compulsive water drinking (between 4 and 10 L/day), is seen in 6% to 20% of patients with psychosis (American Psychiatric Association, 1997). The desire to drink probably occurs because of thirst and osmotic dysregulation; it is characterized by a compulsive approach to water ingestion. The major concern associated with polydipsia is hyponatremia. Hyponatremia causes lightheadedness, weakness, lethargy, muscle cramps, nausea and vomiting, confusion, convulsions, and coma. Treatment includes frequent weighings, restricted fluid intake, sodium replacement, and positive reinforcement.

Continuum of Care for People with Schizophrenia

Rather than starting to release patients in a few locales and measuring the outcome, officials implemented the policy in cities and counties across the United States virtually simultaneously, based on widespread hope that the new drugs would cure people and the widespread belief in state legislatures that the policy would save taxpayers money.


By “policy,” Torrey means deinstitutionalization, and, driven by this policy, an array of services, or a continuum of care, has developed. Most clinicians agree that a community setting is good for some patients and an institutional setting is better for others (Keltner, 2008). The continuum of care for people with schizophrenia includes the following (American Psychiatric Association, 1997):

- Acute symptoms—Hospitalization
- Treatment-resistant—Long-term hospitalization
- Stable but chronic—Day treatment
• Some level of supervision needed—if family is not able, then supportive housing including foster care, a board and care home, or a nursing home

**PSYCHOTHERAPEUTIC MANAGEMENT**

*Most schizophrenics go on for years struggling alone without anyone to help them become stronger than their symptoms.*

_P.J. Ruocchio (1989, p. 188)_

Think about Ruocchio’s statement specifically “...struggling alone without anyone to help them become stronger than their symptoms.” What an utterly profound insight. Remember it whenever you care for a patient with schizophrenia. Psychotherapeutic management is aimed at helping patients become stronger than their symptoms. The nursing interventions used in the treatment of patients with schizophrenia are derived from the appropriate development of the nursing care plan.

**Psychotherapeutic Nurse-Patient Relationship**

*Pharmacotherapy can improve some of the symptoms of schizophrenia but has limited effect on social impairments that characterize the disorder and limit functioning and quality of life.*

_N.A. Huxley and associates (2000, p. 187)_

Huxley has it right. Drugs can do a lot, but there is more to it than the old "diagnosis and adios" mentality in some agencies. The objective of the psychotherapeutic nurse-patient relationship is to build a therapeutic alliance with patients. A long-term relationship in which trust has developed is probably more significant and therapeutic than a particular theory of care. It is known that insight therapy has limited usefulness with this population, whereas less invasive modalities such as supportive therapy, problem solving, and social skills training that focus on behavior and not meaning are more helpful. Long-term, trusting relationships yield better compliance with medications and better outcomes with psychological resources.

The objective of this section is to provide basic concepts for working with patients with schizophrenia. General principles for developing a therapeutic nurse-patient relationship are presented. In addition, the Key Nursing Interventions for Developing the Therapeutic Nurse-Patient Relationship box lists some of these specific principles, as well as some patient comments that the student might encounter. Examples of therapeutic responses by the nurse are also given.

General principles for developing a therapeutic nurse-patient relationship include the following:

- Be calm when talking to patients. *Rationale: Anxiety is contagious and counterproductive when working with patients who have schizophrenia.*
- Accept patients as they are, but do not accept all behaviors. *Rationale: Everyone wants to be accepted. The focus is on behaviors, which communicates very directly that behaviors can change.*
- Be consistent. *Rationale: Consistency increases trust.*
- Do not reinforce hallucinations or delusions. *Rationale: The nurse should simply state his or her perception of reality, voice doubt about the patient’s perceptions, and move on to discuss real people or events.*
- Do not touch patients without warning them. *Rationale: Patients who are suspicious might perceive a touch as a threat and retaliate.*
- Avoid whispering or laughing when patients are unable to hear all of a conversation. *Rationale: Have you ever wondered whether you were the subject of discussion when you were around people who whisper or giggle? Suspicious patients will interpret these actions as a personal affront.*
- Reinforce positive behaviors. *Rationale: Appropriate reinforcement can increase positive behaviors.*
- Avoid competitive activities with some patients. *Rationale: Competition is threatening and can lead to decreased self-esteem.*
- Do not embarrass patients. *Rationale: Persons with schizophrenia often avoid contacts because they fear embarrassment.*
- For withdrawn patients, start with one-to-one interactions. *Rationale: Even in group situations, it is probably most therapeutic for interactions to be a series of nurse-patient interactions rather than patient-patient interactions. Nurse-patient interactions are less threatening to*
patients and can evolve into a wider circle of social interaction.

- Allow and encourage verbalization of feelings. Rationale: Patients are helped if they can say what they think without the nurse becoming defensive.

**Psychopharmacology**

Lieberman (1997) compared the discovery of antipsychotic drugs to the discovery of insulin. Undoubtedly, the development of this class of medications revolutionized mental health treatment. The student is encouraged to review Chapter 18, which provides a complete discussion of antipsychotic drugs.

Schizophrenic patients need to take their antipsychotic drugs as prescribed, but many do not. Box 27-12 lists some strategies to promote compliance. A review of major side effects is found in Box 27-13. (For a full review of these side effects, see Chapter 18.) Because of racial and ethnic variation, Asians and Hispanics with schizophrenia might need a lower dosage of antipsychotic medications than Caucasians to achieve the same blood levels (U.S. Surgeon General, 1999).

**KEY NURSING INTERVENTIONS**

for Developing the Therapeutic Nurse-Patient Relationship

The following are specific interventions and examples for developing a therapeutic nurse-patient relationship, including examples of appropriate responses. These examples are meant to illustrate some of the common situations described in the text. Obviously, each patient is unique, and that uniqueness might necessitate a variation of the response suggested below.

<table>
<thead>
<tr>
<th>INTERVENTION</th>
<th>RATIONALE</th>
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<tbody>
<tr>
<td>Do not argue about delusions.</td>
<td>Arguing tends to reinforce delusions and can make patients angry. Reflect reality, and attempt to distract patients in a matter-of-fact manner.</td>
</tr>
<tr>
<td>Patient: The FBI and the Mafia are both after me.</td>
<td>Nurse: I know your thoughts seem real to you; however, it does not seem reasonable to me. I also want you to know that you are safe here. Let’s go into the dayroom and talk.</td>
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<tr>
<td>Proceed to talk about occupational therapy efforts (or a similar topic) that focus on the patient’s real world.</td>
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<tr>
<td>Do not reinforce hallucinations.</td>
<td>Patient: The voices are calling me terrible names.</td>
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<tr>
<td>Nurse: I do not hear anything but your voice and mine.</td>
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<tr>
<td>Patient’s behavior: Looks around the room, eyes darting to the corners of the room.</td>
<td></td>
</tr>
<tr>
<td>Nurse: It looks like you might be listening to something. Are you hearing voices?</td>
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<tr>
<td>This effort might lead to identifying and avoiding triggering events.</td>
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<tr>
<td>Patient: Nurse, I started hearing the voices last night right after I went to bed.</td>
<td></td>
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<tr>
<td>Nurse: Tell me about your evening last night. There might be a link between something that happened and your hearing voices again.</td>
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<tr>
<td>Focus on real people and real events.</td>
<td>This helps patients stay in touch with reality.</td>
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<tr>
<td>Patient: I keep hearing the voices.</td>
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<tr>
<td>Nurse: I understand, but I want to help you focus away from those voices. Let’s go to the dayroom and talk.</td>
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<tr>
<td>Proceed to bring patients closer to reality by talking about daily life.</td>
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<tr>
<td>Be diligent in attempting to understand patients.</td>
<td>It is therapeutic to help patients communicate what they want to say; however, use good judgment. Pushing too hard to understand can be frustrating for the patient.</td>
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<tr>
<td>Patient: I could have been bitten. It was never a dog’s day.</td>
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<tr>
<td>Nurse: I am not sure what you are saying, but I want to understand. Are you talking about almost being hurt?</td>
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<tr>
<td>Attempt to balance siding with inappropriate behavior and crushing a fragile ego.</td>
<td>Time and effort help the nurse learn to negotiate artfully between these potentially negative outcomes.</td>
</tr>
<tr>
<td>Patient: I am going to hit that bastard if he says another word to me.</td>
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</tr>
<tr>
<td>Nurse: I know you are upset with him. Let’s talk about other ways you can deal with this situation.</td>
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<tr>
<td>If a patient is acting odd and the nurse suspects he or she is hallucinating, the patient should be asked about it. Help patients to identify the stressors that might precipitate hallucinations or delusions.</td>
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**BOX 27-13 REVIEW OF MAJOR SIDE EFFECTS OF ANTIPSYCHOTIC DRUGS**

- Dopamine D₂ blockade in nigrostriatal tract, causing EPSEs:
  - Parkinsonism
  - Akathisia
  - Dystonias
  - Neuroleptic malignant syndrome
  - Pisa syndrome
- Muscarinic blockade in parasympathetic systems, causing anticholinergic effects:
  - Dry mouth
  - Blurred vision
  - Constipation
  - Urinary hesitation
  - Tachycardia
- Hypersensitivity to dopamine in nigrostriatal tract, causing tardive dyskinesia
- Elevated prolactin related to dopamine blockade in tuberoinfundibular tract, causing amenorrhea, galactorrhea, impotency, and decreased libido
- Histamine blockade, causing sedation
- Alpha-1 blockade, causing orthostatic hypotension
Milieu Management

Milieu management is an important dimension of the psychiatric nursing care of schizophrenic patients. With the dramatic introduction of psychotropic drugs in the 1950s, other forms of treatment were abandoned. Now that psychopharmacologists have had free reign for many years, it is clear that drugs alone are not enough. A therapeutic treatment approach is best developed with all three components of psychotherapeutic management in place.

Therapeutic manipulation of the environment can occur at both the inpatient and outpatient levels and helps patients function better. As a rule of thumb, low-intensity, calm environments benefit patients with schizophrenia. General principles that specifically address the environment of schizophrenic patients follow.

For disruptive patients:
• Set limits on disruptive behavior.
• Decrease environmental stimuli. For example, many nurses find that soft or classical music calms an environment, whereas hard rock or rap music creates agitation.
• Frequently observe escalating patients to intervene. Intervention (e.g., medication) before acting out occurs protects patients and others physically and prevents embarrassment for escalating patients.
• Modify the environment to minimize objects that can be used as weapons. Some units use furniture so heavy that it cannot be lifted by most people.
• Be careful in stating what the staff will do if a patient acts out; however, follow through once a violation occurs (e.g., “If you break the window, we will place you in restraints”).
• When using restraints, provide for safety by evaluating the patient’s status of hydration, nutrition, elimination, and circulation.

For withdrawn patients:
• Arrange nonthreatening activities that involve these patients in doing something—for example, a walking tour of a park and painting.
• Arrange furniture in a semicircle or around a table, which forces patients to sit with someone. Interactions are permitted in this situation, but should not be demanded. Sit in silence with patients who are not ready to respond. Some will move the chair away despite the nurse’s efforts.
• Help patients to participate in decision making as appropriate.
• Reinforce appropriate grooming and hygiene.
• Provide psychosocial rehabilitation—that is, training in community living, social skills, and health care skills.

For suspicious patients:
• Be matter-of-fact when interacting with these patients.
• Staff members should not laugh or whisper around patients unless the patients can hear what is being said. The nurse should clarify any misperceptions that patients have.
• Do not touch suspicious patients without warning. Avoid close physical contact.
• Be consistent in activities (time, staff, approach).
• Maintain eye contact.

For hallucinations:
• Attempt to provide distracting activities.
• Discourage situations in which patients talk to others about their disordered perceptions.
• Monitor television selections. Some programs seem to cause more perceptual problems than others (e.g., horror movies).
• Monitor for command hallucinations that might increase the potential for patients to become dangerous.
• Have staff members available in the dayroom so that patients can talk to real people about real people or real events.

For disorganized patients:
• Remove disorganized patients to a less stimulating environment.
• Provide a calm environment; the staff should appear calm.
• Provide safe and relatively simple activities for these patients.

Case Study

The police bring Bill, a 25-year-old man, to the hospital. He was in a downtown bus station preaching loudly. He states in the emergency room that he had spoken to God and that God had told him to save San Francisco. He admits to hearing both God and Satan arguing and is terrified at times. In talking with his family, staff members discover that Bill was a solid student until about a year ago. He began to struggle in school but continued to pass his course work. He dropped out of school 3 months ago. His family believes his problem started when his girlfriend of 4 years broke off their engagement.

Bill began hearing voices a couple of weeks ago, according to his family, but the family lost contact with him until they were notified of this hospitalization. Bill’s family is committed to helping him. On admission to the unit, Bill is oriented to time, place, and person, but states: “God has chosen me to be his special angel. I must save the sinners of San Francisco.” Bill then stands up and turns his head rapidly from side to side. When asked why, he says: “God and Satan are arguing about what I should do.”

(See the nursing care plan for Bill Wilson on p. 264.)

OTHER PSYCHOTIC DISORDERS

In addition to schizophrenia, several other psychotic disorders are described in the DSM-IV-TR with which the student should be familiar. Interventions for these disorders are directed at prominent symptoms and are the same as the interventions used for the symptoms of patients with schizophrenia.

Schizoaffective Disorder

Schizoaffective disorder is a psychosis characterized by both affective (mood disorder) and schizophrenic (thought disorder) symptoms, with substantial loss of occupational and
social functioning. Because this disorder is a hybrid of two disorders believed to have different biochemical origins, schizoaffective disorder is somewhat of a puzzle to many clinicians. Affective disorders cause people to be extremely depressed or elated, and schizophrenia is expressed as positive, negative, or even disorganized symptoms. The fact that patients with affective disorders can experience positive and negative symptoms, plus the fact that patients with schizophrenia experience mood changes, partially explains the difficulty in diagnosis. The diagnosis of schizoaffective psychosis helps bridge the gap between the affective disorders and schizophrenia.

In this disorder, schizophrenic symptoms are dominant but are accompanied by major depressive or manic symptoms. Patients with schizoaffective disorder will have experienced delusions or hallucinations in the absence of a prominent mood disturbance, but symptoms of a mood disorder are present for a significant period. The prognosis for schizoaffective disorder is better than that for schizophrenia but significantly less optimistic than the prognosis for mood disorders (American Psychiatric Association, 1997).

**Case Study**
A 40-year-old woman with a history of multiple admissions is admitted to the floor. Emma Rice was found wandering downtown incoherent and disheveled. During the assessment interview, Emma is noted to have a flat affect and is withdrawn. She reports not seeing her family for 5 years and cannot remember when she last held a job. There is no history of hallucinatory or delusional thought content in this recent occurrence. The staff knows Emma and knows that, during past admissions, she has responded to the less expensive haloperidol. After admission, Emma says, "Let me go. Go on, onward, backward. (pause) Emma hide, died." When asked where she lives, Emma slowly responds, "Over there, somewhere, anywhere, nowhere." Emma’s board and care operator knows her well and has indicated that a bed is being held for Emma.

(See the nursing care plan for Emma Rice on p. 264.)

**Clinical Example**
Patty is a 42-year-old Caucasian woman who was referred to the county mental health department by her sister after Patty had attempted suicide by combining a large number of benzodiazepines with a six-pack of beer. Patty states that most of her “mental” problems began when she became pregnant at age 18. At the time, she was unmarried and alienated from her parents. Patty raised her young daughter, Billie, alone until she eventually married another man. At age 25, Patty became pregnant again and gave birth to a son. Her husband, an alcoholic, had abused Patty to some extent, but the abusive behavior became more frequent and more severe as Patty entered her early thirties. There had been suspicion that he had sexually abused Billie, but nothing conclusive was documented. Patty and her husband divorced when the boy was 7 years old. The court awarded the child to the husband. Today, Patty has little contact with her daughter, son, ex-husband, or parents. She frequently has auditory hallucinations telling her to kill herself and has nightmares about killing her son and ex-husband. She attends a day treatment program 5 days a week and lives in a one-bedroom apartment alone. Patty is very sad and always looks at the floor. She is consumed with guilt. She does not initiate conversation with others at the day treatment program. She states that she continues to hear voices and thinks about suicide all the time.

**Delusional Disorder**
People with delusional disorder display symptoms similar to those seen in patients with schizophrenia. However, substantial differences exist and necessitate a diagnostic differentiation. The following symptoms differentiate delusional disorders from schizophrenic disorders:

- Delusions have a basis in reality.
- The patients have never met the criteria for schizophrenia.
- The behavior of these patients is relatively normal except in relation to their delusions.
- If mood episodes have occurred concurrently with delusions, their total duration has been relatively brief.
- The symptoms are NOT the direct result of a substance-induced or medical condition.

**Brief Psychotic Disorder**
The category of brief psychotic disorder includes all psychotic disturbances that last less than 1 month and are not related to a mood disorder, a general medical condition, or a substance-induced disorder (American Psychiatric Association, 2001). At least one of the following psychotic disturbances must be present: delusions, hallucinations, disorganized speech, or grossly disorganized or catatonic behavior. The DSM-IV-TR cautions against applying these standards to people from a culture in which they are exhibiting acceptable behavior.

**Schizophreniform Disorder**
Schizophreniform disorder displays symptoms that are typical of schizophrenia and last at least 1 month but no longer than 6 months. This cautious approach spares the individual the lifelong diagnosis of schizophrenia until professionals are absolutely sure of the diagnosis.

**CRITICAL THINKING QUESTION**

4. If a first-degree relative of yours suffered from schizophrenia, what behavior might cause you to refuse to live with that person?

**FUTURE DIRECTIONS**
An evolving and interesting area of research focuses on early identification and intervention in schizophrenia. The National Institute of Mental Health, the primary source of funding for neuroscientific studies of mental illness, has made this a funding priority. It has long been known that early treatment of schizophrenia symptoms results in better outcomes. Similarly, there is some indication that identifying the prodromal manifestations of schizophrenia might alter the course of illness. The ability to offer screening tests such as blood tests, brain imaging, and checking for simple but often overlooked signs such as impaired smell and eye tracking offers the hope of reducing the disabling effects of schizophrenia. Box 27-14 lists some behavioral early warning signs of schizophrenia. If several of these signs are present in
### CARE PLAN

**Name:** Bill Wilson  
**DSM-IV-TR Diagnosis:** Schizophrenia: undifferentiated type  
**Admission Date:**

**Areas of strength:** Past accomplishments; past good heterosexual interpersonal relationships (IPRs); alert, oriented to time, place, person; acute symptoms respond to medications; family support.

**Problems:** Religious hallucinations, religious delusions, thought disorder; broken engagement; dropped out of school.

**Outcomes**

**Short-term goals**

- Patient will voice freedom from hallucinations.  
- Patient will report lack of fear of others.  
- Patient will discuss feelings about loss of girlfriend.

**Long-term goals**

- Patient will return to school in September.

**Planning/Interventions**

**Nurse-patient relationship:** Do not reinforce hallucinations and delusions; voice doubt; encourage identification of strengths and accomplishments; encourage expression of feelings about broken engagement; discuss plans for immediate future.

**Psychopharmacology:** Zyprexa 10 mg qd.

**Milieu management:** Provide distracting activities; monitor television, particularly religious programming and movies with satanic themes; encourage participation in self-esteem and anger management groups.

**Evaluation**

Patient responding to Zyprexa.

**Referrals**

Will see Ms. White, RN, CS, once a week as outpatient. Appointment in 3 weeks with R. Jones for education counseling.

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### CARE PLAN

**Name:** Emma Rice  
**DSM-IV-TR Diagnosis:** Schizophrenia, disorganized type  
**Admission Date:**

**Areas of strength:** Board and care operator knows Emma well and wants her back. Staff knows and understands Emma.

**Problems:** Affective flattening, loose associations, withdrawn, chronic course of illness, no family support.

**Outcomes**

**Short-term goals**

- Patient will talk in coherent manner.  
- Patient will carry out ADLs.  
- Patient will participate in nonthreatening activities.

**Long-term goals**

- Patient will maintain outpatient program.  
- Patient will return to board and care.  
- Patient will comply with medication regimen.

**Planning/Interventions**

**Nurse-patient relationship:** Be patient; treat as adult; encourage hygiene and appropriate dress; reinforce positive social behaviors; start with one-to-one interactions with nurse, and then encourage independent social behaviors.

**Psychopharmacology:** Haldol 5 mg bid PO (concentrate). Might need long-acting form on discharge.

**Milieu management:** Start patient in occupational therapy by the end of the week; invite patient to sit with staff and other patients; encourage her to make decisions about meals or some other simple tasks; provide resocialization group experience and community living education.

**Evaluation**

Patient stabilized on medications.

**Referrals**

Will see Ms. Brown, RN, CS, once a week and will attend outpatient resocialization group five times a week. Board and care operator will monitor drugs and arrange transportation.
a young person, it behooves the nurse, even if just a neighbor, to suggest professional evaluation. As stated, the earlier the better.

**STUDY NOTES**

1. The concept of schizophrenia has evolved over the last 100 years or as a result of the contributions of early theorists, such as Kraepelin and Bleuler, and modern theorists, such as Andreasen, Insel, Weinberger, and Torrey.
2. The *DSM-IV-TR* identifies five subtypes of schizophrenia: (1) catatonic, (2) disorganized, (3) paranoid, (4) undifferentiated, and (5) residual.
3. Bleuler identified what he thought to be the four primary symptoms of schizophrenia: (1) affective disturbances, (2) loose associations, (3) ambivalence, and (4) autism (also known as Bleuler’s four A’s).
4. Andreasen (Andreasen and Olsen, 1982), Crow (1982), and others have conceptualized schizophrenia as having only two subtypes: type I (positive symptoms and usually treatable with traditional antipsychotic drugs) and type II (negative symptoms). Some researchers have added another subtype labeled as disorganized.
5. Objective signs of schizophrenia include alterations in personal relationships and activity.

**PRINCIPLES OF PSYCHOTHERAPEUTIC MANAGEMENT**

**Nurse-Patient Relationship Principles**
Focus on behavior, not meaning.
A long-term relationship is most therapeutic.
Accept patient but not all behaviors.
Be consistent.
Do not reinforce hallucinations and delusions.
Avoid whispering or laughing if patient cannot hear all of conversation.

**Psychotropic Drugs**

**Traditional Antipsychotics**
Haloperidol (Haldol)
Fluphenazine (Prolixin)
Chlorpromazine (Thorazine)

**Atypical Antipsychotics**
Clozapine (Clozaril)
Risperidone (Risperdal)
Olanzapine (Zyprexa)
Quetiapine (Seroquel)
Ziprasidone (Geodon)
Aripiprazole (Abilify)

**Milieu Management Principles**
Modify environment to decrease stimulation and for safety.
Staff consistency is crucial.
Arrange environment to reduce withdrawn behavior.
Monitor television watching.
Protect patients’ self-esteem.

**BOX 27-14  EARLY WARNING SIGNS OF SCHIZOPHRENIA**

| Deterioration of personal hygiene |
| Depression |
| Bizarre behavior |
| Irrational statements |
| Sleeping excessively or inability to sleep |
| Social withdrawal, isolation, and reclusiveness |
| Shift in basic personality |
| Unexpected hostility |
| Deterioration of social relationships |
| Hyperactivity or inactivity, or alternating between the two |
| Inability to concentrate or to cope with minor problems |
| Extreme preoccupation with religion or with the occult |
| Excessive writing without meaning |
| Indifference |
| Dropping out of activities or out of life |
| Decline in academic or athletic interests |
| Forgetting things |
| Losing possessions |
| Extreme reactions to criticisms |


6. Subjective symptoms of schizophrenia include alterations in perception, thought, consciousness, and affect.
7. Causative theories for schizophrenia are numerous and include both biologic theories (dopamine hypothesis, pathoanatomy, and genetic theories) and psychodynamic theories (developmental and family theories).
8. The dopamine hypothesis—that schizophrenia is a result of increased bioavailability of dopamine in the brain—is a widely held theory of the cause of schizophrenia.
9. Antipsychotic drugs block dopamine receptors and relieve acute symptoms of schizophrenia.
10. Nursing interventions include developing a therapeutic nurse-patient relationship. Several general principles underlie the nurse’s interactions with patients who have schizophrenia. These principles include being calm, accepting, dependable, consistent, and honest.
11. In addition to these basic principles, several basic interventions are therapeutic for most patients with schizophrenia. These basic interventions include what the nurse should not do: do not reinforce hallucinations and delusions, do not touch patients without warning, do not whisper or laugh when patients cannot hear the conversation, do not compete with patients, and do not embarrass patients; and what the nurse should do: provide reality testing, assist with orientation when appropriate, reinforce positive behaviors, and encourage verbalization of feelings.
12. Psychopharmacology is an important part of the nurse’s role in caring for patients with schizophrenia. Understanding the importance of adherence to the medication regimen is critical.
13. Nurses are typically responsible for the environment. Strategies for working with disruptive, withdrawn, suspicious, and disorganized patients are crucial for developing a therapeutic environment.

14. Other psychoses listed in the DSM-IV-TR include schizoaffective disorder, delusional disorder, brief psychotic disorder, and schizophreniform disorder.

REFERENCES