Psychotic disorders
Dr. Sarah DeLeon, MD | PGYIV, Psychiatry | ConceptsInPsychiatry.com

Introduction
Psychotic spectrum disorders include schizotypal personality disorder, delusional disorder, brief psychotic disorder, schizophreniform disorder, schizophrenia, and schizoaffective disorder. The core symptoms that are indicative of psychosis include:

- **Delusions** are fixed, false beliefs that do not change with the presentation of conflicting evidence. They can often have various themes, including persecutory (belief that one will be harmed or harassed by another person or group), referential (belief that certain cues are directed at the individual), grandiose (belief that the person has exceptional abilities, wealth, fame), erotomanic (belief that another individual is in love with them), nihilistic (belief that a catastrophe will occur), and/or somatic (preoccupation with health and symptoms). Delusions can also be
  - **Bizarre**, or clearly impossible or implausible, or
  - **Non-bizarre**, or beliefs that are plausible but have a lack of evidence.

- **Hallucinations** are a false perception that occurs without an external stimulus (in contrast to an illusion, which is a misinterpretation by the brain of a real external stimulus). They can occur in any of the sensory modalities, but auditory are most common, followed by visual hallucinations.

- **Disorganized thinking and speech** is another common feature, which can be observed typically during evaluation by what the patient says and how he responds to questions. Patients may switch quickly between topics in a seemingly illogical manner, or may give odd, unrelated answers to questions. In extreme situations, loose associations or word salad can be seen.

- Psychosis can also manifest with **grossly disorganized or abnormal motor behavior**, which can range from childlike behaviors to agitation. Behavior can be very unpredictable, and can also include catatonic behaviors. These changes in behavior can lead to difficulty in completing ADL’s. Catatonia can include a range of behaviors characterized by decreased activity, including negativism (resistance to instructions), to rigid posturing, to mutism (lack of verbal response).

- **Negative symptoms** can also be seen, with diminished emotional expression (reductions in expression of emotion in the face, eye contact, speech, movements of hand/head/face that normally give emotional emphasis in speech), and **avolition** (decrease in motivated self-initiated and purposeful activities). **Anhedonia** (diminished ability to experience pleasure) and **alalia** (diminished verbal output) can also be seen.

I. Schizotypal personality disorder

**Diagnostic criteria**

A. A pervasive pattern of social and interpersonal deficits marked by acute discomfort with and reduced capacity for close relationships. Patients also have cognitive or perceptual distortions and eccentricities of behavior. Begins in early adulthood and presents in multiple contexts with 5+ of the following symptoms:

1. Ideas of references (excluding delusions)
2. Odd beliefs or magical thinking inconsistent with cultural norms
3. Unusual perceptual experiences
4. Odd thinking and speech
5. Suspiciousness or paranoid ideation
6. Inappropriate or constricted affect
7. Odd or eccentric behavior or appearance
8. Lack of close friends other than relatives
9. Excessive social anxiety that does not diminish with familiarity

B. Does not occur exclusively during the course of a psychotic, disorder mood spectrum disorder, or autism spectrum disorder.

**Differential diagnosis**

Other psychotic disorders
Neurodevelopmental disorders
Personality change due to a medical condition
Substance use disorders
Other personality disorders
Course
Patients exhibit a lifelong pattern of symptoms, and usually come to the attention of mental health professionals for problems related to depression or anxiety. The lifetime prevalence of schizotypal personality disorder is anywhere from 0.6%–4.6%. In response to stress, these patients can occasionally develop acute psychotic episodes, but they usually do not meet criteria for brief psychotic disorder. A very small proportion of these patients may go on to develop a psychotic spectrum disorder, but the majority of patients have a relatively stable course. It is more prevalent among first-degree biological relatives of individuals with schizophrenia.

Treatment
Establishing and maintaining a positive therapeutic alliance with the patient is the most important first step with this patient population. Typically, first-line treatment is long-term psychodynamic psychotherapy, with adjunctive pharmacotherapy for specific symptoms if necessary.

II. Delusional disorder
Diagnostic criteria
A. The presence of 1+ delusions with a duration of at least one month.
B. Patient has never met criteria for schizophrenia.
C. Functioning is not markedly impaired, apart from the impact of the delusion(s). Behavior is not obviously odd or bizarre.
D. If manic or depressive episodes have occurred, they have been brief related to the delusional period.
E. Symptoms are not attributable to the physiological effects of a substance or another medical condition, and are not better explained by another mental disorder.

Sub-types can include erotomanic, grandiose, jealous, persecutory, somatic, mixed, or unspecified.

Differential diagnosis
Obsessive-compulsive disorder
Body dysmorphic disorder
Major neurocognitive disorder
Psychotic disorder due to another medical condition
Substance/medication-induced psychotic disorder
Other psychotic disorders

III. Brief psychotic disorder
Diagnostic criteria
A. Sudden onset (within 2 weeks) of 1+ of the following (at least 1 symptom must be from the first 3 choices):
   1. Delusions
   2. Hallucinations
   3. Disorganized speech
   4. Grossly disorganized or catatonic behavior
B. Duration of episode must be between 1 day and 1 month, with eventual return to full premorbid functioning.
C. Symptoms are not attributable to the physiological effects of a substance or another medical condition, and are not better explained by another mental disorder.

Treatment
Treatment is often difficult due to generally adequate functioning and poor insight into the falseness of their delusional beliefs. Antipsychotics, such as aripiprazole or ziprasidone, are typically the first-line of treatment, in the context of a healthy and positive therapeutic alliance with the primary provider, as patients often reject treatment. Cognitive behavioral therapy (CBT) has been shown to have positive benefits in some case reports and one small clinical trial.
Differential diagnosis
- Delirium
- Substance-related disorders
- Other psychotic disorders
- Malingering or factitious disorder
- Personality disorders

Course
In the US, brief psychotic disorder accounts for about 9% of first-onset psychosis cases. The onset can occur at any age, with average age being mid-30's. Patients will have full remission of all symptoms eventual full return to premorbid functioning within 1 month of onset. It is possible that preexisting personality disorders or traits (including schizotypal or borderline) could predispose an individual to development of brief psychotic disorder.

Treatment
Hospitalization may be necessary for safety. There are no clinical trials or case series that have examined treatment efficacy for brief psychotic disorder, therefore recommendations are usually based on treatment of other psychotic disorders. Antipsychotics are typically the first-line agent, and medication choice usually depends on side effect profiles. Benzodiazepines can be useful in treating acute agitation, and anticholinergics may be needed for treatment of extrapyramidal symptoms.

IV. Schizophreniform disorder

Diagnostic criteria
A. 2+ of the following symptoms present for a significant portion of time during a 1-month period (or less if treated successfully; at least 1 must be from category 1, 2, or 3):
   1. Delusions
   2. Hallucinations
   3. Disorganized speech
   4. Grossly disorganized behavior or catatonia
   5. Negative symptoms
B. An episode must last between 1 and 6 months.
C. Schizoaffective disorder and depressive or bipolar disorder with psychotic features have been ruled out.
D. Symptoms are not attributable to the physiological effects of a substance or another medical condition, and are not better explained by another mental disorder.

Differential diagnosis
- Substance-related disorders
- Other psychotic disorders

Course
Incidence of schizophreniform disorder is likely about five times less than that of schizophrenia in developed countries. About 1/3 of patients recover within the 6-month period, and the remaining 2/3 of patients will eventually receive a schizophrenia or schizoaffective disorder diagnosis. Relatives of individuals with schizophreniform disorder have increased risk of developing schizophrenia.

Treatment
Treatment is similar to that for schizophrenia, with first line agents being antipsychotics. Medication choice usually depends on symptom severity, comorbid conditions, and side effect profile.

V. Schizophrenia

Diagnostic criteria
A. 2+ of the following symptoms present for a significant portion of time during a 1-month period (or less if treated successfully; at least 1 must be from category 1, 2, or 3):
   6. Delusions
   7. Hallucinations
   8. Disorganized speech
   9. Grossly disorganized behavior or catatonia
   10. Negative symptoms
B. For a significant portion of the time since onset of disturbance, functioning in 1+ major area (work, interpersonal relationships, self-care) is markedly below baseline.
C. Continuous signs of the disturbance persist for at least 6 months. This period must include at least 1 month of symptoms that meet Criterion A and may also include prodromal or residual symptom periods.
D. Schizoaffective, depressive, or bipolar disorder with psychotic features have been ruled out.
E. Symptoms are not attributable to the physiological effects of a substance or another medical condition, and are not better explained by another mental disorder.
F. If a history of autism spectrum disorder or communication disorder of childhood onset is present, the diagnosis of schizophrenia is made only if prominent delusions or hallucinations are present, as per criteria.

**Differential diagnosis**
- Major depressive disorder or bipolar disorder with psychotic features
- Other psychotic spectrum disorders
- Obsessive-compulsive disorder
- Posttraumatic stress disorder
- Autism spectrum disorder
- Communication disorder
- Substance-related disorders

**Course**
Lifetime prevalence of schizophrenia is about 0.3-0.7%. The typical age of emergence of symptoms is between the late teenage years and mid-30’s, with peak age of onset for first psychotic episode in the early- to mid-20’s for males and late-20’s for females. The majority of individuals have a slow and gradual development of clinically significant symptoms. Typically patients will have a prodromal phase prior to acute phase, and a residual phase afterwards. During these times, the patients experience mild or subthreshold forms of symptoms. Psychotic symptoms tend to diminish over the life course. Negative symptoms are more closely related to prognosis and tend to be more persistent. It is important to note that about 20% of individuals with schizophrenia will attempt suicide at least once in their life, and there is a 5-6% rate of completed suicide in schizophrenic patients.

**Treatment**
As with schizophreniform disorder, first-line treatment is antipsychotics. Medication choice usually depends on symptom severity, comorbid conditions, and side effect profile. It is important to keep in mind potential for development of conditions such as weight gain, diabetes, metabolic syndrome, and medication-induced movement disorders secondary to antipsychotic administration.

**VI. Schizoaffective disorder**

**Diagnostic criteria**
A. An uninterrupted period of illness during which there is a major mood disorder concurrent with criterion A of schizophrenia.
B. Delusions or hallucinations for two weeks in the absence of a major mood disorder during the lifetime duration of the illness.
C. Symptoms meeting criteria for major mood disorder are present for the majority of the total duration of active and residual portions of the illness.
D. Symptoms are not attributable to the physiological effects of a substance or another medical condition, and are not better explained by another mental disorder.

Can be bipolar type or depressive type.

**Differential diagnosis**
- Other psychotic spectrum disorders
- Other mood spectrum disorders
- Substance-related disorders

**Course**
Lifetime prevalence is about 0.3%, with typical age of onset in early adulthood. Occupational functioning is frequently impaired in these patients, and they can have negative symptoms such as in schizophrenia that are typically less severe. It is important to note that similarly to schizophrenia, patients with schizoaffective disorder have an increased risk for suicide, with a lifetime risk of 5%.

**Treatment**
Atypical antipsychotics are typically the first line of treatment for psychotic symptoms and for patients in acute manic states, as they can treat both psychosis and mania, and can also help stabilize mood. Antidepressants can also be used as indicated.
VII. Substance/medication-induced psychotic disorder

**Diagnostic criteria**

A. Presence of one or both of the following symptoms:
   1. Delusions
   2. Hallucinations

B. Evidence from history, physical exam, or laboratory findings of both of the following:
   1. Criterion A symptoms developed during or soon after substance intoxication or withdrawal or after exposure to a medication.
   2. Involved substance/medication is capable of producing Criterion A symptoms.

C. Disturbance not better explained by a psychotic disorder that is not substance-induced (i.e. symptoms preceded onset of substance/medication use).

D. Disturbance does not occur exclusively during a state of delirium.

E. Disturbance causes clinically significant distress or functional impairment.

**Differential diagnosis**

- Substance intoxication or withdrawal
- Primary psychotic spectrum disorder
- Psychotic disorder due to a medical condition

**Course**

Psychotic disorders can occur in association with intoxication with alcohol, cannabis, hallucinogens (PCP, etc.), inhalants, sedatives, hypnotics, anxiolytics, stimulants (including cocaine), and other substances. They can also occur in association with withdrawal from alcohol, sedatives, hypnotics, and anxiolytics.

Medications that can evoke psychotic symptoms include anesthetics, analgesics, anticholinergic agents, anticonvulsants, antihistamines, antihypertensive, antimicrobials, antiparkinsonian agents, chemotherapeutic agents, corticosteroids, GI medications, muscle relaxants, NSAID’s, antidepressants, and disulfiram.

Prevalence is unknown, but about 7-25% of individuals presenting with a first episode of psychosis are reported to have drug or medication induced symptoms.

**Treatment**

Treatment involves management of underlying substance withdrawal and/or abuse in the case of drug-induced psychotic disorder, and minimization of exposure to all drugs in the case of medication-induced psychotic disorder. Low dose antipsychotics or benzodiazepines can be used to manage symptoms, and should be tapered off as soon as possible.

VIII. Psychotic disorder due to another medical condition

**Diagnostic criteria**

A. Prominent hallucinations or delusions present.

B. There is evidence from the history, physical exam, or laboratory findings that the symptoms are direct consequence of another medical condition.

C. The disturbance is not better explained by a mental illness.

D. The disturbance does not occur exclusively in the context of delirium.

E. Disturbance causes clinically significant distress or functional impairment.

**Differential diagnosis**

- Delirium
- Substance/medication-induced psychotic disorder
- Primary psychotic spectrum disorder

**Course**

Lifetime prevalence has been estimated to be 0.21-0.54%, with older individuals having a greater prevalence compared with younger individuals. Conditions that are most commonly associated with psychosis include endocrine and metabolic disorders, autoimmune disorders such as lupus, and temporal lobe epilepsy. The disorder may be a single transient state or it may be recurrent. Typically, psychotic symptoms will resolve with treatment of the medical illness, but this is not always the case.

**Treatment**

Treatment of the underlying medical illness is the first step, and low dose antipsychotics can be used to manage symptoms as needed.