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## 9.2

# SCHIZOPHRENIA

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**Schizophrenia** is the most severe and debilitating of the Schizophrenia Spectrum and Other Psychotic Disorders included in DSM-5. It is characterized by a range of cognitive, behavioral, and emotional dysfunctions that include impairments in perception, inferential thinking, fluency and productivity of thought and speech, behavioral monitoring, cognition, and the ability to express emotions and be motivated. To meet criteria for a diagnosis of Schizophrenia, the syndrome must persist for at least 6 months, at least 1 month of which is characterized by particularly severe and impairing symptoms known as the *active-phase symptoms*. Moreover, the symptoms must be severe enough to have had a significantly negative impact on the person's psychosocial functioning in terms of maintenance and quality of employment, interpersonal relations, or academic achievement. No single symptom by itself is indicative of Schizophrenia; the diagnosis involves the recognition of a constellation of signs and symptoms associated with impaired psychosocial functioning.

The characteristic active-phase symptoms may be thought of as falling into two broad categories: positive symptoms, which reflect an excess or distortion of normal mental functions; and negative symptoms, which reflect a diminution or loss of normal mental function. The *positive symptoms* include delusions (which can be understood as distortions or exaggerations of inferential thinking), hallucinations (distortions in perception), disorganized speech (distortions in language, communication, and thought processes), and grossly disorganized or catatonic behavior (distortions in behavioral monitoring). *Negative symptoms* in Schizophrenia include avolition (restrictions in the initiation of goal-directed behavior) and diminished emotional expression (restrictions in the range and intensity of emotions). At least two such symptoms present for a significant amount of time during the same 1-

month period are required for the diagnosis (as long as at least one of the symptoms is a delusion, a hallucination, or disorganized speech; if the two symptoms are disorganized behavior and negative symptoms, the criteria for Schizophrenia are not met). Given the large number of combinations of symptoms that can justify a diagnosis of Schizophrenia, there is tremendous heterogeneity in the diagnosis—patients with Schizophrenia can have widely different presentations with the only common feature being the persistence of the symptoms and their negative impact on psychosocial functioning.

Many individuals go through an early phase (known as the *prodromal phase*) which is a forerunner to the first active phase of the illness (sometimes referred to as the *first psychotic break*), and most individuals with Schizophrenia go through *residual phases* in between active phases. These prodromal and residual phases consist of milder versions of the positive symptoms as well as negative symptoms. For example, some individuals during prodromal or residual phases may have unusual perceptual experiences, such as sensing the presence of an unseen force. Others may express a variety of odd or unusual beliefs that are not so firmly held by the person so as to be considered delusions, such as a person's having a strong feeling that other people are conspiring to harm him or her.

Although some mood symptoms such as depression, irritability, and expansive mood may occur at times in patients with Schizophrenia, such symptoms are present for a minority of time during the whole disturbance. Otherwise, the diagnosis would be Schizoaffective Disorder (see Section 2.3).

Drugs and medical conditions can cause hallucinations and delusions: a diagnosis of Schizophrenia should not be made if the psychotic symptoms are in fact a manifestation of drug use or if they are due to a general medical condition such as a brain tumor or hyperthyroidism. Given that individuals with Schizophrenia Spectrum and Other Psychotic Disorders often abuse drugs (especially cannabis), it is important to determine whether psychotic symptoms are the result of drug use (i.e., a Substance/Medication-Induced Psychotic Disorder) and thus not indicative of a diagnosis of Schizophrenia (see Section 2.7 for a discussion of how to make this determination). Similarly, if the psychotic symptoms are a manifestation of an underlying medical condition, the diagnosis is Psychotic Disorder Due to Another Medical Condition rather than Schizophrenia. Clues that the psychotic symptoms may be due to a general medical condition include a close temporal relationship between the onset (and offset) of the psychotic symptoms and the course of the general medical condition and atypical features such as a late age at onset.

Even though cognitive impairment is not among the defining symptoms of Schizophrenia, it is common in Schizophrenia and is strongly linked to academic (school) and occupational (work) impairment. Individuals with Schizophrenia tend to have problems with attention and memory, especially with regard to planning and organization to achieve a goal. They also often lack insight into the fact that they

have a mental illness. Issues with cognitive impairment, attention, memory, and lack of insight can make the treatment of the person with Schizophrenia quite challenging because these features can lead to nonadherence with a medication regimen, the mainstay of treatment.

Schizophrenia affects between 0.3% and 0.7% of the population and occurs slightly less often in females than in males. Prodromal symptoms of Schizophrenia commonly occur in the teenage years, but the psychotic features of Schizophrenia typically emerge between the late teens and early 30s and tend to be earlier for males (peak onset in early 20s) than females (peak onset in late 20s.). Although onset before adolescence is rare, cases do occur in young children.

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## UNDER SURVEILLANCE

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Arthur Stanton is a 44-year-old single, unemployed white man brought into the emergency room by the police for striking an elderly woman in his apartment building. He stated, “That damn bitch—she and the rest of them deserved more than that for what they put me through.”

He has been continuously ill since age 22. During his first year of law school, he gradually became more and more convinced that his classmates were making fun of him. He noticed that they would snort and sneeze whenever he entered the classroom. When a girl he was dating broke off her relationship with him, he believed that she had been “replaced” by a look-alike. He called the police and asked for their help to solve the “kidnapping.” His academic performance in school declined dramatically, and he was asked to leave and seek psychiatric care.

Mr. Stanton got a job as an investment counselor at a bank, which he held for 7 months. While working in that position, he had been getting an increasing number of distracting “signals” from coworkers, and he became more and more suspicious and withdrawn. It was during this time that he first reported hearing voices. He was eventually fired and soon thereafter was hospitalized for the first time, at age 24. He has not worked since.

Mr. Stanton has been hospitalized 12 times, the longest stay being 8 months. However, in the last 5 years he has been hospitalized only once, for 3 weeks. During the hospitalizations, he has received various antipsychotic medications. Outpatient medication has been prescribed, but he usually stops taking it shortly after leaving the hospital. Aside from twice-yearly lunch meetings with his uncle and his contacts with mental

health workers, he is totally isolated socially. He lives on his own, cooking and cleaning for himself, and manages his own financial affairs, including a modest inheritance. He reads the *Wall Street Journal* daily.

Mr. Stanton maintains that his apartment is the center of a large communication system that involves all of the major TV networks, his neighbors, and apparently hundreds of “actors” in his neighborhood. There are secret cameras in his apartment that carefully monitor all of his activities. When he is watching TV, many of his minor actions (e.g., going to the bathroom) are soon directly commented on by the announcer. Whenever he goes outside, the “actors” have all been warned to keep him under surveillance. Everyone on the street watches him. His neighbors operate two different “machines”; one is responsible for all of his voices except the “joker.” He is not certain who controls this voice, which “visits” him only occasionally and is very funny. The other voices, which he hears many times each day, are generated by this machine, which he sometimes thinks is directly run by the neighbor whom he attacked. For example, when he is going over his investments, these “harassing” voices constantly tell him which stocks to buy. The other machine, which he calls “the dream machine,” puts erotic dreams into his head, usually of “black women.”

Mr. Stanton describes other unusual experiences. For example, he recently went to a shoe store 30 miles from his house in the hope of getting some shoes that would not be “altered.” However, he soon found out that like the rest of the shoes he buys, special nails had been put into the bottom of the shoes to annoy him. He was amazed that his decision concerning which shoe store to go to must have been known to his “harassers” before he himself knew it, so that they had time to get the altered shoes made up especially for him. He realizes that great effort and “millions of dollars” are involved in keeping him under surveillance. He sometimes thinks this is all part of a large experiment to discover the secret of his “superior intelligence.”

At the interview, Mr. Stanton is well-groomed and his speech is coherent and goal directed. His affect is only mildly blunted. He was initially very angry at being brought in by the police. After several weeks of treatment with an antipsychotic medication failed to control his psychotic symptoms, he was transferred to a long-stay facility with the plan to arrange a structured living situation for him.

#### *Discussion of “Under Surveillance”*

Mr. Stanton’s long illness, characterized by multiple hospitalizations for Schizophrenia, apparently began with delusions of reference (his classmates making fun of him by snorting and sneezing when he entered the classroom). Over the years, his delusions have become increasingly complex and bizarre (his neighbors are actually actors; his thoughts are monitored; a machine puts erotic dreams in his head). In addition, he has prominent hallucinations of different voices that harass him. Given that all of the required elements of Schizophrenia are present (i.e., delusions and hallucinations lasting for over 20

years, severe impairment in Mr. Stanton's ability to work or develop interpersonal relationships with others, and absence of a sustained mood disturbance or another medical condition or substance that can account for the disturbance), the diagnosis of Schizophrenia is made (DSM-5, p. 99).

As noted in the beginning of the case, Mr. Stanton's Schizophrenia resulted in violence. As a consequence of Mr. Stanton's delusion that his elderly neighbor was operating the machine that caused him to hear voices, he assaulted her to get her to turn off the machines. If the neighbor had decided to press charges against Mr. Stanton, it is likely that he would end up being judged to have diminished capacity to make rational decisions or to exert control over his behavior as a result of his delusions and, depending on the legal standard in the state in which he is tried, may not have been held criminally responsible for his behavior. Although individuals with Schizophrenia are significantly more likely to be violent than other members of the general population, the proportion of societal violence attributable to Schizophrenia is actually quite small (less than 5%).