DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS

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DEFENDANT'S EXHIBIT

Schizophrenia Spectrum and Other Psychotic Disorders

Schizophrenia spectrum and other psychotic disorders include schizophrenia, other psychotic disorders, and schizotypal (personality) disorder. They are defined by abnormalities in one or more of the following five domains: delusions, hallucinations, disorganized thinking (speech), grossly disorganized or abnormal motor behavior (including catatonia), and negative symptoms.

Key Features That Define the Psychotic Disorders

Delusions

Delusions are fixed beliefs that are not amenable to change in light of conflicting evidence. Their content may include a variety of themes (e.g., persecutory, referential, somatic, religious, grandiose). Persecutory delusions (i.e., belief that one is going to be harmed, harassed, and so forth by an individual, organization, or other group) are most common. Referential delusions (i.e., belief that certain gestures, comments, environmental cues, and so forth are directed at oneself) are also common. Grandiose delusions (i.e., when an individual believes that he or she has exceptional abilities, wealth, or fame) and erotomanic delusions (i.e., when an individual believes falsely that another person is in love with him or her) are also seen. Nihilistic delusions involve the conviction that a major catastrophe will occur, and somatic delusions focus on preoccupations regarding health and organ function.

Delusions are deemed *bizarre* if they are clearly implausible and not understandable to same-culture peers and do not derive from ordinary life experiences. An example of a bizarre delusion is the belief that an outside force has removed his or her internal organs and replaced them with someone else's organs without leaving any wounds or scars. An example of a nonbizarre delusion is the belief that one is under surveillance by the police, despite a lack of convincing evidence. Delusions that express a loss of control over mind or body are generally considered to be bizarre; these include the belief that one's thoughts have been "removed" by some outside force (*thought withdrawal*), that alien thoughts have been put into one's mind (*thought insertion*), or that one's body or actions are being acted on or manipulated by some outside force (*delusions of control*).

The distinction between a delusion and a strongly held idea is sometimes difficult to determine and depends in part on the degree of conviction with which the belief is held despite clear or reasonable contradictory evidence regarding its veracity. Assessing delusions in individuals from a variety of cultural backgrounds can be difficult. Some religious and supernatural beliefs (e.g., evil eye, causing illness through curses, influence of spirits) may be viewed as bizarre and possibly delusional in some cultural contexts but be generally accepted in

others. However, elevated religiosity can be a feature of many presentations of psychosis.

Individuals who have experienced torture, political violence, or discrimination can report fears that may be misjudged as persecutory delusions; these may represent instead intense fears of recurrence or posttraumatic symptoms. A careful evaluation of whether the

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person's fears are justified given the nature of the trauma can help to differentiate appropriate fears from persecutory delusions.

Hallucinations

Hallucinations are perception-like experiences that occur without an external stimulus. They are vivid and clear, with the full force and impact of normal perceptions, and not under voluntary control. They may occur in any sensory modality, but auditory hallucinations are the most common in schizophrenia and related disorders. Auditory hallucinations are usually experienced as voices, whether familiar or unfamiliar, that are perceived as distinct from the individual's own thoughts. The hallucinations must occur in the context of a clear sensorium; those that occur while falling asleep (*hypnagogic*) or waking up (*hypnopompic*) are considered to be within the range of normal experience. Hallucinations may be a normal part of religious experience in certain cultural contexts.

Disorganized Thinking (Speech)

Disorganized thinking (formal thought disorder) is typically inferred from the individual's speech. The individual may switch from one topic to another (derailment or loose associations). Answers to questions may be obliquely related or completely unrelated (tangentiality). Rarely, speech may be so severely disorganized that it is nearly incomprehensible and resembles receptive aphasia in its linguistic disorganization (incoherence or "word salad"). Because mildly disorganized speech is common and nonspecific, the symptom must be severe enough to substantially impair effective communication. The severity of the impairment may be difficult to evaluate if the person making the diagnosis comes from a different linguistic background than that of the person being examined. For example, some religious groups engage in glossolalia ("speaking in tongues"); others describe experiences of possession trance (trance states in which personal identity is replaced by an external possessing identity). These phenomena are characterized by disorganized speech. These instances do not represent signs of psychosis unless they are accompanied by other clearly psychotic symptoms. Less severe disorganized thinking or speech may occur during the prodromal and residual periods of schizophrenia.

Grossly Disorganized or Abnormal Motor Behavior (Including Catatonia)

Grossly disorganized or abnormal motor behavior may manifest itself in a variety of ways, ranging from childlike "silliness" to unpredictable agitation. Problems may be noted in any form of goal-directed behavior, leading to difficulties in performing activities of daily living.

Catatonic behavior is a marked decrease in reactivity to the environment. This ranges from resistance to instructions (*negativism*); to maintaining a rigid, inappropriate or bizarre posture; to a complete lack of verbal and motor responses (*mutism* and *stupor*). It can also include

purposeless and excessive motor activity without obvious cause (*catatonic excitement*). Other features are repeated stereotyped movements, staring, grimacing, and the echoing of speech. Although catatonia has historically been associated with schizophrenia, catatonic symptoms are nonspecific and may occur in other mental disorders (e.g., bipolar or depressive disorders with catatonia) and in medical conditions (catatonic disorder due to another medical condition).

Negative Symptoms

Negative symptoms account for a substantial portion of the morbidity associated with schizophrenia but are less prominent in other psychotic disorders. Two negative symptoms are particularly prominent in schizophrenia: diminished emotional expression and avolition. *Diminished emotional expression* includes reductions in the expression of emotions in the

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face, eye contact, intonation of speech (prosody), and movements of the hand, head, and face that normally give an emotional emphasis to speech. *Avolition* is a decrease in motivated self-initiated purposeful activities. The individual may sit for long periods of time and show little interest in participating in work or social activities. Other negative symptoms include alogia, anhedonia, and asociality. *Alogia* is manifested by diminished speech output. *Anhedonia* is the decreased ability to experience pleasure. Individuals with schizophrenia can still enjoy a pleasurable activity in the moment and can recall it, but show a reduction in the frequency of engaging in pleasurable activity. *Asociality* refers to the apparent lack of interest in social interactions and may be associated with avolition, but it can also be a manifestation of limited opportunities for social interactions.

Disorders in This Chapter

This chapter is organized along a gradient of psychopathology. Clinicians should first consider conditions that do not reach full criteria for a psychotic disorder or are limited to one domain of psychopathology. Then they should consider time-limited conditions. Finally, the diagnosis of a schizophrenia spectrum disorder requires the exclusion of another condition that may give rise to psychosis.

Schizotypal personality disorder is noted within this chapter as it is considered within the schizophrenia spectrum, although its full description is found in the chapter "Personality Disorders." The diagnosis schizotypal personality disorder captures a pervasive pattern of social and interpersonal deficits, including reduced capacity for close relationships; cognitive or perceptual distortions; and eccentricities of behavior, usually beginning by early adulthood but in some cases first becoming apparent in childhood and adolescence. Abnormalities of beliefs, thinking, and perception are below the threshold for the diagnosis of a psychotic disorder.

Two conditions are defined by abnormalities limited to one domain of psychosis: delusions or catatonia. Delusional disorder is characterized by at least 1 month of delusions but no other psychotic symptoms. Catatonia is described later in the chapter and further in this discussion.

Brief psychotic disorder lasts more than 1 day and remits by 1 month. Schizophreniform disorder is characterized by a symptomatic presentation equivalent to that of schizophrenia except for its duration (less than 6 months) and the absence of a requirement for a decline in

functioning.

Schizophrenia lasts for at least 6 months and includes at least 1 month of active-phase symptoms. In schizoaffective disorder, a mood episode and the active-phase symptoms of schizophrenia occur together and were preceded or are followed by at least 2 weeks of delusions or hallucinations without prominent mood symptoms.

Psychotic disorders may be induced by substances, medications, toxins, and other medical conditions. In substance/medication-induced psychotic disorder, the psychotic symptoms are judged to be a direct physiological consequence of a drug of abuse, a medication, or toxin exposure and cease after removal of the agent. In psychotic disorder due to another medical condition, the psychotic symptoms are judged to be a direct physiological consequence of another medical condition.

Catatonia can occur in several disorders, including neurodevelopmental, psychotic, bipolar, depressive, and other mental disorders. This chapter also includes the diagnoses catatonia associated with another mental disorder (catatonia specifier), catatonic disorder due to another medical condition, and unspecified catatonia, and the diagnostic criteria for all three conditions are described together.

Other specified and unspecified schizophrenia spectrum and other psychotic disorders are included for classifying psychotic presentations that do not meet the criteria for any of the specific psychotic disorders, or psychotic symptomatology about which there is inadequate or contradictory information.

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Clinician-Rated Assessment of Symptoms and Related Clinical Phenomena in Psychosis

Psychotic disorders are heterogeneous, and the severity of symptoms can predict important aspects of the illness, such as the degree of cognitive or neurobiological deficits. To move the field forward, a detailed framework for the assessment of severity is included in Section III, "Assessment Measures," which may help with treatment planning, prognostic decision-making, and research on pathophysiological mechanisms. Section III, "Assessment Measures," also contains dimensional assessments of the primary symptoms of psychosis, including hallucinations, delusions, disorganized speech (except for substance/medication-induced psychotic disorder and psychotic disorder due to another medical condition), abnormal psychomotor behavior, and negative symptoms, as well as dimensional assessments of depression and mania. The severity of mood symptoms in psychosis has prognostic value and guides treatment. Thus, dimensional assessments of depression and mania for all psychotic disorders alert clinicians to mood pathology and the need to treat where appropriate. The Section III scale also includes a dimensional assessment of cognitive impairment. Many individuals with psychotic disorders have impairments in a range of cognitive domains that predict functional status. Clinical neuropsychological assessment can help guide diagnosis and treatment, but brief assessments without formal neuropsychological assessment can provide useful information that can be sufficient for diagnostic purposes. Formal neuropsychological testing, when conducted, should be administered and scored by personnel trained in the use of testing instruments. If a

formal neuropsychological assessment is not conducted, the clinician should use the best available information to make a judgment. Further research on these assessments is necessary to determine their clinical utility; thus, the assessments available in Section III should serve as a prototype to stimulate such research.

Cultural Considerations in the Assessment of Psychotic Symptoms

Diagnostic accuracy and the quality of treatment planning may be enhanced by interview approaches, scales, and tools that have been adapted or validated for the person's culture and by using a cultural formulation interview (see Section III, "Culture and Psychiatric Diagnosis"). Assessing psychosis through interpreters or in a second or third language must avoid the misunderstanding of unfamiliar metaphors as delusions.

Schizotypal (Personality) Disorder

Criteria and text for schizotypal personality disorder can be found in the chapter "Personality Disorders." Because this disorder is considered part of the schizophrenia spectrum of disorders, and is labeled in this section of ICD-10 as schizotypal disorder, it is listed in this chapter and discussed in detail in the DSM-5 chapter "Personality Disorders."

Delusional Disorder

Diagnostic Criteria

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- A. The presence of one (or more) delusions with a duration of 1 month or longer.
- B. Criterion A for schizophrenia has never been met.

Note: Hallucinations, if present, are not prominent and are related to the delusional theme (e.g., the sensation of being infested with insects associated with delusions of infestation).

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- C. Apart from the impact of the delusion(s) or its ramifications, functioning is not markedly impaired, and behavior is not obviously bizarre or odd.
- D. If manic or major depressive episodes have occurred, these have been brief relative to the duration of the delusional periods.
- E. The disturbance is not attributable to the physiological effects of a substance or another medical condition and is not better explained by another mental disorder, such as body dysmorphic disorder or obsessive-compulsive disorder.

Specify whether:

Erotomanic type: This subtype applies when the central theme of the delusion is that another person is in love with the individual.

daily functioning, such as school or work, interpersonal relationships, and self-care. Individuals who recover from schizophreniform disorder have better functional outcomes.

Differential Diagnosis

Other mental disorders and medical conditions. A wide variety of mental disorders and medical conditions can manifest with psychotic symptoms that must be considered in the differential diagnosis of schizophreniform disorder. These include psychotic disorder due to another medical condition or its treatment; delirium or major neurocognitive disorder; substance/medication-induced psychotic disorder or delirium; major depressive or bipolar disorder with psychotic features; schizoaffective disorder; other specified or unspecified bipolar and related disorder; major depressive or bipolar disorder with catatonic features; schizophrenia; delusional disorder; other specified or unspecified schizophrenia spectrum and other psychotic disorder; schizotypal, schizoid, or paranoid personality disorders; autism spectrum disorder; disorders presenting in childhood with disorganized speech; attention-deficit/hyperactivity disorder; obsessive-compulsive disorder; posttraumatic stress disorder; and traumatic brain injury.

Since the diagnostic criteria for schizophreniform disorder and schizophrenia differ primarily in duration of illness, the discussion of the differential diagnosis of schizophrenia also applies to schizophreniform disorder.

Brief psychotic disorder. Schizophreniform disorder differs in duration from brief psychotic disorder, which has a duration of less than 1 month.

Schizophrenia

Diagnostic Criteria

F20.9

- A. Two (or more) of the following, each present for a significant portion of time during a 1-month period (or less if successfully treated). At least one of these must be (1), (2), or (3):
 - 1. Delusions.
 - 2. Hallucinations.
 - 3. Disorganized speech (e.g., frequent derailment or incoherence).

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- 4. Grossly disorganized or catatonic behavior.
- 5. Negative symptoms (i.e., diminished emotional expression or avolition).
- B. For a significant portion of the time since the onset of the disturbance, level of functioning in one or more major areas, such as work, interpersonal relations, or self-care, is markedly below the level achieved prior to the onset (or when the onset is in childhood or adolescence, there is failure to achieve expected level of interpersonal, academic, or occupational functioning).

- C. Continuous signs of the disturbance persist for at least 6 months. This 6-month period must include at least 1 month of symptoms (or less if successfully treated) that meet Criterion A (i.e., active-phase symptoms) and may include periods of prodromal or residual symptoms. During these prodromal or residual periods, the signs of the disturbance may be manifested by only negative symptoms or by two or more symptoms listed in Criterion A present in an attenuated form (e.g., odd beliefs, unusual perceptual experiences).
- D. Schizoaffective disorder and depressive or bipolar disorder with psychotic features have been ruled out because either 1) no major depressive or manic episodes have occurred concurrently with the active-phase symptoms, or 2) if mood episodes have occurred during active-phase symptoms, they have been present for a minority of the total duration of the active and residual periods of the illness.
- E. The disturbance is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication) or another medical condition.
- F. If there is a history of autism spectrum disorder or a communication disorder of childhood onset, the additional diagnosis of schizophrenia is made only if prominent delusions or hallucinations, in addition to the other required symptoms of schizophrenia, are also present for at least 1 month (or less if successfully treated).

Specify if:

The following course specifiers are only to be used after a 1-year duration of the disorder and if they are not in contradiction to the diagnostic course criteria.

First episode, currently in acute episode: First manifestation of the disorder meeting the defining diagnostic symptom and time criteria. An *acute episode* is a time period in which the symptom criteria are fulfilled.

First episode, currently in partial remission: *Partial remission* is a period of time during which an improvement after a previous episode is maintained and in which the defining criteria of the disorder are only partially fulfilled.

First episode, currently in full remission: Full remission is a period of time after a previous episode during which no disorder-specific symptoms are present.

Multiple episodes, currently in acute episode: Multiple episodes may be determined after a minimum of two episodes (i.e., after a first episode, a remission and a minimum of one relapse).

Multiple episodes, currently in partial remission

Multiple episodes, currently in full remission

Continuous: Symptoms fulfilling the diagnostic symptom criteria of the disorder are remaining for the majority of the illness course, with subthreshold symptom periods being very brief relative to the overall course.

Unspecified

Specify if:

With catatonia (refer to the criteria for catatonia associated with another mental disorder, p. 135, for definition).

Coding note: Use additional code F06.1 catatonia associated with schizophrenia to indicate the presence of the comorbid catatonia.

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Specify current severity:

Severity is rated by a quantitative assessment of the primary symptoms of psychosis, including delusions, hallucinations, disorganized speech, abnormal psychomotor behavior, and negative symptoms. Each of these symptoms may be rated for its current severity (most severe in the last 7 days) on a 5-point scale ranging from 0 (not present) to 4 (present and severe). (See Clinician-Rated Dimensions of Psychosis Symptom Severity in the chapter "Assessment Measures.")

Note: Diagnosis of schizophrenia can be made without using this severity specifier.

Diagnostic Features

The characteristic symptoms of schizophrenia involve a range of cognitive, behavioral, and emotional dysfunctions, but no single symptom is pathognomonic of the disorder. The diagnosis involves the recognition of a constellation of signs and symptoms associated with impaired occupational or social functioning. Individuals with the disorder will vary substantially on most features, as schizophrenia is a heterogeneous clinical syndrome.

At least two Criterion A symptoms must be present for a significant portion of time during a 1-month period or longer. At least one of these symptoms must be the clear presence of delusions (Criterion A1), hallucinations (Criterion A2), or disorganized speech (Criterion A3). Grossly disorganized or catatonic behavior (Criterion A4) and negative symptoms (Criterion A5) may also be present. In those situations in which the active-phase symptoms remit within a month in response to treatment, Criterion A is still met if the clinician estimates that they would have persisted in the absence of treatment.

Schizophrenia involves impairment in one or more major areas of functioning (Criterion B). If the disturbance begins in childhood or adolescence, the expected level of function is not attained. Comparing the individual with unaffected siblings may be helpful. The dysfunction persists for a substantial period during the course of the disorder and does not appear to be a direct result of any single feature. Avolition (i.e., reduced drive to pursue goal-directed behavior; Criterion A5) is linked to the social dysfunction described under Criterion B. There is also strong evidence for a relationship between cognitive impairment (see the section "Associated Features" for this disorder) and functional impairment in individuals with schizophrenia.

Some signs of the disturbance must persist for a continuous period of at least 6 months (Criterion C). Prodromal symptoms often precede the active phase, and residual symptoms may follow it, characterized by mild or subthreshold forms of hallucinations or delusions. Individuals

may express a variety of unusual or odd beliefs that are not of delusional proportions (e.g., ideas of reference or magical thinking); they may have unusual perceptual experiences (e.g., sensing the presence of an unseen person); their speech may be generally understandable but vague; and their behavior may be unusual but not grossly disorganized (e.g., mumbling in public). Negative symptoms are common in the prodromal and residual phases and can be severe. Individuals who had been socially active may become withdrawn from previous routines. Such behaviors are often the first sign of a disorder.

Mood symptoms and full mood episodes are common in schizophrenia and may be concurrent with active-phase symptomatology. However, as distinct from a psychotic mood disorder, a schizophrenia diagnosis requires the presence of delusions or hallucinations in the absence of mood episodes. In addition, mood episodes, taken in total, should be present for only a minority of the total duration of the active and residual periods of the illness.

In addition to the five symptom domain areas identified in the diagnostic criteria, the assessment of cognition, depression, and mania symptom domains is vital for making critically important distinctions between the various schizophrenia spectrum and other psychotic disorders.

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Associated Features

Individuals with schizophrenia may display inappropriate affect (e.g., laughing in the absence of an appropriate stimulus); a dysphoric mood that can take the form of depression, anxiety, or anger; a disturbed sleep pattern (e.g., daytime sleeping and nighttime activity); and a lack of interest in eating or food refusal. Depersonalization, derealization, and somatic concerns may occur and sometimes reach delusional proportions. Anxiety and phobias are common. Cognitive deficits in schizophrenia are common and are strongly linked to vocational and functional impairments. These deficits can include decrements in declarative memory, working memory, language function, and other executive functions, as well as slower processing speed. Abnormalities in sensory processing and inhibitory capacity, as well as reductions in attention, are also found. Some individuals with schizophrenia show social cognition deficits, including deficits in the ability to infer the intentions of other people (theory of mind), and may attend to and then interpret irrelevant events or stimuli as meaningful, perhaps leading to the generation of explanatory delusions. These impairments frequently persist during symptomatic remission.

Some individuals with psychosis may lack insight or awareness of their disorder (i.e., anosognosia). This lack of "insight" includes unawareness of symptoms of schizophrenia and may be present throughout the entire course of the illness. Unawareness of illness is typically a symptom of schizophrenia itself rather than a coping strategy. It is comparable to the lack of awareness of neurological deficits following brain damage, termed *anosognosia*. This symptom is the most common predictor of nonadherence to treatment, and it predicts higher relapse rates, increased number of involuntary treatments, poorer psychosocial functioning, aggression, and a poorer course of illness.

Hostility and aggression can be associated with schizophrenia, although spontaneous or random assault is uncommon. Aggression is more frequent for younger males and for individuals with a past history of violence, nonadherence to treatment, substance abuse, and impulsivity. It should be noted that the vast majority of persons with schizophrenia are not aggressive and are more frequently victimized than are individuals in the general population.

Currently, there are no radiological, laboratory, or psychometric tests for the disorder. Differences are evident in multiple brain regions between groups of healthy individuals and persons with schizophrenia, including evidence from neuroimaging, neuropathological, and neurophysiological studies. Differences are also evident in cellular architecture, white matter connectivity, and gray matter volume in a variety of regions such as the prefrontal and temporal cortices. Reduced overall brain volume has been observed, as well as increased brain volume reduction with age. Brain volume reductions with age are more pronounced in individuals with schizophrenia than in healthy individuals. Finally, individuals with schizophrenia appear to differ from individuals without the disorder in eye-tracking and electrophysiological indices.

Neurological soft signs common in individuals with schizophrenia include impairments in motor coordination, sensory integration, and motor sequencing of complex movements; left-right confusion; and disinhibition of associated movements. In addition, minor physical anomalies of the face and limbs may occur.

Prevalence

The estimated lifetime prevalence of schizophrenia is approximately 0.3%–0.7%, with variation over a fivefold range in meta-analyses of nationally representative surveys. Studies have shown increased prevalence and incidence of schizophrenia for some groups based on migration and refugee status, urbanicity, and the economic status and latitude of the country. It is important to note that the reported prevalence and incidence of schizophrenia may be affected by the fact that some groups are more likely to be misdiagnosed or overdiagnosed.

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The sex ratio differs across samples and populations: for example, presentations with prominent negative symptoms and longer duration of disorder (associated with poorer outcome) show higher incidence rates for men, whereas definitions allowing for the inclusion of more mood symptoms and brief presentations (associated with better outcome) show equivalent risks for both sexes. A large worldwide study, which was based on a range of definitions of schizophrenia, found no difference in prevalence between the sexes.

Development and Course

The requisite psychotic features of the schizophrenia diagnosis typically emerge between the late teens and the mid-30s; onset prior to adolescence is rare. The peak onset age occurs in the early-to mid-20s for men and in the late-20s for women. The onset may be abrupt or insidious, but the majority of individuals manifest a slow and gradual development of a variety of clinically significant signs and symptoms, particularly social withdrawal, emo-tional changes, and cognitive changes producing a deterioration in role functioning. Half of these individuals display depressive symptoms. Prognosis is influenced both by dura-tion and by severity of illness and gender. Men, especially those with long duration of psychosis before treatment and lower premorbid adjustment, have more prominent negative symptoms, cognitive impairment, and generally worse functional outcomes than women. Sociocognitive deficits may manifest during development and precede the emergence of psychosis, taking the form of stable impairments during adulthood, refractory to antipsychotic medications.

Course and outcome in schizophrenia are heterogeneous, and prognosis is uncertain at the onset of psychosis. Although most individuals with schizophrenia remain vulnerable to exacerbation of psychotic symptoms and a chronic course defined by symptoms and functional impairment is common, many individuals experience periods of remission and even recovery. According to a meta-analysis of 79 longitudinal studies of first-episode psychosis with more than 1 year of follow-up, the pooled remission rate (qualitatively defined as mild or absent symptoms for at least 6 months) for first-episode schizophrenia was 56% and the pooled recovery rate (qualitatively defined as symptomatic and functional improvement for greater than 2 years) was 30%. A different meta-analysis of 50 studies of individuals with broadly defined schizophrenia (i.e., schizophrenia, schizophreniform, schizoaffective, or delusional disorder) found that the median proportion of individuals who met recovery criteria (at most mild symptoms and improvements in social and/or occupational functioning persisting for at least 2 years) was 13.5%. There is a tendency for reduced psychotic experiences during late life. In addition to psychosis, cognitive impairment and negative symptom pathology are core features of schizophrenia, and the course for these characteristic features is different from that of positive psychotic symptoms. Cognition tends to decline during development prior to full psychosis and is relatively stable over the longer term. Negative symptoms, if present during development, also tend to be relatively stable traits over time. Negative symptoms that begin after psychosis onset are more variable and may reflect secondary causes. A degree of chronicity is required for a diagnosis of schizophrenia, and long-term course reflects a need for mental health care and living support in many individuals. While schizophrenia is generally not a progressive neurodegenerative disorder, life challenges, changing lifestyle, and persistent symptoms may lead to progressive dysfunction in more severe chronic cases.

The essential features of schizophrenia are the same in childhood, but it is more difficult to make the diagnosis. In children, delusions and hallucinations may be less elaborate than in adults, and visual hallucinations are more common and should be distinguished from normal fantasy play. Disorganized speech occurs in many disorders with childhood onset (e.g., autism spectrum disorder), as does disorganized behavior (e.g., attention-deficit/hyperactivity disorder). These symptoms should not be attributed to schizophrenia

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without due consideration of the more common disorders of childhood. Childhood-onset cases tend to resemble poor-outcome adult cases, with gradual onset and prominent negative symptoms. Children who later receive the diagnosis of schizophrenia are more likely to have experienced nonspecific emotional-behavioral disturbances and psychopathology, intellectual and language alterations, and subtle motor delays.

Late-onset cases (i.e., onset after age 40 years) are overrepresented by women, who may have married. Often, the course is characterized by a predominance of psychotic symptoms with preservation of affect and social functioning. Such late-onset cases can still meet the diagnostic criteria for schizophrenia, but it is not yet clear whether this is the same condition as schizophrenia diagnosed prior to midlife (e.g., prior to age 55 years).

Risk and Prognostic Factors

Environmental. Season of birth has been linked to the incidence of schizophrenia, including late

winter/early spring in some locations and summer for the deficit form of the disease. The incidence of schizophrenia and related disorders may be higher for children growing up in an urban environment, for refugees, for some migrant groups, and for socially oppressed groups facing discrimination. There is evidence that social deprivation, social adversity, and socioeconomic factors may be associated with increased rates of this disorder. Among individuals with schizophrenia and other psychotic disorders, the severity of positive and negative symptoms appears to be correlated with the severity of adverse childhood experiences, such as trauma and neglect. Higher rates of schizophrenia for some ethnic and racialized groups have been documented when they live in areas with lower proportions of people from the same ethnicity or racialized group. The reasons for this are not completely clear but appear related to several factors, including the following: 1) higher levels of discrimination or fear of discrimination; 2) less social support and more stigmatization of those with schizophrenia; 3) higher social isolation; and 4) decreased availability of and access to normalizing explanations of perceptual experiences and abnormal beliefs reported by individuals at high risk for developing schizophrenia.

Genetic and physiological. There is a strong contribution for genetic factors in determining risk for schizophrenia, although most individuals who have been diagnosed with schizophrenia have no family history of psychosis. Liability is conferred by a spectrum of risk alleles, common and rare, with each allele contributing only a small fraction to the total population variance. The risk alleles identified to date are also associated with other mental disorders, including bipolar disorder, depression, and autism spectrum disorder.

Pregnancy and birth complications with hypoxia and greater paternal age are associated with a higher risk of schizophrenia for the developing fetus. In addition, other prenatal and perinatal adversities, including stress, infection, malnutrition, maternal diabetes, and other medical conditions, have been linked with schizophrenia. However, the vast majority of offspring with these risk factors do not develop schizophrenia.

Culture-Related Diagnostic Issues

The form and content of schizophrenia symptoms can vary cross-culturally, including the following ways: the relative proportion of visual and auditory hallucinations (e.g., while auditory hallucinations tend to be more common than visual hallucinations around the world, the relative proportion of visual hallucinations may be particularly higher in some regions compared with others); the specific content of the delusions (e.g., persecutory, grandiose, somatic) and hallucinations (e.g., command, abusive, religious); and the level of fear associated with them. Cultural and socioeconomic factors must be considered, particularly when the individual and the clinician do not share the same cultural and socioeconomic background. Ideas that appear to be delusional in one cultural context (e.g., evil eye, causing illness through curses, influences of spirits) may be commonly held in others.

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In some cultural contexts, visual or auditory hallucinations with a religious content (e.g., hearing God's voice) are a normal part of religious experience. In addition, the assessment of disorganized speech may be made difficult by linguistic variation in narrative styles across cultures. The assessment of affect requires sensitivity to differences in styles of emotional

expression, eye contact, and body language, which vary across cultures. If the assessment is conducted in a language that is different from the individual's primary language, care must be taken to ensure that alogia is not related to linguistic barriers. In certain cultures, distress may take the form of hallucinations or pseudo-hallucinations and overvalued ideas that may present clinically similar to true psychosis but are normative to the individual's subgroup. Misdiagnosis of schizophrenia in individuals with mood disorders with psychotic features or with other psychiatric disorders is more likely to occur in members of underserved ethnic and racialized groups (in the United States, especially among African Americans). This may be attributable to clinical bias, racism, or discrimination leading to limited quality of information and potential misinterpretation of symptoms.

Sex- and Gender-Related Diagnostic Issues

A number of features distinguish the clinical expression of schizophrenia in women and men. The age at onset is later in women, with a second midlife peak. Symptoms tend to be more affect-laden among women, and there are more psychotic symptoms, as well as a greater propensity for psychotic symptoms to worsen in later life. Other symptom differences include less frequent negative symptoms and disorganization. Finally, social functioning tends to remain better preserved in women. There are, however, frequent exceptions to these general caveats.

Psychotic symptoms have been observed to worsen during the premenstrual time period when estrogen levels are dropping; consequently, increased psychiatric admission rates are seen in women with schizophrenia just before and during menses. Lower estrogen levels resulting from menopause may be another factor associated with the second peak of onset in women in midlife. Similarly, psychotic symptoms appear to improve during pregnancy when estrogen levels are high and worsen again postpartum when estrogen levels precipitously drop.

Association With Suicidal Thoughts or Behavior

Approximately 5%–6% of individuals with schizophrenia die by suicide, about 20% attempt suicide on one or more occasions, and many more have significant suicidal ideation. Suicidal behavior is sometimes in response to command hallucinations to harm oneself or others. Suicide risk remains high over the whole lifespan for men and women, although it may be especially high for younger men with comorbid substance use. Other risk factors include depressive symptoms, hopelessness, being unemployed, the period after a psychotic episode or hospital discharge, number of psychiatric admissions, closeness to onset of illness, and older age at illness onset. A systematic review and meta-analysis of longitudinal studies found that the odds of suicidal behavior during follow-up after first-episode psychosis were higher among individuals with depressive symptoms during first-episode psychosis compared with those without. A meta-analysis of a large number of studies of the relationship of schizophrenia with suicidal behavior found that alcohol, tobacco, and drug abuse; depression; number of hospitalizations; physical comorbidity; and family history of depression and suicidal behavior increased the risk of suicide attempt. Risk factors for suicide included male sex, being younger, having a higher IQ, history of attempts, hopelessness, and poor adherence to treatment.

Functional Consequences of Schizophrenia

Schizophrenia is associated with significant social and occupational dysfunction. Among

be predicted by the general cognitive impairments associated with the disorder. Such deficits can be conceptualized as a secondary or acquired dyslexia that underlies the academic impairment observed in schizophrenia. Making educational progress and maintaining employment are frequently impaired by avolition or other disorder manifestations, even when the cognitive skills are sufficient for the tasks at hand. Most individuals are employed at a lower level than their parents, and most, particularly men, do not marry or have limited social contacts outside of their family.

Differential Diagnosis

Major depressive or bipolar disorder with psychotic or catatonic features. The distinction between schizophrenia and major depressive or bipolar disorder with psychotic features or with catatonia depends on the temporal relationship between the mood disturbance and the psychosis, and on the severity of the depressive or manic symptoms. If delusions or hallucinations occur exclusively during a major depressive or manic episode, the diagnosis is depressive or bipolar disorder with psychotic features.

Schizoaffective disorder. A diagnosis of schizoaffective disorder requires that a major depressive or manic episode occur concurrently with the active-phase symptoms and that the mood symptoms be present for a majority of the total duration of the active periods.

Schizophreniform disorder and brief psychotic disorder. These disorders are of shorter duration than schizophrenia as specified in Criterion C, which requires 6 months of symptoms. In schizophreniform disorder, the disturbance is present less than 6 months, and in brief psychotic disorder, symptoms are present at least 1 day but less than 1 month.

Delusional disorder. Delusional disorder can be distinguished from schizophrenia by the absence of the other symptoms characteristic of schizophrenia (e.g., delusions, prominent auditory or visual hallucinations, disorganized speech, grossly disorganized or catatonic behavior, negative symptoms).

Schizotypal personality disorder. Schizotypal personality disorder may be distinguished from schizophrenia by subthreshold symptoms that are associated with persistent personality features.

Obsessive-compulsive disorder and body dysmorphic disorder. Individuals with obsessive-compulsive disorder and body dysmorphic disorder may present with poor or absent insight, and the preoccupations may reach delusional proportions. But these disorders are distinguished from schizophrenia by their prominent obsessions, compulsions, preoccupations with appearance or body odor, hoarding, or body-focused repetitive behaviors.

Posttraumatic stress disorder. Posttraumatic stress disorder may include flashbacks that have a hallucinatory quality, and hypervigilance may reach paranoid proportions. But a traumatic event and characteristic symptom features relating to reliving or reacting to the event are required to make the diagnosis of posttraumatic stress disorder.

Autism spectrum disorder or communication disorders. These disorders may also have symptoms resembling a psychotic episode but are distinguished by their respective deficits in social

interaction with repetitive and restricted behaviors and other cognitive and communication deficits. An individual with autism spectrum disorder or communication disorder must have symptoms that meet full criteria for schizophrenia, with prominent hallucinations or delusions for at least 1 month, in order to be diagnosed with schizophrenia as a comorbid condition.

Other mental disorders associated with a psychotic episode. The diagnosis of schizophrenia is made only when the psychotic episode is persistent and not attributable to the physiological effects of a substance or another medical condition. Individuals with a delirium or major or minor neurocognitive disorder may present with psychotic symptoms,

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but these would have a temporal relationship to the onset of cognitive changes consistent with those disorders.

Substance/medication-induced psychotic disorder. Individuals with substance/medication-induced psychotic disorder may present with symptoms characteristic of Criterion A for schizophrenia, but the substance/medication-induced psychotic disorder can usually be distinguished by the chronological relationship of substance use to the onset and remission of the psychosis in the absence of substance use.

Comorbidity

Rates of comorbidity with substance-related disorders are high in schizophrenia. Over half of individuals with schizophrenia have tobacco use disorder and smoke cigarettes regularly. Comorbidity with anxiety disorders is increasingly recognized in schizophrenia. Rates of obsessive-compulsive disorder and panic disorder are elevated in individuals with schizophrenia compared with the general population. Schizotypal or paranoid personality disorder may sometimes precede the onset of schizophrenia.

Life expectancy is reduced in individuals with schizophrenia because of associated medical conditions. Weight gain, diabetes, metabolic syndrome, and cardiovascular and pulmonary disease are more common in schizophrenia than in the general population. Poor engagement in health maintenance behaviors (e.g., cancer screening, exercise) increases the risk of chronic disease, but other disorder factors, including medications, lifestyle, cigarette smoking, and diet, may also play a role. A shared vulnerability for psychosis and medical conditions may explain some of the medical comorbidity of schizophrenia.

Schizoaffective Disorder

Diagnostic Criteria

A. An uninterrupted period of illness during which there is a major mood episode (major depressive or manic) concurrent with Criterion A of schizophrenia.

Note: The major depressive episode must include Criterion A1: Depressed mood.

Personality Disorders

This chapter begins with a general definition of personality disorder that applies to each of the 10 specific personality disorders. A *personality disorder* is an enduring pattern of inner experience and behavior that deviates markedly from the norms and expectations of the individual's culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment.

With any ongoing review process, especially one of this complexity, different viewpoints emerge, and an effort was made to accommodate them. Thus, personality disorders are included in both Sections II and III. The material in Section II represents an update of text associated with the same criteria found in DSM-5 (which were carried over from DSM-IV-TR), whereas Section III includes the proposed model for personality disorder diagnosis and conceptualization developed by the DSM-5 Personality and Personality Disorders Work Group. As this field evolves, it is hoped that both versions will serve clinical practice and research initiatives, respectively.

The following personality disorders are included in this chapter.

- Paranoid personality disorder is a pattern of distrust and suspiciousness such that others' motives are interpreted as
 malevolent.
- Schizoid personality disorder is a pattern of detachment from social relationships and a restricted range of emotional expression.
- Schizotypal personality disorder is a pattern of acute discomfort in close relationships, cognitive or perceptual distortions, and eccentricities of behavior.
- Antisocial personality disorder is a pattern of disregard for, and violation of, the rights of others, criminality, impulsivity, and a failure to learn from experience.
- **Borderline personality disorder** is a pattern of instability in interpersonal relationships, self-image, and affects, and marked impulsivity.
- Histrionic personality disorder is a pattern of excessive emotionality and attention seeking.
- Narcissistic personality disorder is a pattern of grandiosity, need for admiration, and lack of empathy.
- Avoidant personality disorder is a pattern of social inhibition, feelings of inadequacy, and hypersensitivity to negative
 evaluation.
- Dependent personality disorder is a pattern of submissive and clinging behavior related to an excessive need to be taken care of.
- Obsessive-compulsive personality disorder is a pattern of preoccupation with orderliness, perfectionism, and control.
- **Personality change due to another medical condition** is a persistent personality disturbance that is judged to be the direct pathophysiological consequence of another medical condition (e.g., frontal lobe lesion).
- Other specified personality disorder is a category provided for two situations: 1) the individual's personality pattern meets

the general criteria for a personality disorder, and traits of several different personality disorders are present, but the criteria for any specific personality disorder are not met; or 2) the individual's personality pattern meets the general criteria for a personality disorder, but the individual is considered to have a personality disorder that is not included in the DSM-5 classification (e.g., passive-aggressive personality disorder). **Unspecified personality disorder** is for presentations in which symptoms characteristic of a personality disorder are present but there is insufficient information to make a more specific diagnosis.

The personality disorders are grouped into three clusters based on descriptive similarities. Cluster A includes paranoid, schizoid, and schizotypal personality disorders. Individuals with these disorders often appear odd or eccentric. Cluster B includes antisocial, borderline, histrionic, and narcissistic personality disorders. Individuals with these disorders often appear dramatic, emotional, or erratic. Cluster C includes avoidant, dependent, and obsessive-compulsive personality disorders. Individuals with these disorders often appear anxious or fearful. It should be noted that this clustering system, although useful in some research and educational situations, has serious limitations and has not been consistently validated. For instance, two or more disorders from different clusters, or traits from several of them, can often co-occur and vary in intensity and pervasiveness.

A review of epidemiological studies from several countries found a median prevalence of 3.6% for disorders in Cluster A, 4.5% for Cluster B, 2.8% for Cluster C, and 10.5% for any personality disorder. Prevalence appears to vary across countries and by ethnicity, raising questions about true cross-cultural variation and about the impact of diverse definitions and diagnostic instruments on prevalence assessments.

Dimensional Models for Personality Disorders

The diagnostic approach used in this manual represents the categorical perspective that personality disorders are qualitatively distinct clinical syndromes. An alternative to the categorical approach is the dimensional perspective that personality disorders represent maladaptive variants of personality traits that merge imperceptibly into normality and into one another. See Section III for a full description of a dimensional model for personality disorders. The DSM-5 personality disorder clusters (i.e., odd-eccentric, dramatic-emotional, and anxious-fearful) may also be viewed as dimensions representing spectra of personality dysfunction on a continuum with other mental disorders. The alternative dimensional models have much in common and together appear to cover the important areas of personality dysfunction. Their integration, clinical utility, and relationship with the personality disorder diagnostic categories and various aspects of personality dysfunction continue to be under active investigation. This includes research on whether the dimensional model can clarify the cross-cultural prevalence variations seen with the categorical model.

General Personality Disorder

Alcohol and Related Conditions found it to be more common in women.

Differential Diagnosis

Other mental disorders with psychotic symptoms. Paranoid personality disorder can be distinguished from delusional disorder, persecutory type; schizophrenia; and a bipolar or depressive disorder with psychotic features because these disorders are all characterized by a period of persistent psychotic symptoms (e.g., delusions and hallucinations). For an additional diagnosis of paranoid personality disorder to be given, the personality disorder must have been present before the onset of psychotic symptoms and must persist when the psychotic symptoms are in remission. When an individual has another persistent mental disorder (e.g., schizophrenia) that was preceded by paranoid personality disorder, paranoid personality disorder should also be recorded, followed by "premorbid" in parentheses.

Personality change due to another medical condition. Paranoid personality disorder must be distinguished from personality change due to another medical condition, in which the traits that emerge are a direct physiological consequence of another medical condition.

Substance use disorders. Paranoid personality disorder must be distinguished from symptoms that may develop in association with persistent substance use.

Paranoid traits associated with physical handicaps. The disorder must also be distinguished from paranoid traits associated with the development of physical handicaps (e.g., a hearing impairment).

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Other personality disorders and personality traits. Other personality disorders may be confused with paranoid personality disorder because they have certain features in common. It is therefore important to distinguish among these disorders based on differences in their characteristic features. However, if an individual has personality features that meet criteria for one or more personality disorders in addition to paranoid personality disorder, all can be diagnosed. Paranoid personality disorder and schizotypal personality disorder share the traits of suspiciousness, interpersonal aloofness, and paranoid ideation, but schizotypal personality disorder also includes symptoms such as magical thinking, unusual perceptual experiences, and odd thinking and speech. Individuals with behaviors that meet criteria for schizoid personality disorder are often perceived as strange, eccentric, cold, and aloof, but they do not usually have prominent paranoid ideation. The tendency of individuals with paranoid personality disorder to react to minor stimuli with anger is also seen in borderline and histrionic personality disorders. However, these disorders are not necessarily associated with pervasive suspiciousness, and borderline personality disorder exhibits higher levels of impulsivity and self-destructive behavior. People with avoidant personality disorder may also be reluctant to confide in others, but more from fear of being embarrassed or found inadequate than from fear of others' malicious intent. Although antisocial behavior may be present in some individuals with paranoid personality disorder, it is not usually motivated by a desire for personal gain or to exploit others as in antisocial personality disorder, but rather is more often attributable to a desire for revenge. Individuals with narcissistic personality disorder may occasionally display suspiciousness, social withdrawal, or alienation, but this derives primarily from fears of having their imperfections or flaws revealed.

Paranoid traits may be adaptive, particularly in threatening environments. Paranoid personality disorder should be diagnosed only when these traits are inflexible, maladaptive, and persisting and cause significant functional impairment or subjective distress.

Comorbidity

Particularly in response to stress, individuals with this disorder may experience very brief psychotic episodes (lasting minutes to hours). In some instances, paranoid personality disorder may appear as the premorbid antecedent of delusional disorder or schizophrenia. Individuals with paranoid personality disorder may develop major depressive disorder and may be at increased risk for agoraphobia and obsessive-compulsive disorder. Alcohol and other substance use disorders frequently occur. The most common co-occurring personality disorders appear to be schizotypal, schizoid, narcissistic, avoidant, and borderline.

Schizoid Personality Disorder

Diagnostic Criteria

F60.1

- A. A pervasive pattern of detachment from social relationships and a restricted range of expression of emotions in interpersonal settings, beginning by early adulthood and present in a variety of contexts, as indicated by four (or more) of the following:
 - 1. Neither desires nor enjoys close relationships, including being part of a family.
 - 2. Almost always chooses solitary activities.
 - 3. Has little, if any, interest in having sexual experiences with another person.
 - 4. Takes pleasure in few, if any, activities.
 - 5. Lacks close friends or confidants other than first-degree relatives.

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- 6. Appears indifferent to the praise or criticism of others.
- 7. Shows emotional coldness, detachment, or flattened affectivity.
- B. Does not occur exclusively during the course of schizophrenia, a bipolar disorder or depressive disorder with psychotic features, another psychotic disorder, or autism spectrum disorder and is not attributable to the physiological effects of another medical condition.

Note: If criteria are met prior to the onset of schizophrenia, add "premorbid," i.e., "schizoid personality disorder (premorbid)."

Diagnostic Features

The essential feature of schizoid personality disorder is a pervasive pattern of detachment from social relationships and a restricted range of expression of emotions in interpersonal settings. This pattern begins by early adulthood and is present in a variety of contexts.

Individuals with schizoid personality disorder appear to lack a desire for intimacy, seem indifferent to opportunities to develop close relationships, and do not seem to derive much satisfaction from being part of a family or other social group (Criterion A1). They prefer spending time by themselves, rather than being with other people. They often appear to be socially isolated or "loners" and almost always choose solitary activities or hobbies that do not include interaction with others (Criterion A2). They prefer mechanical or abstract tasks, such as computer or mathematical games. They may have very little interest in having sexual experiences with another person (Criterion A3) and take pleasure in few, if any, activities (Criterion A4). There is usually a reduced experience of pleasure from sensory, bodily, or interpersonal experiences, such as walking on a beach at sunset or having sex. These individuals have no close friends or confidants, except possibly a first-degree relative (Criterion A5).

Individuals with schizoid personality disorder often seem indifferent to the approval or criticism of others and do not appear to be bothered by what others may think of them (Criterion A6). They may be oblivious to the normal subtleties of social interaction and often do not respond appropriately to social cues so that they seem socially inept or superficial and self-absorbed. They usually display a "bland" exterior without visible emotional reactivity and rarely reciprocate gestures or facial expressions, such as smiles or nods (Criterion A7). They claim that they rarely experience strong emotions such as anger and joy. They often display a constricted affect and appear cold and aloof. However, in those very unusual circumstances in which these individuals become at least temporarily comfortable in revealing themselves, they may acknowledge having painful feelings, particularly related to social interactions.

Schizoid personality disorder should not be diagnosed if the pattern of behavior occurs exclusively during the course of schizophrenia, a bipolar or depressive disorder with psychotic features, another psychotic disorder, or autism spectrum disorder, or if it is attributable to the physiological effects of a neurological (e.g., temporal lobe epilepsy) or another medical condition (Criterion B).

Associated Features

Individuals with schizoid personality disorder may have particular difficulty expressing anger, even in response to direct provocation, which contributes to the impression that they lack emotion. Their lives sometimes seem directionless, and they may appear to "drift" in their goals. Such individuals often react passively to adverse circumstances and have difficulty responding appropriately to important life events. Because of their lack of social skills and lack of desire for sexual experiences, individuals with this disorder have few friendships, date infrequently, and often do not marry. Occupational functioning may be impaired, particularly if interpersonal involvement is required, but individuals with this disorder may do well when they work under conditions of social isolation.

Schizoid personality disorder is uncommon in clinical settings. The estimated prevalence of schizoid personality disorder based on a probability subsample from Part II of the National Comorbidity Survey Replication was 4.9%. The prevalence of schizoid personality disorder in the National Epidemiologic Survey on Alcohol and Related Conditions was 3.1%. A review of six epidemiological studies (four in the United States) found a median prevalence of 1.3%.

Development and Course

Schizoid personality disorder may be first apparent in childhood and adolescence with solitariness, poor peer relationships, and underachievement in school, which mark these children or adolescents as different and make them subject to teasing.

Risk and Prognostic Factors

Genetic and physiological. Schizoid personality disorder may have increased prevalence in the relatives of individuals with schizophrenia or schizotypal personality disorder.

Culture-Related Diagnostic Issues

Individuals from a variety of cultural backgrounds sometimes exhibit defensive behaviors and interpersonal styles that may be erroneously labeled as "schizoid." For example, those who have moved from rural to metropolitan environments may react with "emotional freezing" that may last for several months and manifest as solitary activities, constricted affect, and other deficits in communication. Immigrants from other countries are sometimes mistakenly perceived as cold, hostile, or indifferent, which may be a response to social ostracism from the host society.

Sex- and Gender-Related Diagnostic Issues

While some research suggests that schizoid personality disorder may be more common in men, other research suggests that there is no gender difference in prevalence.

Differential Diagnosis

Other mental disorders with psychotic symptoms. Schizoid personality disorder can be distinguished from delusional disorder, schizophrenia, and a bipolar or depressive disorder with psychotic features because these disorders are all characterized by a period of persistent psychotic symptoms (e.g., delusions and hallucinations). To give an additional diagnosis of schizoid personality disorder, the personality disorder must have been present before the onset of psychotic symptoms and must persist when the psychotic symptoms are in remission. When an individual has a persistent psychotic disorder (e.g., schizophrenia) that was preceded by schizoid personality disorder, schizoid personality disorder should also be recorded, followed by "premorbid" in parentheses.

Autism spectrum disorder. There may be great difficulty differentiating individuals with schizoid personality disorder from individuals with autism spectrum disorder, particularly with milder forms of either disorder, as both include a seeming indifference to companionship with others. However, autism spectrum disorder may be differentiated by stereotyped behaviors and interests.

Personality change due to another medical condition. Schizoid personality disorder must be

distinguished from personality change due to another medical condition, in which the traits that emerge are a direct physiological consequence of another medical condition.

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Substance use disorders. Schizoid personality disorder must also be distinguished from symptoms that may develop in association with persistent substance use.

Other personality disorders and personality traits. Other personality disorders may be confused with schizoid personality disorder because they have certain features in common. It is, therefore, important to distinguish among these disorders based on differences in their characteristic features. However, if an individual has personality features that meet criteria for one or more personality disorders in addition to schizoid personality disorder, all can be diagnosed. Although characteristics of social isolation and restricted affectivity are common to schizoid, schizotypal, and paranoid personality disorders, schizoid personality disorder can be distinguished from schizotypal personality disorder by the lack of cognitive and perceptual distortions and from paranoid personality disorder by the lack of suspiciousness and paranoid ideation. The social isolation of schizoid personality disorder can be distinguished from that of avoidant personality disorder, which is attributable to fear of being embarrassed or found inadequate and excessive anticipation of rejection. In contrast, people with schizoid personality disorder have a more pervasive detachment and limited desire for social intimacy. Individuals with obsessivecompulsive personality disorder may also show an apparent social detachment stemming from devotion to work and discomfort with emotions, but they do have an underlying capacity for intimacy.

Individuals who are "loners" or quite introverted may display personality traits that might be considered schizoid, consistent with the broader conceptualization of schizoid personality disorder as a disorder defined by pathological introversion/detachment. Only when these traits are inflexible and maladaptive and cause significant functional impairment or subjective distress do they constitute schizoid personality disorder.

Comorbidity

Particularly in response to stress, individuals with this disorder may experience very brief psychotic episodes (lasting minutes to hours). In some instances, schizoid personality disorder may appear as the premorbid antecedent of delusional disorder or schizophrenia. Individuals with this disorder may sometimes develop major depressive disorder. Schizoid personality disorder most often co-occurs with schizotypal, paranoid, and avoidant personality disorders.

Schizotypal Personality Disorder

Diagnostic Criteria

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A. A pervasive pattern of social and interpersonal deficits marked by acute discomfort with, and reduced capacity for, close relationships as well as by

Assessment Measures

A growing body of scientific evidence favors dimensional concepts in the diagnosis of mental disorders. Limitations of a categorical approach to diagnosis include the failure to find zones of rarity between diagnoses (i.e., delineation of mental disorders from one another by natural boundaries), need for intermediate categories like schizoaffective disorder, high rates of comorbidity, need for frequent use of other or unspecified diagnoses, relative lack of utility in furthering identification of unique antecedent validators for most mental disorders, and lack of treatment specificity for the various diagnostic categories.

From both clinical and research perspectives, there is a need for a more dimensional approach that can be combined with DSM's set of categorical diagnoses to better capture the heterogeneity in the presentation of various mental and substance use disorders. Such an approach allows clinicians or others to better communicate particular variation of features that apply to presentations that meet criteria for a disorder. Such features include differential severity of individual symptoms (including symptoms that are part of the diagnostic features as well as those that are associated with the disorder) as measured by intensity, duration, and impact on functioning. This combined approach also allows clinicians or others to identify conditions that do not meet criteria for a disorder but are severe and disabling and in need of treatment.

It is expected that as the understanding of basic disease mechanisms for mental and substance use disorders based on pathophysiology, neurocircuitry, and gene-environment interactions increases, more objective measures of psychopathology will be incorporated into the diagnostic criteria sets to enhance their accuracy. Until such time, a dimensional approach depending primarily on an individual's subjective reports of symptom experiences along with the clinician's interpretation is highlighted by current psychiatric evaluation guidelines as an important step in enhancing diagnostic practice.

Cross-cutting symptom measures, modeled on general medicine's review of systems, can serve as an approach for reviewing critical psychopathological domains across age groups and diagnoses. The general medical review of systems—a list of questions arranged by organ systems—is crucial to detecting signs and symptoms of dysfunction and disease with which the individual may or may not present that can facilitate diagnosis and treatment. A similar review of various mental systems (or domains), which is the goal of the cross-cutting symptom measures, can aid in a more comprehensive mental status assessment of individuals at the initial evaluation. The review of mental systems can systematically draw attention to signs and symptoms of other domains of mental health and functioning that may be important to the individual's care. The cross-cutting measures have two levels of inquiry: Level 1 uses 1 to 3 questions for each of 13 symptom domains for adults (self-rated) and 12 domains for children (ages 6–17, parent rated) and adolescents (child rated, ages 11–17) to identify emerging signs and symptoms. Level 2 questions provide a more in-depth assessment of certain domains (e.g., depression, anxiety, mania, anger, irritability, somatic symptoms). These measures are developed to be administered

both at initial interview and at follow-up visits. Thus, use of these measures can form key aspects of measurement-based care, the process by which standardized assessment tools are

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administered and results used to track individuals' progress over time to guide a more precise plan of care. Use of these measures ultimately aims to inform measurement-based care by identifying areas of emerging symptoms and concerns as well as supporting ongoing symptom monitoring, treatment adjustment, and outcomes critical to the provision of quality care for individuals with mental and substance use disorders. As a result, these cross-cutting symptom measures have been identified as important components of psychiatric diagnostic assessment in clinical practice guidelines.

Severity measures are disorder-specific, corresponding closely to the criteria that constitute the disorder definition. They may be administered to individuals who have received a diagnosis or who have a clinically significant syndrome that falls short of meeting full criteria for a diagnosis (e.g., use of the Clinician-Rated Dimensions of Psychosis Symptom Severity in individuals whose symptoms meet criteria for schizophrenia). Some of the assessments are self-rated, while others are rated by the clinician based on observation of the individual. As with the cross-cutting symptom measures, these measures can be administered both at initial interview and over time to track the severity of the individual's disorder and response to treatment. These assessments help operationalize symptom frequency, intensity, or duration; overall symptom severity; or symptom type (e.g., depression, anxiety, sleep disturbance) for many, though not all, DSM-5 diagnoses (e.g., generalized anxiety disorder, social anxiety disorder, psychotic disorders, posttraumatic stress disorder, autism spectrum disorder, and social (pragmatic) communication disorder). Data obtained from use of these disorder-specific measures can assist with diagnosis and inform symptom monitoring and treatment planning.

The World Health Organization Disability Assessment Schedule, Version 2.0 (WHODAS 2.0) was developed by the World Health Organization to assess an individual's ability to perform activities in six areas: understanding and communicating; getting around; self-care; getting along with people; life activities (e.g., household, work/school); and participation in society. This version of the scale is self-administered and was developed for individuals with any medical condition, not just mental disorders. It corresponds to concepts contained in the WHO International Classification of Functioning, Disability and Health. This assessment can also be used over time to track changes in an individual's level of functioning. Assessment of functioning is a key aspect of psychiatric diagnostic assessment given that most DSM-5 criteria sets include a requirement that the disturbance causes clinically significant distress or impairment in functioning. Individuals with mental disorders are more likely to have severe impairment in functioning (i.e., communicating or understanding; getting along with others; carrying out daily activities at work, home, or school; participating in social activities) compared to individuals with chronic medical conditions. In addition, many individuals seek help for mental disorders because of the direct impact of their disorders on functional impairment across multiple domains and settings. Functional impairment may impact prognosis across diagnoses and, if residual functional impairment remains after symptoms subside, can lead to recurrence or relapse for conditions such as major depressive disorder and anxiety disorders.

This chapter focuses on the DSM-5 Level 1 Cross-Cutting Symptom Measure (adult self-

rated and parent/guardian versions); the Clinician-Rated Dimensions of Psychosis Symptom Severity; and the WHODAS 2.0. Clinician instructions, scoring information, and interpretation guidelines are included for each. Description of the child-rated version is not included in print given the overall similarity in items, scoring, and clinician instructions and guidelines with the parent/guardian-rated version. These measures, including the child-rated version, and additional dimensional assessments, such as those for diagnostic severity, can be found online at www.psychiatry.org/dsm5.

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Cross-Cutting Symptom Measures

Level 1 Cross-Cutting Symptom Measure

The DSM-5 Level 1 Cross-Cutting Symptom Measure is a self- or informant-rated measure that assesses domains that are important across psychiatric diagnoses. It is intended to help clinicians identify additional areas of inquiry that may have significant impact on the individual's treatment and prognosis. In addition, the measure may be used to track changes in the individual's symptom presentation over time.

The adult version of the measure consists of 23 questions that assess 13 psychiatric domains, including depression, anger, mania, anxiety, somatic symptoms, suicidal ideation, psychosis, sleep problems, memory, repetitive thoughts and behaviors, dissociation, personality functioning, and substance use (Table 1). Each domain consists of one to three questions. Each item inquires about how much (or how often) the individual has been bothered by the specific symptom during the past 2 weeks. If the individual is of impaired capacity and unable to complete the form (e.g., an individual with major neurocognitive disorder), a knowledgeable adult informant may complete this measure.

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TABLE 1 Adult DSM-5 Self-Rated Level 1 Cross-Cutting Symptom Measure: 13 domains, thresholds for further inquiry, and associated DSM-5 Level 2 measures

Domain Domain name		Threshold to guide further inquiry	DSM-5 Level 2 Cross-Cutting Symptom Measure ^a		
I.	Depression	Mild or greater	Level 2—Depression—Adult (PROMIS Emotional Distress—Short Form)		
II.	Anger	Mild or greater	Level 2—Anger—Adult (PROMIS Emotional Distress—Anger—Short Form)		
III.	Mania	Mild or greater	Level 2—Mania—Adult (Altman Self-Rating Mania Scale [ASRM])		
IV.	Anxiety	Mild or greater	Level 2—Anxiety—Adult (PROMIS Emotional Distress—Anxiety—Short Form)		
V.	Somatic symptoms	Mild or greater	Level 2—Somatic Symptom—Adult (Patient Health Questionnaire–15 [PHQ-15] Somatic Symptom Severity Scale)		

		—that is, saw something or someone that no one else could see?						
X.	16.	Said that he/she had thoughts that kept coming into his/her mind that he/she would do something bad or that something bad would happen to him/her or to someone else?	0	1	2	3	4	
	17.	Said he/she felt the need to check on certain things over and over again, like whether a door was locked or whether the stove was turned off?	0	1	2	3	4	
	18.	Seemed to worry a lot about things he/she touched being dirty or having germs or being poisoned?	0	1	2	3	4	
	19.	Said that he/she had to do things in a certain way, like counting or saying special things out loud, in order to keep something bad from happening?	0	1	2	3	4	
	In th	ne past TWO (2) WEEKS, has yo	ur child					
XI.	20.	Had an alcoholic beverage (beer, wine, liquor, etc.)?	☐ Yes		□ No	□ Don'	☐ Don't Know	
		Smoked a cigarette, a cigar, or pipe, or used snuff or chewing tobacco?	□ Yes		□ No	☐ Don't Know		
	22.	Used drugs like marijuana, cocaine or crack, club drugs (like ecstasy), hallucinogens (like LSD), heroin, inhalants or solvents (like glue), or methamphetamine (like speed)?	☐ Yes		□ No	□ Don'	☐ Don't Know	
	23. Used any medicine with doctor's prescription (painkillers [like Vicoc stimulants [like Ritalin Adderall], sedatives otranquilizers [like slee or Valium], or steroid.		□ Yes		□ No	□ Don't Know		
XII.	24.	In the past TWO (2) WEEKS, has he/she talked about wanting to kill himself/herself or about wanting to commit suicide?		Yes	□ No	□ Don'	t Know	
	25.	Has he/she EVER tried to kill himself/herself?		Yes	□ No	□ Don'	t Know	

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Clinician-Rated Dimensions of Psychosis Symptom Severity

As described in the chapter "Schizophrenia Spectrum and Other Psychotic Disorders," psychotic disorders are heterogeneous, and symptom severity can predict important aspects of the illness,

such as the degree of cognitive and/or neurobiological deficits. Dimensional assessments capture meaningful variation in the severity of symptoms, which may help with treatment planning, prognostic decision-making, and research on pathophysiological mechanisms. The Clinician-Rated Dimensions of Psychosis Symptom Severity measure provides scales for the dimensional assessment of the primary symptoms of psychosis, including hallucinations, delusions, disorganized speech, abnormal psychomotor behavior, and negative symptoms. A scale for the dimensional assessment of cognitive impairment is also included. Many individuals with psychotic disorders have impairments in a range of cognitive domains, which predict functional abilities and prognosis. In addition, scales for dimensional assessment of depression and mania are provided, which may alert clinicians to co-occurring mood pathology. The severity of mood symptoms in psychosis has prognostic value and can guide treatment.

The Clinician-Rated Dimensions of Psychosis Symptom Severity is an 8-item measure that may be completed by the clinician at the time of the clinical assessment. Each item asks the clinician to rate the severity of each symptom as experienced by the individual when it was at its most severe during the past 7 days.

Scoring and Interpretation

Each item on the measure is rated on a 5-point scale (0 = none; 1 = equivocal; 2 = present, but mild; 3 = present and moderate; and 4 = present and severe) with a symptom-specific definition of each rating level. The clinician reviews all of the individual's available information and, based on clinical judgment, selects (with checkmark) the level that most accurately describes the severity of the symptom domain. The clinician then indicates the score for each item in the "Score" column provided.

Frequency of Use

To track changes in the individual's symptom severity over time, the measure may be completed at regular intervals as clinically indicated, depending on the stability of the individual's symptoms and treatment status. Consistently high scores on a particular domain may indicate significant and problematic areas for the individual that might warrant further assessment, treatment, and follow-up. Clinical judgment should always guide decision making.

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Clinician-Rated Dimensions of Psychosis Symptom Severity

Name:			Age:		Date:	
checkmark) the	presence a	he information you have on the and severity of the following sy last seven (7) days.	,	, , ,		
Domain	0	1	2	3	4	Score
I. Hallucinations	□ Not present	☐ Equivocal (severity or duration not sufficient to be considered psychosis)	,	☐ Present and moderate (some pressure to respond to voices or other types of hallucinations,	☐ Present and severe (severe pressure to respond to voices or other types of hallucinations, or is very bothered	

			bothered by hallucinations)	or is somewhat bothered by hallucinations)	by hallucinations)	
II. Delusions	□ Not present	☐ Equivocal (severity or duration not sufficient to be considered psychosis)	☐ Present, but mild (little pressure to act upon delusional beliefs, not very bothered by such beliefs)	☐ Present and moderate (some pressure to act upon delusional beliefs, or is somewhat bothered by such beliefs)	Present and severe (severe pressure to act upon delusional beliefs, or is very bothered by such beliefs)	
III. Disorganized speech	□ Not present	☐ Equivocal (severity or duration not sufficient to be considered disorganization)	☐ Present, but mild (some difficulty following speech)	☐ Present and moderate (speech often difficult to follow)	Present and severe (speech almost impossible to follow)	
IV. Abnormal psychomotor behavior	□ Not present	☐ Equivocal (severity or duration not sufficient to be considered abnormal psychomotor behavior)	☐ Present, but mild (occasional abnormal or bizarre motor behavior or catatonia)	☐ Present and moderate (frequent abnormal or bizarre motor behavior or catatonia)	☐ Present and severe (abnormal or bizarre motor behavior or catatonia almost constant)	
V. Negative symptoms (restricted emotional expression or avolition)	□ Not present	☐ Equivocal decrease in facial expressivity, prosody, gestures, or self-initiated behavior	☐ Present, but mild decrease in facial expressivity, prosody, gestures, or self-initiated behavior	☐ Present and moderate decrease in facial expressivity, prosody, gestures, or self-initiated behavior	☐ Present and severe decrease in facial expressivity, prosody, gestures, or self-initiated behavior	
VI. Impaired cognition	□ Not present	☐ Equivocal (cognitive function not clearly outside the range expected for age or SES; i.e., within 0.5 SD of mean)	☐ Present, but mild (some reduction in cognitive function; below expected for age and SES, 0.5–1 SD from mean)	☐ Present and moderate (clear reduction in cognitive function; below expected for age and SES, 1–2 SD from mean)	□ Present and severe (severe reduction in cognitive function; below expected for age and SES, > 2 SD from mean)	
VII. Depression	□ Not present	or hopeless; concerned about having failed someone or at something but not preoccupied)	☐ Present, but mild (frequent periods of feeling very sad, down, moderately depressed, or hopeless; concerned about having failed someone or at something, with some preoccupation)	☐ Present and moderate (frequent periods of deep depression or hopelessness; preoccupation with guilt, having done wrong)	□ Present and severe (deeply depressed or hopeless daily; delusional guilt or unreasonable self-reproach grossly out of proportion to circumstances)	
VIII. Mania	□ Not present	☐ Equivocal (occasional elevated, expansive, or irritable mood or some restlessness)	☐ Present, but mild (frequent periods of somewhat elevated, expansive, or irritable mood or restlessness)	☐ Present and moderate (frequent periods of extensively elevated, expansive, or irritable mood	☐ Present and severe (daily and extensively elevated, expansive, or irritable mood or restlessness)	

or restlessness)

Note. SD = standard deviation: SES = socioeconomic status.

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World Health Organization Disability Assessment Schedule 2.0

The adult self-administered version of the World Health Organization Disability Assessment Schedule 2.0 (WHODAS 2.0) is a 36-item measure that assesses disability in adults age 18 years and older. It has been validated across numerous cultures worldwide and demonstrated sensitivity to change. It assesses disability across six domains, including understanding and communicating, getting around, self-care, getting along with people, life activities (i.e., household, work, and/or school activities), and participation in society. If the adult individual is of impaired capacity and unable to complete the form (e.g., a patient with major neurocognitive disorder), a knowledgeable informant may complete the proxy-administered version of the measure, which is available at www.psychiatry.org/dsm5. Each item on the self-administered version of the WHODAS 2.0 asks the individual to rate how much difficulty he or she has had in specific areas of functioning during the past 30 days.

WHODAS 2.0 Scoring Instructions Provided by WHO

WHODAS 2.0 summary scores. There are two basic options for computing the summary scores for the WHODAS 2.0 36-item full version.

Simple: The scores assigned to each of the items—"none" (1), "mild" (2), "moderate" (3), "severe" (4), and "extreme" (5)—are summed for a maximum total raw score of 180. This method is referred to as simple scoring because the scores from each of the items are simply added up without recoding or collapsing of response categories; thus, there is no weighting of individual items. This approach is practical to use as a hand-scoring approach, and may be the method of choice in busy clinical settings or in paper-and-pencil interview situations. As a result, the simple sum of the scores of the items across all domains constitutes a statistic that is sufficient to describe the degree of functional limitations.

Complex: The more complex method of scoring is called "item-response-theory" (IRT)—based scoring. It takes into account multiple levels of difficulty for each WHODAS 2.0 item. It takes the coding for each item response as "none," "mild," "moderate," "severe," and "extreme" separately, and then requires a computer to determine the summary score by differentially weighting the items and the levels of severity. The computer program is available from the WHO Web site. The scoring has three steps:

- Step 1—Summing of recoded item scores within each domain (i.e., for each item, the response options 1–5 are converted to a rate of 0–4, leading to a total raw score of 144).
- Step 2—Summing of all six domain scores.
- Step 3—Converting the summary score into a metric ranging from 0 to 100 (where 0 = no disability; 100 = full disability).

WHODAS 2.0 domain scores. WHODAS 2.0 produces domain-specific scores for six different functioning domains: cognition, mobility, self-care, getting along, life activities (household and