13 Diagnosing Psychosis

The psychoses aren't so terribly common. Historically, however, they were of signal importance in helping to establish the mental health healing professions. Many of the great names of 19th-century mental health—Kraepelin, Bleuler, Alzheimer—cut their diagnostic teeth on schizophrenia, bipolar psychoses, and cognitive psychoses. Today the economic impact of schizophrenia alone is huge: For the United States in 2010, the total of direct and indirect costs was over $60 *billion*. And in nonmonetary terms, schizophrenia and its close relatives are responsible for a mountain of human effort, recrimination, and misery, preoccupying patients, relatives, and caregivers alike. For all these reasons, diagnosing schizophrenia is one of the more important skills of any mental health clinician, though in my opinion, it is exceeded by the ability to determine that a psychotic patient does *not* have schizophrenia.

Psychosis means being in some way out of contact with reality. In a practical sense, this loss of touch can be manifested by having symptoms in one or more of the following five groups. By the way, whereas I don't ordinarily favor rote memorization of criteria (that's what we have books for), I do make an exception in the case of these basic criteria for schizophrenia, which clinicians often need in the pursuit of diagnostic clarity.

Psychosis requires at least one, schizophrenia two (including one of numbers 1, 2, or 3), of these five:

1. *Hallucinations*. In the absence of external stimulation, the person perceives sensory input. The result is a belief that the person hears voices when no one is speaking, or sees people, objects, even whole tableaus that are not really there. Although hallucinations of smell, touch, and taste can also occur, they are far less common than those of hearing or vision.

The film *A Beautiful Mind*, which portrays the psychosis of the real-life mathematician John Nash, brings home to the viewer just how real these hallucinated sensations can seem to the psychotic person.

2. *Delusions.* Believing something to be true that is not, the individual cannot be persuaded otherwise. These false ideas often involve persecution, such as by government agencies, but others may be grandiose. Delusions of guilt, poverty, ill health, infidelity by a spouse, and influence or thought control through information media (newspapers, television, radio) are also possible.

Consider, for example, Daniel Paul Schreber, whose memoirs Sigmund Freud famously analyzed. Schreber, a judge in Dresden, developed the notion that he was being transformed into a woman so that, as God's wife, he could become pregnant and thus save humanity.

3. *Disorganized speech.* The person's mental associations are governed not by logic, but by puns, rhymes, or other rules that may not be clear to the outside observer. The resulting output is so badly impaired that communication is difficult or impossible. A passage from the first page of James Joyce's novel *Finnegans Wake* provides an unintended example:

> The great fall of the offwall entailed at such short notice the pftjschute of Finnegan, erse solid man, that the humptyhillhead of humself prumptly sends an unquiring one well to the west in quest of his tumptytumtoes: and their upturnpikepointandplace is at the knock out in the park where oranges have been laid to rust upon the green since devlinsfirst loved livvy.

It is noteworthy that though her diagnosis remains in doubt, Joyce's daughter, Lucia, lived in a madhouse for 47 years until her death.

4. *Disorganized behavior.* Actions that don't appear directed toward a goal may suggest psychosis. Examples include making gestures (e.g., repeatedly crossing oneself), assuming postures, maintaining unusual or uncomfortable positions for long periods, and removing one's clothes in public.

> I once helped treat a patient who had been admitted years before to a mental hospital. He had spent nearly a decade lying so rigidly in bed that his wrists and ankles had become frozen, and he could neither walk nor feed himself.

5. *Negative symptoms.* Symptoms are called *negative* when they indicate the absence of something that most nonpsychotic people have. Examples of negative symptoms include low range of emotional involvement

(often called *blunted affect* or *flattened affect*), poverty of speech, and loss of the will to accomplish things (termed *avolition*). By contrast, positive symptoms such as delusions and hallucinations are conditions that most of us lack. Frustrated relatives sometimes mistakenly interpret negative symptoms as indicating laziness or apathy.

Medication had already abated the hallucinations and delusions of my patient Eric. Now age 34, he spent his days lounging around his apartment, which his mother subsidized. Although Eric hadn't worked in 6 years, he seemed totally unconcerned when we talked about it. "Oh, I guess I'll get a job later on," he'd say, often with a yawn. When he came to my office, he would slouch in the chair and look just about anywhere but at me. His voice was a little monotonous, and he always wore the same half-smile that never touched his eyes. As long as I knew him, he never changed much, never found work, and never really smiled.

Table 13.1 presents the differential diagnosis for psychosis, and Figure 13.1 presents the decision tree for a patient with psychotic symptoms. Note in Figure 13.1 that, against my usual practice, I've included no possibility of normality: Even the briefest of psychoses warrants some sort of diagnosis. Note that the last box in Figure 13.1 advises us to consider an unspecified psychosis or a nonpsychotic hallucination. What does that mean?

Nonpsychotic hallucinations are hallucinatory experiences where the patient retains insight that the sensation is not real. They aren't all that common, but neither are they rare. One source is a condition known as the Charles Bonnet syndrome, in which a blind (or partly sighted) patient has visual hallucinations that can be particularly vivid or complicated. Another source is the visual hallucinations that accompany epileptic seizures. Still others have been reported: auditory hallucinations with deafness; visual hallucinations with migraine; the peculiar phenomenon of phantom limb that occurs in those who have suffered an amputation. All of these experiences, and more, are described in Oliver Sacks's 2012 book *Hallucinations*. None of them can be classified as psychotic disorder due to another medical condition, because, well, the patient simply isn't psychotic.

Schizophrenia: Its Subtypes and Variants

Patients with chronic psychosis typically tend to develop symptoms when young—usually as teenagers or young adults. The early evidence of illness

TABLE 13.1. Differential Diagnosis with Brief Definitions for Psychosis

- *Psychosis due to another medical condition.* Physical illness can cause a psychosis that doesn't necessarily meet the criteria for schizophrenia.
- *Substance-related psychosis.* Alcohol, street drugs of misuse, and prescribed medications can all cause psychotic symptoms.
- *Neurocognitive disorder with psychosis.* A patient with Alzheimer's disease or some other dementing illness develops psychotic symptoms, often persecutory delusions. (Peculiarly, the actual DSM-5 diagnosis would be "neurocognitive disorder with behavior disturbance"—in this context, all psychotic symptoms are considered behavior.)
- *Somatic symptom disorder with pseudopsychosis.* Some somatizing patients report hallucinations or delusions that can superficially resemble those of schizophrenia.
- *Mood disorder with psychosis.* A patient with an episode of severe mania or depression, or a mixed state, has psychotic symptoms that last only during the active phase of the mood episode.
- *Schizophrenia.* These patients have been ill for many months and have at least two of the five types of psychotic symptoms listed in the text. Mood disorders, substance use, and medical conditions have been ruled out as causes.
- *Schizophreniform disorder.* These patients have all the other necessary conditions of schizophrenia, but have been ill less than 6 months.
- *Schizoaffective disorder.* During the same month-long episode of illness, a patient has had an episode of mood disorder (major depression or mania) with psychosis (two or more types of psychotic symptoms). Although for at least 2 weeks there has been psychosis without mood symptoms, the latter are present for the majority of the illness.
- *Delusional disorder.* For at least a month, a patient has delusions, but none of the other symptoms characteristic of psychosis.
- *Shared psychotic disorder (folie à deux).* Rarely, a patient develops delusions similar to those of a relative or other close associate. DSM-5 would now characterize most such patients as having delusional disorder.

may be hard to differentiate from normal adolescent rebellion. I've included the following vignette not because it presents a difficult diagnostic challenge, but to illustrate the development and nature of a classic syndrome as a baseline for later examples of chronic psychosis.

Ronnie

As a small child, Ronnie had always seemed different. Preferring to build intricate castles and raceways with his blocks, he'd never played

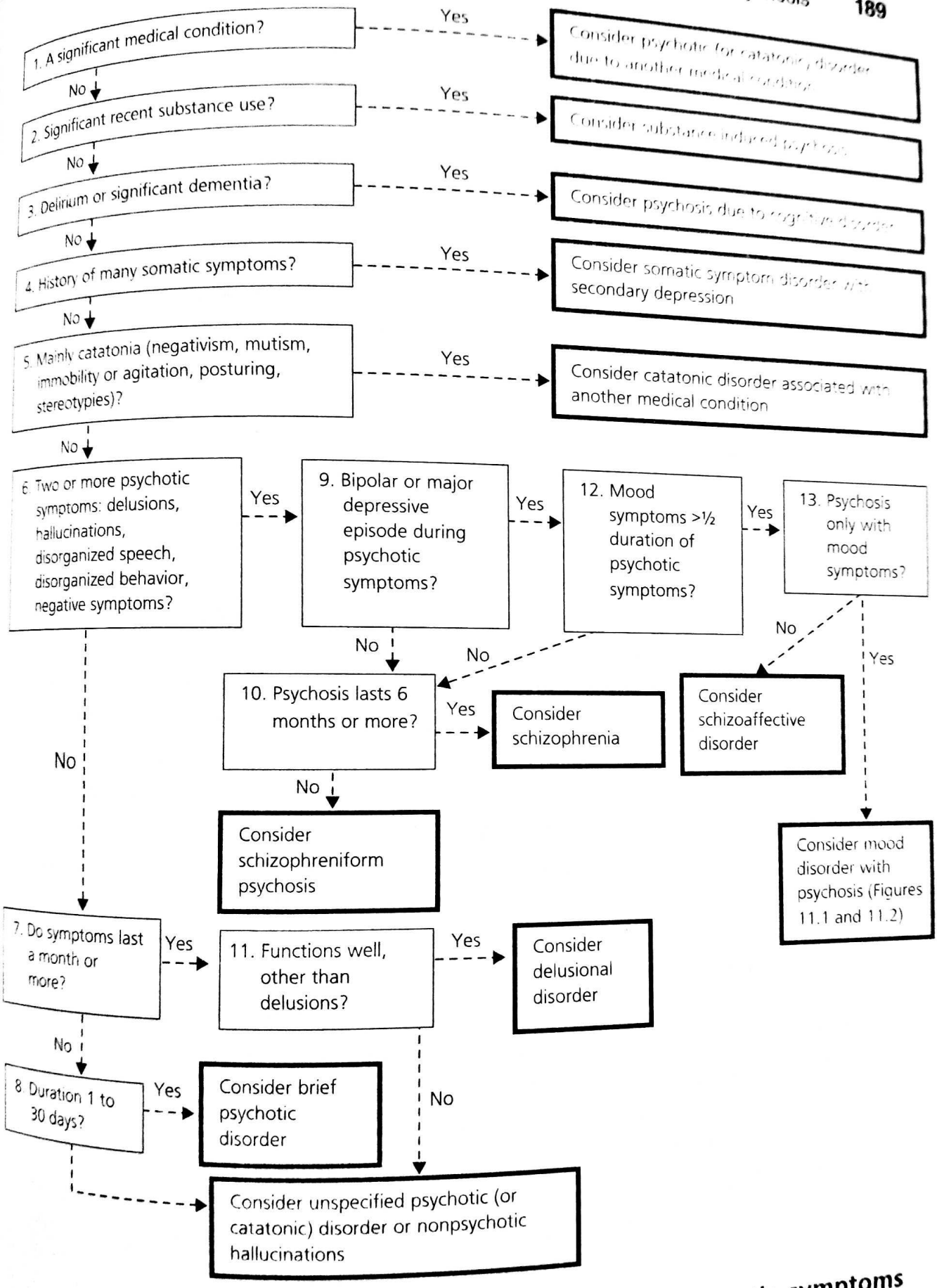

FIGURE 13.1. Decision tree for a patient who has psychotic symptoms such as delusions, hallucinations, disorganized speech, or disorganized behavior.

much with other children. He had several imaginary friends whose company he kept right through eighth grade. He was often laughed at because of his odd expressions, such as referring to himself in the third person, and he liked to wear clothing that was old and unfashionable. Having no playmates, he could spend all his time studying, and every year he broke the grading curve. This only further estranged him from his classmates.

Just after Ronnie turned 17, his studies began to slide. His high school counselor mailed home a note that said he seemed lonely; he spent most of every lunch hour in the library reading. Ronnie denied that he had any problems. He claimed that he was only interested in science and physics, and wanted to "do math" as an adult. The counselor had concluded that he was a sensitive youth who might have a mild depression; neither Ronnie nor his parents were much interested in medication, and he soon dropped out of counseling.

His first year in college started out well enough. Ronnie lived at home, in his old room whose walls were covered with the pictures of NFL quarterbacks his father had put up years earlier; Ronnie had never cared enough to remove them. Ignoring the mandatory humanities course and focusing on science, he threw himself into his work. Nearly every day, he came home right after class, then stayed in his room. He didn't eat meals with his parents—he'd adopted a vegan diet—and his room soon began to smell of discarded crusts and long-opened cups of tofu spread. At first his mother tried to clean his room, but he added a dead-bolt lock to his bedroom door and wore the key around his neck on a fraying piece of string. He wouldn't even allow her to change the sheets, which gradually turned a greasy grey.

Ronnie's physics professor showed his midwinter exam to the dean. It consisted almost entirely of carefully executed drawings, pentagrams, and upside-down crosses, with text that seemed to combine classical mechanics with Biblical phrases. Before they could question him, Ronnie stopped attending class; he stayed in his room and spent his time creating and revising a website devoted to his study of infinity. His mother had taken quite a lot of higher math in college, but when she came across his website one day while surfing the Internet, what he had written there seemed a mishmash of geometric symbols and religious verses. It made no sense to her.

Whenever she managed to have a word with Ronnie, usually as he was on his way to the toilet, he would only mutter something she couldn't quite hear. He grew his hair long and started on a wispy beard. He had always been a gentle, quiet boy, but now he yelled at his mother when she asked him to shave and get a haircut. At night she would sometimes awaken when it sounded as if he was pacing the floor or

talking to someone. Someone in his class had introduced him to non-filtered cigarettes; now he went through a couple of packs a day. That bothered both of his parents, neither of whom smoked. Despite the time he spent at his work, his science and math grades were heading in the same direction as his humanities grade. Just before spring break, his advisor finally telephoned him to say, "Either get some help, or we'll have to drop you."

In his second session with the clinician, Ronnie began to tell this story: Early in the fall, he had begun to notice that the professor addressed many of her remarks directly to him. At first he was pleased to be singled out in such a large lecture hall. He'd glance carefully around to see whether the other students noticed, but they all seemed intent on taking notes. Later he realized that the professor was actually talking about him, to the others—giving them messages about Ronnie's private life, even his sexual thoughts. One day while walking in the quad, he heard a voice just behind him that said, "He's a wanker, all right." He quickly turned around, but there was no one anywhere near him. Later that evening in his room, he heard the same voice, again criticizing his sexuality.

Ronnie told the clinician that he had always had plenty of friends, but during a later interview, his mother noted that he had always been "something of a lone wolf." She mentioned a great-uncle who by family tradition had been termed "senile," but his history was one of a deteriorating illness requiring chronic hospitalization from the age of 38.

Although he denied that he was doing it, several times during his initial interview Ronnie laughed, even though nothing obviously funny had happened. To the interviewer, he seemed to be responding to internal thoughts. When he wasn't laughing, he seemed to have no facial expression whatsoever. Twice Ronnie interrupted the interview to go outside and smoke, saying that he felt too nervous to continue.

Analysis

The absence of issues relating to health, substance use, and memory help move us quickly through the first several steps in Figure 13.1. (Any faint possibility of a cognitive disorder should be further assessed with a brief assessment such as the Mini-Mental State Exam [MMSE] developed by Folstein and colleagues. This issue is discussed further in Chapter 14.) We note that Ronnie had several step 6 symptoms, but there was no evidence of either depression or mania, bringing us to the step 10 question about duration of symptoms. His hallucinations and delusions had lasted for a relatively short period of time, but his deteriorating hygiene and negative

symptom of loss of will to pursue his studies persuade us that his illness had lasted longer than 6 months. So, whereas schizophrenia is typically my diagnosis of (almost) last resort, in Ronnie's case it would be the most likely diagnosis to consider.

Along the way, we've used several important diagnostic principles. The collateral history from his mother that he was a loner had more credibility than Ronnie's own, and his laughter during the interview was a sign trumping his denial that he was having unusual thoughts. The family lore about his uncle's diagnosis was at odds with the more probable impression of a chronic psychosis, possibly schizophrenia, which would help support Ronnie's own diagnosis. This shows the value of obtaining what details you can about family history, then forming your own impressions, rather than taking relatives' diagnoses at face value.

Two additional possible diagnoses deserve comment. Ronnie's childhood isolation and discomfort with social relationships might suggest a premorbid schizoid or schizotypal personality disorder. These two personality disorders often herald later schizophrenia, but I would follow my own diagnostic principle and decline to diagnose one of them without more information and the opportunity to talk with Ronnie after he had been treated. The other secondary diagnosis might be tobacco use disorder. Although the vignette doesn't provide enough information for a formal diagnosis, can anyone doubt that he was hooked on cigarettes? That's the case in an astonishing 80% or more of patients with schizophrenia, who are about three times more likely to smoke than the general population of adults. The reasons aren't yet clear, though a 2004 study by Ripoll and colleagues suggests that nicotine may temporarily not only improve a patient's defective thinking, but also sharpen the person's sensation, such as the ability to smell.

Comment

In diagnosing schizophrenia, novice and expert clinicians must both struggle—the novices to get it right, the experts to avoid getting it wrong. The latter often happens when experts who come to "feel" the diagnosis of schizophrenia (what's the diagnostic principle lurking here?) forget to consider other possibilities. A couple of generations ago, experts on opposite shores of the Atlantic would have come to very different conclusions when diagnosing psychosis: By a wide margin over their European colleagues, American clinicians tended to use the term *schizophrenia* in questionable cases. The gulf between the two sides began to narrow in the early 1970s, as American clinicians gradually adopted scientifically validated, conserva-

tive criteria for schizophrenia. Even so, errors still occur. As a diagnostic aid, I have put together a list of characteristics that can be used to distinguish schizophrenia from other forms of psychosis described in this chapter (see the sidebar "Differentiating Schizophrenia from Other Psychoses" on page 215).

Once we've agreed that a person does have schizophrenia, are we finished, or should we assign a *subtype*? The traditional subtypes are the terms based on the five classes of psychotic symptoms listed at the start of this chapter. Quite frankly, this step in the diagnostic process is of less than cosmic importance; subtypes don't predict all that much, and some patients change from one subtype to another over the course of time. Furthermore, other than *catatonic*, DSM-5 has eliminated these terms from the nomenclature. Nonetheless, I've mentioned them here, mainly because we'll undoubtedly continue to encounter them for years to come.

- *Paranoid*. Whereas these patients have prominent delusions and auditory hallucinations, their speech and behavior remain well organized and their affect appropriate. Illness often begins later (when patients are in their 30s or older) than for other patients with schizophrenia.

> For many years Kevin had believed that he was being pursued by a secret U.S. government agency—he wouldn't say which one. "They'd find out, and I'd be even more of a marked man." Although he continued to hold down a responsible job and support his family, he spent much of his free time checking his phone and fax lines at home and office for bugs.

- *Catatonic*. Patients with this form of the illness, seldom encountered today, typically are markedly slowed down—sometimes to the point of immobility. They may show *negativism* by turning away from you or refusing to follow a command; *posturing* by spontaneously posing or assuming a bizarre posture; *stereotypies* (behaviors that are not goal-directed, such as repeatedly flashing an "OK" sign); *muteness*; and *echolalia* or *echopraxia*, the meaningless repetition of another person's words or actions.

> When I first met Bruno, who had been psychotic for many years, he was lying on his back in bed, rigid and mute. An attendant showed me that when the pillow was carefully removed, his head didn't budge: now it hovered in midair, an inch or two above the mattress. It seemed that he could remain that way for hours.

• *Disorganized.* These patients may have some disturbances of behavior (though less obvious than in catatonia), plus disorganized speech and flattened or inappropriate affect. The symptoms of patients with this subtype, which used to be called *hebephrenic*, begin quite early in life. As with all forms of schizophrenia, men develop symptoms at a somewhat younger age than women do.

> With a several-year history of well-diagnosed schizophrenia, Hilda knew all the hospital staff members by sight. However, on this admission, she couldn't communicate so much as her name. Her brother had brought her to the emergency department, because for weeks she had been hiding in her room, refusing even to come out for meals. When he finally got her to the emergency room, her hair was matted and her nails had grown long and ragged. She evidently hadn't bathed for many days; her clothes were mismatched; and one of her shoes was missing its lace. As the interviewer entered, Hilda giggled and hid her face in her hands. Answering the question "Why are you here?", she replied "I've got jolly sixpence." Then she started taking off her clothes.

• *Undifferentiated.* This final group, which is the subtype of schizophrenia most often diagnosed today, comprises all those patients who don't fit into any of the previous three categories. Because his psychosis contained both paranoid and disorganized elements, this is how I would categorize Ronnie's illness.

Although schizophrenia isn't rare, it occurs infrequently enough that early in the course of a young person's illness, we may fail to recognize that a serious process is afoot. Another issue to keep in mind is the need to keep revisiting a schizophrenia diagnosis—patients can change, and even the best diagnosticians make mistakes. The diagnosis of psychosis is a high-risk mental health area, where the stakes are people's lives and families' happiness.

Winona

The typical symptoms of schizophrenia are relatively easy to spot. A greater clinical challenge is to identify issues that are not typical and to recognize what they mean.

> **Winona had excelled during her first 2 years at an East Coast women's college. She had earned good grades in a demanding major (physical**

chemistry), and had served as underclass representative to the Student Senate. She'd had several boyfriends; one had proposed marriage. Over the summer, she had held down two jobs, one of them as lab assistant to her advisor.

In mid-October of the new school year, Winona's roommate dropped out of school. The official reason was "fatigue," but everyone knew that she was pregnant and, unwilling to have an abortion, had gone home. Winona's new roommate had just transferred in as a junior. Almost immediately, Winona noticed that Sherrie was watching her closely, apparently tracking her movements around their small dormitory room.

Within days, Winona observed that others on campus had joined the effort to keep tabs on her. By a system of hand waves and nods, one student "could pass me off to another, so the record would be complete," she told her clinician later. At first, these signals were barely perceptible, but over the next few weeks they became more and more blatant. Soon she detected mocking in the tone of her professors, which proved to her that the faculty had joined the plot.

Winona made a trip to her student health service. The faint ringing sounds in her left ear that had bothered her for the past couple of weeks had grown louder, and she demanded a hearing test. The audiologist was unoccupied at that very hour, so she had her test, which was completely normal. The doctor then asked whether she'd been using alcohol or drugs; a little offended, she replied that she had not. "And I haven't been depressed, either, if that's what you're thinking." All in all, the visit was a complete bust—her health seemed to be perfect.

A few days later yet, Winona understood about the ringing. It had been a way of warning her to be wary of Sherrie, who wanted to steal her boyfriend (never mind that she didn't have one currently). In fact, she had begun to hear tinkling laughter with the ringing, which, as she explained later, "gradually morphed into voices. It's embarrassing how simple it all seems now."

Uppermost in Winona's mind was her anger at Sherrie's persecution: "I don't see why I should suffer, just because she can't get a guy."

Analysis

Winona's health overall had been excellent, as attested by her student health visit. This fact gets us past steps 1, 2, and 4. A few minutes' additional interview would confirm that she had no significant cognitive symptoms (step 3). At step 6 we note that she had both delusions and hallucinations. Though for now we would accept her denial as regards depression, her clinician would

need more questioning to rule out any hidden depression (step 9). Because she had been ill for only about 6 weeks, far less than the total of 6 months needed for schizophrenia, step 10 recommends that we consider the diagnosis of schizophreniform disorder.

Comment

Schizophrenia usually begins slowly—"insidious" is the word clinicians use to describe the glacial pace at which this disease announces itself. But in 1939 a Norwegian clinician named Gabriel Langfeldt described a psychotic illness that began more rapidly and often resolved entirely. From this concept, through many diagnostic twists and turns, has evolved our current usage of *schizophreniform psychosis* to mean a psychotic disorder that lasts at least a month but less than 6 months.

Within a generation, American clinicians have gone from being almost unbelievably permissive in how we diagnose psychosis to having the strictest criteria set in the world. Some (such as Schwartz et al., 2000) say that the current criteria may actually be too conservative—that they promote false negatives. A few patients who should receive the diagnosis of schizophrenia don't, or at least don't in a timely fashion. The time factor may be vital; although the definitive study has yet to be done, recent studies suggest that the longer we wait before beginning treatment, the poorer the outcome. As little time as 7 days may make a difference, but the effects of delay may go out to 1 year or more. That's one of the virtues of schizophreniform disorder: It allows us to proceed with treatment while keeping our options open as regards final diagnosis.

Like schizophrenia, schizophreniform disorder is in all likelihood a group of disorders that we should (but probably won't) refer to in the plural as the *schizophreniform psychoses*. As a group, they are just a parking place for some patients until we can figure out something better to call them. After half a year or so, some patients will be rediagnosed as having a psychosis related to substance use or a physical disorder; others will turn out to have a mood disorder. And a substantial minority who continue to be ill with their original symptoms will be rediagnosed as having schizophrenia. A few, perhaps 20%, will experience complete remission within the 6-month time frame; they are the only ones who can retain the diagnosis of schizophreniform disorder (see the sidebar "Prognosis and Schizophreniform Psychosis"). Be discerning when you read about this condition; I've encountered writers who disregard the time requirements and continue to use the diagnosis for a patient who has been ill for years.

Prognosis and Schizophreniform Psychosis

Schizophreniform disorder incorporates criteria for predicting which patients are likely to recover completely from their current episode of illness. The outlook is more likely to be favorable if we can identify some features that in follow-up studies have predicted a good prognosis. A patient who has two or more of the following is likely to recover:

- Confusion
- Psychotic symptoms that begin early (within the first month of the illness)
- Good premorbid social and work functioning
- Good preservation of affect

Winona had three of these factors—delusions from the first days she was ill; excellent functioning socially and in her job (school) before becoming ill; and the ability to show anger while ill (therefore, her affect was probably not blunted). However, even when most acutely ill, she did not seem confused. Her clinician told her and her parents that she would probably recover completely, which is in fact what happened.

Organic Psychoses

Numerous physical illnesses can cause psychotic symptoms, which can sometimes look remarkably like those of schizophrenia. Table 9.1 lists some of these causes, four of which are illustrated in the following vignettes.

Edwina

Though she'd tell you she hated the word, Edwina was still spry. She had been a writer all her adult life, and from the retirement home where she'd lived for the past 5 years, she continued to pen a weekly column—about retirement. She didn't smoke or use alcohol, and took no medications other than vitamin C. Because she had no past history of mental disorder, staff members at the facility were surprised when one Sunday morning she refused to attend the nondenominational religious services she'd always enjoyed. "The specters, they're cursing the Lord," she remarked of phantasms hovering near the ceiling that no one else could see. She claimed that the "shade" of a resident who had recently died lurked in the chapel, sometimes shaking his finger at her. At lunch, she refused to eat her poached salmon; she insisted that

the cook, a Native American woman who worked on weekends, had "poisoned" the fish in retaliation for centuries of mistreatment at the hands of the government.

Edwina's doctor recommended an antipsychotic drug, which she refused to take. But she did consent to magnetic resonance imaging, which showed that she had had a small stroke beneath the surface of the left side of her brain. Other than elevated blood pressure (190/115), her exam was normal. Over the next week she improved, and a month later she ate with good appetite. In a column about her experience, she wrote that her previous ideas had been "peculiar, at best."

Sal

Directly out of high school, Sal had entered the military, where he had served a tour in the first Gulf War. A brave and loyal soldier, he tried to reenlist after his 4-year tour, but was forestalled by his history of occasional outbursts of rage, sometimes directed toward his sergeants. These never quite rose to the point of disciplinary action, but, coupled with a nagging depression, they caused the Army to reject him for further service. He subsequently worked for a variety of pest extermination companies.

When Sal was 27, his increasingly erratic behavior prompted admission to a VA hospital. He had been found one weekend on the riverfront, running along the levee and screaming about "Star Trekkers" who were threatening to disrupt his visitation with his 4-year-old daughter. He hadn't been hallucinating, exactly. He did say that he might have heard threatening sounds, though they could have been in his head—perhaps put there by the Trekkers. Since his admission, they hadn't bothered him, but he kept trying to alert the FBI to a possible invasion. His doctors first wondered whether he had inhaled toxic chemicals from his job, but a review of his history revealed that he specialized in bat exclusion, which involved caulking, not killing.

Family mythology held that when Sal was a baby, his mother had "run off with the gypsies" and hadn't been heard from since. Sal had been reared by his father and, later, his stepmother. The only other family history he knew was that a cousin had died in an institution and might have had Huntington's disease. A copy of his military mental health evaluation revealed that he had a persistent twitching of his mouth, interpreted as a sign of nervousness that further substantiated his unfitness for duty.

Sal improved with antipsychotic drugs, and his doctors diagnosed him as having psychotic disorder not otherwise specified (now it's called unspecified psychotic disorder). Followed in the outpatient

clinic, he continued on his medication and did well for 2 years. Then he began to show distinctive writhing movements of his arms, and problems with his memory were noted. On reevaluation, his diagnosis was changed to psychosis due to Huntington's disease.

Arley

Abandoned by his family when he was 5, Arley had been reared in a succession of foster families. After a disastrous academic career (including repeated fights with students, poor grades, and even altercations with teachers), he left school for good when he was 15. For a time he lived on the streets, supporting himself by petty theft and running drugs for a gang. He began using a variety of street drugs—especially amphetamines, but later heroin as well. By the time he was 20 he was using needles to inject himself; often he was careless about sterility.

When Arley was 25, he was admitted to a hospital with pneumocystis pneumonia. That was the first time he had tested HIV-positive, and it led to treatment with a cocktail of drugs that at first kept his symptoms under control. Living on the streets, he was fearful of being robbed or molested ("Whatever else, I'm no prostitute," he had told his doctor). Because his medicines made him drowsy, he decreased the dose so that he could stay vigilant, even when sleeping. Gradually he stopped taking them altogether. Within 6 months, he was back at the hospital complaining of persistent sore throat, which turned out to be due to candidiasis. He was diagnosed with full-blown AIDS and admitted.

Arley couldn't state the exact date, though he knew who and where he was. His speech wandered off into descriptions of scenes he claimed to see—a valley full of bodies bathed in blood; a crowd of young people waving stumps where their arms should be. When he was examined at admission, he worried that his penis had been cut off. He kept looking down inside his pants, which appeared to reassure him only for a few moments. Within days he became mute, staring at the wall next to his bed, and threatening to strike out when anyone approached. His diagnosis was psychosis secondary to AIDS.

Trudy

Off and on for years, Trudy had been treated for psychosis. Always rather easily upset, she would fly into a rage without much provocation. When she was 23, she had her first incident of severe abdominal pain; she carried on so dramatically in the hospital's urgent care

center that she was diagnosed as hysterical, despite the fact that she developed nausea and vomiting. She was discharged the following day, but later that afternoon an ambulance returned her to the emergency room.

Curled up on a gurney, Trudy remained completely mute until she was given an injection of Valium. When she gradually began to speak, she claimed that she was dead already, and that the pains she had had signaled the onset of her torture in "the spirit world." However, she denied having hallucinations. Days later, her psychosis had once again yielded to antipsychotic drugs; her clinician attributed her lingering muscle weakness to a side effect of medication.

Between episodes of her illness, Trudy faithfully took the antipsychotic medication she was prescribed—right up to the next attack. They occurred every 4 or 5 years, each time resulting in renewed pain, weakness, and hospitalization. When she was 38, a technician noticed that a urine specimen of hers had darkened after standing in sunlight on a laboratory bench. This prompted further investigation and the eventual diagnosis of acute intermittent porphyria.

Analysis

Once we know that a medical condition exists, the analysis of each of these patients is trivial. It's the knowing, or not knowing, that can trip us up. Most such cases will have features that should draw our attention away from schizophrenia and toward a physical cause: a sudden beginning (Sal), onset in very old age (Edwina), or existence of a prior medical condition (Arley). Trudy was misdiagnosed and treated for schizophrenia for years, but she shouldn't have been, because she didn't have a full enough spectrum of psychotic symptoms—only hallucinations, and only visual ones (the type often encountered in mental disorders associated with physical illness). Chalk up another plea for diagnostic principles that urge us to look for more symptoms and typical symptoms of a disorder. And then there's the issue of *atypical* features: Physical symptoms, such as headache or red urine, strongly hint that we should consider medical disorders for a diagnosis. At least two of these patients experienced periods of confusion, which are also atypical for schizophrenia.

Comment

In the case of Sal, keep in mind that the family history didn't confer risk of mental illness; only the Huntington's gene itself could produce the illness.

Also, an occasional medically ill patient will have a psychosis that seems typical of schizophrenia, with few if any features that would tip you off to the organic etiology. The only solution is never to be completely comfortable with a diagnosis that is as fraught with peril as schizophrenia. With apologies to our founding fathers (and mothers), the price of accurate diagnosis is eternal vigilance.

Substance-Related Psychoses

You often read that substance use can present as a psychosis that closely resembles schizophrenia, but how many of us have actually encountered it? The data aren't very clear, though it probably happens more often than we realize.

Aileen

Aileen sold televisions for a discount retail chain. Lately she had noticed that the people shown on the sets around the store had begun to watch her—almost to follow her around as she moved from one aisle to the next. At first, she thought it funny and mentioned it to a customer, who quickly left the store. Later she was offended when she noticed that the characters on TV were also discussing her sex life with her boyfriend. She talked to another sales rep, who stood and watched a high-definition monitor with her for quite a while, then ventured that "there was nothing going on at all." Later that day, Aileen was discovered in a back room where there were no televisions, trying to hide inside a side-by-side refrigerator, from which she had removed all the racks. She screamed all the way to the emergency room.

After Aileen was admitted to a locked psychiatry ward, she stopped talking. Several clinicians tried to question her, but each time she would gaze intently at the person, then physically turn away until all they could see was the back of her head. Her boyfriend, Geoff, with whom she had lived for 2 years, was away on a business trip, but a coworker had the telephone number of Aileen's mother, who had to drive in from a neighboring county. She stated very clearly that there had never been a similar episode, and that Aileen had never used street drugs: "In all her 28 years, she's been a real straight arrow—she doesn't even drink." Her mother did note that on the telephone several days ago, Aileen had talked rather fast, and at lunch a few days earlier, she had spoken rapidly and was full of plans for buying a house and renovating it.

There had been no family history of any mental illness, though Aileen's twin brother had smoked pot when he was a teenager. A call to her family practitioner confirmed her excellent physical health; she was taking no prescribed medications, not even birth control pills. She'd fought a weight problem all her life; currently, she was on a low-carbohydrate diet.

When Geoff returned home the following day, he first said she had been "disgustingly healthy," but he later recalled that she had seemed unusually energetic for the past week or two. Then he mentioned that a couple of weeks ago, after her most recent diet had let her down, she had tried some tablets from a bottle given to her by a friend. For at least a week, she'd been downing several a day. Later he brought in a bottle that was labeled *"ma huang."*

Analysis

We'll try to determine the cause of Aileen's delusions and other strange behaviors at two times: when she was first admitted to the hospital, and after her doctor obtained information from her boyfriend. Based only on the collateral information of sudden onset and episode of fast talking from Aileen's mother and her friend at work, we might entertain a mood disorder diagnosis, though we wouldn't go quite all the way and say that she had a bipolar disorder. Why? Just after admission, she showed some atypical features, such as muteness and negativism—hardly the stuff of mania—and there just weren't enough symptoms to make any diagnosis. At that point I'd use the diagnostic principle concerning *undiagnosed*, partly because at age 28 she had had no previous mood episodes, and partly because there just wasn't enough recent history to go on.

Once Geoff returned, further collateral history brought the diagnosis immediately into focus. Although he knew of no physical problems, she had been taking a drug that contains ephedrine, a stimulant that is well known for its ability to produce manic-like symptoms and psychosis. The journey to the diagnosis is a short one, lasting just two steps in Figure 13.1.

Comment

What usually comes to mind when you consider substances that cause mental symptoms? Alcohol and street drugs. However, a wide variety of medications can also precipitate psychosis. After ephedrine caused a number of deaths, the U.S. Food and Drug Administration banned its use in pharmaceuticals, thereby curtailing its opportunities for mischief. However, it can

still be found in traditional medicines and imported drugs. The symptoms of psychosis that ephedrine causes are a lot like those of other stimulant drugs, such as cocaine and amphetamine—which, unfortunately, are still abundant.

Vern

One of the pitfalls of a major diagnosis like schizophrenia is that its symptoms are so blatant and overwhelming that, once we've identified it, we may be tempted to rest on our laurels.

> Vern's emotional symptoms had been gathering for several years; now, at 27, he was finally diagnosed with schizophrenia. Since then, he had been successfully treated with long-acting intramuscular Haldol, which he tolerated well. He liked his therapist at the mental health clinic. "You're my only friend," he had said more than once.
>
> So 6 years down the road, the therapist noted with some surprise that Vern had once again begun to complain of persecution. Poachers were stealing the flank steaks he had bought for his mother's birthday bash; though he'd been born in Baltimore, monks from a local commune had been collecting money to have him deported to Sudan. The delusions grew over a couple of weeks, during which he became increasingly agitated and belligerent, until auditory hallucinations once again required his hospitalization.
>
> There could be no question that Vern was taking his antipsychotic medication; it was planted right there in his hip every 4 weeks. And close questioning couldn't dislodge him from his story that he had used neither alcohol nor street drugs. A call to his mother, however, revealed that Vern had finally found a friend—a substance-using patient with a long and checkered history. Sure enough, when directly questioned, Vern admitted that he and George had frequently smoked crack together for about as long as he'd been having a recurrence of his psychosis.

Analysis

The use of Figure 13.1 is almost superfluous; you might want to check Table 9.3 to see what other symptoms of cocaine use Vern might be subject to. And Table 15.1 lists the types of substances that can cause psychosis and other mental syndromes during intoxication or withdrawal. I'd arrange Vern's two diagnoses—schizophrenia and cocaine-induced psychosis—in reverse order, to indicate which needs immediate treatment.

Comment

The tip-off here is the recurrence of Vern's psychosis despite his continuing use of medication—the effects of which, because it was injected, he could not escape. Of course, even without street drugs as a stimulus, a patient with schizophrenia could develop renewed symptoms. But the safe course is to suspect that something else has occurred to interfere. Dual diagnosis is far too common a finding.

Studies have shown that even when tobacco is excluded, 40% or more of patients with schizophrenia will misuse substances at some time; most popular is alcohol, then marijuana and cocaine. Substance use is associated with aggression, violence, and relapse of psychosis, and it often persists despite adequate treatment for schizophrenia. Substance use can lead to homelessness and incarceration, and it increases hospital admissions and costs of treatment. Even marijuana raises these patients' psychopathology scores on standard tests. Although it has often been suggested that patients with schizophrenia use drugs and alcohol to cope with their psychotic symptoms, a 2001 study by Lammertink and colleagues has failed to support this "self-medication" hypothesis.

Other Psychotic Disorders and Comorbidity

I have abstracted this description of a patient known only as S. R. from a classic 1933 paper in the *American Journal of Psychiatry*.

S. R.

An active, ambitious young woman who liked to go dancing, S. R. met her policeman husband when she was 18 and married him just 6 months later. Within a year they were the parents of a son. When the child was 5, they moved to a "fixer-upper" house that troubled S. R.: The furnace wasn't working well, and she thought she could smell gas. She felt bad, had trouble sleeping, and lost her appetite; several times she vomited. Cross and irritable, she brooded about how coarse her husband was and how the 11-year difference in their ages thwarted her desire to mix with people and go out dancing.

When another policeman in their neighborhood committed suicide early in February, her husband remarked that his line of work could make anyone feel suicidal. Subsequently S. R. became depressed, blaming it on interference from his parents, who had never taken to her.

Feeling oppressed by his sexual demands, she wished that he would leave her alone. She said that she had a bad heart and would soon die.

One night in mid-February, she impulsively asked to go to the home of her parents; there, she accused them of trying to turn her husband against her. Still sleepless the next night, she accused her brother of planning to poison her husband. Then she called the police and asked to be rescued; ultimately she was hospitalized. Five days after admission, her rectal temperature was elevated at 102°F, and her white blood count was 15,200.

S. R. complained of peculiar noises and of the other patients talking about her; she also suspected that her husband had been unfaithful, had begun to use drugs, and would try to steal her son from her. Other patients, in voices that were somehow "rayed" to her from another room by a person in a trance, said that her husband was of "mixed blood." When he visited her in the hospital, his eyes stared and held a glassy look. She complained of physical sensations that she attributed to poison. She lost her appetite, couldn't sleep, and cried a great deal. She smelled many different odors while in the hospital, and she heard her name broadcast over the paging system.

Whereas she had initially been depressed, after several weeks she appeared happy and was able to laugh. She felt that all of her troubles were due to "radio hypnotism." After 6 weeks of hospitalization, she was discharged home with the diagnosis of dementia praecox. On follow-up 20 months later, she had recovered and completely returned to her old self.

Analysis

Without evidence of a significant medical condition, a substance use problem, catatonia, or delirium, we swiftly advance through steps 1–5 of Figure 13.1 to step 6, which we can answer "yes." At the time she was first hospitalized, S. R.'s psychotic symptoms were associated with serious depressive symptoms (though they don't quite constitute a major depressive episode, as DSM-5 now requires). This leads us through step 9 to step 12, which asks about length of the depressive symptoms. DSM-5 has finally stated clearly that the mood disorder part of the equation should occupy half (or more) of the total duration of symptoms. S. R. had been depressed for several weeks, which met that criterion. This leads us to step 13. To determine that she had schizoaffective disorder would require at least 2 weeks with psychosis but no mood symptoms. And indeed, her psychotic symptoms apparently persisted after her mood reverted to normal, bringing us finally to consider the diagnosis of schizoaffective disorder.

Comment

Whew! This has been about as tortured a trip through a decision tree as we'll encounter in our quest for any diagnosis. Was all that work worth the effort? A diagnosis with ever-changing criteria, schizoaffective disorder was controversial almost from its first description. Of the five patients fully described in Jacob Kasanin's original 1933 article, none would fully qualify for such a diagnosis according to the criteria in use today. S. R. is the Kasanin patient who most nearly fulfills DSM-5 criteria.

Some authors point out that interrater reliability in schizoaffective disorder is unsatisfactory. Other studies use statistical manipulations to suggest that schizoaffective disorder as now described is only a variant of schizophrenia, which it resembles in its prognosis—the direct opposite of Kasanin's conclusions. Indeed, schizoaffective disorder is one whose criteria have changed in each of the three major revisions to the DSM (in 1980, DSM-III cannily avoided proposing any criteria at all).

What is the diagnosis of schizoaffective disorder supposed to accomplish? Researchers have long sought a middle ground somewhere between schizophrenia and the mood disorders—a sort of mental health Northwest Passage. If one existed, it would be very much like this disorder. That's why the symptoms have to be so carefully drawn: There must be a substantial period of mood problems accompanied by psychosis, but on the other hand, there must also be a time when there is psychosis without either mania or depression. Otherwise, there would be nothing to differentiate the condition from, say, depression with psychosis.

The diagnosis of schizoaffective disorder remains a confused muddle. Its scientific support is weak, and it's used as a "wastebasket" for difficult-to-diagnose patients. In 2003, one clinician even wrote that because so many of his patients had both mood and psychotic symptoms and gave such poor histories, schizoaffective disorder was one of his most frequent diagnoses. Whereas many studies of psychotic patients lump together schizophrenia and schizoaffective disorder, few publish enough details to determine which diagnosis the clinical features fully support, by any set of criteria. Some authors note that depression is fairly common in patients with schizophrenia, especially those who are older, and that it is correlated with the positive symptoms of hallucinations and delusions. At least one writer (Marneros) suggests that we should distinguish two forms of schizoaffective disorder: *concurrent* and *sequential*. That would require yet another revision of the criteria—further repositioning of the target while clinicians and researchers alike are still trying to adjust their sights on its

present location. All things considered, it's small wonder that William Carpenter, the chair of the DSM-5 task force on psychoses, stated during a 2013 presentation about his committee's work, "We don't even know if it exists in nature."

Camille

The early-20th-century French sculptor Camille Claudel developed a lifelong psychosis that is diagnosable even through the long-distance lens of biography.

> With little formal education, Camille Claudel went far. The longtime mistress, muse, and sometimes collaborator of the great Auguste Rodin, she contributed entire figures to some of his works. Though by the age of 30 she was recognized as a talented artist in her own right, at about that time something happened that gradually drew her away from Rodin, her art, and ultimately the world.
>
> Camille had begun to suspect that others, women included, were against her. In fits of anger, she expressed her distrust of Rodin—whom she ultimately accused of deceiving her "by crafty and false character," as she wrote in a letter when she was 38. She became convinced that she knew who was responsible for "depredations committed in the Louvre," and she sent letters containing cat feces to an art inspector. She increasingly withdrew from her friends, and gradually ceased producing works of art at all; she even smashed some of her own works. Poverty-stricken, she was reported to be living in filth, scrounging food from garbage cans. Despite the ample evidence of delusions, nowhere do her biographers ever note evidence of hallucinations or sustained depression.
>
> As the years rolled on, Camille came to the ecumenical conviction that the Jews, Protestants, and Freemasons were plotting to poison her. Ultimately, at age 49, she was placed in a mental hospital where, in her imagination, even the nurses had joined the plot. For the balance of her life, she lived in asylums. Although she would have been provided with art materials, and the income from her work could have helped her live far more comfortably, she refused to sculpt even in institutions for fear that her work would be stolen from her. To avert the poisoning she felt was imminent, she would eat only raw eggs and unpeeled potatoes, or whatever cooked food she could prepare herself. By the age of 62 she was still able to write letters, which were completely coherent as long as she avoided the objects of her delusions. At 66 she wrote that "the Jewish gang is holding me here" because more than

three decades earlier, she had refused to sign a petition at the time of the notorious Dreyfus affair.

Although Camille complained of physical illness from time to time throughout her life, there is no record of a disease that could account for her psychosis. She remained lucid until near the end, when she drifted into senility, still convinced that Rodin was the "odious character" who had ruined her life.

Analysis

Our route through the history of Camille Claudel is quite clear: After skipping through steps 1–5, we note that for decades she had delusions but no hallucinations. Therefore, we must answer "no" at step 6 of Figure 13.1. Her ideas, though false, were not bizarre; poisonings and thefts are things that could reasonably happen to someone (step 7). She was able to function well outside her delusions (step 11), bringing us to the consideration of delusional disorder as her diagnosis. Of course, because historical diagnoses rely almost exclusively on collateral information, they can never be more than tentative.

Comment

Patients who have delusions but no hallucinations or other features of psychosis (see the list at the start of this chapter) don't meet criteria for schizophrenia; we say that they have delusional disorder. They usually become ill later in life than is the case in schizophrenia, and their functioning is less impaired. The delusions can be of several sorts, but the *persecutory* type, in which the patient is somehow being cheated, followed, slandered, or drugged, is the most common. Other types include *erotomanic* (someone, often of high station, is in love with the patient); *grandiose* (the patient has a special talent, power, or relation to someone famous); *jealous* (a spouse or lover has been unfaithful); and *somatic* (physical sensations, such as insects crawling on the skin or a foul body odor, imply a medical condition or physical defect). Some patients have features of two or more of these types.

Encountered only about 1/30th as often as schizophrenia, delusional disorder has received publicity far in excess of its numbers. There are a couple of reasons. There is the notoriety that attends instances of stalking, which is sometimes due to the erotomanic form of delusional disorder (the Glenn Close character in the movie *Fatal Attraction* suggests such a

person). Then there is our fascination with John Hinckley, Jr. Hinckley, who famously stalked and shot Ronald Reagan in 1981, has been described as having delusional disorder, though there are real doubts as to his correct diagnosis. Of course, like those with schizophrenia, the vast majority of patients with delusional disorder do not kill or harm other people. Those few who do so attract an inordinate amount of attention, fear, and rage.

Ted

The symptoms of psychosis are so striking that they can obscure other important aspects of the history and MSE. It's a mistake to allow that to happen, because a second illness can complicate—and a second diagnosis can facilitate—treatment.

Short and solidly built, Ted vaguely resembled the water heaters and dishwashers he delivered every day for his employer, a major home appliance chain in a West Coast city. He had served honorably in the Army, including a tour in Iraq during the first Gulf War, but after an 8-year enlistment he'd resigned rather than attend the alcohol rehabilitation program mandated by a couple of civilian arrests for public intoxication. After that, he bounced from job to job until a divorce finally persuaded him to join AA. He then obtained his present position, which he had held for well over 5 years. He had settled down, had married for a second time, and was engaged in raising his year-old twin daughters.

As Ted was maneuvering an electric stove onto his dolly one afternoon, he paused when he heard something strange—a voice that seemed to come from inside the crate. "Ted, drop it," the voice commanded. He was so surprised that he did just that, and the box popped open. Looking inside, he saw nothing but a mute kitchen range. After a few moments, he rode it down the lift on the back of his truck and rolled it into the house. Later that afternoon, he heard two voices coming from a carton of microwaves he had picked up at the warehouse. They were discussing him, calling him a failure, a drunk, and an asshole. He tore the carton completely to shreds before bolting from work to down his first beer in nearly a decade.

Over the next week, a swelling chorus from his crates and boxes had Ted nearly in tears. The following Thursday, he entered his boss's office to try to learn what was going on. The office was empty, but he observed some papers on the desk. "They were carefully lined up with the edge of the desk," as he told the clinician when he checked himself into the urgent care center days later, "and suddenly I *knew* it meant

that everything was lined up against me." He noticed that his wife "looked funny" at him, which proved to him that she was in cahoots with his boss.

Ted tried his best to avoid further recourse to alcohol, but lost. Even when drinking, he heard the voices, which grew louder and more insistent. After 2 weeks of heavy drinking, he heard a radio announcer say, "Ted's got to learn." At that point, he made the decision to seek help.

Analysis

Sorting out Ted's psychosis requires some attention to the calendar. It makes a lot of difference that Ted had been psychotic for only a few weeks. This fact, his hallucinations, and his delusions move us to step 10, where a "no" answer brings us to consider the diagnosis of schizophreniform disorder. Although we should always consider prognosis for every patient, schizophreniform psychosis is the only psychotic diagnosis that specifically encourages us to rate how likely the patient is to recover (see the sidebar "Prognosis and Schizophreniform Psychosis" on page 197). Fortunately for him, a remission to his psychosis is foretold by several of Ted's symptoms: excellent affect, symptoms of psychosis almost from the beginning of his disorder, and very good social and work adjustment prior to the onset of his illness.

We must also discuss his substance use. Ted's alcohol use, quiescent for years. had flared up again with psychosis. How should we regard it? Using strict diagnostic criteria (not invariably the best practice), we might be hard pressed to make a diagnosis of alcohol use disorder. But because it's vital to note his recent difficulty with alcohol, I'd go right ahead and make the diagnosis anyway, regardless of the number and severity of his current symptoms. We can temper our decision by adding verbiage to indicate that the substance use is recurrent and of short duration. The purpose of diagnoses is to convey as much information as possible, and Ted's clinicians need to know that they must contend with more than just psychosis. Of course, we'll list the alcohol diagnosis second; when psychosis is a factor, it will usually demand our attention first.

Comment

Half or more of psychotic patients will have additional diagnoses. The problem is that psychosis presents a picture so dramatic that we sometimes

forget to address any leftover symptoms. Besides substance misuse, you'll need to be alert for indications of depression, panic disorder, and several personality disorders.

Jeannie

Depression can be hard to sort out in the context of psychosis. There are at least three different constructs to think about—psychotic depression, schizophrenia with depression, and schizoaffective disorder. I've put the information into Table 13.2.

> Years ago, I evaluated a very bright woman who had an MBA and worked in her city's financial district. Always in perfect health, now she had been admitted for her first mental hospitalization ever because of a suicide attempt. After several weeks there, she was still completely miserable.
>
> A little over a year earlier, just after her 26th birthday, Jeannie had begun to suspect that someone at work was spying on her. She had no idea why this would happen, but she had noticed telltale signs—the handset on her desk telephone was replaced pointing the wrong way, and the files she maintained on her customers seemed in disarray.

TABLE 13.2. Mood Symptoms in Psychosis

	Psychotic symptoms	Illness duration	Mood symptoms
Schizophrenia	Two types required	6 months or more	Not significant
Schizophreniform disorder	Two types required	Under 6 months	Not significant
Schizoaffective disorder	Two types required	1 month or more	Duration over half of total, but absent for 2 weeks
Mood disorder with psychosis	One type required	No lower limit	Always present
Delusional disorder	One type required	1 month or more	Not significant
Two disorders: mood and psychosis	Two types required	Depends on diagnosis	Always present

Becoming afraid, she drew inward; to keep an eye on her desk, she stopped going out to lunch with other workers in the office.

Even so, the signs kept cropping up. Soon Jeannie knew she was being followed: She repeatedly caught sight of the same car in her rear-view mirror, and when she was out walking, passers-by would wink or wave a folded newspaper to let her pursuers know which way she had gone. For several months she had also been hearing sounds. These began with creaking noises—"like a hangman's rope swinging a body," she explained—but lately she had perceived that there were words and now, sentences. "Mad, mad, mad," they mocked her, "Jeannie's gone forever mad."

After her initial diagnosis of schizophrenia, Jeannie had done a great deal of reading about her illness. What she had learned had caused her to become despondent. She knew that she had a chronic illness; that it could be treated, but that it could nonetheless interfere with her work; and that it might even prevent her from marrying and having children. These thoughts had haunted her for weeks; now she had a full-blown depression.

"I'm a chronic schizophrenic," she told me. Tears streamed down her face, which was becoming lined from worry, sleeplessness, and loss of weight. "I'm going to spend my life shut up in a hospital, fouling myself, and talking to phantoms. I'm hopeless. I'll be glad when I'm dead."

Two years later, I recently learned, she was.

Analysis

Confirming Jeannie's principal diagnosis is our first order of business. Once past steps 1–5 of Figure 13.1, we can agree right away that she had both delusions and hallucinations. Although she had developed significant depressive symptoms, they weren't present when her psychosis began. (If we tried hard, we might persuade ourselves that she had schizoaffective disorder, but it would only confirm the tendency of some clinicians to force patients into a favorite diagnosis. To me, her mood symptoms seemed relatively brief, compared to the duration of the psychosis.) This analysis takes us through steps 6, 9, 10, and 12, where a "yes" answer yields a diagnosis of schizophrenia.

Pursuit of her depression sends us through the Figure 11.1 decision tree, where we encounter a problem: It directs us through steps 6, 10, and 11 to consider schizoaffective disorder, which we've already discarded in

the previous analysis. What gives? We've learned a valuable lesson—that there are limitations to the decision tree method. We can agree that without a doubt, Jeannie had a lengthy psychosis and mood symptoms. But determining how these two concepts are related is problematic; it makes a real difference whether you regard mood symptoms or psychosis as the better point of departure. In Jeannie's case, the dilemma would be best resolved by diagnosing two comorbid disorders, schizophrenia and depression. This would allow a simplified view of her two sets of symptoms, each with its own treatment and prognosis. Jeannie's schizophrenia would be listed first, because its treatment was central: I believed that once it was adequately addressed, her perspective on the rest of her life might improve, and her depression might lift. To be sure, this course contravenes the principle of simplicity; Occam would be outraged.

Comment

Depression in schizophrenia is poorly understood and inadequately studied. Postpsychotic depression has often been diagnosed when a bipolar depressive episode might be appropriate, but even that leaves many depressions to explain. Some patients with schizophrenia experience anhedonia; others have medication effects (especially from the older antipsychotics) that are experienced as depression. However, still others develop deep depressions that persist even after their psychotic symptoms have resolved. The fact that about 10% of patients with schizophrenia ultimately kill themselves—a rate second only to that found in the mood disorders—should prompt every clinician to watch carefully for developing depression in every such patient.

Brief Psychotic Disorder

For a few patients, psychosis is fleeting—a sort of mini-schizophreniform disorder. Over the decades, such illnesses have received a variety of different names, including *brief reactive psychosis* (discarded because clinicians couldn't agree on what was an appropriate precipitant). The category of *brief psychotic disorder* now incorporates postpartum psychosis (but not postpartum mood disorder with psychosis—keep that straight if you can). A single psychotic symptom can qualify a person for brief psychotic disorder,

but recovery must occur within 1 month. Because of the requirement for ultimate recovery, this is not a diagnosis you can make prospectively. If the patient has been ill for a month, it is already too late for this diagnosis. Read a case history in *DSM-5 Made Easy*. With both schizophreniform disorder and brief psychotic disorder, what's important is that the patient's prognosis is better than that for schizophrenia.

Shared Psychotic Disorder

Sometimes called *folie á deux*, shared psychotic disorder is a condition so rare that it still elicits case reports in journals. These people are not psychotic in their own right. They only develop delusions in the context of close association with someone else (such as a parent or spouse) who is independently psychotic with, say, schizophrenia or delusional disorder. Then the second person also becomes psychotic, pretty much buying into the first person's symptoms. To an extent, the devotees of religious cults occupy this same boat, believing often impossible stories fed them by leaders. Some of these leaders may be psychotic, as was probably true of Marshall Applewhite, who founded the Heaven's Gate cult. In 1997, seeking to shed their earthly husks and follow the trail of the Hale–Bopp comet, 38 of Applewhite's followers killed themselves with poisoned pudding in tiny Rancho Santa Fe, California. Other leaders may have personality disorders or other mental problems. Some writers believe that shared psychotic disorder isn't really a specific illness at all, but a phenomenon in some way attached to psychotic illnesses. This was one of the factors (another was rarity) that caused DSM-5 to reclassify *folie á deux* as a delusional disorder.

Whether it's a phenomenon or a mental illness, the belief can only be maintained when the two people involved are relatively isolated from others. Once they are forced to live apart from one another, the independently ill person continues to maintain the psychotic symptoms, whereas the second develops insight that the beliefs were untrue all along.

Don't expect to encounter this condition often. If you find an example, look for comorbid intellectual disability, dementia, or depression in the second person. And start writing: Somewhere, a journal editor will probably be interested in publishing it. If not, you can send it to me; I'll be fascinated.

Distinguishing Schizophrenia from Other Causes of Psychosis

Schizophrenia is such an important diagnosis, with consequences so devastating for patients and their families, that I want to make sure I've fully impressed on readers the features that set it apart from other causes of psychosis. That's the job of the sidebar that follows, "Differentiating Schizophrenia from Other Psychoses."

Differentiating Schizophrenia from Other Psychoses

I thought it would be useful to collect in one place the characteristics that we use to decide when a patient might have schizophrenia, as opposed to other causes of psychosis. Of course, none of the characteristics I have mentioned is absolute. For example, a patient could be young, have a gradual onset, have a positive family history, and *still* turn out to have a psychosis due to the use of cocaine. But on the whole, these are the factors that we should look at in our evaluation of psychosis.

- *Age.* Schizophrenia tends to develop in teenagers and young adults.
- *Marital status.* Patients with schizophrenia are often unmarried.
- *Onset.* Schizophrenia develops slowly; other psychoses are often more rapid.
- *Family history.* As you'd expect, patients with schizophrenia are more likely than average to have relatives with schizophrenia.
- *Drug/alcohol history.* Such a history is less likely in schizophrenia (though these patients may well use drugs and alcohol later on).
- *Confusion.* Perplexity and confusion are associated with eventual recovery in patients with schizophreniform disorder.
- *Premorbid personality.* Some patients with schizophrenia have schizoid or schizotypal personalities before they develop delusions or hallucinations.
- *Affect.* Affect that is neither flat nor blunted is sometimes found in patients who recover from their psychoses.
- *Hallucinations.* Patients with schizophrenia tend to have auditory hallucinations; hallucinations of other senses suggest a diagnosis other than schizophrenia.
- *Delusions.* Bizarre delusions (things that couldn't really happen, such as being able to direct the world's air traffic by thought waves) suggest schizophrenia; mood-congruent delusions (guilt during depression, grandiosity during mania) suggest mood disorder.