



Sections | A <

Back to table of contents

Previous Chapter

Next Chapter

் Full Access

Chapter 2. Schizophrenia Spectrum and Other Psychotic Disorders

Edited by:

John W. Barnhill, M.D., Carol A. Tamminga, M.D., William S. Stone, Ph.D., Ming T. Tsuang, M.D., Ph.D., D.Sc., Lianne K. Morris Smith, M.D., Dolores Malaspina, M.D., M.P.H., Rajiv Tandon, M.D., Anthony O. Ahmed, Ph.D., Melissa Nau, M.D., Heather Warm, M.D., Julie B. Penzner, M.D.

https://doi.org/10.1176/appi.books.9781615375295.jb02

Introduction

John W. Barnhill, M.D.

Schizophrenia is the prototypical psychotic disorder. Not only is it the most common psychosis, but schizophrenia tends to involve abnormalities in all five of the emphasized symptom domains: hallucinations, delusions, disorganized thinking (speech), grossly disorganized or abnormal motor behavior (including catatonia), and negative symptoms. Like the DSM-5 neurodevelopmental disorders, schizophrenia is viewed as a neuropsychiatric disorder with complex genetics and a clinical course that tends to begin during a predictable stage of development. Whereas the neurodevelopmental disorders tend to begin during childhood, symptoms of schizophrenia tend to develop during late adolescence and early adulthood.

The schizophrenia diagnosis underwent some minor revisions in DSM-5. For example, because of their limited diagnostic stability, low reliability, and poor validity,

schizophrenia subtypes were eliminated. These subtypes had included such categories as disorganized, paranoid, and residual types of schizophrenia.

Long associated with schizophrenia, catatonia remains one of the potential diagnostic criteria for most of the psychotic diagnoses, including schizophrenia, but it can also be designated as a specifier for other psychiatric and nonpsychiatric medical conditions, including depressive and bipolar disorders. "Other specified catatonia" can also be diagnosed when criteria are either uncertain or incomplete for either the catatonia or the comorbid psychiatric or nonpsychiatric medical condition.

The DSM-5 schizophrenia diagnosis continues to require persistence of two of five symptomatic criteria (delusions, hallucinations, disorganized speech, disorganized behavior or catatonia, and negative symptoms). One pertinent change in DSM-5 was the elimination of a special status for particular types of delusions and hallucinations, any one of which would previously have been adequate to fulfill symptomatic criteria for schizophrenia. A second change was the requirement for one of the two symptomatic criteria to be a positive symptom, such as delusions, hallucinations, or disorganized thinking.

On the basis of recent research, DSM-5-TR has expanded its discussion of the impacts of stress and early life experience on the development of schizophrenia. For example, early trauma and neglect appear to be associated with both increased rates and increased severity of schizophrenia. Similarly, asylum seekers may have higher rates, as might members of ethnic minority groups when they live in areas with lower proportions of ethnic groups. Most often implicated in these rates of schizophrenia are various sorts of trauma, including discrimination, stigmatization, and reduced levels of social support.

Criteria for schizoaffective disorder were tightened in DSM-5. As was the case in DSM-IV, a diagnosis of schizoaffective disorder requires that the patient meet criteria for schizophrenia and have symptoms of either major depressive or bipolar disorder concurrent with having active symptoms of schizophrenia. Also, as was the case previously, there must have been a 2-week period of delusions or hallucinations without prominent mood symptoms. The significant change in DSM-5 was that criteria for a major mood disorder must have been met for the majority of the total duration of the

active and residual phases of the overall illness. Therefore, the schizoaffective diagnosis requires more attention to the longitudinal course than was previously the case. Furthermore, the diagnostic requirement that major mood symptoms be present during most of the course of the psychotic disorder (including both the active and the residual phases) is expected to lead to a significant reduction in the number of people who meet criteria for schizoaffective disorder.

Delusional disorder remains focused on the presence of delusions in the absence of other active symptoms of schizophrenia, depressive or bipolar disorders, and pertinent substance use. Bizarre delusions are now included as symptomatic criteria for delusional disorder, whereas delusions that are considered to be part of body dysmorphic disorder (BDD) and obsessive-compulsive disorder (OCD) should not lead to a delusional disorder diagnosis but rather to a primary diagnosis of either BDD or OCD, along with the "absent insight/delusional beliefs" specifier.

Brief psychotic disorder and schizophreniform disorder remained essentially unchanged in DSM-5. They are distinguished from schizophrenia primarily on the basis of the duration of symptoms, with brief psychotic episode referring to people who have symptoms for less than 1 month, and schizophreniform referring to people who have symptoms lasting 1–6 months. DSM-5-TR does discuss evidence indicating that brief psychotic episode often has a favorable prognosis, despite relapse rates that may be higher than 50%. Similarly, although most people with a provisional schizophreniform diagnosis go on to receive a schizophrenia or schizoaffective disorder diagnosis, one-third appear to recover within that 6-month window.

Not specifically discussed in this text are cases that involve atypical or incomplete presentations or situations such as the emergency room setting, where information is often incomplete. Within DSM-5, these diagnostic categories are referred to as "other specified schizophrenia spectrum and other psychotic disorder," "unspecified catatonia," and "unspecified schizophrenia spectrum and other psychotic disorder."

The "other specified" and "unspecified" categories reflect the reality that humans' thoughts, feelings, and behaviors lie on a continuum, as do their disorders, and are provided as diagnostic options throughout much of DSM-5. These diagnostic gray zones

are especially pertinent in regard to schizophrenia spectrum illness. For many people who end up with a chronic illness such as schizophrenia or schizoaffective disorder, there exists a period of time in which they begin to show symptoms but are not yet diagnosed. It had been proposed that this issue be addressed in DSM-5 by creating a new diagnosis, *attenuated psychosis syndrome*. Psychiatrists are not yet able to robustly predict which patients are most likely to go on to develop full-blown psychotic symptoms, but accurate prediction is important enough that the syndrome is mentioned in two places. First, attenuated psychosis syndrome can be used as a specifier within this chapter of DSM-5, where it would be listed as "other specified schizophrenia spectrum and other psychotic disorder (attenuated psychosis syndrome)." The condition is also discussed in more detail in the "Conditions for Further Study" chapter in DSM-5 Section III.

Suggested Readings

Bailey T, Alvarez-Jimenez M, Garcia-Sanchez AM, et al: Childhood trauma is associated with severity of hallucinations and delusions in psychotic disorders: a systematic review and meta-analysis. Schizophr Bull 44:1111–1122, 2018

Bromet EJ, Kotov R, Fochtmann LJ, et al: Diagnostic shifts during the decade following first admission for psychosis. Am J Psychiatry 168(11):1186–1194, 2011

Fusar-Poli P, Cappucciati M, Bonoldi I, et al: Prognosis of brief psychotic episodes: a meta-analysis. JAMA Psychiatry 73(3):211–220, 2016

Lieberman JA, Stroup TS, Perkins DO, Dixon LB (eds): American Psychiatric Association Publishing Textbook of Schizophrenia. Washington, DC, American Psychiatric Association Publishing, 2020

Case 2.1 Emotionally Disturbed

Carol A. Tamminga, M.D.

Felicia Allen was a 32-year-old single woman brought to the emergency room (ER) by police after she apparently tried to steal a city bus in Chicago. Because she appeared to

be an "emotionally disturbed person," a psychiatry consultation was requested.

According to the police report, Ms. Allen threatened the driver with a knife, took control of the almost empty city bus, and crashed it. A more complete story was elicited from a friend of Ms. Allen's who had been on the bus but who had not been arrested. According to her, they had boarded the bus on their way to a nearby shopping mall. Ms. Allen became frustrated when the driver refused her dollar bills, instead demanding exact change. She looked in her purse, but instead of finding exact change, she pulled out a kitchen knife that she carried for protection. The driver fled, so she got into the empty seat and drove the bus across the street into a nearby parked car.

On examination, Ms. Allen was a handcuffed, heavyset young woman with a bandage on her forehead. She fidgeted and rocked back and forth in her chair. She appeared to be mumbling to herself. When asked what she was saying, the patient made momentary eye contact and just repeated, "Sorry, sorry." She did not respond to other questions.

More information was elicited from a psychiatrist who had come to the ER soon after the accident. He said that Ms. Allen and her friend were longtime residents at the state psychiatric hospital where he worked. They had just begun to take passes every week as part of an effort toward social remediation; it had been Ms. Allen's first bus ride without a staff member.

According to the psychiatrist, Ms. Allen had received a diagnosis of "childhood-onset, treatment-resistant paranoid schizophrenia." She had started hearing voices by age 5 years. Big, strong, intrusive, and psychotic, she had been hospitalized almost constantly since age 11. Her auditory hallucinations generally consisted of a critical voice commenting on her behavior. Her thinking was concrete, but when relaxed she could be self-reflective. She was motivated to please and recurrently said her biggest goal was to "have my own room in my own house with my own friends." The psychiatrist said that he was not sure what had caused her to pull out the knife. She had not been hallucinating lately and had been feeling less paranoid, but he wondered if she had been more psychotic than she had let on. It was possible that she was just impatient and irritated. The psychiatrist also believed that she had spent almost no period of life developing normally and so had very little experience with the real world.

Ms. Allen had been taking clozapine for 1 year, with good resolution of her auditory hallucinations. She had gained 35 pounds on the clozapine, but she had less trouble getting out of bed in the morning and was functioning at a higher level. She was hoping to get a job and live more independently, and the bus trip had been intended as a step in that direction. Because of these improvements and goals, she had insisted on continuing to take the clozapine despite the weight gain.

Discussion

Stealing a city bus is not reasonable, and it reflects Ms. Allen's concrete characteristic of thought and her inability to deal effectively with the world. Her cognitive dysfunction causes her to behave bizarrely. She mumbles and talks to herself, suggesting auditory hallucinations. She lives in a state mental hospital, suggesting severe, persistent mental illness.

DSM-5 schizophrenia requires at least two of five symptoms: delusions, hallucinations, disorganized speech, disorganized or abnormal behavior, and negative symptoms. Functioning must be impaired, and continuous signs of the illness must persist for at least 6 months. Even without any more information about Ms. Allen's history, the diagnosis of schizophrenia is clear.

Ms. Allen's psychosis began when she was a child. Early-onset symptoms are often unrecognized because children tend to view their psychotic experience as "normal." Identifying the symptom (e.g., hearing voices that are not there) and associating this with a milestone (e.g., going to a certain grade or school) can help the adult patient retrospectively identify symptom onset. Although the symptoms and treatments are similar for both, childhood-onset schizophrenia is often more severe than adult-onset schizophrenia. Early psychotic symptoms are impairing in and of themselves, but they also deprive the young person of the social learning and cognitive development that take place during critical childhood years.

Ms. Allen's behavior on the bus likely reflects not only the psychosis and cognitive dysfunction that are part of schizophrenia but also her diminished experience in real-life social settings. In addition to treating her psychotic symptoms with clozapine, her psychiatric team appears to be trying to remediate her losses by connecting her to a

"friend" and organizing the shopping trip. The treatment team is also quite active and involved, as reflected by the psychiatrist's almost immediate presence in the ER after the bus incident.

Schizophrenia is a heterogeneous disorder, affecting multiple domains. It is likely that there are multiple schizophrenias, differentiated by as-yet unknown markers. Because of insufficient evidence about validity, DSM-5 did away with categories such as schizophrenia, paranoid type. Instead, DSM-5 outlines several ways in which the diagnosis can be subtyped. One way is by overall activity and chronicity of symptoms (e.g., single vs. multiple episodes; in acute episode, in partial remission, in full remission). Another way to categorize is by assessing the severity of each of the five core schizophrenia symptoms, using a 0–4 scale.

For example, Ms. Allen was able to try to travel with a "friend," and her hospital-based psychiatrist did arrive in the ER very quickly. These might reflect an engaged, active treatment program, but when combined with her apologetic attitude and her stated efforts toward independence, they likely indicate a relative lack of negative symptoms such as anhedonia, reduced social networks, and alogia. Such activity-driven behavior is unusual in patients with schizophrenia and suggests that she is not depressed. It is hard to judge Ms. Allen's cognitive capacity without testing. Her obvious concrete thinking is represented by a failure to understand the process of paying for her bus ride or abstracting behavioral clues. Whether she has the additional characteristics of a schizophrenia-like working memory disorder or attentional dysfunction is hard to tell from this vignette, but she should be tested. Cognitive training and remediation may be specifically helpful, and cognition may be tested repeatedly using a scale such as the Brief Assessment of Cognition in Schizophrenia.

In addition to assessing the extent of positive symptoms, it is crucial for the field of psychiatry to better understand, categorize, and follow the negative symptoms and cognitive dysfunctions of schizophrenia. Whereas the most effective interventions for schizophrenia have long revolved around the antipsychotic medications that ameliorate positive symptoms, future treatments will likely focus increasingly on the specific behavioral, cognitive, and emotional disturbances that are also an integral part of schizophrenia.

Diagnosis

• Schizophrenia, multiple episodes, currently in acute episode

Suggested Readings

Heckers S, Barch DM, Bustillo J, et al: Structure of the psychotic disorders classification in DSM 5. Schizophr Res 150(1):11–14, 2013

Lieberman JA, Stroup TS, Perkins DO, Dixon LB (eds): American Psychiatric Association Publishing Textbook of Schizophrenia. Washington, DC, American Psychiatric Association Publishing, 2020

Tandon R, Gaebel W, Barch DM, et al: Definition and description of schizophrenia in the DSM-5. Schizophr Res 150(1):3–10, 2013

Case 2.2 Increasingly Odd

William S. Stone, Ph.D.

Ming T. Tsuang, M.D., Ph.D., D.Sc.

Gregory Baker was a 20-year-old African American man who was brought to the emergency room (ER) by the campus police of the university from which he had been suspended several months earlier. The police had been called by a professor who reported that Mr. Baker had walked into his classroom shouting, "I am the Joker, and I am looking for Batman." When Mr. Baker refused to leave the class, the professor contacted security.

Although Mr. Baker had much academic success as a teenager, his behavior had become increasingly odd during the past year. He quit seeing his friends and spent most of his time lying in bed staring at the ceiling. He lived with several family members but rarely spoke to any of them. He had been suspended from college because of lack of attendance. His sister said that she had recurrently seen him mumbling quietly to himself and noted that he would sometimes, at night, stand on the roof of their home and wave his arms as if he were "conducting a symphony." He denied having any

intention of jumping from the roof or having any thoughts of self-harm, but claimed that he felt liberated and in tune with the music when he was on the roof. Although his father and sister had tried to encourage him to see someone at the university's student health clinic, Mr. Baker had never seen a psychiatrist and had no prior hospitalizations.

During the prior several months, Mr. Baker had become increasingly preoccupied with a female friend, Anne, who lived down the street. While he insisted to his family that they were engaged, Anne told Mr. Baker's sister that they had hardly ever spoken and certainly were not dating. Mr. Baker's sister also reported that he had written many letters to Anne but never mailed them; instead, they just accumulated on his desk.

His family said that they had never known him to use illicit substances or alcohol, and his toxicology screen was negative. When asked about drug use, Mr. Baker appeared angry and did not answer.

On examination in the ER, Mr. Baker was a well-groomed young man who was generally uncooperative. He appeared constricted, guarded, inattentive, and preoccupied. He became enraged when the ER staff brought him dinner. He loudly insisted that all of the hospital's food was poisoned and that he would only drink a specific type of bottled water. He was noted to have paranoid, grandiose, and romantic delusions. He appeared to be internally preoccupied, although he denied hallucinations. Mr. Baker reported feeling "bad" but denied depression and did not show disturbances in his sleep or appetite. He was adequately oriented to person and place but less so to time. He spoke articulately but refused formal cognitive testing. His insight and judgment were deemed to be poor.

Mr. Baker's grandmother had died in a state psychiatric hospital, where she had lived for 30 years. Her diagnosis was unknown. Mr. Baker's mother was reportedly "crazy." She had abandoned the family when Mr. Baker was young, and he was raised by his father and paternal grandmother.

Ultimately, Mr. Baker agreed to sign himself into the psychiatric unit, stating, "I don't mind staying here. Anne will probably be there, so I can spend my time with her."

Discussion

Mr. Baker's case involves an all-too-familiar scenario in which a high-functioning young man undergoes a significant decline. In addition to having paranoid, grandiose, and romantic delusions, Mr. Baker appears to be responding to internal stimuli (i.e., auditory hallucinations) and demonstrating negative symptoms (lying in bed all day). These symptoms have persisted and intensified over the past year. The history does not indicate medications, substances of abuse, or other medical or psychiatric disorders that could cause these symptoms. Therefore, he meets DSM-5 criteria for schizophrenia. Although a family history of psychiatric illness is not a requisite for the diagnosis, Mr. Baker's mother and grandmother appear to have also experienced major mental disorders.

Schizophrenia is, however, a heterogeneous disorder. For example, Mr. Baker's most prominent psychotic symptoms are delusions. Another person with schizophrenia might present most prominently with disorganization of speech and behavior and without any delusions. DSM-5 tries to address this heterogeneity by encouraging a dimensional viewpoint rather than a categorical one. In other words, instead of clarifying whether a patient has "paranoid" or "disorganized" schizophrenia, DSM-5 encourages assessment of a variety of specifiers. One important specifier, the course specifier, requires a longitudinal assessment to determine whether this is a first episode or one of multiple episodes, and whether it is an acute episode, in partial remission, or in full remission.

DSM-5 encourages specific ratings of symptoms. For example, is the current episode accompanied by catatonia? On a 5-point scale (from o to 4), how severe is each of the five cardinal schizophrenia symptoms? DSM-5 also encourages an assessment of cognition, mania, and depression domains. For example, some of Mr. Baker's behaviors (e.g., interrupting a class to proclaim his identity as the Joker) may seem to be symptomatic of mania, but they are unaccompanied by disturbances in sleep, mood, or level of activity. Similarly, Mr. Baker said he felt "bad" but not depressed. These clinical observations likely distinguish Mr. Baker from other subcategories of people with schizophrenia. As noted, Mr. Baker refused cognitive assessment. Although it would not have contributed to the formal diagnosis, cognitive deficits, like negative symptoms, contribute strongly to individual differences in schizophrenia and to differences in clinical outcomes and functional capacities.

The schizophrenia diagnosis can be made without assessing these severity specifiers. Nevertheless, the use of dimensional ratings improves the ability to assess Mr. Baker for the presence of core symptoms of schizophrenia in a more individualized manner. The inclusion of dimensions that cut across diagnostic categories will facilitate the development of a differential diagnosis that includes bipolar disorder and schizoaffective disorder. These assessments may clarify Mr. Baker's functional prognosis in major life roles (e.g., living arrangement or occupational status). Finally, repeated dimensional assessments may facilitate a longitudinal understanding of Mr. Baker's symptomatology, development, and likely responses to treatment.

Diagnosis

• Schizophrenia, first episode, currently in acute episode

Suggested Readings

Andreasen NC: The core dimensions of schizophrenia, in New Oxford Textbook of Psychiatry, 3rd Edition. Edited by Geddes JR, Andreasen NC, Goodwin GM. New York, Oxford University Press, 2020, pp 565–573

Green MF, Horan WP, Lee J: Nonsocial and social cognition in schizophrenia: current evidence and future directions. World Psychiatry 18(2):146–161, 2019

Stone WS, Faraone SV, Tsuang MT: Schizoaffective and schizotypal disorders/acute and transient psychotic disorders, in New Oxford Textbook of Psychiatry, 3rd Edition. Edited by Geddes JR, Andreasen NC, Goodwin GM. New York, Oxford University Press, 2020, pp 609–618

Case 2.3 Hallucinations of a Spiritual Nature

Lianne K. Morris Smith, M.D.

Dolores Malaspina, M.D., M.P.H.

Hakim Coleman was a 25-year-old U.S. Army veteran turned community college student who presented to the emergency room (ER) with his girlfriend and sister. On

examination, he was a tall, slim, and well-groomed young man with glasses. He spoke softly, with an increased latency of speech. His affect was blunted except when he became anxious while discussing his symptoms.

Mr. Coleman stated that he had come to the ER at his sister's suggestion. He said he could use a "general checkup" because of several days of "migraines" and "hallucinations of a spiritual nature" that had persisted for 3 months. His headache involved "sharp, shooting" sensations in various bilateral locations in his head and a "ringing" sensation along the midline of his brain that seemed to worsen when he thought about his vices.

Mr. Coleman described his vices as being "alcohol, cigarettes, disrespecting my parents, girls." He denied guilt, anxiety, or preoccupation with any of his military duties during his tour in Iraq, although his sister shared that Hakim's military responsibilities were of a confidential nature. He had joined an evangelical church 4 months earlier in the context of being "riddled with guilt" about "all the things I've done." Three months earlier, he began "hearing voices trying to make me feel guilty" most days. The last auditory hallucination had been the day before. During these past few months, he became withdrawn and noticed that strangers were commenting on his past sins.

Mr. Coleman believed that his migraines and guilt might be due to alcohol withdrawal. He had been drinking three or four cans of beer most days of the week for several years until he "quit" 4 months earlier after joining the church. He still drank "a beer or two" every other week but felt guilty afterward. He denied alcohol withdrawal symptoms such as tremor and sweats. He had smoked cannabis up to twice monthly for years but completely quit when he joined the church. He denied using other illicit drugs except for one uneventful use of cocaine 3 years earlier. He sometimes would sleep only a few hours and did report some nightmares. Otherwise, Mr. Coleman denied depressive, manic, or psychotic symptoms and violent ideation.

Regarding PTSD, Mr. Coleman's score on the 20-item self-administered PTSD Checklist for DSM-5 was below the cutoff score (between 31 and 33 out of 80) that would indicate probable PTSD in veterans. He denied that his military experience was unusually or especially frightening, horrible, or traumatic. Regarding other stressors, he felt overwhelmed by his current responsibilities, which included attending school and near-

daily church activities. He had been a straight-A student at the start of the school year but was now receiving *B*s and *C*s.

The patient's girlfriend and sister were interviewed separately. They agreed that Mr. Coleman had become socially isolative and quiet, after having previously been fun and outgoing. He had also never been especially religious prior to this episode. His sister believed that Mr. Coleman had been "brainwashed" by the church. His girlfriend, however, had attended services with Mr. Coleman. She reported that several members of the congregation had told her they had occasionally talked to new members who felt guilt over their prior behaviors, but none who had ever hallucinated, and they were worried about him.

A physical examination of the patient, including a neurological screen, was unremarkable, as were routine laboratory testing, a blood alcohol level, and urine toxicology. A noncontrast head computed tomography (CT) scan was normal.

Discussion

The differential diagnosis for a young military veteran with new-onset psychosis and a history of substance use disorder is broad. The primary possibilities include an independent psychotic disorder, PTSD, a mood disorder with psychotic features, a substance-induced psychotic disorder, a psychotic disorder due to another medical condition, and a cultural syndrome.

Although his veteran status and some symptoms suggest PTSD, it is important to recognize that schizophrenia and PTSD are highly comorbid, with a number of symptoms occurring in both diagnoses. There can be substantial confusion between independent psychotic disorders and PTSD, with underidentification of psychotic disorders, which can also be precipitated by trauma. PTSD may include flashbacks that have a hallucinatory quality, and hypervigilance may reach paranoid proportions. At the same time, a diagnosis of PTSD requires a traumatic event and a cluster of characteristic symptoms. For Mr. Coleman, however, psychotic symptoms are predominant, and—despite his serving in a military zone—he denies significant traumatic experiences.

Mr. Coleman appears to warrant a diagnosis of schizophreniform disorder, a diagnosis

that differs from schizophrenia in two substantive ways: the total duration of schizophreniform illness—including prodrome, active, and residual phases—is greater than 1 month but less than 6 months. Unlike schizophrenia, there is no criterion that mandates social or occupational impairment. For both schizophreniform disorder and schizophrenia, the patient must meet at least two of five symptomatic criteria. Mr. Coleman describes hallucinations ("hearing voices trying to make me feel guilty") and negative symptoms (blunted affect, avolition, social isolation). The case report does not mention delusions or disorganization of either speech or behavior.

Not relevant to DSM-5 criteria, but of interest, is that Mr. Coleman reports two Schneiderian symptoms besides auditory hallucinations: ideas of reference and possible cenesthetic hallucinations based on his description of his atypical headaches ("ringing" in his brain).

Multiple other disorders should be considered before concluding with a schizophrenia spectrum disorder. For example, Mr. Coleman specifically denies prominent depression and mania, both of which can cause psychotic symptoms. A variety of medical conditions can also cause psychosis, but these also seem to not pertain to Mr. Coleman's situation.

The patient himself is convinced that his symptoms are due to alcohol. Alcohol can indeed cause psychotic symptoms, whether during acute intoxication, after heavy prolonged use, or during acute withdrawal, but Mr. Coleman's recent drinking appears to have been modest, perhaps "a beer or two" every other week. He denies ever having had symptoms of withdrawal or other complications. His hallucinations began months after he cut back on his alcohol use, and the psychotic symptoms persisted for months. Additionally, his laboratory tests, including a hepatic panel and complete blood count, were normal, which would be unusual in patients with the sort of chronic alcohol use that usually accompanies alcohol-induced psychosis or significant withdrawal.

Mr. Coleman's chronic cannabis use could potentially be implicated in the development of psychosis, but his cannabis use has been only sporadic, and he apparently had not used cannabis for several months prior to the onset of hallucinations. His history is confirmed by a negative toxicology screen, which, in a moderate to heavy user, would likely be positive for 1–4 weeks after cessation.

It would appear that Mr. Coleman's concerns about alcohol and cannabis are linked to hyper-religious guilt rather than an actual substance use disorder. The possibility of another medical condition was considered, but his normal laboratory testing and physical examination results provided no such evidence.

Schizophreniform disorders last at least 1 month but less than 6 months. In regard to Mr. Coleman, his initial 1–2 months of religious preoccupation and guilty ruminations would be considered a prodromal phase. The 3 months preceding presentation to the ER would represent the active phase of psychosis. Because Mr. Coleman's psychotic symptoms have lasted 4–5 months but are ongoing, he would be said to have provisional schizophreniform disorder. Obviously, everyone who goes on to develop schizophrenia has a 6-month period in which they could be said to have schizophreniform disorder, but about one-third of people with schizophreniform disorder do not go on to develop schizophrenia or schizoaffective disorder.

Three other diagnostic possibilities that deserve mention are PTSD, a dissociative disorder, and a shared cultural syndrome. The case does not go into depth about Mr. Coleman's military experience, but even if he denies experiencing trauma, the experience of being in an active war zone can be a traumatic exposure in itself. He did not report symptomatic features of PTSD, but it is not clear whether the evaluation systematically searched for such symptoms. Given that avoidance is a cardinal feature of PTSD—making it less likely that he would spontaneously report the symptoms without being prompted—it would be useful to tactfully explore the possibility of PTSD in all people at elevated risk.

Mr. Coleman's family members indicate that his symptoms began around the time of his initiation into an evangelical church and worry that he has been "brainwashed." DSM-5 includes a possibly pertinent category, listed under "other specified dissociative disorders," within the chapter on dissociative disorders. This disorder is reserved for individuals who experience an identity disturbance due to prolonged and coercive persuasion in the context of such experiences as long-term political imprisonment or recruitment by cults.

It is also possible that Mr. Coleman's unusual beliefs are a nonpathological

manifestation of religious beliefs that he shares with other members of his church.

It appears that his psychotic symptoms began prior to his entry into the church and may have motivated him to join a church that had previously not been of interest to him. In addition, although he attended church frequently, there is no evidence that he joined a cult or particularly manipulative religious sect. Furthermore, other congregants viewed his hallucinations as aberrant, implying that his views are not part of a shared cultural or religious mindset.

The initial diagnosis of provisional schizophreniform disorder is temporary. Longitudinal follow-up will clarify whether Mr. Coleman's symptoms attenuate or progress to a chronic psychotic illness.

Diagnosis

• Schizophreniform disorder (provisional)

Suggested Readings

Bromet EJ, Kotov R, Fochtmann LJ, et al: Diagnostic shifts during the decade following first admission for psychosis. Am J Psychiatry 168(11):1186–1194, 2011

Heckers S, Barch DM, Bustillo J, et al: Structure of the psychotic disorders classification in DSM 5. Schizophr Res 150(1):11–14, 2013

O'Conghaile A, DeLisi LE: Distinguishing schizophrenia from posttraumatic stress disorder with psychosis. Curr Opin Psychiatry 28(3):249–255, 2015

Prins A, Bovin MJ, Smolenski DJ, et al: The Primary Care PTSD Screen for DSM-5 (PC-PTSD-5): development and evaluation within a veteran primary care sample. J Gen Intern Med 31(10):1206–1211, 2016

Wortmann JH, Jordan AH, Weathers FW, et al: Psychometric analysis of the PTSD Checklist-5 (PCL-5) among treatment-seeking military service members. Psychol Assess 28(11):1392–1403, 2016

Case 2.4 Mind Control

Rajiv Tandon, M.D.

Itsuki Daishi was a 23-year-old engineering student from Japan who was referred to his university student mental health clinic by a professor who had become concerned about his irregular class attendance. When they had met to discuss his declining performance, Mr. Daishi had volunteered to the professor that he was distracted by the "listening devices" and "thought control machines" that had been placed in his apartment.

While initially wary of talking to the psychiatrist, Mr. Daishi indicated that he was relieved to finally get a chance to talk in a room that had not yet been bugged. He said that his problems began 3 months earlier, after he returned from a visit to Japan. He said his first indication of trouble was when a classmate sneezed and grinned at him in an odd way. Later that same week, he noticed two strangers lurking suspiciously outside his apartment.

Mr. Daishi decided that those lurking strangers had installed tiny mind-control devices throughout his apartment, devices that were intended to weaken his resolve and prepare him for an onslaught of misinformation from Fox News reporters who intended to convert him into being a follower of Donald Trump. After weakening his resolve, Mr. Daishi found himself only able to watch Fox News, and he then found that those television reporters began to relentlessly comment indirectly and critically about him. He soon came to the conclusion that they had targeted him because of his "superior intelligence" and because he would soon become the prime minister of Japan. He concluded that the Trump Republicans wanted an ally in Tokyo. Mr. Daishi indicated that he was trying to stay strong, but it was difficult to keep the reporters from putting ideas into his head.

Mr. Daishi reported that he became increasingly vigilant, fearing that everyone at school and in his apartment complex was "in on the plot." He slept little, became withdrawn, and stopped attending classes, but he did continue to eat and maintain his personal hygiene.

He denied feeling elated or euphoric. He described his level of energy as "okay" and his

thinking as clear "except when they try to put ideas into my head." He admitted to feeling extremely fearful for several hours on one occasion during his recent trip to Japan. At that time, he had smoked "a lot of pot" and began hearing strange sounds and believing that his friends were laughing at him. He denied any cannabis consumption since his return to the United States and denied ever having experimented with any other substances, saying that he generally would not even drink alcohol. He denied all other history of auditory or visual hallucinations.

When Mr. Daishi's uncle, listed as his local guardian, was contacted, he described his nephew as a healthy, intelligent, and somewhat shy boy without any prior history of any major psychiatric illness. He described Mr. Daishi's parents as very loving and supportive, although his father "might be a little stern." There was no family history of any major mental illness.

On examination, Mr. Daishi was well groomed and cooperative, with normal psychomotor activity. His speech was coherent and goal directed. He described his mood as "afraid." The range and mobility of his affective expression were normal. He denied any ideas of guilt, suicide, or worthlessness. He was convinced that he was being continuously monitored and that there were "mind control" devices in his apartment. He denied hallucinations. His cognitive functions were generally within normal limits. He appeared to have no insight into his beliefs.

On investigation, Mr. Daishi's laboratory test results were normal, his head computed tomography scan was unremarkable, and his urine drug screen was negative for any substances of abuse.

Discussion

Mr. Daishi meets criteria for delusional disorder, which requires one or more delusions that persist for longer than 1 month but no other psychotic symptoms. Most of Mr. Daishi's delusions are persecutory and related to monitoring devices. He has delusions of reference (a classmate sneezing and grinning at him), persecution (television reporters, mind-control devices), and thought insertion (reporters putting ideas into his head). He warrants the "mixed type" specifier because of his grandiosity (his "superior intelligence" and plan to become prime minister of Japan) and reduced sleep, but he has no other

symptoms of mania.

Other psychotic disorders should also be considered. The 3-month duration of symptoms is too long for brief psychotic disorder (no longer than 1 month) and too brief for schizophrenia (no briefer than 6 months) but is an appropriate duration for schizophreniform disorder (between 1 and 6 months' duration). Mr. Daishi does not appear, however, to have a second symptom (e.g., hallucinations, negative symptoms, or disorganization) as required for a schizophreniform diagnosis. In DSM-IV, a single bizarre delusion—the delusion of thought insertion—would have been adequate to meet symptomatic criteria for schizophreniform disorder (or schizophrenia), but bizarre delusions no longer receive special treatment among the DSM-5 schizophrenia spectrum disorders.

The absence of manic or major depressive mood symptoms excludes a diagnosis of bipolar disorder (with psychotic features), major depressive disorder (with psychotic features), or schizoaffective disorder.

Two environmental factors may also be pertinent to Mr. Daishi's delusions. For one, his long flight from Japan, with associated jet lag and sleep deprivation, may have triggered mania and psychosis. Second, the psychosis appears to have developed around the time that he used cannabis, a drug that can trigger psychotic symptoms when used alone and when adulterated with another substance such as phencyclidine. If evaluated for psychosis immediately after the flight or his use of cannabis, either (or both) might be considered in the diagnosis. Mr. Daishi's symptoms have persisted, however, for more than a month after either of those putative triggers. Jet lag was specifically removed from DSM-5 as a subtype of circadian rhythm sleep-wake disorders because its effects tend to be mild and short-lived. In addition, DSM-5 and DSM-5-TR specifically exclude the diagnosis of substance-induced psychotic disorder when symptoms persist for a substantial period of time (e.g., 1 month) following discontinuation of the substance.

Diagnosis

• Delusional disorder, mixed type

Suggested Readings

Muñoz-Negro JE, Ibanez-Casas I, de Portugal E, et al: A dimensional comparison between delusional disorder, schizophrenia and schizoaffective disorder. Schizophr Res 169(1–3):248–254, 2015

Nisbett RE: The Geography of Thought: How Asians and Westerners Think Differently —and Why. New York, Free Press, 2003

Peralta V, Cuesta MJ: Characteristics and clinical correlates of dimensions of delusional experience in schizophrenia and delusional disorder. Schizophr Res 176(2–3):404–410, 2016

Tandon R, Carpenter WT: DSM-5 status of psychotic disorders: 1 year prepublication. Schizophr Bull 38(3):369–370, 2012

Case 2.5 Sad and Psychotic

Anthony O. Ahmed, Ph.D.

John Evans was a 25-year-old single, unemployed white man who had been seeing a psychiatrist for several years for management of psychosis, depression, anxiety, and abuse of marijuana and alcohol.

After an apparently normal childhood, Mr. Evans began to show dysphoric mood, anhedonia, low energy, and social isolation by age 15 years. At about the same time, Mr. Evans began to drink alcohol and smoke marijuana every day. In addition, he developed recurrent panic attacks, marked by a sudden onset of palpitations, diaphoresis, and thoughts that he was going to die. When he was at his most depressed and panicky, he twice received a combination of sertraline 100 mg/day and psychotherapy. In both cases, his most intense depressive symptoms lifted within a few weeks, and he discontinued the sertraline after a few months. Between episodes of severe depression, he was generally seen as sad, irritable, and amotivated. His school performance declined around tenth grade and remained marginal throughout the rest of high school. He did not attend college as his parents had expected him to, but instead lived at home and did odd jobs in the neighborhood.

Around age 20, Mr. Evans developed a psychotic episode in which he had the conviction that he had murdered people when he was 6 years old. Although he could not remember who these people were or the circumstances, he was absolutely convinced that this had happened, something that was confirmed by continuous voices accusing him of being a murderer. He also became convinced that other people would punish him for what had happened, and thus he feared for his life. Over the ensuing few weeks, he became guilt-ridden and preoccupied with the idea that he should kill himself by slashing his wrists, which culminated in his being psychiatrically hospitalized.

Although he was predominantly anxious on admission, Mr. Evans soon became very depressed, with prominent anhedonia, poor sleep, and decreased appetite and concentration. With the combined use of antipsychotic and antidepressant medications, both the depression and the psychotic symptoms remitted after 4 weeks. Therefore, the total duration of the psychotic episode was approximately 7 weeks, 4 of which were also characterized by major depressive disorder. Mr. Evans had been hospitalized with the same pattern of symptoms two additional times before age 22, and each of these episodes started with several weeks of delusions and hallucinations related to his conviction that he had murdered someone when he was a child, followed by severe depression lasting an additional month. Both relapses occurred while he was apparently adherent to reasonable dosages of antipsychotic and antidepressant medications. During the 3 years prior to this evaluation, Mr. Evans had been adherent to clozapine and had been without hallucinations and delusions. He had also been adherent to his antidepressant medication and supportive psychotherapy, although his dysphoria, irritability, and amotivation never completely resolved.

Mr. Evans's history was significant for marijuana and alcohol misuse that began at age 15. Before the onset of psychosis at age 20, he smoked several joints of marijuana almost daily and binge-drank on weekends, with occasional blackouts. After the onset of the psychosis, he decreased his marijuana and alcohol use significantly, with two severalmonth-long periods of abstinence, yet he continued to have psychotic episodes up through age 22. He started attending Alcoholics Anonymous and Narcotics Anonymous groups, achieved sobriety from marijuana and alcohol at age 23, and had remained sober for the 2 years prior to this evaluation.

Discussion

Mr. Evans has struggled with depression and anxiety since adolescence, worsened by frequent use of marijuana and alcohol. At first, his treaters diagnosed him with depression and panic disorder and treated him accordingly. He did not enter college, as his family had expected, and he has not been employed since graduation from high school. At age 20, psychosis emerged and he required psychiatric hospitalization.

His major psychotic symptom is paranoia, with persecutory delusions and paramnesias of homicide. The delusions are worsened by auditory hallucinations, which he experiences as confirmation of his delusions. The delusions and hallucinations occurred almost daily between ages 20 and 22, until they resolved with clozapine treatment. Although he reports difficulties with memory, he has not displayed marked cognitive impairment or disorganization of thought. He is socially isolated and minimally able to interact with others. The extent, severity, and duration of his psychotic symptoms are consistent with the diagnosis of a schizophrenia spectrum disorder.

Mr. Evans's psychosis emerged after several years of depression, anxiety, and panic attacks. Since the onset of his psychotic illness, he has experienced multiple episodes of depression, which emerge after periods of delusion and hallucinations and feature overwhelming guilt, prominent anhedonia, poor sleep, and occasional bursts of irritability. He tends to become suicidal when psychosis and depression intensify.

Mr. Evans meets criteria for DSM-5 schizoaffective disorder. He has had an uninterrupted period in which his major depressive symptoms were concurrent with his schizophrenia symptoms. He has had several-week periods of hallucinations and delusions without prominent mood symptoms. Since the onset of the active and residual portions of his schizophrenia, the major depressive symptoms have been present most of the time.

Mr. Evans also used marijuana and alcohol for 8 years. Although these might have contributed to the emergence of his mood and psychotic symptoms, he continued to experience significant delusions, hallucinations, and depression between ages 20 and 22, when he stopped using marijuana and alcohol for several months. An alcohol- or marijuana-induced depressive, anxiety, or psychotic disorder might have been

considered at various times in Mr. Evans's life, but the persistence of his mood and psychotic symptoms for months after the discontinuation of marijuana and alcohol indicates that he does not have a substance-induced psychiatric disorder.

His response to treatment with antipsychotic, antidepressant, and mood-stabilizing medication is typical: several unsuccessful treatments with antipsychotic drugs, the need for combined treatment during periods of exacerbations, and unsuccessful attempts to taper either the antidepressant or the antipsychotic medication.

One complicating factor in regard to diagnosing schizoaffective disorder is the reality that although DSM-5 requires that the mood disorder be present for the majority of the active and residual phases of the schizophrenia, mood and psychotic disorders tend to vary significantly in regard to treatment response and clinical course. For example, whereas depressive and bipolar disorders tend to run in cycles, schizophrenia—once it unfolds—tends to persist. Furthermore, depressive and bipolar disorders tend to be more amenable to treatment than schizophrenia, especially because the diagnostic time frame for the latter includes the residual phase of schizophrenia, which can be largely resistant to psychiatric interventions. It remains to be seen how this tightening of the criteria for schizoaffective disorder will affect the identification and treatment of this cluster of patients.

Diagnoses

- Schizoaffective disorder, depressive type
- Alcohol use disorder, in remission
- Cannabis use disorder, in remission

Suggested Reading

Heckers S: Diagnostic criteria for schizoaffective disorder. Expert Rev Neurother 12(1):1–3, 2012

Lintunen J, Taipale H, Tanskanen A, et al: Long-term real-world effectiveness of pharmacotherapies for schizoaffective disorder. Schizophr Bull 47(4):1099–1107, 2021

Livingstone K, Harper S, Gillanders D: An exploration of emotion regulation in psychosis. Clin Psychol Psychother 16(5):418–430, 2009

Veras AB, Cougo S, Merira F, et al: Schizophrenia dissection by five anxiety and depressive subtype comorbidities: clinical implications and evolutionary perspective. Psychiatry Res 257:172–178, 2017

Case 2.6 Psychosis and Cannabis

Melissa Nau, M.D.

Heather Warm, M.D.

Kevin Foster, a 32-year-old married white man with a history of bipolar disorder, was brought to the emergency room (ER) by police after his wife called 911 to report that he was threatening to jump out of their hotel window.

At the time of the episode, Mr. Foster and his wife were on vacation, celebrating their fifth anniversary. To commemorate the event, they decided to get tattoos. Afterward, they went to a nearby park, where Mr. Foster bought and smoked a marijuana cigarette. During the ensuing hour, Mr. Foster began to believe that the symbols in his tattoo had mysterious meaning and power. He became convinced that the tattoo artist was conspiring with others against him and that his wife was cheating on him. After returning to the hotel, the patient searched his wife's phone for evidence of her infidelity and threatened to jump out the window. The patient's wife, an ER physician, successfully convinced the patient to go to sleep, thinking that the episode would resolve.

The following day, the patient remained paranoid and delusional. He again threatened to jump out the window, and indicated that he would have no choice but to kill his wife the next time she slept. She called 911, and her husband was brought to the ER of a large nearby hospital. Later that day, he was admitted to an acute inpatient psychiatric unit with a diagnosis of unspecified psychotic disorder.

Mr. Foster had smoked cannabis sporadically from age 18 but began to smoke daily 5 years prior to this admission. In the past year, his cannabis use had steadily increased;

previously he had been smoking once per day, but more recently his use had increased to three times a day, beginning when he awoke. He noted that he has begun to feel "anxious" when not under the influence of cannabis and believed his thrice-daily use helped him "even out." The patient and his wife denied that he had ever used other illicit substances, and the patient indicated that he rarely drank alcohol. Until 1 year earlier, he had never seen a psychiatrist or been viewed by his friends and family as having significant psychiatric issues.

In the past year, however, Mr. Foster had been hospitalized four times for psychiatric problems. He had been hospitalized twice with classic manic symptoms and once for a suicidal depression. In addition, 7 months prior to this presentation, the patient had been hospitalized for a 6-week episode of cannabis-induced psychosis, which responded well to risperidone. At that time, his main symptom was paranoia. Two months prior to this admission, he entered a 1-month inpatient substance abuse treatment program for cannabis use disorder. Until the weekend of this admission, he had continued to smoke marijuana but had not used alcohol or any other substances since discharge from the rehabilitation facility. He had also been functioning well while taking lithium monotherapy for 3 months.

Mr. Foster had been steadily employed as a film editor since graduating from college. His father had a bipolar disorder, and his paternal grandfather committed suicide via gunshot but with an unknown diagnosis.

On the second day of hospitalization, Mr. Foster began to realize that his wife was not cheating on him and that the symbols in his tattoo were not meaningful. By the third day, he spontaneously said the paranoia was the result of cannabis intoxication. He declined further risperidone but continued lithium monotherapy. He was discharged with an appointment to follow up with his outpatient psychiatrist.

Discussion

Soon after smoking a marijuana cigarette, Mr. Foster began to believe that the symbols of his new tattoo had mysterious meaning and power. Within hours, he became paranoid about the tattoo artist and delusionally jealous. He threatened to kill himself and his wife. He was admitted to a psychiatric unit. The psychotic symptoms cleared within a

few days, and the patient regained appropriate insight. This symptom trajectory fits DSM-5 substance/medication-induced psychotic disorder, which requires delusions or hallucinations that develop during, or soon after, substance intoxication or withdrawal (or after exposure to or withdrawal from a medication).

An additional DSM-5 diagnostic criterion for cannabis-induced psychotic disorder revolves around whether Mr. Foster's delusions might not be better explained by an independent psychotic disorder such as schizophrenia or psychotic symptoms within depression or mania. His symptoms resolved within 3 days, which is typical for a cannabis-induced psychosis but not for an independent psychotic disorder. The rapid resolution of symptoms would support the likelihood that the cannabis caused his symptoms.

Mr. Foster's psychiatric history complicates the diagnosis in two different ways. First, of the four psychiatric hospitalizations Mr. Foster has had in the past year, one was for paranoid delusions in the context of cannabis use, leading to a 6-week hospitalization. The duration of the actual paranoid delusions is not entirely clear, but they appear to have lasted far longer than would be typical for a cannabis-induced psychosis. DSM-5 specifically cautions that persistence of a psychosis beyond 1 month after the exposure implies that the psychosis may be independent rather than substance induced.

Second, of Mr. Foster's three other psychiatric hospitalizations, two were for "classic" mania and one was for "suicidal depression." It is not clear whether paranoia or psychosis was part of these episodes. DSM-5 points out that a history of recurrent non-substance-related psychotic episodes would make a substance-induced psychosis less likely.

It is not clear whether these psychiatric episodes can be brought together under a single diagnostic umbrella. For example, Mr. Foster could have bipolar disorder with recurrent episodes of depression and mania. The cannabis might help him sleep—which might reduce the mania—but could possibly trigger episodes. If manic and depressive episodes (with or without psychosis) are triggered by a substance but symptoms persist for an extended period of time, then the most accurate diagnosis would be the bipolar disorder. This would be especially true if similar symptoms develop in the absence of substance

use. Mr. Foster has a family history significant for bipolar disorder, which could further support such a diagnosis. On the other hand, Mr. Foster did not endorse any mood symptoms during this most recent psychotic episode, and psychotic symptoms resolved within 2–3 days. This history would seem to indicate that although Mr. Foster has historically met criteria for bipolar disorder, it seems to be currently in remission.

Additionally, his recurrent and increasing cannabis use despite adverse consequences (e.g., psychotic episodes requiring hospitalization) suggests a diagnosis of cannabis use disorder, moderate. We can presume that during his hospitalizations he was counseled on the need to cut back his use; however, we see no evidence of this. Furthermore, his use has increased over the past year, with feelings of withdrawal when not using.

Multiple schizophrenia spectrum disorders might be considered. Given a 3-day duration of symptoms, however, most diagnoses are quickly eliminated as possibilities. In addition, Mr. Foster appears to have only one affected domain (delusions). Delusional disorder involves only delusions, but the minimum duration is 1 month. Brief psychotic disorder also requires only one of the four primary schizophrenia spectrum symptoms (such as delusions), but it does require an evaluation as to whether the precipitant might be a substance or medication.

At the moment, then, a cannabis-induced psychotic disorder appears to be the most likely diagnosis for Mr. Foster's particular episode. Clarification might be possible through more thorough investigation of prior medical records, but even more helpful will be ongoing, longitudinal follow-up.

Diagnoses

- Cannabis-induced psychotic disorder
- Bipolar I disorder, in remission
- Cannabis use disorder, moderate

Suggested Readings

Caton CL, Hasin DS, Shrout PE, et al: Stability of early-phase primary psychotic

disorders with concurrent substance use and substance-induced psychosis. Br J Psychiatry 190:105–111, 2007

Ekleberry S: Treating Co-Occurring Disorders: A Handbook for Mental Health and Substance Abuse Professionals. Binghamton, NY, Haworth, 2004

Grant BF, Stinson FS, Dawson DA, et al: Prevalence and co-occurrence of substance use disorders and independent mood and anxiety disorders: results from the National Epidemiologic Survey on Alcohol and Related Conditions. Arch Gen Psychiatry 61(8):807–816, 2004

Pettinati HM, O'Brien CP, Dundon WD: Current status of co-occurring mood and substance use disorders: a new therapeutic target. Am J Psychiatry 170(1):23–30, 2013

Starzer MSK, Nordentoft M, Hjorthøj C: Rates and predictors of conversion to schizophrenia or bipolar disorder following substance-induced psychosis. Am J Psychiatry 175(4):343–350, 2018

Case 2.7 Flea Infestation

Julie B. Penzner, M.D.

Lara Gonzalez, a 51-year-old divorced freelance journalist, brought herself to the emergency room requesting dermatological evaluation for flea infestation. When no corroborating evidence was found on skin examination and the patient insisted that she was unsafe at home, she was admitted to an inpatient psychiatric service with "unspecified psychotic disorder."

Her concerns began around 1 week prior to presentation. To contend with financial stress, she had taken in temporary renters for a spare room in her home and had begun pet sitting for some neighbors. Under these conditions, she perceived tiny insects burrowing into her skin and walls and covering her rugs and mattress. She had spent the 36 hours prior to presentation frantically cleaning her home, fearing that her tenants would not pay if they saw the fleas. She showered repeatedly, using shampoos meant to treat animal infestations, and she consulted three different exterminators, although none

found evidence of fleas. She threw away a bag of clothing, believing she heard fleas "rustling and scratching inside." She bought replacement clothes that she kept in their own trash bag, thereby spending almost all of her savings, which worsened her preexisting financial strain.

Aside from her concerns about infestation, Ms. Gonzalez denied symptoms of depression, mania, and suspiciousness. She denied using any drugs or alcohol. No one in her family had a history of psychiatric illness. Ms. Gonzalez had been diagnosed with depression in college and briefly treated with an antidepressant. She had no relevant medical problems.

Her worries about infestation began in the setting of her sister's diagnosis with invasive cancer, the onset of her own menopause, financial strain that was likely forcing her to move from the United States back to Argentina (her country of origin), and a recent breakup with her boyfriend. At baseline, she described herself as an obsessive person who had always had "contamination phobias" that historically worsened during times of anxiety.

On mental status examination, Ms. Gonzalez was calm and easily engaged, with normal relatedness and eye contact. She offered up a small plastic bag containing "fleas and larvae" that she had collected in the hospital while awaiting evaluation. Inspection of the bag revealed lint and plaster. Her speech had an urgent quality to it, and she described her mood as "sad right now." She was tearful intermittently but otherwise smiling reactively. Her thoughts were overly inclusive and intensely focused on fleas. She expressed belief that each time a hair fell out of her head, it would morph into larvae. When crying, she believed an egg came out of her tear duct. She was not suicidal or homicidal. She expressed an unshakable belief that lint was larvae, and that she was infested. She denied hallucinations. Cognition was intact. Her insight was impaired, but her judgment was deemed reasonably appropriate.

Dermatological examination revealed no insects or larvae embedded in Ms. Gonzalez's skin. Results of neurological examination, head computed tomography scan, laboratory tests, and toxicology data were normal. She was discharged from the emergency room on a low-dose antipsychotic medication and seen weekly for supportive psychotherapy. Her

preoccupation improved within days and resolved entirely within 2 weeks. She developed enough insight to refer to her belief that fleas were in her skin as a "crazy thought." She attributed her "break from reality" to multiple stressors, and was able to articulate that she relied on her delusion as a way to distract herself from real problems. Her family corroborated her quick return to baseline.

Discussion

Ms. Gonzalez's delusions with quick return to full premorbid functioning suggest a diagnosis of brief psychotic disorder with marked stressors. Formerly called "brief reactive psychosis," a brief psychotic disorder (with or without marked stressors) may not be diagnosed until return to baseline has occurred. The differential diagnosis of this condition is important.

At the time of presentation, the patient was diagnosed with "unspecified psychotic disorder," a term often used when psychosis is present but information is incomplete. Only after her symptoms rapidly resolved could she be diagnosed with a brief psychotic disorder. Ms. Gonzalez's insight returned quite quickly, and she was able to link her symptoms to antecedent stressors. Although treatment is likely to shorten the duration of an acute psychotic episode, DSM-5 specifically does not factor treatment into the requirement that the episode last less than 1 month.

It is worth noting that stressors can be positive (e.g., marriage, new job, new baby) or negative, as in Ms. Gonzalez's case. A favorable prognosis is often associated with a history of good premorbid functioning, significant acute stressors, and a lack of family or personal history of psychiatric illness. Stressors can also be medical; two recent case reports have described brief psychotic disorder associated with COVID-19 and related quarantine.

Ms. Gonzalez's sleeplessness, behavioral agitation, and premorbid depressive history might also suggest a bipolar episode, but there are no other symptoms to support this diagnosis. Similarly, her delusional obsession with flea infestation suggests a possible delusional disorder, but Ms. Gonzalez's symptoms resolved far too quickly for this to be likely. If her preoccupation with infestation were to persist for a month, as often happens, she would likely warrant a DSM-5 diagnosis of delusional disorder, somatic

subtype; such a diagnosis might also be referred to as "delusional parasitosis."

Patients with personality disorders can have "micropsychoses," but Ms. Gonzalez does not appear to have a personality disorder or a particular personality vulnerability. Malingering and factitious disorder appear unlikely, as do delirium and other medically mediated illnesses.

Brief psychotic episodes have a low prevalence in the population, which could indicate that brief psychoses are unusual. It could also indicate that people with a very short duration of psychotic symptoms may not seek psychiatric help. The brevity and unpredictability of symptoms also makes it difficult to do research and for any particular clinician or institution to develop an expertise. Brief psychotic episodes are also noted to have a relatively low stability over time, which makes sense given that—unlike schizophrenia—brief psychotic episodes are, by definition, of short duration and cannot even be diagnosed without both remission of symptoms and careful follow-up.

Diagnosis

• Brief psychotic disorder with marked stressors

Suggested Readings

Haddad PM, Al Abdulla M, Latoo J, et al: Brief psychotic disorder associated with quarantine and mild COVID-19. BMJ Case Rep 13(12):e240088, 2020

Jørgensen P, Bennedsen B, Christensen J, Hyllested A: Acute and transient psychotic disorder: comorbidity with personality disorder. Acta Psychiatr Scand 94(6):460–464, 1996

Salvatore P, Baldessarini RJ, Tohen M, et al: McLean-Harvard International First-Episode Project: two-year stability of DSM-IV diagnoses in 500 first-episode psychotic disorder patients. J Clin Psychiatry 70(4):458–466, 2009

Smith CM, Komisar JR, Mourad A, Kincaid BR: COVID-19-associated brief psychotic disorder. BMJ Case Rep 13(8):e236940, 2020