

CHAPTER 12. SCHIZOPHRENIA

12.7 SCHIZOPHRENIA: CLINICAL FEATURES

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The major public health problem faced by psychiatry is the group of disorders that constitutes the diagnostic category of schizophrenia. These disorders affect approximately 1 percent of the population and most commonly have their onset in early adult life. More importantly, they usually leave the patient with varying degrees of cognitive, affective, and psychosocial impairment. This combination of impairments prevents most patients from achieving their full potential. In all known societies, adulthood is defined in terms of work and procreation. Individuals diagnosed with schizophrenia are frequently unable to perform the complex work tasks seen in the industrialized nations. The more severely impaired are not even able to perform the simpler work tasks associated with developing nations. Interpersonal relationships are frequently impaired enough to prevent courtship and subsequent marriage and procreation. The result is that people with these disorders are denied the social and personal benefits of adulthood to a considerable degree.

No objective criteria exist for the diagnosis of schizophrenia. No characteristic morphological changes in the brains of patients with schizophrenia have been demonstrated; no specific laboratory findings signal its presence; no consistent premorbid history, course, or outcome can be ascertained; and no single cause is known. However, a group of symptoms and signs are basic to and characteristic of schizophrenia; certain drugs, many with a common neurophysiological property, can often eliminate those symptoms almost selectively, and there is enough consensus about its diagnosis, treatment, and prognosis among experienced clinicians to warrant the acceptance of the concept of schizophrenia as a syndrome.

HISTORY

Emil Kraepelin Emil Kraepelin (Fig. 12.7-1) translated Benedict A. Morel's *démence précoce* to *dementia praecox*, a term that emphasized the distinct cognitive process (dementia) and early onset (praecox) of the disorder. Patients with dementia praecox were described as having a long-term deteriorating course and the common clinical symptoms of hallucinations and delusions. Kraepelin distinguished these patients from those classified as having manic-bipolar psychosis who underwent distinct episodes of illness alternating with periods of normal functioning. The major symptoms of patients with paranoia were persistent persecutory delusions, and these patients were described as

lacking the deteriorating course of dementia precox and the intermittent symptoms of manic-depressive psychosis. Although Kraepelin had acknowledged that about 4 percent of his patients recovered completely and 13 percent had significant remissions, later researchers sometimes mistakenly stated that he had considered dementia precox to have an inevitable deteriorating course.

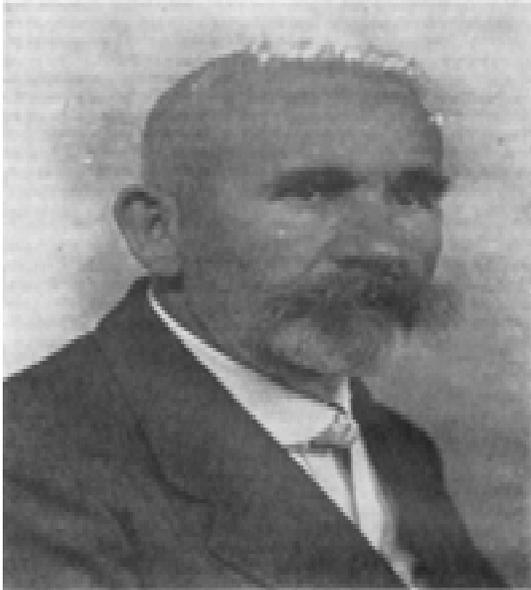


FIGURE 12.7-1 Emil Kraepelin, 1856–1926. (Courtesy of National Library of Medicine, Bethesda, MD.)

Eugen Bleuler Eugen Bleuler (Fig. 12.7-2) coined the term *schizophrenia*, which replaced *dementia precox* in the literature. He chose the term to express the presence of schisms between thought, emotion, and behavior in patients with the disorder. Bleuler stressed that, unlike Kraepelin's concept of dementia precox, schizophrenia need not have a deteriorating course. Before the publication of the third edition of *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III), the incidence of schizophrenia increased in the United States (where psychiatrists followed Bleuler's principles) to perhaps as much as twice the incidence in Europe (where psychiatrists followed Kraepelin's principles). After publication of DSM-III, the diagnosis of schizophrenia in the United States moved toward Kraepelin's concept. Bleuler's term *schizophrenia*, however, has become the internationally accepted label for the disorder. This term is often misconstrued, especially by laypeople, to mean split personality. Split personality, now called *dissociative identity disorder*, is categorized in the fourth edition of DSM (DSM-IV) as a dissociative disorder and differs completely from schizophrenia.

FIGURE 12.7-2 Eugen Bleuler, 1857–1939. (Courtesy of National Library of Medicine, Bethesda, MD.)



The Four As Bleuler identified specific fundamental (or primary) symptoms of schizophrenia to develop his theory about the internal mental schisms of patients. These symptoms included associational disturbances (especially looseness), affective disturbances, autism, and ambivalence, summarized as the four As: associations, affect, autism and ambivalence. Bleuler also identified accessory (secondary) symptoms, which included those Kraepelin saw as major indicators of dementia precox: hallucinations and delusions.

Manfred Bleuler Manfred Bleuler, Eugene Bleuler's son, stressed the essential psychotic nature of the schizophrenic disorders. He recognized that patients might not be psychotic at any given moment but considered that the diagnosis of schizophrenia should only be made when psychosis had been present at some time in the history of the illness. He stated that patients whose primary characteristics were impaired memory or intellectual function were not schizophrenic. Schizophrenia in his conceptualization tended to be chronic and did not show a tendency toward rapid recovery. He felt that a major element of the illness was the coexistence of both psychotic and normal mental processes in the same person at the same time. He emphasized that the mechanisms he described in patients with schizophrenia could be found to some degree in normal people as well. In his conceptualization what was specific for the schizophrenic disorders was the patient's inability to distinguish between the inner and outer realities, as if an individual could not distinguish between dreams and waking experiences. This inability allowed the simultaneous presence of incompatible components to coexist within the patient's personality and consciousness. Bleuler's conceptualization of etiology was that the genetic component was not necessarily pathological but that the particular constellation of genes in these individuals left them more vulnerable to stress.

Adolph Meyer Adolph Meyer emphasized the reactive nature of the schizophrenic disorders. He felt that the illness involved a biological predisposition of the individual and environmental stresses that interacted with it to produce the illness. In this Meyerian vision, neither the stress nor the diathesis alone sufficed to produce illness; vulnerable individuals had to face an adequate and appropriate stress at the right developmental phase of their life. Emphasizing the fortuitous element of life events in the

etiopathogeneses of these illnesses led to a more optimistic view of the disorders and raised the possibility that eliminating certain stresses at certain developmental phases could markedly reduce the frequency of the illness. The reaction-pattern approach was carried to an extreme by some workers who believed that enough stress could produce a schizophrenic disorder in anyone. These workers unfortunately failed to recognize the importance placed by Meyer on the preexisting diathesis.

Other Theorists Harry Stack Sullivan, Ernst Kretschmer, Gabriel Langfeldt, Kurt Schneider, and Karl Jaspers added much to the understanding of schizophrenia. Sullivan, who founded the interpersonal psychoanalytic school, emphasized social isolation as a cause and a symptom of schizophrenia. Kretschmer compiled data to support the idea that schizophrenia occurred more often among people with asthenic, athletic, or dysplastic body types rather than among people with pyknic body types; the latter, he thought, were more likely to incur bipolar disorders. These observations may seem strange, but they are not inconsistent with a superficial impression of body types in many homeless persons.

Langfeldt classified patients with major psychotic symptoms into two groups, those with true schizophrenia and those with schizophrenic-like psychosis. In his description of *true schizophrenia*, Langfeldt stressed several factors: insidious onset, feelings of derealization and depersonalization, autism, and emotional blunting. Researchers after Langfeldt gave true schizophrenia other names: nuclear schizophrenia, process schizophrenia, and nonremitting schizophrenia.

Schneider described a number of first-rank symptoms of schizophrenia. They are not identical to Eugene Bleuler's fundamental signs nor do they mean the same thing. The Schneider first-rank symptoms of schizophrenia are not pathognomonic for the disease but are of great pragmatic value in making a diagnosis. When a number of those symptoms are present in a patient in whom other pathology—of toxic or organic origin—can be excluded, then a diagnosis of schizophrenia is indicated. Schneider's first-rank symptoms include hearing one's own thoughts spoken aloud, auditory hallucinations that comment on the patient's behavior, somatic hallucinations, the experience of having one's thoughts controlled, spreading one's thoughts to others, delusions, and the experience of having one's actions controlled or influenced from the outside.

Jaspers, a psychiatrist and philosopher, played a major role in developing existential psychoanalysis. In his view, psychopathology had no fixed concepts or basic principles. Thus his theories of schizophrenia were free of traditional concepts like subject and object, cause and effect, and reality and fantasy, and his philosophic attitude led to an interest in the content of psychiatric patients' delusions. The emphasis on attempting to understand the phenomenology of the schizophrenic experience can be traced to Jaspers.

COMPARATIVE NOSOLOGY

DSM DSM-III and the revised third edition of DSM (DSM-III-R) were major efforts to increase reliability over the earlier versions. It was recognized that independent validation was not yet attainable and therefore the goal of reliability was seen to be of great importance. That emphasis was also reflected in the development of DSM-IV. DSM-IV requires the presence of at least two characteristic symptoms

for a significant portion of time during a 1-month period (or less if the patient responded successfully to treatment). The list of characteristic symptoms includes delusions, hallucinations, disorganized speech, grossly disorganized or catatonic behavior, and negative symptoms (e.g., anhedonia, mutism). One symptom suffices for a diagnosis if that one symptom consists of bizarre delusions, hallucinations of a voice sustaining a running commentary on the person's behavior or thoughts, or hallucinations of two or more voices conversing with each other.

DSM-IV requires social and occupational deterioration. There must be a diminution in functional level in both social and occupational activities following the onset of illness. These functional disturbances must last for at least 6 months. That 6-month period may include the 1 month of symptoms necessary to fulfill the requirement of characteristic symptoms plus prodromal or residual symptoms or both. Finally, DSM-IV requires diagnostic exclusion of mood disorders with psychotic features and schizoaffective disorder. The disorder may not be a consequence of substance abuse or a general medical disorder.

ICD The definition of schizophrenia in the tenth revision of *International Statistical Classification of Diseases and Related Health Problems* (ICD-10) parallels that in DSM-IV.

The schizophrenic disorders are characterized in general by fundamental and characteristic distortions of thinking and perception, and affects that are inappropriate or blunted. Clear consciousness and intellectual capacity are usually maintained, although certain cognitive deficits may evolve in the course of time. The most important psychopathological phenomena include thought echo; thought insertion or withdrawal; thought broadcasting; delusional perception and delusions of control; influence or passivity; hallucinatory voices commenting on or discussing the patient in the third person; thought disorders and negative symptoms.

The course of schizophrenic disorders can be either continuous or episodic with progressive or stable deficits, or there can be one or more episodes with complete or incomplete remission. The diagnosis of schizophrenia should not be made in the presence of extensive depressive or manic symptoms unless it is clear that schizophrenic symptoms antedate the affective disturbance. Nor should schizophrenia be diagnosed in the presence of overt brain disease or during states of drug intoxication or withdrawal.

DIAGNOSIS

The DSM-IV diagnostic criteria include course specifiers that offer clinicians several options and describe actual clinical situations ([Table 12.7-1](#)). The presence of hallucinations or delusions is not necessary for the diagnosis of schizophrenia; a patient's disorder is diagnosed as schizophrenia when the patient exhibits two of the symptoms listed as symptoms 3 through 5 in criterion A. Criterion B requires that impaired functioning, although not deteriorations, be present during the active phase of the illness. DSM-IV stipulates that symptoms must persist for at least 6 months and that a diagnosis of schizoaffective disorder or mood disorder must be absent. ICD-10 lists certain symptoms as the general

criteria for all forms of schizophrenia with the exception of simple schizophrenia. At least one of the following must be present: (1) thought echo, thought insertion or withdrawal, or thought broadcasting; or (2) delusions of control, influence or passivity, clearly referred to body or limb movements or specific thoughts, actions or sensations, delusional perception; (3) hallucinatory voices giving a running commentary on the patient's behavior or discussing the patient between themselves, or other types of hallucinatory voices coming from some part of the body; and (4) persistent delusions of other kinds that are culturally inappropriate and completely impossible, (e.g., being able to control the weather or being in communication with aliens from another world).



Table 12.7-1 DSM-IV Diagnostic Criteria for Schizophrenia

The diagnosis can also be made if at least two of the following are present: (1) persistent hallucinations in any modality, when occurring every day for at least one month, when accompanied by delusions (which may be fleeting or half-formed) without clear affective content, or when accompanied by persistent overvalued ideas; (2) neologisms, breaks or interpolations in the train of thought resulting in incoherence or irrelevant speech; (3) catatonic behavior, such as excitement, posturing or waxy flexibility, negativism, mutism and stupor; and (4) negative symptoms, such as marked apathy, paucity of speech, and blunting and incongruity of emotional responses (it must be clear that these are not due to depression or to antipsychotic medication).

The ICD-10 criteria, used throughout the world, are listed in [Table 12.7-2](#).



Table 12.7-2 ICD-10 Diagnostic Criteria for Schizophrenia

Key Symptoms The presence of some key symptoms for schizophrenia (e.g., blunting of emotional

response or a strikingly inappropriate emotional response) weighs heavily in favor of a diagnosis of schizophrenia. But what is emotional blunting, and what is an inappropriate emotional reaction? For example, is the embarrassed adolescent's sheepish or defying smile an inappropriate emotional reaction? Considerable clinical experience is required to be certain about the presence of such symptoms.

Loosening of Associations The loosening of associations—the specific thought disorder of the schizophrenic—is perhaps one of the most valuable diagnostic criteria, but a good knowledge of psychopathology is required to be sure of its presence and to avoid confusing it with other forms of disturbed thinking, such as manic flight of ideas, disintegration of thought processes due to clouding of consciousness, and impaired reasoning due to fatigue or distraction. It is not sufficient to ask a patient the meaning of a proverb and then, on the basis of one's personal impression, declare that the patient has a pronounced schizophrenic thinking disturbance. It is sometimes impossible to distinguish, on the basis of a proverb test, between the disordered thinking of a schizophrenic and a manic patient, except for the greater verbosity of the manic.

Bizarre Behavior The patient's behavior may furnish significant clues for the diagnosis of schizophrenia. Bizarre postures and grimacing are certainly characteristic of schizophrenic conditions, but identifying a bizarre posture is not always easy. Religious rituals and special positions for meditation or dancing with which the observer is not familiar may be called bizarre. But in a recent case of a withdrawn, suicidal young girl, a possible diagnosis of depression was ruled out in favor of schizophrenia when the girl began eating raw chicken, pouring hot tea over herself, and openly trying to get into bed with her brother-in-law during a weekend home visit.

True catalepsy may be almost pathognomonic of schizophrenia, but it is not a common symptom. A stupor strongly suggests catatonic schizophrenia, but hysteria or a depressive stupor must be carefully ruled out in the differential diagnosis.

The deterioration of social habits, even involving the smearing of feces, does not suffice for the diagnosis of schizophrenia. Such deterioration can occur in various toxic and organic psychoses, temporarily in hysterical twilight states, and even at the peak of a manic episode in bipolar I disorder.

Pronounced social withdrawal also occurs under many conditions, ranging from simple sulking to anxiety and depression ([Fig. 12.7-3](#)). Sustained passivity and lack of spontaneity should suggest the diagnosis of schizophrenia only if organic and depressive conditions can be definitely ruled out.

FIGURE 12.7-3 “Schizophrenic Withdrawal.” (Courtesy of Sid Bernstein, Research Facility, Orangeburg, NY.)



Stereotypes and verbigeration strongly suggest schizophrenia, but they occur almost exclusively in chronic, institutionalized patients and are rarely seen today. Frequent and lengthy staring into a mirror and other odd mannerisms also strongly suggest a diagnosis of schizophrenia.

SUBTYPES

DSM-IV classifies the subtypes of schizophrenia as paranoid, disorganized, catatonic, and undifferentiated, and residual, predominantly on the basis of clinical presentation ([Table 12.7-3](#)). These subtypes are not closely correlated with different prognoses; for such differentiation, specific predictors of prognosis are best consulted. ICD-10, by contrast, uses nine subtypes: paranoid schizophrenia, hebephrenia, catatonic schizophrenia, undifferentiated schizophrenia, simple schizophrenia, other schizophrenia, residual schizophrenia, post schizophrenic depression and schizophrenia, unspecified, with eight possibilities for classifying the course of the disorder, ranging from continuous to complete remission.

<p>Paranoid Type A type of schizophrenia in which the following criteria are met: A. Delusions with one or more delusions or frequent auditory hallucinations B. Absence of the following in prominent, undisputed areas, absent throughout or in discrete, circumscribed, or that are inconspicuous areas: 1. Disorganized speech 2. Disorganized behavior 3. Flat or inappropriate affect</p> <p>Disorganized Type A type of schizophrenia in which the following criteria are met: A. Disorganized speech 1. Disorganized speech 2. Disorganized behavior 3. Flat or inappropriate affect B. The criteria are not met for catatonic type.</p> <p>Catatonic Type A type of schizophrenia in which the clinical picture is characterized by at least two of the following: 1. Stupor, catalepsy or waxy flexibility or cataplexy (including motor inhibition or abrupt motor excitation) or other motor abnormalities such as rigidity or negativism 2. Excited or inhibited motor activity that is grossly purposeless and not influenced by external stimuli 3. Mutism or stupor or a rigid posture or a fixed posture or a posture to the detriment of needs 4. Absence of voluntary movement as evidenced by grossly fixed, abnormal, or inappropriate or incongruous facial grimaces, abnormal, abnormal, abnormal, abnormal, or abnormal posturing, or abnormality of posture 5. Absence of speech</p> <p>Undifferentiated Type A type of schizophrenia in which symptoms that meet criteria A and B are present, but the criteria are not met for the paranoid, disorganized, or catatonic type.</p> <p>Residual Type A type of schizophrenia in which the following criteria are met: A. Absence of prominent delusions, hallucinations, disorganized speech, and grossly disorganized or catatonic behavior B. There is a continuing presence of the symptoms as described by the presence of delusions, hallucinations, or grossly disorganized behavior in at least two of the following areas: 1. Delusions 2. Hallucinations 3. Disorganized speech 4. Disorganized behavior 5. Flat or inappropriate affect</p> <p><small>Reprinted with permission from Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Copyright 1994, Washington, DC: Author.</small></p>	<p>Table 12.7-3 DSM-IV Diagnostic Criteria for Schizophrenia Subtypes</p>
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Catatonic Type The catatonic type of schizophrenia is dominated by prominent psychomotor disturbances. In addition to meeting the general criteria for schizophrenia, there must be a period of least 2 weeks of catatonic behavior that can be either stuporous or excited. The behavioral disturbance can also involve posturing, negativism, rigidity, waxy flexibility, or command automatism.

Catatonic schizophrenia occurs in two forms: inhibited or stuporous catatonia and excited catatonia. The essential feature of both forms is the marked abnormality of motor behavior.

Stuporous Catatonia Patients with stuporous catatonia may be in a state of complete stupor or may show a pronounced decrease in spontaneous movements and activity. They may be mute or nearly so or may show distinct negativism, stereotypes, echopraxia, or automatic obedience. However, even after standing or sitting motionless for long periods of time, they may suddenly and without provocation have a brief outburst of destructive, unprovoked violence. Occasionally, patients with catatonic schizophrenia exhibit catalepsy or waxy flexibility (Fig. 12.7-4).



FIGURE 12.7-4 Chronic catatonic patient. This patient is immobile, demonstrating waxy flexibility. Her arm is in an uncomfortable position, elevated without support, and her stony facial expression has a *Schnauzkrampf*, or frozen pout. (Courtesy of Heinz E. Lehmann.)

Patients in a state of complete catatonic stupor usually can be aroused from it dramatically by intravenous injection of a short-acting barbiturate. Within minutes the frozen facial expression changes to one of normal animation. They begin to talk and move about normally and in many instances become relatively lucid for an hour or two. The total inhibition of patients in catatonic stupor may result from excessive cerebral excitatory processes. As in a car engine racing so wildly that one cannot put it in gear, that excess prevents the person from performing and behaving in a normal manner until the excessive cerebral functions have been reduced by a chemical agent that depresses brain metabolism and nervous impulses. But, spectacular as the immediate results seem to be, the technique has no significant therapeutic value.

A young, unmarried woman, age 20, was admitted to a psychiatric hospital because she had become violent toward her parents, had been observed gazing into space with a rapt expression, and had been talking to invisible persons. She had been seen to strike odd postures. Her speech had become incoherent.

She had been a good student in high school, then went to business school and, a year before admission to the hospital started to work in an office as a stenographer. She had always been shy, and although she was quite attractive, she had not been dating much. Another girl, who worked in the same office, told the patient about boys and petting and began to exert a great deal of influence over her. The second girl would communicate with her from across the room. Even when they went home at night, the patient would get voice messages telling her to do certain things. Then pictures began to appear on the wall, most of them ugly and sneering. Those pictures had names—one was named shyness, another distress, another envy. Her office friend sent her messages to

knock on the wall, to hit the pictures.

The patient was agitated, noisy, and uncooperative in the hospital for several weeks after she arrived, and required sedation. She was given a course of insulin coma therapy, with no significant or sustained improvement. Later she received several courses of electroconvulsive treatment, which also failed to influence the schizophrenic process to any significant degree. Ten years later, when antipsychotic drugs became available, she received pharmacotherapy.

Despite all those therapeutic efforts, her condition throughout her many years of stay in a mental hospital has remained one of chronic catatonic stupor. She is mute and practically devoid of any spontaneity, but she responds to simple requests. She stays in the same position for hours or sits curled-up in a chair. Her facial expression is fixed and stony.

Excited Catatonia Patients with excited catatonia are in a state of extreme psychomotor agitation. They talk and shout almost continuously. Their verbal productions are often incoherent, and their behavior seems to be influenced more by inner stimuli than by their environment. Patients in catatonic excitement urgently require physical and medical control, since they are often destructive and violent to others, and their dangerous excitement can cause them to injure themselves or collapse from complete exhaustion.

An unmarried man, aged 27, had been working as a teacher and was admitted to a psychiatric hospital because he had become increasingly agitated and irrational after several nights of wakefulness. He was extremely talkative and ran about aimlessly. His behavior became very strange; for instance, he tried to clean everything in the house, moved his wristwatch up to his shoulder, stripped his clothes off, chewed large wads of paper in the belief that it was good for him, talked about killing himself, and then said that he might already be dead.

He heard voices ordering him about incessantly, and he frequently laughed without any apparent cause. After chewing the paper he would spit in it and then drink his saliva. He rolled into odd postures on the bed, with his tongue sticking out. He started to jump and dance when taken to the bathroom by a nursing assistant for a shower and destroyed the bathroom furnishings. His gait was manneristic. His speech was utterly incomprehensible. He refused to take any medication and had to be sedated by parenteral medication.

He remained noisy, excited, destructive, and irrational in his behavior for a month; then he improved in response to high dosages of antipsychotic medication and a few electroconvulsive treatments. Three months after admission he was discharged from the hospital, symptom free, with good insight into the nature of his illness. For more than 10 years he has been employed as a teacher.

Periodic Catatonia A rare but intriguing form of catatonia, periodic catatonia, was described by R. Gjessing in 1938. According to Gjessing, patients affected with the disorder have periodic recurrences of stuporous or excited catatonic states. Each recurrence of catatonic behavior is associated with an

extreme shift in the patient's metabolic nitrogen balance. Most cases of periodic catatonia seen in recent years responded well to antipsychotic medication, and relapses were usually prevented by maintenance medication.

Disorganized Type The disorganized (formerly called hebephrenic) subtype is characterized by a marked regression to primitive, disinhibited, and unorganized behavior. Hebephrenic patients are usually active but in an aimless, nonconstructive manner. Their thought disorder is pronounced, and contact with reality is extremely poor. Personal appearance and social behavior are dilapidated, emotional responses are inappropriate, and they often burst out laughing for no apparent reason. Incongruous grinning and grimacing are common in these patients, whose behavior is best described as silly or fatuous (Fig. 12.7-5).



FIGURE 12.7-5 A 44-year-old chronic schizophrenic woman showing characteristic mannerism and facial grimacing. (Courtesy of New York Academy of Medicine.)

A 15-year-old girl attended a summer camp where she had difficulties in getting along with the other children and developed animosity toward one of the counselors. On her return home, she refused to listen to her parents, and she heard the voice of a man talking to her, although she could not see him. She rapidly began to show bizarre behavior, characterized by grimacing, violent outbursts, and inability to take care of herself.

Her school record had always been good, and she was fluent in three languages. Her parents described her as having been a quiet, rather shut-in child, with no abnormal traits in childhood. Family relations were reported as having been satisfactory.

When the patient was admitted to a psychiatric hospital, her speech was incoherent. She showed marked disturbances of formal thinking and blocking of thoughts. She was impulsive and seemed to be hallucinating. She stated that she heard voices in her right ear and that a popular singer was running after her with a knife. She also thought that her father was intent on killing her and that she was pregnant because she had hugged one of the residents.

Two months of neuroleptic treatment brought no apparent improvement. She was then given a course of intensive electroconvulsive therapy and continuous sleep treatment. Over a period of a year, she received close to 200 electroconvulsive treatments and 50 subcoma insulin treatments, with little improvement. She was then transferred to another mental hospital, where her behavior

has remained very disturbed for almost 20 years.

She is often incontinent and most of the time neglects her physical appearance. Occasionally she spends hours dressing herself, looking in the mirror, and putting on excessive makeup. At times, she has been discovered eating her feces. Occasionally, she adopts the role of a singer or a dancer. She makes statements like “Will I live forever? Nurse, I didn't throw my love away. It is in my stomach, and it hurts.” In the dining room she attempts to grasp the genitals of male patients. High doses of neuroleptics are continuously required to control her behavior. The ultimate prognosis is very poor.

Paranoid Type The paranoid type of schizophrenia is characterized mainly by the presence of delusions of persecution or grandeur. Patients with paranoid schizophrenia are usually older than patients with catatonia or hebephrenia when they break down (i.e., they are usually in their late 20s or their 30s). Patients who have been well up to that age have usually established a place and an identity for themselves in the community. Their ego resources are greater than those of catatonic and hebephrenic patients. Paranoid schizophrenics show less regression of mental faculties, emotional response, and behavior than those with the other subtypes of schizophrenia.

Typical patients with paranoid schizophrenia are tense, suspicious, guarded, and reserved. They are often hostile and aggressive. They usually conduct themselves quite well socially, and their intelligence in areas not invaded by delusions may remain high. Paul Murphy, an American chess champion in the first half of the nineteenth century and one of the greatest chess masters in history, developed paranoid schizophrenia in his middle 20s and was hospitalized for years. But even many years after he had become ill, he played an original and masterful game of chess if he could be persuaded to accept the challenge.

A woman wrote the letter that is reproduced in part below. Like many patients with schizophrenia, this patient is tortured by the experience of being influenced in her bodily functions through fiendish devices used by her enemies.

Dear Dr. P.T.,

It is with the nurse's knowledge that I write this letter to you, regretting at the same to trouble you about a maladjustment that need not occur. I am at a loss to understand why those who are responsible are permitted to indulge in this peculiar pastime. Perhaps those with some authority do not desire to check it, but I realize, in any case, that it is rather difficult to do so inasmuch as when one person is checked, she passes the job on to someone else—I refer to this instrument that they use that completely locks up the intestines and prevents them from elimination at all even with a laxative, which is useless to take in such circumstances. It also twists me between my legs occasioning much discomfort, preventing proper rest in bed when my body is so tightened up that it is impossible to relax. I spoke to you several days ago about unexplainable solutions being injected into my body and my rest disturbed continually during the night. You agreed that if any

treatments were ordered they should not take place at these hours. I think you said you would find out about any such requirement or order. Well, the hour of interference has changed—interference is the right word to use, because the one whoever is responsible is doing a great deal of harm. I am awakened every morning to the exact minute about 5:30. About 6:00 I drop off again until 7 AM (breakfast not until 8 AM). During this interval some person interferes with both passages of my body, and I find myself going around the rest of the day like a tank—full of burning Salt Water but quite unable to eliminate. At 5:30 I am quite comfortable but if I rose at this time, I suppose something would take place in the washroom—as these things so often do. The bladder is also interfered with, as is indeed every organ in my body with which I have never had any previous trouble. This has taken place nearly every day this week. If they do not get a chance just before I retire, some person in my room, by arrangement I suppose, awaits for me to get out of bed and as soon as I turn my back to them quickly uses this instrument, so as to insure this locked-up condition of the abdominal region. Because of so much interference, it is sometimes necessary for me to encourage the bladder to completely empty by means of the application of heat in the form of towels rung out in hot water and this is only effective in a standing up position—there is obviously some solution injected and as soon as I have withdrawn it in this manner I am very comfortable, but am not allowed to remain that way long. Something has also taken place this week which has been done once before on this ward and once in West House where it was frowned upon after discovery. I have been fixed up—temporarily, I hope, if the above results are going to continue—with two separate outlets for urination, which almost appears to come through two holes in the pelvic bone. All these months, as the previous nurses know, I have had to endure endless damage by interference with the pelvic. Perhaps they have got tired of that at last—and now it has to be something else, and when they get tired of that what next? . . . There are other means of displacing the intestines, not only by instruments in the hands of other inmates, but by other mechanical tricks probably operated by the same people.

Undifferentiated Type Frequently, patients who clearly have schizophrenia do not fit easily into one of the other types. DSM-IV classifies those patients as having undifferentiated type.

Residual Type According to DSM-IV, the residual type of schizophrenia is characterized by the presence of continuing evidence of the schizophrenic disturbances in the absence of a complete set of active symptoms or of sufficient symptoms to meet the diagnosis of another type of schizophrenia. Emotional blunting, social withdrawal, eccentric behavior, illogical thinking, and mild loosening of associations commonly appear in the residual type. When delusions or hallucinations occur, they are neither prominent nor accompanied by strong affect.

OTHER TYPES AND RELATED SYNDROMES

Simple Deteriorative Disorder Simple deteriorative disorder (simple schizophrenia) is characterized by a gradual, insidious loss of drive, interest, ambition, and initiative ([Table 12.7-4](#)). Hallucinations and delusions are uncommon, and if those symptoms do occur, they do not persist. Patients with simple deteriorative disorder withdraw from contact with other people, tend to stay in their rooms, avoid

meeting or eating with other members of the family, stop working, and stop seeing friends. If they are still in school, their marks drop to a low level, even if they were consistently high in the past.

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- A. Progressive development over a period of at least a year of all of the following:
- (1) marked decline in occupational or academic functioning
 - (2) gradual appearance and deepening of negative symptoms such as affective flattening, alogia, and avolition
 - (3) poor interpersonal rapport, social isolation, or social withdrawal
- B. Criterion A for schizophrenia has never been met.
- C. The symptoms are not better accounted for by schizotypal or schizoid personality disorder, a psychotic disorder, a mood disorder, an anxiety disorder, a dementia, or mental retardation and are not due to the direct physiological effects of a substance or a general medical condition.
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Table 12.7-4 DSM-IV Research Criteria for Simple Deteriorative Disorder (Simple Schizophrenia)

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These patients avoid going out into the street during the day but may go for long walks alone at 2:00 or 3:00 AM. They tend to sleep until noon or later, after staying up alone most of the night. During the early stages of the illness they may have many somatic complaints, variously described as fatigue, nervousness, neurosis, psychosomatic disease, and laziness. Patients are often treated for a year or more before the correct diagnosis is made. In many cases patients with simple deteriorative disorder later become homeless. They become increasingly shallow in their emotional responses and are quite content to drift aimlessly through life as long as they are left alone.

Although patients appear to be indifferent to their environment, they may react with sudden rage to persistent nagging by family members. The immediate reason for admission of patients with simple schizophrenia to a hospital is often an outburst of violence directed against their mothers or fathers for a trivial reason.

An unmarried man, 27 years old, was brought to a mental hospital because he had on several occasions become violent toward his father. For a few weeks he had hallucinations and heard voices. The voices eventually ceased, but he then adopted a strange way of life. He would sit up all night, sleep all day, and become very angry when his father tried to get him out of bed. He did not shave or wash for weeks, smoked continuously, ate very irregularly, and drank enormous quantities of tea.

In the hospital he adjusted rapidly to the new environment and was generally cooperative. He showed no marked abnormalities of mental state or behavior, except for his lack of concern about most things. He kept to himself as much as possible and conversed little with patients and staff. His personal hygiene had to be supervised by the nursing staff; otherwise he would quickly become dirty and very untidy.

Twenty years after his admission to the hospital, he is described as shiftless, and careless, sullen, and unreasonable. He lies on a couch all day. Antipsychotic drug treatment has failed to alter his

mental state or behavior. Although many efforts have been made to get him to accept therapeutic work assignments, he refuses to consider any kind of regular occupation. In the summer he wanders about the hospital grounds or lies under a tree. In the winter he wanders through the tunnels connecting the various hospital buildings and is often seen stretched out for hours under the warm pipes that carry steam through the tunnels.

Patients with simple deteriorative disorder may resemble personalities of the schizoid type. The distinguishing feature is the disorder makes its appearance at some time during or after puberty and from then on goes on to definite deterioration; personality deviations usually start earlier and remain the same over the years.

To meet the ICD-10 diagnostic criteria for simple schizophrenia, the individual must show over a period of at least 1 year all of the following manifestations: (1) a significant and consistent change in the overall quality of some aspect of personal behavior such as loss of drive and interest; (2) gradual appearance and deepening of negative symptoms such as marked apathy; and (3) a marked decline in social, scholastic, or occupational performance.

Postpsychotic Depressive Disorder of Schizophrenia The clinical boundaries of the diagnosis are hard to define operationally. The symptoms of postpsychotic depressive disorder of schizophrenia can closely resemble the symptoms of the residual phase of schizophrenia as well as the side effects of commonly used antipsychotic medications. Distinguishing the diagnosis from schizoaffective disorder, depressive type, is also difficult. The DSM-IV criteria specify that the criteria for a major depressive episode be met and that the symptoms occur only during the residual phase of schizophrenia. The symptoms cannot be substance induced or part of a mood disorder due to a general medical condition.

ICD-10 describes a category called postschizophrenic depression. This is a depressive episode that may be prolonged, arising in the aftermath of a schizophrenic illness. The general criteria for schizophrenia must be met, and the depressive symptoms must be sufficiently prolonged or severe to meet the criteria for at least a mild depressive episode. These depressive states are associated with an increased risk of suicide.

Early-Onset Schizophrenia Most patients suffering from schizophrenia develop it in late adolescence and early adulthood. A small minority of patients manifest a similar syndrome in childhood. Such children may at first present diagnostic problems, particularly with differentiation from mental retardation and autistic disorder. Recent studies have established that the diagnosis of childhood schizophrenia may be based on the same symptoms used for adult schizophrenia. What characterizes childhood schizophrenia is not the nature but the dramatic intensity of its symptoms. Its onset is usually insidious, its course tends to be chronic, and the prognosis is mostly unfavorable. Briefly, it resembles the typical Kraepelinian case of dementia precox. What gives childhood schizophrenia unique importance for research is the observation that anatomical features of the brain that are often associated with adult-onset schizophrenia (e.g., enlarged ventricles) are also present in this early-onset form of the disease. Neurobiological studies of children with schizophrenia may therefore provide significant clues

to the developmental pathogenesis of adult-onset schizophrenia.

Late-Onset Schizophrenia Late-onset schizophrenia is usually defined as an illness that is clinically indistinguishable from schizophrenia but has an onset after age 45. Since DSM-IV no longer uses an age cutoff, this distinction may no longer be relevant. This condition tends to appear more frequently in women and also tends to be characterized by a predominance of paranoid symptoms. The prognosis is favorable, and these patients usually do well on antipsychotic medication.

Bouffée Délirante (Acute Delusional Psychosis) Since it has been recognized that tardive dyskinesia may develop as a serious complication in a significant minority of patients with schizophrenia on maintenance therapy with antipsychotic drugs, it has become even more important to make a correct initial diagnosis. In French psychiatry the condition known as acute delusional psychosis, or *bouffée délirante*, is not included in the diagnosis of schizophrenia. Rather, *bouffée délirante* is considered a disease entity in its own right, a psychiatric disorder that does not require maintenance pharmacotherapy.

The following are essential criteria for the diagnosis of *bouffée délirante*, not all of which need to be present: (1) frequent background of personality disorder; (2) absence of a schizoid premorbid personality; (3) sudden onset; (4) duration of less than 3 months; (5) spontaneous return to premorbid level of adjustment, even without specific antipsychotic treatment; (6) polymorphous symptoms, a disorderly (kaleidoscopic) succession of differing delusional contents; (7) a fascinating intensity of the delusional experience; (8) oscillations between insight and delusion; (9) mood alterations and fluctuations; (10) increase in delusions in sleep-related states; and (11) sudden termination after days or weeks (rarely months).

Accordingly, *bouffée délirante* episodes belong to the schizophrenic spectrum disorders. In American clinical practice those episodes are usually diagnosed as schizophreniform disorder.. French psychiatrists report that about 40 percent of patients with the diagnosis *bouffée délirante* are later reclassified as suffering from schizophrenia.

Schizoaffective Disorder Schizoaffective disorder appears to lie conceptually between schizophrenia and the mood disorders. This category is quite ambiguous because it is the middle ground between two almost arbitrary groupings of patients. DSM-IV requires concurrent symptoms that meet the major criteria for schizophrenia and for a major depressive episode or manic episode or mixed episode. There must be a period of illness of at least 2 weeks, with characteristic delusions and hallucinations and the absence of prominent mood symptoms. Patients who carry this label tend to have a better prognosis.

Oneiroid In the oneiroid state patients feel and behave as though they were in a dream. (*Oneiros* is the Greek word for dream). Patients may be deeply perplexed and not fully oriented in time and place. During the state of clouded consciousness, they may experience feelings of ecstasy and rapidly shifting hallucinated scenes. Illusionary distortions of their perceptual processes (including time perception) and the symptomatic picture may resemble those of a hysterical twilight state. During oneiroid reactions, the observer can most clearly detect the patient's peculiar “double bookkeeping”—patients may be

convinced that they are traveling through space on a satellite and at the same time conscientiously follow the regular hospital routine. The patient with oneiroid schizophrenia acknowledges everyday realities but gives priority to contingencies of reality (Fig. 12.7-6). Oneiroid states are usually limited in duration and occur most frequently in acute schizophrenic episodes.

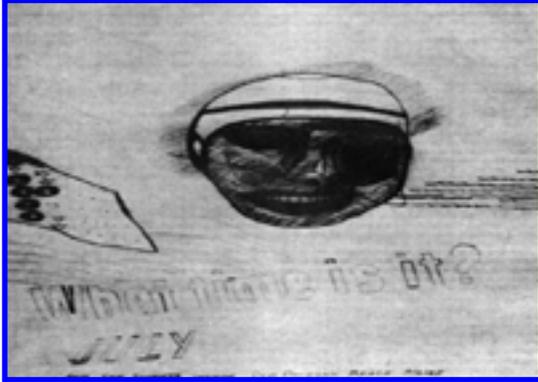


FIGURE 12.7-6 A 25-year-old schizophrenic man produced this eerie-looking mixture of commercial poster and existential quandary about time. (Courtesy of Heinz E. Lehmann.)

OTHER DIAGNOSTIC CRITERIA

A variety of research clinicians, some of whom were mentioned above (e.g., Langfeldt, Schneider, and Jaspers), constructed their own criteria to discriminate for essential features of schizophrenia. However, a number of other diagnostic systems for schizophrenia have been developed ([Table 12.7-5](#)).

Table 12.7-5 Essential Features of Various Diagnostic Criteria for Schizophrenia

SIGNS AND SYMPTOMS

General Appearance and Behavior While no specific behaviors or appearances are unique to schizophrenia, experienced clinicians still speak of the precox feeling (i.e., a failure to emotionally contact with the patient). Schizophrenia patients often give a history of being more sensitive than the average person. This sensitivity involves not only increased responsiveness to sensory stimuli but also increased sensitivity to emotional stimuli and, in particular, critical experiences. Experimental evidence indicates that some individuals who later develop schizophrenia do not screen out stimuli as effectively as normal people, which allows excessive input of stimuli to the nervous system. The failure of selective

inhibition can play an important role in symptom production.

Patients with chronic schizophrenia tend to show a neglected personal appearance. Their efforts at grooming tend to be minimal. They show poor regard for the social amenities and act as if they are deliberately turning away from society. As a group, schizophrenia patients are characterized by social withdrawal. They may form emotional attachments with other people, but they cannot communicate the quality and strength of those attachments in a manner that is understandable to other people. Unfortunately, this tends to create a lack of empathy or sympathy toward the patient, which further isolates the patient from family and health care providers.

A common feature in schizophrenia is the loss of ego boundaries. These patients have difficulty determining where they end and where the outside world begins. This leaves them vulnerable to misinterpretation of external events that can be interpreted as affecting them directly.

Many patients show what appears to be an amotivational syndrome. The patient may show a lack of interest in the normal activities of daily living. Nevertheless, a loss of motivation should not be confused with the sudden or gradual intellectual dysfunction that can occur in this disorder. This intellectual dysfunction can lead to failure in school of a young person of good intelligence, which can be misinterpreted as not trying hard enough. This failure may be the earliest diagnostic sign of a developing schizophrenia.

Speech Disorders What has been historically referred to as thought disorder is more correctly identified as a speech disorder. It is assumed that the disorders of language reflect an underlying disorder of thinking. A variety of features have been reported by clinicians for the last 100 years as characteristic of this syndrome. These include the loss of the logical relations between antecedent and subsequent associations that is termed *loosening of associations*. Words can be combined on the basis of sound rather than on meaning called *clang association*. New words may be generated, which are called *neologisms* (Fig. 12.7-7). *Verbigeration* involves the use of words in a stereotypically repetitive fashion. *Echolalia* involves the repetition of the examiner's words. *Thought blocking* involves the sudden and inexplicable blocking of thoughts manifested by the patient's inability to speak.

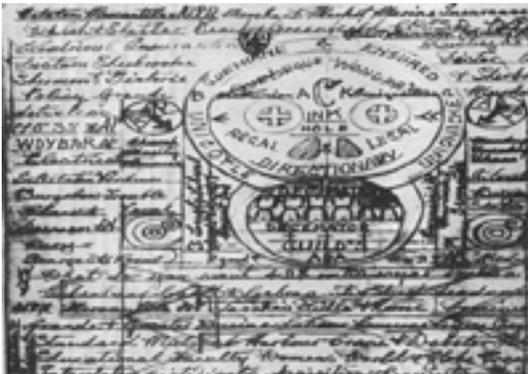


FIGURE 12.7-7 A schizophrenic woman expresses her incoherent thinking combined with neologisms in this drawing. (Courtesy of Heinz E. Lehmann.)

Loosening of associations is based on the late nineteenth-century association theory. According to

association theory, language is determined by purpose. This purposefulness is often lost in schizophrenic speech. A sentence completion test illustrates the point. The sentence to be completed was “The man fell on the street . . .” The patient's response was “because of World War I.” Although the thought of falling might be associated with falling in combat, it was an inappropriate association for the stimulus.

It can be helpful to look at disorders of association as disorders of the word and disorders of the sentence. Disorders of the word range from loss of symbolic meaning of the word as in clang associations to inability to maintain the correct semantic context for a word to approximate use of words, to the creation of new words. Disorders of the sentence include associative failures and failures of system placement. Most words have multiple meanings. Even a simple question such as “Where is your husband?” must be answered in terms of the frame of reference. In one context the question might ask for the physical location of the husband, and in another context it might ask for his identification in his graduating class picture. An example of system shifting was reported by Silvano Arieti. Commenting on the Japanese attack on Pearl Harbor, a patient said, “The next time they may attack Diamond Harbor or Emerald Harbor.” The patient had lost the contextual system of Pearl Harbor as a geographical military base and had substituted a contextual system in which pearls are precious stones.

Incoherence Language appears to be a means of self-expression in schizophrenia rather than a means of communication. Verbal productions are often empty or obscure. Schizophrenic speech contains more words that do not belong than does normal speech. In speech samples, patients with schizophrenia tend to repeat the same words more frequently than do nonschizophrenic people. When normal individuals are asked to fill in the deleted word in a continuous passage they are more likely to be correct when judging normal speech than when judging schizophrenic speech.

The following proclamation was written by a woman with schizophrenia. The repetitive phrases, distorted syntax, and numerous non sequiturs render the text sometimes incoherent. Nevertheless, the paranoid grandiosity, the hostility of the writer, and the content of her delusions are clearly expressed.

The French Force orders from now on to the German Force to respect the Queen Sacre in Christianity as well as the Queen in France and in other countries, ill treated and destroyed in all countries since the beginning of this century in Europe and allied countries. The Queens are the copartners in masonry of the order of Grand Masters and by doing so the prosperity and balance of the world have been destroyed, they have been destroyed for homosexuality which is the emblem or grand mastery really instead of being distinguished from the criminals who kill the soul and commit the crime of homosexuality of destroying the emblem of grand mastery. The attack on the Queen Sacre in Masonry comes from an inversion of data in the German spying service in 1903 in the class of sorcerers of this organization, deciding that the Chateau de Chambord en France was going to be the Castle not of the saint to be, but of sorceress and killing in soul that child many times without the effect desired obtained.

The following is an example of what may be called concise abstruseness, which sometimes characterizes the communications of patients with schizophrenia and is often used to express undisguised sexual

preoccupation. This patient's short apologetic note is to a psychiatrist whom she had bluntly propositioned on frequent occasions. (In this instance she got revenge against him for his rejection by pulling up expensive flowers in his garden.) She had previously inserted a screwdriver into her vagina and later expressed continuing guilt for having done so. The note expresses her sexually laden message briefly and (in her way) to the point. But the letter can be deciphered only with difficulty by the nonschizophrenic person who has not learned to understand the patient's autistic language.

Dear doctor,

I wasn't thinking too well when I was speaking to you but I do believe you were the postman whom I spent the night with. It is still Dr. David . . . in my heart. Am sick because of the screw driver. Please no hard feelings. Kiss your penis did. I would not harm you . . .

The following brief transcript from a videotaped interview with a young man with schizophrenia illustrates his autistic preoccupation with sex and death; there seems to be some clang association between “feet” and “foetus.” The patient was puzzled that his interviewer had difficulties following him.

the fleur de Lys is a castrated ace—you see, the design is the feet—the same as a woman's foetus—now you take five French safes and you put them together between four coffins—that's what it represents

Neologisms Occasionally, patients with schizophrenia create a completely new expression, a neologism, when they need to express a concept for which no ordinary word exists.

A woman with schizophrenia who had been hospitalized for several years kept repeating (in an otherwise quite rational conversation) the word “polamolalittersjitterstittersleelitla.” Her psychiatrist asked her to spell it out, and she proceeded to explain the meaning of the various components, which she insisted were to be used as one word. “Polamolalitters” was intended to recall the disease poliomyelitis, because the patient wanted to indicate that she felt she was suffering from a serious disease affecting her nervous system; the component “litters” stood for untidiness or messiness, the way she felt inside; “jitterstitters” reflected her inner nervousness and lack of ease; “leelita” was a reference to the French *le lit la* (that bed there), meaning that she both depended on and felt handicapped by her illness. That single neologistic production thus enabled the patient to express—in a condensed, autistic manner—information about her preoccupations and apprehensions that otherwise would have taken a whole paragraph to explain in common language.

Mutism Functional inhibition of speech and vocalization may last for hours or days, but before the use of modern treatment methods, it often used to last for years in patients with catatonic schizophrenia. Many of these patients tend to be monosyllabic and answer questions as briefly as possible. They attempt to restrict contact with the interviewer as much as possible without being altogether

uncooperative.

Echolalia Occasionally, patients with schizophrenia exhibit echolalia, repeating in their answers to the interviewer's questions many of the same words the questioner has used.

Examiner: How did you sleep last night?

Patient: I slept well last night.

Examiner: Can you tell me the name of your head nurse?"

The name of my head nurse is Miss Brown.

Echolalia seems to signal two facts, patients are aware of some shortcomings in their ideation and they are striving to maintain active rapport with the interviewer. They act much like someone learning a new language who answers the teacher's questions with as many of the teacher's words in the strange language as they can possibly manage.

Verbigeration This rare symptom is found almost exclusively in chronic and very regressed patients with schizophrenia. It consists of the senseless repetition of the same words or phrases, and it may go on for days ([Fig. 12.7-8](#)). Like neologisms and echolalia, verbigeration is a rare symptom today and is almost restricted to long-term institutionalized schizophrenia patients. Many psychiatrists working with schizophrenia patients in the community may never encounter these manifestations of deterioration.

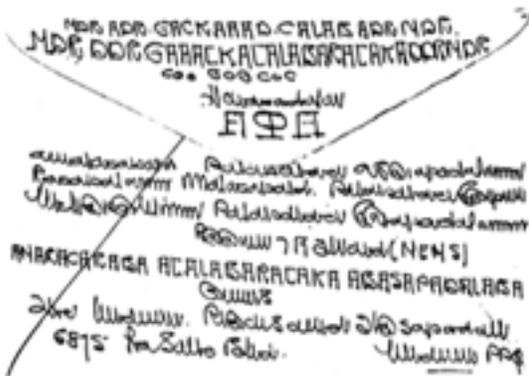


FIGURE 12.7-8 Sample of a chronic schizophrenic's noncommunicative writing. This addressed envelope illustrates manneristic writing, verbigeration, and possibly neologisms. Although the script appears to be exotic, the Arabic numerals and the English street name are recognizable. (Courtesy of Heinz E. Lehmann.)

Stilted Language Some patients with schizophrenia make extraordinary efforts to maintain their social relations, to maintain their relatively stable adjustment. But they may betray their rigidity and artificiality in their interpersonal relations by a peculiarly stilted and grotesquely quaint language.

The following excerpt from a letter written by a physician with schizophrenia who was hospitalized for more than 15 years but is now living by himself in an apartment is an example of such stilted language.

My dear friend and Professor,

A hearty and cheerful. (Please turn the page over) and a magnanimous good morning to you on this first Wednesday of a glorious New Year: And I do hope that our great and our good Lord and our dearly beloved and kind Shepherd, (kindly read page three now). Will be gracious unto both me and thee. I am sure that He be gracious unto both of us; He has some sound common sense. His being, this morning . . . I have not yet heard (Kindly turn over to 4 now) from any one of my own colleagues when I am leaving noble institution of the healing arts; Nor with whom: Nor through which one of the portals. Though I am sure that you—as much as (Kindly turn to page five, now) one else . . . must be able to enlighten me; very soon, my good old friend . . .

Behavioral Disorders Many patients with schizophrenia show a quantitative change in their activity, most commonly manifested as a reduction in energy, spontaneity, and initiative. In acute stages patients may become excited and show increased activity but usually only in the early phases of the illness. In a qualitative sense their behavior is often poorly coordinated, unpredictable, eccentric, and inappropriate. Even before the development of antipsychotic drugs patients conveyed an awkwardness and stiffness of movement. The great dancer Nijinsky lost his natural gracefulness with the onset of his schizophrenia.

Mannerisms Many patients with schizophrenia exhibit mannerisms of speech and movement. Grimacing is noticeable to varying degrees and at times may appear almost as a tic, particularly in the perioral regions. These perioral movements were reported and described by Kraepelin long before the use of neuroleptic drugs. He considered it a pathognomonic sign for poor prognosis in schizophrenia.

Stuporous States Stuporous states used to be common in the catatonic subtype of schizophrenia. Today they are quite rare and respond quite quickly to modern treatment when they are found. Similarly, catalepsy or waxy flexibility is almost unknown today, whereas 40 years ago it was common. It consists of a waxlike yielding of the movable parts of the body to any effort made to place them in certain positions. Once placed in the position, the patient remains in that position for a long time—even if the position is physically uncomfortable (Fig. 12.7-9). While these extreme examples of stupor and waxy flexibility have essentially disappeared, many chronic patients show a lack of spontaneity and movement that bears an attenuated resemblance to the more severe conditions described above.

FIGURE 12.7-9 A patient exhibiting catatonic posturing. (Reprinted with permission from Davison GC, Neale JM: *Abnormal Psychology: An Experimental Clinical Approach*. Wiley, New York, 1974.)



Echopraxia The motor symptom echopraxia is analogous to echolalia in the verbal sphere. It is the imitation of movements and gestures of the person the patient is observing.

Negativism Negativism refers to a patient's unwillingness to cooperate without any apparent reason for that lack of cooperation. It does not appear to be related to fatigue, depression, suspicion, or anger. Negativism may even take the form of unwillingness to follow a request for a physical movement. It can become so severe that the patient will do the opposite of what is asked. For example, when asked to raise an arm, they may lower it.

Stereotyped Behavior Stereotyped behavior is primarily seen in patients with chronic schizophrenia, including those in the community. At times it may take a motoric form and be expressed in a repetitive pattern of walking or pacing. It may also be demonstrated in repetitive strange gestures, which may or may not have a magical meaning to the patient. Finally, in language one can have the repetition of phrases or comments for long periods. This is separate from preservation and distinct from verbigeration. Interestingly, when schizophrenia patients are engaged psychosocially, this symptom tends to diminish. It appears to be a consequence of psychosocial isolation.

Deteriorated Appearance and Manners Patients with schizophrenia tend to neglect their appearance. This extends not only to elements of personal hygiene such as bathing, but even to changing their clothing. They can appear indifferent to the social amenities, such as returning a greeting. Frequently, they exhibit bad table manners despite the fact that in their premorbid condition they did not do so. Prior to the advent of antipsychotic drugs, regressed patients with schizophrenia could frequently be seen masturbating openly in hospital wards without apparent concern about the public nature of their act.

Affective Features Both quantitative and qualitative changes in affect may occur in patients with schizophrenia.

Reduced Emotional Responses Most commonly, patients show a quantitative change in the intensity of their emotional responses. Many patients with schizophrenia appear indifferent and apathetic. Others show diminished emotional intensity, described as emotional restriction or blunting. This quantitative aspect, which has been emphasized by Bleuler, is common in schizophrenia.

In judging emotional depth, one must consider the cultural background of the patient. A normal emotional expression in one culture may appear to be a reduced emotional response in another. Cultures differ dramatically in their willingness to accept a public display of emotion; therefore, the examiner should have some knowledge of the cultural background of the patient being assessed. Often the patient and family are the best informants; they may be able to describe changes from the premorbid emotional state before they become obvious to even an experienced clinician.

Anhedonia Anhedonia is a particularly distressing symptom. Sandor Rado considered anhedonia to be a cardinal feature of schizophrenia. There is frequently a diminution in the patient's ability to experience pleasure and, in some severe cases, even to imagine a pleasant feeling. Patients may not meet the criteria for the diagnosis of clinical depression but will describe an emotional emptiness or barrenness. Anhedonia can become unbearable enough to contribute to a suicide attempt.

Inappropriate Responses A common finding in schizophrenia is a failure of congruence between an emotional expression and the ideational content. A patient with schizophrenia may talk about the death of a family member with a broad smile. This loss of harmony between the affective display and the ideational content is more common in chronic patients. Loss of congruence creates marked discomfort in the observer and contributes to the tendency of family and friends to remove themselves from contact with the patient. Psychological testing has demonstrated that patients with schizophrenia frequently cannot recognize the emotional state expressed in photographs of faces. This inability to recognize emotional cues in others may be expressed in the patient's inability to show their own emotional experiences in ways that are understood by others. The degree of emotional blunting and inappropriateness of emotional responses are excellent measures of the extent to which the illness has invaded the person's personality and contributed to its deterioration. Severe blunting and inappropriateness are associated with chronic schizophrenia.

Unusual Emotions Schizophrenia is characterized frequently by alterations in emotional reactions to external stimuli and often demonstrates peculiarities of emotions infrequently seen in normal states. Particularly during acute decompensations, patients may describe states of exaltation with feelings of omnipotence, oceanic feelings of oneness with the universe, religious ecstasies, and terrifying apprehensions about the disintegration of their own personality or body. It is not unusual to see intense anxiety about the impending end of the universe. These experiences are rare in normal individuals, except when under the influence of psychotomimetic drugs.

Emotional Sensitivity Many individuals who eventually develop schizophrenia premorbidly demonstrate a hypersensitivity to rejection. Much of the premorbid tendency toward social isolation can be understood as an avoidance mechanism to reduce the risk of rejection. After the onset of the disorder most patients continue to display extreme sensitivity to criticism and rejection. They may react to the tone or content of the therapist's intervention with a marked exacerbation of positive symptoms.

An intelligent, well-mannered young woman suffering from chronic schizophrenia, who had improved to the point where she could live autonomously in her own apartment, had invited some friends to dinner. The dinner was well prepared and the evening enjoyable, until the friends invaded the patient's kitchen with forceful enthusiasm, and insisted on washing the dishes. Their hostess became enraged and ordered all guests to leave her home immediately. She later explained to her therapist that she felt humiliated and hurt by what she felt was a rude demonstration of her guests' conviction that she would never be able to make order in her own kitchen by herself.

Those who have worked extensively with patients with schizophrenia know that they are extremely sensitive. They are easily hurt by even slightly aggressive or rejecting behavior by others—behavior that in most cases would hardly be noticed by a person of normal sensitivity or, if noticed, would not lead to traumatic experiences.

For example, a father's refusal to let his son with schizophrenia watch a particular program on television caused the son, who was not known to be a violent or impulsive person, to knife his father to death. In another case a psychiatrist's refusal to see a patient with schizophrenia at the moment the patient requested it (the patient was told he would be seen 3 hours later) caused the patient to commit suicide. Another patient with schizophrenia in remission committed suicide when his parents refused to include him on a 2-week trip to Florida.

Perceptual Disorders Various perceptual disorders occur in schizophrenia. It may be hypothesized that those disorders result from the patient's constant exposure to an overwhelming influx of sensory stimuli. Although normal persons have a fundamental, pervasive feeling of familiarity with the environment to which they have become accustomed and adapted—a necessary background for all normal perception—patients with schizophrenia may experience a haunting unfamiliarity with their environment. That unfamiliarity sometimes comes over them with a sudden jolt; at other times they experience a continuous feeling of strange remoteness, alienation, and lack of contact (Fig. 12.7-10).



FIGURE 12.7-10 A symbolic representation of alienation that may be very severe in schizophrenia. (Courtesy of Erich Hartmann.)

Spontaneously reported sensory disturbances, mostly optical but also acoustic, olfactory, and gustatory, were observed in 15 percent of a large sample of patients with schizophrenia. The disturbances included hypersensitivity to light, changes in the perception of other people's faces and figures, misperception of

movement, hypersensitivity to sound or smell or taste, and other changes in those senses.

Because of the unpredictable variability of the patient's experiences, the gestalt of the visual world are broken into disjointed parts. These patients frequently see objects and people change their dimensions, outlines, and brightness from minute to minute or even from second to second before their eyes. Déjà vu experiences may intrude and produce an uneasy feeling of spurious familiarity. Time may lose any structure or meaning, and the experience of passing time may extend or contract. These changes can be shown in experimental investigations on size and brightness constancy, on critical flicker-fusion frequency, on time estimation, and on many other perceptual functions (Fig. 12.7-11).

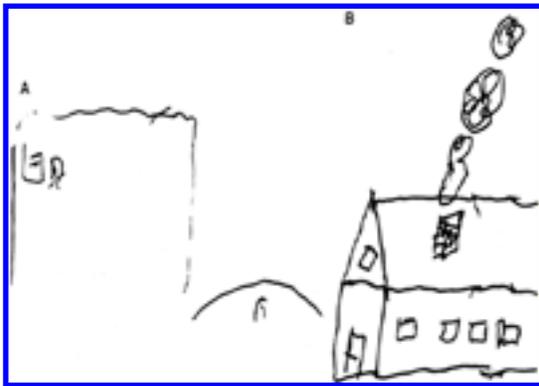


FIGURE 12.7-11 Drawings of a house made by a young man during an acute schizophrenic illness. **A** was drawn on admission to the hospital. **B** was drawn after 1 week of phenothiazine treatment. The percept house in the first drawing is fragmented. The windows are displaced, the roof is lying on the ground, beside the walls. In the second drawing, the structure and the perspective of the house are restored. (Courtesy of Heinz E. Lehmann.)

Hallucinations Sensory experiences or perceptions without corresponding external stimuli are common symptoms of schizophrenia. Most common are auditory hallucinations, the hearing of voices. Sometimes the voices are those of God or the devil; sometimes they are the voices of relatives or neighbors. Frequently, the patient can neither recognize nor understand them. Most characteristically, two or more voices discuss the patient in the third person. Frequently, the voices address the patient, comment on the patient's activities and surroundings, or are threatening or obscene and very disturbing to the patient. They may represent some evil outside power over which the patient has no control. Many patients with schizophrenia hear their own thoughts. When they are reading silently, for example, they may be quite disturbed by hearing every word clearly spoken to them.

Patients with schizophrenia experience visual hallucinations less frequently than auditory hallucinations, but they are not rare. Patients suffering from medically caused visual hallucinations experience them primarily at night or during limited periods of the day. They get relief only in sleep. Visual hallucinations that occur in schizophrenia are usually seen nearby, clearly defined, in color, life size, in three dimensions, and moving (Fig. 12.7-12). Visual hallucinations almost never occur by themselves but in combination with hallucinations in one of the other sensory modalities. Tactile, olfactory, and gustatory hallucinations are less common than visual hallucinations. Patients with schizophrenia often experience cenesthetic somatic hallucinations, sensations of altered states in body organs without any special receptor apparatus to explain the sensations (e.g., a burning sensation in the brain, a pushing

sensation in the abdominal blood vessels, or a cutting sensation in the bone marrow. Hallucinations may absorb all or much of the patients' attention and may control their behavior to a considerable extent. While they are listening to voices, they may be preoccupied and oblivious to the environment. They may react with laughter or anger or terror and may carry on lengthy conversations with the voices.

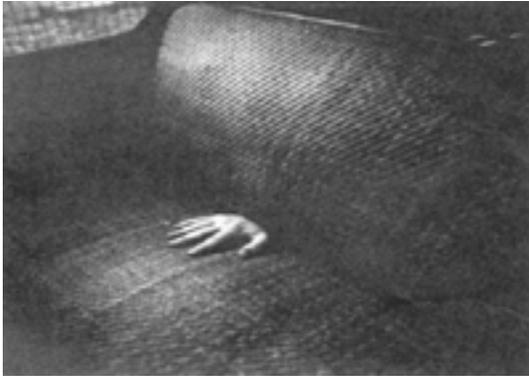


FIGURE 12.7-12 This photograph may symbolize the fantasy world of the schizophrenic. Not all psychiatrists are willing or able to attempt to empathize with that world, which can be a valuable therapeutic technique in some cases. (Courtesy of Arthur Tress.)

Modern treatment methods, particularly pharmacotherapy and social therapies that engage patients in various activities all day, have robbed hallucinations of much of their vividness and persistence. Also, many patients today know what hallucinations are and realize that hearing voices may be considered pathological and they will be considered crazy. Thus, present-day schizophrenia patients are much less likely to discuss their hallucinations openly than they were only 20 years ago.

Dream Content Studies of the dream content of patients with schizophrenia have shown that their dreams are less coherent, less complex, and less bizarre than those of normal persons. The incidence of dreams with color is apparently somewhat higher in patients with schizophrenia than in normal persons. Family members appear more often in dreams, and friends less often. The incidence of pleasant emotions in dreams of patients is similar to that for normal persons, but unpleasant emotions are more common in the dreams of patients with schizophrenia than in the dreams of normal persons.

Thought Disorders

Delusions By definition, delusions are false ideas that cannot be corrected by reasoning and that are idiosyncratic for the patient (i.e., not part of the patient's cultural environment). They are common symptoms of schizophrenia.

Most frequent are delusions of persecution, which are a key symptom in the paranoid type of schizophrenia. The conviction of being controlled by some unseen mysterious power that exercises its influence from a distance is almost pathognomonic for schizophrenia (Fig. 12.7-13). It occurs at one time or another, in most, if not all, patients with schizophrenia, and for many it is a daily experience. Patients who are convinced that they are being persecuted by powerful agencies often harbor delusions of grandeur; they must be very important if so much effort is spent on their persecution. In connection with their experiences of being physically controlled by unseen forces, many patients with schizophrenia have elaborate delusions that their minds are controlled by telepathy or hypnotism. Modern patients

whose delusions have kept up with the scientific times may be preoccupied with atomic power, X-rays, or spaceships that take control over their mind and body. Many patients with schizophrenia have delusional fantasies about the destruction of the world. The radio waves of the 1930s have been replaced by the alien creatures of the new millennium.



FIGURE 12.7-13 In schizophrenia, irrational and idiosyncratic ideas create a fearful world that is difficult for others to experience or understand, as symbolized above. (Courtesy of Arthur Tress.)

Further to my investigation and research . . . I would like to inform you that the tadpole in the eyes moves or floats around with the movement of the iris . . . The tadpole reveals the photographic and its spirit the parabiological matter. From experience the Spirit is more deadly than the vision—the vision could bring on a person a berserk or manic attitude if he is unaware of its tricks—it could also be a danger to schizoid, alcoholic, and neurotic personalities.

Further to the tadpole, it is luminous in the dark at times and flashes rings of light when both eyes are closed.

Have you any idea if science could produce a solution that could cover the iris and eradicate the tadpole and the luminous matter?

I repeat again, this is a diabolical science deliberately done to destroy human nature.

Yours sincerely,

J.M.

A delusional idea may occur with extraordinary rapidity. The patient may experience it as an illumination of the intellect in which the meaning of certain matters suddenly becomes clear. The total certainty is diagnostic of the delusional nature of the belief. There is a variation over time in the degree of certainty about the belief. At times the patient believes but is not absolutely certain, and at other times the patient cannot entertain any doubt in the belief system.

Phases of Cognitive Disturbance K. Conrad studied the development of delusions in patients with schizophrenia. In the first phase of the schizophrenic process, which he called “trema” (German for

stage fright), patients become aware that something ominous is happening to them. Somehow, the world around them is changing, and they feel locked in, harassed, and powerless. They may make desperate attempts to regain control through elaborate schemes of body and character building.

[Table 12.7-6](#) contains the schedule that a young man, aged 19, set for himself in a desperate last attempt to achieve a sense of security 3 months before he was admitted to a mental hospital in an acute catatonic stupor.

Time	Activity
7:00–8:00	Cold bath, toilet, bed, dress
8:00–8:15	Encyclopedia (memorize three facts)
8:15–8:30	Handwriting
8:30–8:45	Brisk walk
8:45–9:00	Breakfast (one apple, one slice of toast, two glasses of milk, two glasses of water)
9:00–10:00	Hearing, sight, and scent
10:00–11:00	European, financial, and sport news
11:00–12:00	Wax floors and clean shoe knobs
12:00–1:00	Cold bath and exercise
1:00–1:30	Geometry
1:30–1:45	Vegetable lunch (very light)
1:45–2:45	Music
2:45–3:45	Walk as far as Atrium and then back to library
3:45–4:45	Study at library
5:00–6:00	Accounting
6:00–6:20	Cold bath
6:20–6:35	Vegetable supper
6:35–8:05	Accounting
8:05–9:05	Hearing, sight, and scent
9:00–9:30	Strength and Health Magazine
9:30–10:00	Washbasin
10:00–10:20	Cold bath
10:20–10:40	Study vocabulary (12 words)
10:40–11:00	Uriness and toilet
11:00–11:15	Brushing exercises
11:15–11:30	Place improvement in mental attitude in diary

Table 12.7-6 Schedule of a Person with Catatonic Schizophrenia

During the trema phase patients are anxious, irritable, and often depressed. That phase may last for only a few days, but it sometimes lasts for weeks or months. In the latter stages of the trema phase, patients may be in a delusional mood that makes them see their environment in a new and strange light, appearances are changed and familiarity is lost. A description of such an experience is given in the following excerpt from a patient's account, after recovery, of his schizophrenic attack.

I suddenly realized that I just didn't have a clue where I was. I came to consciousness still driving along 401 highway but I had a vague suspicion that I might be nearing Montreal. I made a real effort to stay alert, but I seemed to keep drifting back to my former thoughts. Why had Edith said that I should believe in fairy tales? Was Joan really not dead but in a mental institution? Why had I been so cold that night in my car (the thermostat broke) and what was the significance of coldness, magnetism, and love?

I imagine what I have recorded represents about 10 percent of my thoughts. They flashed through my mind so rapidly and with such turmoil that I became aware my thoughts were running out of control. And I felt that I wanted to see Dr. Wilson . . . Again on the same stretch of Highway 401 I lost the knowledge of location. The trigger again was through theories of cosmic matter in the aurora borealis—the Northern Lights; and the meaning of the Southern Cross.

The trema phase is followed by the epiphany phase, a Greek expression suggesting sudden revelation. Conrad postulated two phases after the apophanous: the apocalyptic fragmented phase and the terminal phase, in which the patient becomes vegetable-like. In the apophanous phase the patient suddenly becomes sure of certain new “facts.”

may reason (to quote Silvano Ariete), “The Virgin Mary was a virgin; I'm a virgin; therefore, I'm the Virgin Mary.” However, this particular fallacy is not specific for schizophrenia and is commonly committed by college students who are distracted or fatigued. Arieti believed that schizophrenic cognition uses isolated segments and parts, rather than the whole of the concept.

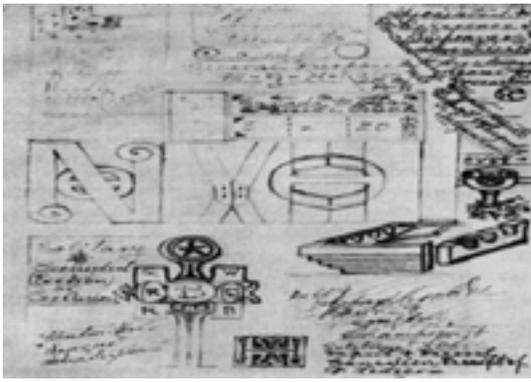
Patients with schizophrenia may reason: “John is Peter's father; therefore, Peter is John's father.” Such symmetrical reasoning is sometimes justified (e.g., John is Peter's brother, therefore, Peter is John's brother), but at other times such symmetrical conclusions are not justified, and patients not seem to know when they may apply them and when they may not.

Patients with schizophrenia use archaic modes of mystical or magical thinking. Such primitive modes of thinking are closely related to the psychoanalytic concept of primary thought processes that are at work in normal dreaming and allow condensation, reversal, substitution, displacement, and other distortions of conceptual relations impossible in rationally controlled thought. Jung, in fact, compared the psychic processes of schizophrenic patients who are awake to those of normal persons who are dreaming with their eyes open.

Kurt Goldstein described a concretization of thought and a loss of the abstract attitude as typical of schizophrenic thinking. Patients lose their ability to generalize correctly and exhibit in the ordering of their concepts a defect similar to a loss of the figure-ground relation in perceptual performance. That defect is often brought out by the simple clinical test of asking a patient to interpret a well-known proverb. One patient interpreted the saying “A stitch in time saves nine” as “I should sew nine buttons on my coat,” an overly personalized and concrete explanation.

Norman Cameron identified overinclusion as a typical feature of schizophrenic thought disorder. In contrast to patients whose mental functions are impaired by an organic brain lesion and who tend to omit important items in thought and speech, patients with schizophrenia tend to include many irrelevant items in their ideational and verbal behavior. That tendency seems to result from a loosening of associations in the schizophrenia patient. Studies have shown that overinclusive thinking is not a learning defect but an impairment of a central filtering process that normally inhibits external sensations and internal thoughts that are irrelevant to a given focus of attention. Only a well-functioning filtering-inhibiting process makes rational thinking possible. Overinclusive thinking usually develops within the setting of a delusional mood, when things look different, sensations are more intense, and everything seems to have some strange special significance (Fig. 12.7-15).

FIGURE 12.7-15 This drawing, carefully executed by a schizophrenic woman, graphically expresses her incoherent thinking and her tendency to perseveration of ideas, combined with an ability to accomplish quite complex drafting. Similar drawings may be produced when normal people doodle while their attention is not focused on what they are doing. (Courtesy of Heinz E. Lehmann.)



David Shakow demonstrated in a series of experiments that patients with schizophrenia cannot hold a set as well as a normal person can. That inability becomes evident when patients are tested for their reaction time in responding to a stimulus preceded by a ready signal. Introduction of a ready signal shortens the reaction time of a normal person to the stimulus that may follow the signal within 10 to 15 seconds. The patients' reaction time remains the same, whether or not they are warned of the coming stimulus.

Somatic Findings

Physiological Testing A significant proportion of the patients who carry the diagnosis of schizophrenia exhibit neurological test abnormalities. The neurological findings that can be identified in approximately half the population tend to be soft signs. A careful history will also reveal that a significant percentage of patients with the diagnosis of schizophrenia experienced difficult labors and various obstetrical complications at birth. The patient's childhood developmental milestones tend to be delayed. School and work performance tends to be less adequate than that of their siblings.

One of the earliest signs of a developing schizophrenic illness is the loss of the normal gracefulness of body movements. This was reported before the advent of antipsychotic drugs, and it should not be confused with the dystonias seen secondary to medication. Perioral tremors were reported long before the use of dopamine receptor antagonists and should not be confused with tardive dyskinesia. All of these signs are associated with poor prognosis.

During the onset of an acute schizophrenic episode patients show increased autonomic tone, manifested in dilated pupils, moist palms, and moderate tachycardia. Systolic blood pressure tends to be elevated. Interestingly enough, there are few sleep disturbances after the acute stage of illness, although schizophrenic sleep is characterized by a tendency towards reduction of stage 4 sleep.

Water Intoxication Routine laboratory tests of patients sometimes find a low specific gravity of urine and a low sodium concentration in serum. Retrospectively, it may be noted that the patient seems always to be at the water fountain. The syndrome of self-induced water intoxication should then be considered, particularly in the differential diagnosis of seizures in schizophrenic patients. As many as 20 percent of patients with a diagnosis of chronic schizophrenia drink excessive amounts of water, and 4 percent of the chronic population suffer from chronic hyponatremia and episodic water intoxication. The workup for increased water intake should include repeated daily weighing and tests for inappropriate secretion of

antidiuretic hormone, whose secretion is sometimes altered by treatment with antipsychotic agents, carbamazepine (Tegretol), lithium (Eskalith), or other drugs.

Constitutional Characteristics The relationship between body build and personality structure has been studied intensively for many years. Early studies showed that the diagnosis of schizophrenia occurred more frequently in persons of asthenic, athletic, and dysplastic body types than in the pyknic type. The pyknic type was believed to be more likely to develop manic-depressive psychosis. Although these observations may seem peculiar today, this perspective was prevalent in the 1930s. In the United States workers such as William Sheldon made extensive studies of the relationship between body type and mental illness. Using more-precise methods for measuring body types, he reclassified people into ectomorphic, mesomorphic, and endomorphic (Fig. 12.7-16). In this classification schizophrenics were more likely to be ectomorphs or mesomorphs.

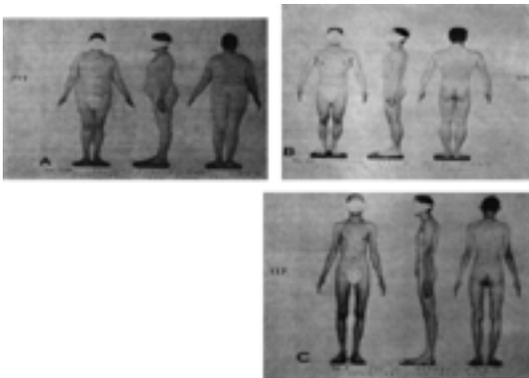


FIGURE 12.7-16 Sheldon's method of dividing people into distinct body types. **A**, Endomorphic, characterized by roundness and excess subcutaneous fat deposits. **B**, Mesomorphic, characterized by excess muscular tissue. **C**, Ectomorphic, characterized by minimal muscular and subcutaneous tissues.

In urban areas today a high percentage of patients diagnosed with schizophrenia also suffer from concomitant substance abuse—alcohol, drugs, or both. The substance abuse appears to be a form of self-medication, which unfortunately leads to additional problems for the patients.

Two major eye abnormalities occur in schizophrenia. The first is a tendency toward frequent blinking, which is reduced with neuroleptic medication. This increased blink rate may reflect increased dopaminergic tone in the nervous system. The second is that in attempting to follow a moving object smoothly, abnormal saccades occur in approximately one-half to three-quarters of patients studied. Abnormal smooth pursuit may be a neurophysiologic marker for certain aspects of the pathophysiology of some patients with schizophrenia.

Abnormalities of prosody are quite common in patients with schizophrenia. This can be conceptualized as a neurological disorder of the parietal lobe. Considerable evidence from imaging studies indicates that the temporoparietal region is important in the pathophysiology of these disorders.

Imaging studies, including quantitative electroencephalography, reveal problems in having different brain areas work together in a synchronized fashion. This failure of coherent and integrated activity of different cell ensembles may well be the cardinal pathophysiological finding of this group of disorders.

Suicide and Violence Suicide is surprisingly common in this population. The frequency of attempts varies to up to 40 percent of the population. About 10 percent of people diagnosed with schizophrenia commit suicide during the first 10 years of the illness. The risk of suicide is higher in men, particularly those with the paranoid type. The sudden, otherwise unexplained suicides of university students may be related to their experiencing cognitive dysfunction and positive symptoms that they fear to mention to anyone and that go undiagnosed and untreated. Suicide of an individual with a diagnosis of schizophrenia is much less predictable than it is for someone with depression.

A 32-year-old man with chronic schizophrenia who lived at the home of his parents and was compliant with treatment committed suicide in a bizarre way while his parents were on a 2-week trip to Florida. The parents had taken such trips previously on several occasions. In a rambling suicide note the patient indicated that he resented not having been asked to accompany them.

Suicide is a significant danger for patients with schizophrenia. Probably more patients with schizophrenia than with bipolar I disorder commit suicide, although the immediate risk of suicide is relatively greater among the latter. Patients with schizophrenia may commit suicide because they are deeply depressed or they may kill themselves in response to the relentless commands they receive from hallucinatory voices.

A patient with schizophrenia who had jumped to the street from a third-floor balcony sustained several fractures but lived to say that for many days a man's voice had told him persistently to jump out of a window. He did not want to die, and he resisted the voice for as long as he could, but he finally had to yield to its demands.

Patients with schizophrenia are more violent as a group than the general population. This is particularly a problem with patients with the paranoid type who may act quite suddenly and impulsively on a delusional idea. Patients with paranoia tend to be intelligent and capable of forming plans; therefore, they represent a much greater risk than individuals who are disorganized and cannot plan an effective attack. Despite earlier beliefs, command hallucinations do not appear to play a particularly important role in violence. Violence between patients in hospitals frequently results from the attacking patient's mistaken belief that another patient is behaving in a threatening way or getting physically too close. Studies have revealed that violence in a hospital setting can result from undiagnosed neuroleptic-induced acute akathisia. Persistently violent inpatients often do well on special treatment units that provide a more structured program and a less-crowded environment. The patients who fail to respond to this kind of care usually show neurological signs in addition to their diagnosis.

Unfortunately, it is exceedingly difficult to prevent most schizophrenic homicides, since there is usually no clear warning. Most of the homicides come as a horrifying surprise. Patients who are known to be paranoid with homicidal tendencies should not, as a rule, be allowed to move about freely as long as they retain their delusions and their aggressive tension. But, like the patient who hanged himself without previously manifesting any observable depression, the homicidal schizophrenia patient may appear to be

relaxed, even apathetic, and then, within a day or two, kill somebody.

The number of homicides committed by patients with schizophrenia may increase during the next few years. As a result of the gradual reduction in the hospital confinement of patients with schizophrenia, many of them are treated with modern methods of therapy in the community, where it is often impossible to control and supervise their pharmacotherapy and to prevent recurrences of paranoid homicidal behavior.

A man with schizophrenia who had been going home on weekends for many months was told by his sister that she would no longer ask permission to take him out of the hospital if he would not do his part of the housework—for instance, help with the dishes. On the next weekend visit, the patient killed his sister and his mother. He had shown no signs of disturbance whatsoever during the preceding week, had been sleeping well, and had been attending occupational therapy classes as usual.

A 19-year-old boy was discharged from a mental hospital in what seemed to be a residual state of chronic schizophrenia of the undifferentiated type. He stabbed his father to death when the father, during a state of intoxication, told the patient that he was too much of a bother around the house and that he might as well return to the hospital.

A man with schizophrenia, whose condition had not yet been diagnosed, complained to a general practitioner about various physical ailments. When the physician finally told him that he should not come anymore because there was nothing else he could do for him, the patient quietly left the office. He returned a few hours later and killed the doctor.

Rejection Careful analysis of these unpredictable suicides and homicides leads to the conclusion that the most significant single factor in most of them was a traumatic experience of rejection. The pathological sensitivity of persons with schizophrenia makes them extraordinarily vulnerable to all common life stresses. Rejection, particularly by members of their own family, seems to be more traumatic for them than most other stresses. The act of rejection may seem trivial, and it is often not deliberate on the part of those who reject the patient. In fact, they are practically never aware of it, and the patient may not show any immediate reaction to the rejection at the time.

It may be significant that four of the second author's patients with schizophrenia who committed homicide harbored the delusion that their parents were adoptive parents rather than real parents. That delusion in itself seems to reflect a deep-seated feeling of being rejected by the parents.

Prepsychotic Personality A clinical evaluation must always consider the patient's prepsychotic personality. The clinical, but not typical, history is that of a schizoid personality—quiet, passive children with few friends; daydreaming, introverted, and shut-in adolescents and adults. They are often reported as having been especially good children because they were always obedient and never in any mischief. In school they were good in spelling but poor in arithmetic. They made few friends as children and their

deficient friendship was particularly noticeable in adolescence.

Typical schizoid adolescents have few dates, do not usually learn to dance, and have no close boyfriends or girlfriends. They are not interested in petting or other heterosexual or homosexual activities but are often disturbed about masturbation. They avoid competitive sports but like to go to the movies, watch television, or listen to music. They may be avid readers of books on philosophy and psychology.

Less than 25 percent of patients with schizophrenia have a history of the type of schizoid personality described above. The former assumption that schizophrenia is genetically transmitted either as the disease proper or as a schizoid character structure is now changing to the concept of genetic transmission of schizophrenic spectrum diseases (including various personality and neurotic disorders) and a variety of conditions—even valuable traits, such as creative ability. About 90 percent of patients diagnosed with schizophrenia have no known family history of the disease.

Precox Feeling Some clinicians believe they can diagnose a precox feeling. That feeling consists of an intuitive experience by the examiner that determines whether or not it is possible to empathize with the patient. Patients whose emotional distance makes it impossible to establish an empathic rapport are classified as having schizophrenia, providing other criteria are met. The reliability of this approach is questionable and even though important, the use of the examiner's feeling as a diagnostic criteria should be discouraged.

Positive-Negative Distinction The distinction between manifestations of schizophrenia that appear to represent a loss of function (e.g., emotional blunting, poverty of speech) and such symptoms as delusions and hallucinations has been part of the diagnostic process at least since Kraepelin, whose concept of an avolitional syndrome was the predecessor of the concept. Bleuler's division of symptoms into fundamental and accessory types may be seen as supporting that separation, with certain of the negative symptoms assigned diagnostic primacy. However, Kraepelin agreed in principle with Bleuler on the distinction between fundamental and accessory symptoms. In 1913 Kraepelin stated

the former [fundamental symptoms] constitute the real characteristics of the clinical state and can be demonstrated in each individual case more or less distinctly; the latter [accessory symptoms] may be present but may also be absent; they are not caused by the character of the morbid process but by circumstances which are in loose connection with it . . . [F]rom this point of view the weakening of judgment, of mental activity and of creative ability, the dulling of emotional interest and the loss of energy, lastly, the loosening of the inner unity of the psychic life would have to be reckoned among the fundamental disorders of dementia praecox, while the remaining morbid symptoms, especially hallucinations and delusions . . . would be regarded more as secondary accompanying phenomena . . .

As psychiatric nosology has been modified over the past decades, largely in the service of greater reliability, the positive symptoms (designated accessory symptoms by Bleuler) have assumed principal

Hallucinations and Delusions Another reason for the greater tendency to diagnose schizophrenia in North America than in other countries is that many North American psychiatrists take it for granted that a patient who is hallucinating or who expresses paranoid delusions must be schizophrenic if no organic brain disease can be detected. For example, in a survey of psychiatrists in the United States delusions ranked second of the top 10 symptoms indicating schizophrenia and hallucinations fifth; psychiatrists in Great Britain list delusions in eighth place and hallucinations are not among the first 10 symptoms.

The clinician must not forget that the presence of delusions and hallucinations confirms only the presence of psychosis, not that of schizophrenia. Between 10 and 15 percent of bipolar I disorder patients have hallucinations or delusions. These symptoms indicate a serious loss of contact with reality, a principal criterion for the diagnosis of a psychotic condition, which may or may not be schizophrenic. At times schizophrenia-like symptoms frequently occur in cyclothymic disorder, and delusions and hallucinations may occur in other nonschizophrenic psychiatric conditions (e.g., delusional disorder, psychotic disorder, brief hysterical twilight states, toxic conditions, and mental disorders due to a medical general condition).

Diagnosing schizophrenia simply because delusions and hallucinations are present is like making the diagnosis of a coronary occlusion solely on the basis of pain in the chest or the diagnosis of typhoid fever only on the presence of sustained pyrexia. Single symptoms should certainly suggest conditions in which such symptoms frequently occur, but unless specific, conclusive tests exist for disease processes, a final differential diagnosis must always be based on the complete clinical picture.

Sensory and perceptual disorders, such as hallucinations, may indeed give good diagnostic clues. However, not all types of hallucinations point toward schizophrenia. There are important qualifications regarding the modality, the time, and the content of the hallucinations. Experiences of being controlled by outside forces or having strange, continuous, somatic (cenesthetic) hallucinations or auditory, verbal hallucinations (particularly if the voices are coming from God or the devil or address the patient in the second person or talk about him) may support a diagnosis of schizophrenia. Perceptual distortions of time or objects in space point toward a diagnosis of schizophrenia, but only if they have been present at least several days; otherwise, they may have a toxic origin. The time factor also applies to loss of ego boundaries and the experience of having one's thoughts spread to others.

The presence of delusions provides strong presumptive evidence for schizophrenia only if those delusions have strange, magical, esoteric, or bizarre content. A person who is convinced that he is deliberately discriminated against by his foreman at the factory, that his wife is running around with other men, or that his wife is trying to poison him may have paranoid delusions, but they are not necessarily due to schizophrenia. On the other hand, a man who is convinced that he is the victim of a Pentagon-directed plot to destroy his brain by special death rays beamed at him from space satellites or that he is the Virgin Mary expresses delusions that, by their very bizarre character, point definitely in the direction of schizophrenia.

The diagnosis of schizophrenia cannot be made entirely on the basis of observation, logical reasoning, or

objective measurement. It still requires a careful and comprehensive clinical evaluation. Such an evaluation must take into account the presence or absence of certain key schizophrenic symptoms, the patient's prepsychotic personality, the physical findings, the family genetic history, the social environment, the various aspects a good clinical anamnesis may reveal about the natural history of the disease, and any possible precipitating factors.

Catatonia Several investigators have emphasized that catatonia is not a disease entity or exclusively a subtype of schizophrenia but is instead a nonspecific syndrome that occurs quite frequently in other psychiatric conditions such as mania. In one study of 123 patients who satisfied the criteria for manic episode, following catatonic signs were present: stereotypy, echopraxia, and stupor. Others have reported the presence of a typical catatonic syndrome in organic brain diseases (e.g., cerebral aneurysm).

Anxiety Disorders Hysterical symptoms are common in schizophrenic breakdown; thus, the presence of hysterical, dissociative, or even conversion symptoms does not rule out a diagnosis of schizophrenia. Schizophrenic breakdown is preceded by a period of marked tension and anxiety, which may last only a few days or extend over many months. During the acute and subacute stages of a schizophrenic attack, anxiety and depression may color the clinical picture significantly, again without excluding the overruling diagnosis of schizophrenia, which in some cases has not yet diminished the patient's emotional reaction to the onslaught of the psychotic attack. Obsessive symptoms are common in schizophrenia, and what appears to be obsessive-compulsive disorder can develop into schizophrenia.

Bipolar I Disorder The differential diagnosis between schizophrenia and bipolar I disorder should not present many difficulties. The behavior of excited catatonic persons is directed primarily by their own qualitatively disordered mental process. Their actions are unpredictable and appear senseless, affect is difficult to understand, and verbal productions may be irrational and incoherent. Patients with mania, on the other hand, are distractible, and most of their actions are determined by their immediate environment. Their activity resembles that of an excessively busy person, rushing from one superficial job to another. Their affect is clearly one of playful euphoria or angry irritability but always outgoing and expansive. Their verbal productions are accelerated and increased in number, and they reveal a quantitative disorder of association processes, rather than the intrinsic, qualitative thought disorder of the patient with schizophrenia. Nevertheless, several investigators have raised the question, mainly on the basis of a favorable outcome, of whether schizophrenic episodes of relatively short duration are associated with mood disorders.

Depressive conditions should not be diagnosed as schizophrenic unless some unmistakably schizophrenic symptoms are present. In schizoaffective disorders (which may resemble bipolar disorders), the presence of clearly schizophrenic symptoms, such as schizophrenic thought disorder, places the reactions in the diagnostic category of schizophrenia.

Delusional Disorders Since delusions of persecution or grandeur are essential symptoms in both the paranoid type of schizophrenia and in the paranoid type of delusional disorders, the differential diagnosis between the two conditions must be carefully considered when paranoid symptoms prevail.

The diagnostic decision must be based on the presence or absence of the essential features of schizophrenia and its paranoid type.

Adolescent Disorders Any psychiatric disorder that occurs during adolescence assumes a certain schizophrenic coloring, since many of the features characteristic of nonschizophrenic adolescent turbulence—exaltation, intense preoccupation with abstract ideas, unpredictable variations of mood, daydreaming, introspection, shyness—are often seen in schizophrenia. Therefore, it is not unusual to misdiagnose a manic or depressive phase of a bipolar disorder as schizophrenia if the patient's first attack occurs in late adolescence. The rule that bipolar disorders do not occur in late adolescence is not always true; later recurrences of that mental disorder may cease to display symptoms resembling schizophrenia, and the correct diagnosis can then be made.

PSYCHOLOGICAL TESTS

There are no psychological tests for schizophrenia comparable to the definitive biological or immunological tests for pregnancy and syphilis. There are only psychological tests that are more or less compatible with a diagnosis of schizophrenia and make the diagnosis more or less probable. Tests can rarely establish a diagnosis by themselves, divorced from the clinical findings.

The clinical psychologist's tests differ from clinical observation and interview; the method of test administration is uniform and the final evaluation of the test findings is based on comparisons with statistical norms, at least with psychometric test instruments. In most clinical centers certain psychological test batteries are routinely used to indicate, confirm, or rule out a diagnosis of schizophrenia. These test batteries are usually composed of projective tests, psychometric tests, and personality inventories. The most frequently used projective tests are the Rorschach test, some drawing tests, and the Thematic Apperception Test (TAT). The most commonly used psychometric tests are the Wechsler Adult Intelligence Scale (WAIS) and some tests that probe concept formation and the organization of thought processes. The most widely used personality inventory is the Minnesota Multiphasic Personality Inventory-(MMP-2), a self-report questionnaire that renders profiles of psychopathology or response styles.

Effects of Medications Many patients with schizophrenia today have received some form of pharmacotherapy before they are seen by a psychiatrist. If they were given adequate dosages of antipsychotic drugs in the early stages of a schizophrenic attack, important key symptoms (e.g. the experience of being controlled, thought hearing, delusions, hallucinations, and inappropriate behavior) may have subsided within 2 or 3 days, and the disorder the psychiatrist now faces may lack all or most of its more specific distinguishing features. The dilemma is similar to that of making an accurate diagnosis of an acute abdominal condition after opioids have been administered or of diagnosing a septicemia after administration of antibiotics. The possible effect of previous antipsychotic pharmacotherapy on key schizophrenic symptoms must always be taken into account when making a differential diagnosis.

Substance-Related Disorders Another drug factor that may render a differential diagnosis of schizophrenia more difficult today is the widespread nonmedical use of amphetamines, crack cocaine, hallucinogens, and drugs with similar effects. Many young people who develop psychotic symptoms have a history of using these drugs. Amphetamines, amphetamine-like drugs, and cocaine in high doses can produce psychotic (usually paranoid) conditions that mimic schizophrenia in their symptoms and course so closely that a differential diagnosis may be impossible in some cases. Fortunately, treatment is the same for amphetamine-induced psychotic disorder and for paranoid schizophrenia. With hallucinogens, the psychotic symptoms may have more of a toxic character, with vivid nonauditory hallucinations and sometimes clouding of consciousness. Differentiating drug-induced psychosis from schizophrenic psychosis may sometimes be difficult. Schizophrenic symptoms seem to develop about 4 years earlier in drug users than in nonusers; thus, drugs may play a precipitating role in the onset of schizophrenia.

Cultural Factors An entirely new set of differential diagnostic problems has been generated by special lifestyles and philosophies, such as beliefs borrowed from Eastern cultures.

A 20-year-old college dropout was arrested in front of a gas station, where he was meditating and blocking traffic. (Inappropriate and bizarre behavior?) When he was arrested, he responded by laughing. (Inappropriate emotional reaction?) At the police station he expressed his need to “laugh or fuck” to “prevent thinking.” (Bizarre and irrelevant, probably autistic, reasoning?) The police concluded that he was clearly insane and delivered him to a mental hospital.

The young man told the psychiatrist who examined him that he was a Zen Buddhist and that thinking and analyzing things inhibited true growth of personality, according to his philosophy. He was convinced that the two best ways of preventing himself from getting lost in thinking were “laughing and fucking,” because both were incompatible with thinking. “Sort of reciprocal inhibition, if you believe in that stuff.” Under certain circumstances (e.g., in the police station) he could use only the laughing method. He tried to make things “buddhahful;” his smile indicated that that was a pun and not a neologism. Why had he chosen the gas station as a place to meditate? “Well, that's where the winds of Karma blew me.” After 30 minutes he terminated the interview by walking out of the room, remarking that he was becoming upset by the “very bad vibrations” he was getting from the psychiatrist.

After a few day's observation the man was discharged. The psychiatrist suspected that he might develop schizophrenia eventually, but there were no grounds for making the diagnosis at the time.

COURSE AND PROGNOSIS

Course

Natural History Using the term natural history is almost arbitrary in describing a heterogeneous group of disorders with differences in cause, onset, pathogenesis, course, and outcome. It is possible, however,

to describe the more common clinical patterns, even though they do not attain the frequency necessary to serve as absolute diagnostic criteria.

Mode of Onset Onset of the schizophrenic disorders ranges from acute to subacute to insidious. Onset usually occurs in late adolescence or early adulthood, somewhat earlier in men and later in women. Commonly following a prolonged period of increasing social withdrawal and turning inward to philosophical or religious interests or both, is the onset of psychotic illness. These individuals frequently show a childhood developmental pattern in which they tend to play by themselves, have few playmates, avoid eye contact, and be somewhat awkward in their motor activities. They tend to achieve developmental milestones later and frequently show poorer school performance than their siblings. About the time of onset of illness there is frequently social deterioration as well as a loss of interest in personal grooming and hygiene.

The prodromal period may continue for weeks and up to several years before the symptoms suffice to make a diagnosis. When properly recognized this long prodromal period offers an opportunity for early intervention. Studies are under way to evaluate the use of low-dosage antipsychotic treatment in high-risk individuals showing prodromal signs. However, some individuals have very short prodromal periods before the onset of a psychotic state. In these latter individuals the progression to psychosis is more obvious, while in the former cases the progression is almost imperceptible. Nevertheless, despite the variability the first psychotic episode is frequently associated with a stressful life event such as going off to college.

Characteristic of most psychotic states is the loss of reality testing and insight. As a consequence, a psychotic episode is often heralded by an increasing dissonance between persons and their social environment. As the members of the social environment become increasingly concerned it is not unusual for them to use some form of coercion to bring the patient to medical attention.

Episodic Course Some patients with schizophrenia may have five or more psychotic attacks, usually of the catatonic type, without suffering any obvious personality damage, but because the risk of developing a schizophrenic defect increases after each additional schizophrenic attack, today's therapeutic challenge is to use all available measures to prevent relapses.

In Russia, psychiatrists place special diagnostic importance on the occurrence of relapse and base their criteria for the differentiation of various types of schizophrenia on the character of the course of the illness. Three main types of schizophrenia are distinguished in Russia: (1) continuous, with subtypes of sluggish, progressive, and malignant schizophrenia; (2) periodic, not progressive; and (3) shiftlike progressive, again with subtypes mild, progressive, and malignant. Russian psychiatrists assume that these differences in the course of schizophrenia are also related to differences in cause, symptom formation, and response to treatment.

PROGNOSIS

[Table 12.7-8](#) lists features of schizophrenia that weigh toward a good or poor prognosis. It has been clinical knowledge since Kraepelin and Bleuler that the hebephrenic and simple types of schizophrenia have the poorest prognoses, that paranoid reactions have an intermediate prognosis, and that acute catatonic reactions have the best prognosis but that catatonic patients who go on to chronicity usually continue to regress and may become markedly deteriorated.

Good Prognosis	Poor Prognosis
Late onset	Young onset
Obvious precipitating factors	No precipitating factors
Acute onset	Insidious onset
Good premorbid social, sexual, and work histories	Poor premorbid social, sexual, and work histories
Mood disorder symptoms (especially depressive disorders)	Withdrawn, autistic behavior
Married	Single, divorced, or widowed
Family history of mood disorders	Family history of schizophrenia
Good support systems	Poor support systems
Positive symptoms	Negative symptoms
	Neurological signs and symptoms
	History of perinatal trauma
	No remissions in 3 years
	Many relapses
	History of assaultiveness

Table 12.7-8 Features Weighing Toward Good to Poor Prognosis in Schizophrenia

Modern pharmacotherapy has changed many of the old prognostic patterns. Today, a paranoid type schizophrenia patient's chances of making a good recovery are at least equal to those with the catatonic type. Even patients with the disorganized type often have good remissions after a few months of pharmacotherapy. The simple deteriorative disorder patient is still the least responsive to modern biological therapies. The more sudden the onset of a schizophrenic attack, the better are the chances for a good remission or complete recovery. If a precipitating event has clearly triggered the breakdown, the chances for a favorable outcome are also relatively better.

As a rule, the younger a patient is at the onset of schizophrenic psychosis, the worse is the prognosis. Patients with onset in childhood or early puberty seldom recover completely. Some investigators believe that there may be two major groups of people with schizophrenia: those with difficulties in childhood before the onset of schizophrenic symptoms and those with a history of normal childhood. The first group is characterized by lower I.Q.s, a higher incidence of difficulties in school, poor peer group adjustment, an earlier age of first psychiatric contact, evidence of possible minimal brain damage, and a poor prognosis.

A history of good adjustment in the important areas of social, sexual, and occupational functioning before the breakdown also indicated a favorable prognosis. Married men with schizophrenia have a better prognosis than do single, divorced, or widowed patients; the fact that they are married is evidence that interpersonal bonds may serve as a bridge for a return to the community. Patients who relate easily to people in their environment and who are capable of emotional warmth and natural emotional reactions have a good chance for reintegration. The presence of depression as in schizophrenia also improves the prognosis. Conversely, sustained emotional withdrawal and aloofness or shallow and inappropriate affective responses are ominous prognostic signs. In 1968 this first author and Felix Sugeran drew attention to the significance of formal thought disorder and of reaction time performance for the prognosis in patients with schizophrenia. They found that a combination of test results for thought

disorder and motor reaction time, combined with the presence or absence of depression and marital status, gave the most important clues to the final outcome in their sample of schizophrenia patients. In 1973 a report concluded from an extended follow-up study of patients with schizophrenia that most of them seemed to reach a plateau about 5 years after their first breakdown and that those who had not remitted after 2 to 3 years faced a guarded outlook.

However, one must not assume that the prognostic indicators that are relatively well established for schizophrenia patients in Western culture are universally valid. A different cultural setting may produce different results. For example, one study examined admission data and 12-year outcomes for Moslem Indian, Hindu Indian, and African schizophrenia patients on the island of Mauritius and found that only for the small Moslem Indian sample were prognostic criteria comparable to those of a British sample. In the Hindu Indian and non-Indian groups, the results were no better than chance. Depression was not associated with recovery; sudden onset was a favorable factor in the Indian group but not in the others; flatness of affect was not highly associated with chronicity. Only the absence of a good work history gave the expected results. But two features that are not known to have prognostic significance in the West, psychosomatic symptoms and somatic disease, had a strong association with chronicity in the Hindu Indian and African groups of the Mauritius schizophrenia patients.

Family The family plays an important role in a patient's prognosis. A number of studies in recent years have shown that many patients with schizophrenia come from deeply disturbed families. Before making a prognosis one should determine whether the patient is accepted by the family and whether the dynamic pattern of communication within the family is adequate or characterized by irrationality, deficient sharing of foci of attentions, or the production of double-bind messages.

Relapses A new prognostic factor has emerged in the past few years, the patient's cooperation and conscientiousness in following prescribed drug maintenance therapy. Many patients with schizophrenia can be rendered relatively symptom free within a few weeks or months, but about 60 percent of them can be maintained in that condition only with continued drug therapy after they have been discharged into the community. Placebo-controlled maintenance studies have established this point well. The more often patients neglect taking their maintenance medications (i.e., the worse their compliance), the more likely they are to suffer relapse.

Several important observations have been made about the factors that determine whether a patient in remission will suffer a relapse. The most important protective factor is undoubtedly maintenance therapy with antipsychotic drugs. One study noted a history of sudden social or psychological traumas (e.g., the death of a parent, moving from one apartment to another) during the 3 weeks preceding schizophrenic relapses in about 60 percent of cases.

The type of home in which the patient in remission resides plays a vital role. In one American study patients with schizophrenia fared better in conjugal homes than in parental homes, but some British investigators made the opposite observation in their sample. Most importantly, clear correlations exist between exposure to expressed negative critical emotions in the household of a patient with

schizophrenia in remission and the likelihood of relapse. The critical time limit seemed to be about 35 hours of such exposure a week. When that time limit was exceeded, even maintenance drug therapy was often inadequate in preventing relapse.

Deterioration The risk of personality deterioration increases with each schizophrenic relapse. Schizophrenic recoveries are often called remissions because many of the patients later relapse. Although patients may remit again, each schizophrenic attack carries a greater probability of some permanent personality damage. Risk of personality deterioration increases rapidly after the second relapse. However, chronic schizophrenia does not inevitably lead to intellectual deterioration. In fact, in one sample, patients with chronic schizophrenia retained or improved their mean intelligence scores in spite of old age and prolonged institutionalization over a period of 14 years. In a group of schizophrenia patients who were followed over a 10-year period, schizophrenic symptoms decreased by 15 percent.

Final Outcome A schizophrenia patient's chances for a favorable outcome of the psychosis are estimated today to be about 4 to 5 times better than they were before World War 1. Kraepelin reported in 1913 that nearly 13 percent of his patients with dementia precox recovered from their first attack, but most of them later relapsed. Altogether, only about 15 percent ultimately had passable social remissions, usually with slight-to-moderate personality damage. Today, with good follow-up therapy and well-controlled maintenance drug treatment, only some 10 to 15 percent of patients in remission relapse within a year, compared with about 65 to 70 percent who relapse during the same period without such follow-up treatment. There are five possible outcomes for the patient with schizophrenia: full and permanent recovery; full remission, with one or more future relapses; social remission with personality defect and with the patient either capable of self-care and self-support or dependent on protection and supervision; stable chronicity; and deterioration to a terminal stage.

Deterioration to a Terminal Stage A vegetable-like existence is rare among patients with schizophrenia who have become ill during the past 25 years. Modern biological and social therapies are generally successful in preventing at least the terminal stage of deterioration, which was the most probable outcome of schizophrenia in Kraepelin's time and which was probably due to the ravages of institutionalization more than to schizophrenia. The modern mental hospital has few patients who illustrate this terminal stage of schizophrenia. Almost all patients with the symptoms and signs of extreme regression of behavior, affect, and ideation were admitted 30 or more years ago.

Stable Chronicity Despite all intensive therapeutic efforts, many patients with schizophrenia remain in a state of stable chronicity, although they do not regress to a terminal stage of deterioration. Their psychotic symptoms may make it necessary to keep them hospitalized or, if the symptoms are not severe, they may reside outside the mental hospital. They remain definitely incapacitated, with clearly visible signs and symptoms of active mental disease. In a study of schizophrenia patients from 1913 to 1923, when virtually no treatment was available for chronic schizophrenia, clinicians reported that some patients who had been chronically ill for almost 10 years occasionally had spontaneous remissions that lasted for years.

The combination of institutionalism and poverty frequently works to the detriment of the patient, and it is often difficult to determine how much of the patient's defective functioning is due to each of these factors. However, many patients do not seem to be much better off in the community than in the hospital. It has been estimated that unemployed patients with chronic schizophrenia living outside the hospital spend about 30 percent of their time doing nothing, which is approximately what one observes in chronic schizophrenic patients residing in a modern hospital. The casual observer in big cities (not only in the poor districts) encounters many of those formerly hospitalized schizophrenic patients along the sidewalks, talking to themselves and passers by, gesticulating, preaching, or just sitting around.

It is difficult to estimate how many patients with schizophrenia today will end up in this category of stable chronicity, but under good therapeutic conditions, the percentage almost certainly will not exceed 30 to 40 percent. The remainder of the patients will either remit or recover.

Remission and Social Recovery Many patients with schizophrenia today fall into the categories of stable remission with personality defect and full remission with relapse. Schizophrenic personality defects and schizophrenic residual states are characterized by a reduction of ambition, initiative, available energy, and emotional responsiveness. Persons in that state may be more withdrawn, more aloof, and more selfish than they were before the onset of illness. They may neglect their personal appearance, and they almost certainly go down on the occupational ladder. Professional persons may, at first, still hold professional positions, but positions with reduced responsibility and less scope for personal initiative. They may eventually end up doing menial work well below their educational level. Persons with schizophrenic personality defect cannot readily assume responsibility. They cannot cope with competitive pressures and cannot tolerate time pressure. They are best suited for quiet, routine work they can perform independently from others and at their own pace. Some former schizophrenia patients, therefore, prefer to do night-shift work, because it is less demanding and often permits them to work alone.

The personality defect may be so pronounced that patients cannot take charge of their own affairs and require continuous protective supervision and sheltered work conditions. If the personality defect is less pronounced, patients may be capable of acting independently and supporting themselves, although usually at a lower occupational level than before the illness. Sometimes the personality defect is so slight that only the patient's family and close friends recognize the subtle changes that have taken place—a diminished capacity for enthusiasm, lessened spontaneity, decreased initiative, and a decline in creative imagination. In most daily life situations the patient may even function socially at an apparently normal level.

Full and Permanent Recovery The prospect for full and permanent recovery from a schizophrenic episode is probably considerably brighter today than it was a half century ago, when the chances for such complete recovery were only 2 to 4 percent. Under careful supervision, antipsychotic drugs can now prevent relapse that could not have been prevented before the advent of those drugs. Only with maintenance drug therapy has it become possible to prevent relapses and thereby greatly reduce the risk of personality deterioration in many patients. Nevertheless, the introduction of modern treatment methods over the years has not yet significantly increased the actual number of full, permanent

recoveries.

Occupational Rehabilitation Studies found that about 60 percent of schizophrenia patients were employed 75 percent of the time over a 5-year period. A follow-up study of a sample of 108 schizophrenia first-admission patients for 5 years revealed that they had been working for 65 percent of that period. Of a series of 188 discharged patients, 67 percent were employed for more than half of the 1-year follow-up period. Other studies found that more than half of a group of male schizophrenia patients had been employed more than half of the 5-year follow-up period. Among 100 hospitalized patients with schizophrenia followed for 5 years after discharge, 18 percent of the patients had not been employed at all during the follow-up period, but the other patients had been employed, on average, for 57 percent of the follow-up period.

FUTURE DIRECTIONS

Schizophrenia as currently diagnosed does not inevitably lead to severe deterioration but it is usually chronic and psychologically disabling to a significant degree. The better the premorbid social adjustment, the better the prognosis. Individuals who had good interpersonal skills and good psychosocial adaptation premorbidly do better than those who showed premorbid withdrawal. The outcome of schizophrenia tends to be worse in terms of functional level than it is in the affective disorders. Like the mood disorders, it is associated with an increased risk of suicide but a much shorter life expectancy, because suicide tends to occur in young adulthood. While the disorder tends to plateau clinically after about 5 years, it does not tend to remit in symptomatology until after the age of 50. Evidence suggests that patients do better in a rural and less demanding environment than they do in a complex urban culture. While it is possible to be more reassuring today than it was in the preneuroleptic era, the prognosis for full psychosocial recovery is still guarded, and families must be informed honestly of what can be expected.

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**Table 12.7-1** DSM-IV Diagnostic Criteria for Schizophrenia

-
- A. *Characteristic symptoms:* Two (or more) of the following, each present for a significant portion of time during a 1-month period (or less if successfully treated):
- (1) delusions
 - (2) hallucinations
 - (3) disorganized speech (eg, frequent derailment or incoherence)
 - (4) grossly disorganized or catatonic behavior
 - (5) negative symptoms, i.e, affective flattening, alogia, or avolition

Note: Only one criterion A symptom is required if delusions are bizarre or hallucinations consist of a voice keeping up a running commentary on the person's behavior or thoughts, or two or more voices conversing with each other.

- B. *Social/occupational dysfunction:* For a significant portion of the time since the onset of the disturbance, one or more major areas of functioning, such as work, interpersonal relations, or self-care, are markedly below the level achieved prior to the onset (or when the onset is in childhood or adolescence, failure to achieve expected level of interpersonal, academic, or occupational achievement).
- C. *Duration:* Continuous signs of the disturbance persist for at least 6 months. This 6-month period must include at least 1 month of symptoms (or less if successfully treated) that meet criterion A (ie, active-phase symptoms) and may include periods of prodromal or residual symptoms. During these prodromal or residual periods, the signs of the disturbance may be manifested by only negative symptoms or two or more symptoms listed in criterion A present in an attenuated form (eg, odd beliefs, unusual perceptual experiences).
- D. *Schizoaffective and mood disorder exclusion:* Schizoaffective disorder and mood disorder with psychotic features have been ruled out because either: (1) no major depressive, manic, or mixed episodes have occurred concurrently with the active-phase symptoms; or (2) if mood episodes have occurred during active-phase symptoms, their total duration has been brief relative to the duration of the active and residual periods.
- E. *Substance/general medical condition exclusion:* The disturbance is not due to the direct physiological effects of a substance (eg, a drug of abuse, a medication) or a general medical condition.

is not due to the direct physiological effects of a substance (eg, a drug of abuse, a medication) or a general medical condition.

- F. *Relationship to a pervasive developmental disorder:* If there is a history of autistic disorder or another pervasive developmental disorder, the additional diagnosis of schizophrenia is made only if prominent delusions or hallucinations are also present for at least a month (or less if successfully treated).

Classification of longitudinal course (can be applied only after at least 1 year has elapsed since the initial onset of active-phase symptoms):

Episodic with interepisode residual symptoms (episodes are defined by the reemergence of prominent psychotic symptoms); *also specify if: with prominent negative symptoms*

Episodic with no interepisode residual symptoms

Continuous (prominent psychotic symptoms are present throughout the period of observation); *also specify if: with prominent negative symptoms*

Single episode in partial remission; *also specify if: with prominent negative symptoms*

Single episode in full remission

Other or unspecified pattern

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Table 12.7-2 ICD-10 Diagnostic Criteria for Schizophrenia

This overall category includes the common varieties of schizophrenia, together with some less common varieties and closely related disorders.

General criteria for paranoid, hebephrenic, catatonic, and undifferentiated schizophrenia

G1. Either *at least one* of the syndromes, symptoms, and signs listed under (1) below, *or* at least two of the symptoms and signs listed under (2) should be present for most of the time during an episode of psychotic illness lasting for at least 1 month (or at some time during most of the days).

(1) At least one of the following must be present:

- (a) thought echo, thought insertion or withdrawal, or thought broadcasting;
- (b) delusions of control, influence, or passivity, clearly referred to body or limb movements or specific thoughts, actions, or sensations; delusional perception;
- (c) hallucinatory voices giving a running commentary on the patient's behavior, or discussing the patient among themselves, or other types of hallucinatory voices coming from some part of the body;
- (d) persistent delusions of other kinds that are culturally inappropriate and completely impossible (eg being able to control the weather, or being in communication with aliens from another world).

(2) *Or* at least two of the following:

- (a) persistent hallucinations in any modality, when occurring every day for at least 1 month, when accompanied by delusions (which may be fleeting or half-formed) without clear affective content, or when accompanied by persistent overvalued ideas;
- (b) neologisms, breaks, or interpolations in the train of thought, resulting in incoherence or irrelevant speech;
- (c) catatonic behavior, such as excitement, posturing or waxy flexibility, negativism, mutism, and stupor;
- (d) "negative" symptoms, such as marked apathy, paucity of speech, and blunting or incongruity of emotional responses (it must be clear that these are not due to depression or to neuroleptic medication).

G2. *Most commonly used exclusion clauses*

- (1) If the patient also meets criteria for manic episode or depressive episode, the criteria listed under G1(1) and G1(2) above must have been met *before* the disturbance of mood developed.
- (2) The disorder is not attributable to organic brain disease or to alcohol- or drug-related intoxication, dependence, or withdrawal.

Comments

In evaluating the presence of these abnormal subjective experiences and behavior, special care should be taken to avoid false-positive assessments, especially where culturally or subculturally influenced modes of expression and behavior or a subnormal level of intelligence are involved.

Pattern of course

In view of the considerable variation of the course of schizophrenic disorders it may be desirable (especially for research) to specify the *pattern of course* by using a fifth character. Course should not usually be coded unless there has been a period of observation of at least 1 year.

Continuous

No remission of psychotic symptoms throughout the period of observa-

Episodic with stable deficit

Persistent but nonprogressive "negative" symptoms in the intervals between psychotic episodes.

Episodic remittent

Complete or virtually complete remissions between psychotic episodes.

Incomplete remission

Complete remission

Other

Course uncertain, period of observation too short

Paranoid schizophrenia

- A. The general criteria for schizophrenia must be met.
- B. Delusions or hallucinations must be prominent (such as delusions of persecution, reference, exalted birth, special mission, bodily change, or jealousy; threatening or commanding voices, hallucinations of smell or taste, sexual or other bodily sensations.)
- C. Flattening or incongruity of affect, catatonic symptoms, or incoherent speech must not dominate the clinical picture, although they may be present to a mild degree.

Hebephrenic schizophrenia

- A. The general criteria for schizophrenia must be met.
- B. Either of the following must be present:
 - (1) definite and sustained flattening or shallowness of affect;
 - (2) definite and sustained incongruity or inappropriateness of affect.
- C. Either of the following must be present:
 - (1) behavior that is aimless and disjointed rather than goal-directed;
 - (2) definite thought disorder, manifesting a speech that is disjointed, rambling, or incoherent.
- D. Hallucinations or delusions must not dominate the clinical picture, although they may be present to a mild degree.

Catatonic schizophrenia

The general criteria for schizophrenia must eventually be met, although this may not be possible initially if the patient is uncommunicative.

For a period of at least 2 weeks one or more of the following catatonic behaviors must be prominent:

- (1) stupor (marked decrease in reactivity to the environment and reduction of spontaneous movements and activity) or mutism;
- (2) excitement (apparently purposeless motor activity, not influenced by external stimuli);
- (3) posturing (voluntary assumption and maintenance of inappropriate or bizarre postures);
- (4) negativism (an apparently motiveless resistance to all instructions or attempts to be moved, or movement in the opposite direction);
- (5) rigidity (maintenance of a rigid posture against efforts to be moved);
- (6) waxy flexibility (maintenance of limbs and body in externally imposed positions);
- (7) command automatism (automatic compliance with instruction).

Undifferentiated schizophrenia

The general criteria for schizophrenia must be met.

Either of the following must apply:

- (1) insufficient symptoms to meet the criteria for any of the

Continuous

No remission of psychotic symptoms throughout the period of observation.

Episodic with progressive deficit

Progressive development of "negative" symptoms in the intervals between psychotic episodes.

Postschizophrenic depression

The general criteria for schizophrenia must have been met within the past 12 months but are not met at the present time.

One of the conditions in criterion G1(2) a, b, c, or d for general schizophrenia must still be present.

- C. The depressive symptoms must be sufficiently prolonged, severe, and extensive to meet criteria for at least a mild depressive episode.

Residual schizophrenia

A. The general criteria for schizophrenia must have been met at some time in the past but are not met at the present time.

B. At least four of the following "negative" symptoms have been present throughout the previous 12 months:

- (1) psychomotor slowing or underactivity;
- (2) definite blunting of affect;
- (3) passivity and lack of initiative;
- (4) poverty of either the quantity or the content of speech;
- (5) poor nonverbal communication by facial expression, eye contact, voice modulation, or posture;
- (6) poor social performance or self-care.

(1) insufficient symptoms to meet the criteria for any of the subtypes

(2) so many symptoms that the criteria for more than one of the subtypes listed above are met.

Simple schizophrenia

A. There is slow but progressive development, over a period of at least 1 year, of all three of the following:

- (1) a significant and consistent change in the overall quality of some aspects of personal behavior, manifest as loss of drive and interests, aimlessness, idleness, a self-absorbed attitude, and social withdrawal;
- (2) gradual appearance and deepening of "negative" symptoms such as marked apathy, paucity of speech, underactivity, blunting of affect, passivity and lack of initiative, and poor nonverbal communication (by facial expression, eye contact, voice modulation, and posture);
- (3) marked decline in social, scholastic, or occupational performance.

B. At no time are there any of the symptoms referred to in criterion G1 for general schizophrenia, nor are there hallucinations or well-formed delusions of any kind; ie, the individual must never have met the criteria for any other type of schizophrenia or for any other psychotic disorder.

C. There is no evidence of dementia or any other organic mental disorder.

Other schizophrenia**Schizophrenia, unspecified**

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Table 12.7-3 DSM-IV Diagnostic Criteria for Schizophrenia Subtypes**Paranoid Type**

A type of schizophrenia in which the following criteria are met:

- A. Preoccupation with one or more delusions or frequent auditory hallucinations
- B. None of the following is prominent: disorganized speech, disorganized or catatonic behavior, or flat or inappropriate affect.

Disorganized Type

A type of schizophrenia in which the following criteria are met:

- A. All of the following are prominent:
 - (1) disorganized speech
 - (2) disorganized behavior
 - (3) flat or inappropriate affect
- B. The criteria are not met for catatonic type.

Catatonic Type

A type of schizophrenia in which the clinical picture is dominated by at least two of the following:

- (1) motoric immobility as evidenced by catalepsy (including waxy flexibility) or stupor
- (2) excessive motor activity (that is apparently purposeless and not influenced by external stimuli)
- (3) extreme negativism (an apparently motiveless resistance to all instructions or maintenance of a rigid posture against attempts to be moved) or mutism
- (4) peculiarities of voluntary movement as evidenced by posturing (voluntary assumption of inappropriate or bizarre postures), stereotyped movements, prominent mannerisms, or prominent grimacing
- (5) echolalia or echopraxia

Undifferentiated Type

A type of schizophrenia in which symptoms that meet criterion A are present, but the criteria are not met for the paranoid, disorganized, or catatonic type.

Residual Type

A type of schizophrenia in which the following criteria are met:

- A. Absence of prominent delusions, hallucinations, disorganized speech, and grossly disorganized or catatonic behavior.
- B. There is continuing evidence of the disturbance, as indicated by the presence of negative symptoms or two or more symptoms listed in criterion A for schizophrenia, present in an attenuated form (e.g., odd beliefs, unusual perceptual experiences)

listed in criterion A for schizophrenia, present in an attenuated form (e.g., odd beliefs, unusual perceptual experiences).

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**Table 12.7-4** DSM-IV Research Criteria for Simple Deteriorative Disorder (Simple Schizophrenia)

-
- A. Progressive development over a period of at least a year of all of the following:
- (1) marked decline in occupational or academic functioning
 - (2) gradual appearance and deepening of negative symptoms such as affective flattening, alogia, and avolition
 - (3) poor interpersonal rapport, social isolation, or social withdrawal
- B. Criterion A for schizophrenia has never been met.
- C. The symptoms are not better accounted for by schizotypal or schizoid personality disorder, a psychotic disorder, a mood disorder, an anxiety disorder, a dementia, or mental retardation and are not due to the direct physiological effects of a substance or a general medical condition.
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Table 12.7-5 Essential Features of Various Diagnostic Criteria for Schizophrenia

KURT SCHNEIDER CRITERIA

1. First-rank symptoms
 - a. Audible thoughts
 - b. Voices arguing or discussing or both
 - c. Voices commenting
 - d. Somatic passivity experiences
 - e. Thought withdrawal and other experiences of influenced thought
 - f. Thought broadcasting
 - g. Delusional perceptions
 - h. All other experiences involving volition, made affects, and made impulses
2. Second-rank symptoms
 - a. Other disorders of perception
 - b. Sudden delusional ideas
 - c. Perplexity
 - d. Depressive and euphoric mood changes
 - e. Feelings of emotional impoverishment
 - f. "and several others as well"

GABRIEL LANGFELDT CRITERIA

1. Symptom criteria

Significant clues to a diagnosis of schizophrenia are (if no sign of cognitive impairment, infection, or intoxication can be demonstrated):

- a. Changes in personality, which manifest themselves as a special type of emotional blunting followed by lack of initiative, and altered, frequently peculiar behavior. (In hebephrenia, especially, the changes are characteristic and are a principal clue to the diagnosis.)
- b. In catatonic types, the history and the typical signs in periods of restlessness and stupor (with negativism, oily facies, catalepsy, special vegetative symptoms, etc.)
- c. In paranoid psychoses, essential symptoms of split personality (or depersonalization symptoms) and a loss of reality feeling (derealization symptoms) or primary delusions
- d. Chronic hallucinations

2. Course criterion

A final decision about diagnosis cannot be made before a follow-up period of at least 5 years has shown a long-term course of disease

NEW HAVEN SCHIZOPHRENIA INDEX

- | | |
|--|---------------------|
| 1. a. Delusions: not specified or other-than-depressive | 2 points |
| b. Auditory hallucinations | } any one: 2 points |
| c. Visual hallucinations | |
| d. Other hallucinations | |
| 2. a. Bizarre thoughts | } any one: 2 points |
| b. Autism or grossly unrealistic private thoughts | |
| c. Looseness of associations, illogical thinking, overinclusion | |
| d. Blocking | |
| e. Concreteness | } either: 2 points |
| f. Derealization | |
| g. Depersonalization | } each: 1 point |
| 3. Inappropriate affect | |
| 4. Confusion | 1 point |
| 5. Paranoid ideation (self-referential thinking, suspiciousness) | 1 point |
| 6. Catatonic behavior | } |
| a. Excitement | |
| b. Stupor | |

FLEXIBLE SYSTEM

Minimum number of symptoms required can be four to eight, depending on investigator's choice:

1. Restricted affect
2. Poor insight
3. Thoughts aloud
4. Poor rapport
5. Widespread delusions
6. Incoherent speech
7. Unreliable information
8. Bizarre delusions
9. Nihilistic delusions
10. Absence of early awakening (1 to 3 hours)
11. Absence of depressed facies
12. Absence of elation

RESEARCH DIAGNOSTIC CRITERIA

Criteria 1 through 3 required for diagnosis:

1. At least two of the following for definite illness and one for probable (not counting those occurring during period of drug or alcohol abuse or withdrawal):
 - a. Thought broadcasting, insertion, or withdrawal
 - b. Delusions of being controlled or influenced, other bizarre delusions, or multiple delusions
 - c. Delusions other than persecution or jealousy lasting at least one month
 - d. Delusions of any type if accompanied by hallucinations of any type for at least one week
 - e. Auditory hallucinations in which either a voice keeps up a running commentary on subject's behaviors or thoughts as they occur or two or more voices converse with each other
 - f. Nonaffective verbal hallucinations spoken to subject
 - g. Hallucinations of any type throughout day for several days or intermittently for at least one month
 - h. Definite instances of marked formal thought disorders accompanied by blunted or inappropriate affect, delusions, or hallucinations of any type or grossly disorganized behavior
2. One of the following:
 - a. Current period of illness lasted at least 2 weeks from onset of noticeable change in subject's usual condition
 - b. Subject has had previous period of illness lasting at least two weeks, during which he or she met criteria, and residual signs of illness have remained (eg, extreme social withdrawal, blunted or inappropriate affect, formal thought disorder, or unusual thoughts or perceptual experiences)
3. At no time during active period of illness being considered did subject meet criteria for probable or definite manic or depressive syndrome to the degree that it was a prominent part of illness

ST. LOUIS CRITERIA

1. Both necessary:
 - a. Chronic illness with at least 6 months of symptoms before index evaluation without return to premorbid level of psychosocial adjustment
 - b. Absence of period of depressive or manic symptoms sufficient to qualify for mood disorder or probable mood disorder
2. At least one of the following:
 - a. Delusions or hallucinations without significant perplexity or disorientation
 - b. Verbal production that makes communication difficult owing to lack of logical or understandable organization (in presence of muteness, diagnostic decision must be deferred)
3. At least three for definite, two for probable, illness:
 - a. Never married

- a. Excitement
- b. Stupor
- c. Waxy flexibility
- d. Negativism
- e. Mutism
- f. Echolalia
- g. Stereotyped motor activity

} Any one: 1 point

Scoring: To be considered part of the schizophrenic group, the patient must score on Item 1 or Item 2a, 2b, or 2c and must receive a total score of at least 4 points.

PRESENT STATE EXAMINATION

The following 12 items from the Present State Examination correspond to a 12-point diagnostic system for schizophrenia, with varying levels of certainty of diagnosis based on the cut-off score determined by the examiner. Nine of the symptoms are scored 1 point each when present (+), and three are scored 1 point each when absent (-).

1. Restricted affect (+)
2. Poor insight (+)
3. Thoughts aloud (+)
4. Awakening early (-)
5. Poor rapport (+)
6. Depressed facies (-)
7. Elation (-)
8. Widespread delusions (+)
9. Incoherent speech (+)
10. Unreliable information (+)
11. Bizarre delusions (+)
12. Nihilistic delusions (+)

TSUANG AND WINOKUR CRITERIA

- I. Hebephrenic (A through D must be present):
 - A. Age of onset and sociofamilial data (one of the following):
 1. Age of onset before 25 years
 2. Unmarried or unemployed
 3. Family history or schizophrenia

3. At least three for definite, two for probable, illness:
 - a. Never married
 - b. Poor premorbid social adjustment or work history
 - c. Family history of schizophrenia
 - d. Absence of alcohol or other substance abuse within one year of onset
 - e. Onset before age 40

- B. Disorganized thought
- C. Affect changes (either 1 or 2):
 1. Inappropriate affect
 2. Flat affect
- D. Behavioral symptoms (either 1 or 2):
 1. Bizarre behavior
 2. Motor symptoms (either a or b):
 - a. Hebephrenic traits
 - b. Catatonic traits (if present, subtype may be modified to hebephrenia with catatonic traits)
- II. Paranoid (A through C must be present):
 - A. Age of onset and sociofamilial data (one of the following):
 1. Age of onset after 25 years
 2. Married or employed
 3. Absence of family history of schizophrenia
 - B. Exclusion criteria:
 1. Disorganized thoughts must be absent or of mild degree, such that speech is intelligible
 2. Affective and behavioral symptoms, as described in hebephrenia, must be absent or of mild degree
 - C. Preoccupation with extensive, well-organized delusions or hallucinations

The criteria of Schneider and Langfeld are reprinted with permission from World Psychiatric Association: *Diagnostic Criteria for Schizophrenic and Affective Psychoses*. American Psychiatric Press, Washington, DC, 1983. The criteria of St. Louis, Research Diagnostic Criteria, New Haven Schizophrenia Index, and Flexible are reprinted with permission from Endicott J, Nee J, Fleiss L, Cohen J, Williams JBW, Simon R: Diagnostic criteria for schizophrenia. *Arch Gen Psychiatry* 39:884, 1982. The criteria for Tsuang and Winokur are reprinted with permission from Tsuang MT, Winokur G: Criteria for hebephrenic and paranoid schizophrenia. *Arch Gen Psychiatry* 31:43, 1974.

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Table 12.7-8 Features Weighing Toward Good to Poor Prognosis in Schizophrenia

Good Prognosis	Poor Prognosis
Late onset	Young onset
Obvious precipitating factors	No precipitating factors
Acute onset	Insidious onset
Good premorbid social, sexual, and work histories	Poor premorbid social, sexual, and work histories
Mood disorder symptoms (especially depressive disorders)	Withdrawn, autistic behavior
Married	Single, divorced, or widowed
Family history of mood disorders	Family history of schizophrenia
Good support systems	Poor support systems
Positive symptoms	Negative symptoms
	Neurological signs and symptoms
	History of perinatal trauma
	No remissions in 3 years
	Many relapses
	History of assaultiveness

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Table 12.7-6 Schedule of a Person with Catatonic Schizophrenia

Time	Activity
7:00–8:00	Cold bath, toiletries, bed, dress
8:00–8:15	Encyclopedia (memorize three facts)
8:15–8:30	Handwriting
8:30–8:45	Brisk walk
8:45–9:00	Breakfast (one apple, one dish of bran, two glasses of milk, two glasses of water)
9:00–10:00	Hearing, sight, and scent
10:00–11:00	European, financial, and sport news
11:00–12:00	Wax floors and clean door knobs
12:00–1:00	Cold bath and exercises
1:00–1:30	Geometry
1:30–1:45	Vegetable lunch (very light)
1:45–2:45	Music
2:45–3:45	Walk as far as Atwater and then back to library
3:45–4:45	Study at library
5:00–6:00	Accounting
6:00–6:20	Cold bath
6:20–6:35	Vegetable supper
6:35–8:05	Accounting
8:05–9:00	Hearing, sight, and scent
9:00–9:30	Strength and Health Magazine
9:30–10:00	Wardrobe
10:00–10:20	Cold bath
10:20–10:40	Study vocabulary (12 words)
10:40–11:00	Undress and toiletries
11:00–11:15	Breathing exercises
11:15–11:30	Note improvement in mental fortitude in diary

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Table 12.7-7 Percentage of Patients With Negative and Positive Symptoms (111 Consecutively Admitted Schizophrenic Patients)

Symptoms	Mild or Moderate	Severe or Extreme
Negative symptoms		
Affective flattening		
Unchanging facial expression	54	33
Decreased spontaneous movements	37	14
Paucity of expressive gestures	34	24
Poor eye contact	39	16
Affective nonresponsivity	18	18
Inappropriate affect	29	22
Lack of vocal inflections	40	9
Alogia		
Poverty of speech	20	20
Poverty of content of speech	33	6
Blocking	12	3
Increased response latency	17	6
Avolition-apathy		
Grooming and hygiene	33	41
Impersistence at work or school	13	74
Physical anergia	36	31
Anhedonia-asociality		
Recreational interests, activities	38	41
Sexual interest, activity	11	23
Intimacy, closeness	24	35
Relationship with friends, peers	25	63
Attention		
Social inattentiveness	25	32
Inattentiveness during testing	33	19
Positive symptoms		
Hallucinations		
Auditory	19	51
Voices commenting	22	12
Voices conversing	27	12
Somatic-tactile	10	6
Olfactory	5	1
Visual	16	15
Delusions		
Persecutory	19	47
Jealousy	2	1
Guilt sin	16	2

Jealousy	2	1
Guilt, sin	16	2
Grandiose	15	15
Religious	12	11
Somatic	11	11
Delusions of reference	13	21
Delusions of being controlled	25	12
Delusions of mind reading	19	14
Thought broadcasting	11	2
Thought insertion	15	4
Thought withdrawal	11	6
Bizarre behavior		
Clothing, appearance	8	4
Social, sexual behavior	17	7
Aggressive/agitated behavior	14	6
Repetitive/stereotyped behavior	7	4
Positive formal thought disorder		
Derailment	30	4
Tangentiality	28	4
Incoherence	9	1
Illogicality	10	1
Circumstantiality	14	0
Pressure of speech	14	0
Distractible speech	12	1
Clanging	1	0

Adapted from Andreasen NC: The diagnosis of schizophrenia. *Schizophr Bull* 13:9, 1987.

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