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Contact Hours: **9**

# Understanding Mental Illness for All Healthcare Professionals

## Integrating Physical and Mental Health Care

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**LEARNING OUTCOME AND OBJECTIVES:** Upon completion of this course, you will have increased your knowledge of recognizing and responding to signs, symptoms, and behaviors of mental health disorders in patients being seen for physical health conditions. Specific learning objectives to address potential knowledge gaps include:

- Identify concerns healthcare professionals express about caring for patients with physical health conditions who also exhibit mental disorders.
- Discuss the etiology of mental illness.
- Describe stigmatization and myths regarding mental disorders.
- Summarize primary mental health disorders, including their signs, symptoms, patient behaviors, and treatment modalities.
- Describe effective strategies for responding to patients with mental disorders.

## INTRODUCTION

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No matter what their role or setting is, healthcare professionals will encounter patients with coexisting mental illness. Mentally ill individuals not only are cared for in mental health treatment facilities but can present in any and all healthcare settings, including:

- Addiction treatment centers
- Ambulatory surgical centers
- Birthing centers

- Blood banks
- Clinics and medical offices
- Dialysis centers
- Employer healthcare facilities
- Home care services
- Hospice homes
- Hospitals
- Imagery and radiology services
- Skilled nursing facilities
- Plasma donation centers
- Rehabilitation facilities
- Schools, colleges, and universities
- Urgent care settings

Many providers have had limited experience working with individuals who have mental disorders and express uncertainty about their abilities to intervene effectively when caring for patients who present with symptoms or demonstrate behaviors that may indicate the presence of such disorders. These providers often express the need for better training, information, and preparation in order to identify mental disorders, interact, and intervene appropriately.

Coexisting physical illness and mental illness impact diagnosis and treatment and influence both physical and mental recovery. Although mental health is part of the curriculum of healthcare professionals' education and training, the complex and abstract nature of much of the content is quite often considered to be challenging. As a result, only 1% of healthcare personnel work in the psychiatric or mental health field.

But the prevalence of mental illness is rising, and today approximately 1 in 5 adolescents and adults in the United States live with a mental illness. Because these individuals at some point will access healthcare services for management of physical health problems, it is equally important and necessary for healthcare providers to be skilled in the identification of mental health problems and to be well-versed both in communication with patients with mental illness and in appropriate interventions in order to provide quality, holistic care (Hermanns & Haas, 2016; NIMH, 2019a).

## CHALLENGES FOR INTEGRATION OF PHYSICAL AND MENTAL HEALTH CARE

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Patients who present with both a medical problem and a psychiatric problem pose difficult challenges for providers who do not work in the mental health field. These patients have



complex clinical and social needs, incur high healthcare costs, and receive care that often results in poor outcomes. Interacting factors contribute to these inequalities, including the historical separation of mental and physical health education and provision of care. This separation has led to significant health inequalities and barriers, and it is increasingly being recognized that the provision of mental and physical healthcare must be integrated. Integration, however, is not without challenges (Cheung et al., 2019; Glew & Chapman, 2016).

Patients with comorbid mental illness are often considered problematic for a variety of reasons, one of which is that psychiatric issues often cloud the medical issues of these patients, which increases **diagnostic uncertainty**. It can be difficult to determine what comprises a psychiatric issue and what does not because many mental health disorders often manifest with physical symptoms. In patients being treated for mental illness, psychiatric medications must be considered when diagnosing and treating medical illnesses (Appold, 2016).

Another significant challenge identified by healthcare providers is the **management of problematic behaviors**. Patients with comorbid mental illness have been described as displaying behaviors that are disruptive, demanding, difficult, noncompliant, aggressive, agitated, unpredictable, and dangerous. Healthcare providers express concerns about and feel at risk for harm to themselves or to other patients. Such behaviors can be frightening, especially when there is no one with psychiatric expertise available to intervene (Giandinoto & Edward, 2015).

Patients with mental illness tend to have a greater incidence of **noncompliance** with general medical care. Additionally, patients with mental illness often **require more time** to meet their needs, which greatly impacts providers in settings where there are pressures to do things quickly and to do more with less (Appold, 2016).

## Stigma in Healthcare Settings

Despite all that has been learned and the urgency surrounding the need for evidence-based treatment, mental illness continues to be highly stigmatized. Even with the growth in awareness of mental illness, the U.S. population is more likely than ever to associate mental illness with dangerousness (Beauchaine & Henshaw, 2017).

Mental illness–related stigma, including that which occurs in the healthcare system and among healthcare providers, creates serious barriers to access to healthcare and the quality of care a patient receives. The impact of provider stigma has been identified as the strongest barrier toward help-seeking behavior of individuals with mental illness.

Studies have found that poorer physical care for persons with mental illnesses is often a consequence of stigmatization and that persons with a history of mental illness seeking care for non-mental health concerns receive poorer quality care for their physical health problems. Persons experiencing serious mental illness (SMI) report feeling marginalized by healthcare providers, receive poorer quality of services, and experience higher mortality rates when compared to non-SMI populations (Smith et al., 2017; Knaak et al., 2017; Jacq et al., 2016).



## Myths about Mental Illness

In 1961 Thomas Szasz published *The Myth of Mental Illness*, which stated that so-called mental illnesses cannot be legitimately categorized as diseases. He contended that the term *illness* was relevant to medicine, not matters of the mind and human behavior, and that only physical illnesses were real. He argued that people experiencing difficulties were not mentally ill but rather were having problems in living. He asserted that contemporary psychiatric diagnoses represented nothing more than the labelling of those who are deviating from psychosocial, ethical, or legal norms, and that they were responsible for their conduct. This theory of labelling influenced the public’s perceptions and resulted in increased stigmatization of those with mental illness (Benning, 2016).

Despite the deeper knowledge now available, myths about mental illness and the persons experiencing such disorders continue to persist. The U.S. Department of Health and Human Services (USDHHS, 2017) has compiled the following list of mental health myths and facts, noting that mental health problems affect everyone.

MENTAL HEALTH MYTHS VS. FACTS	
Myth	Fact
Children do not experience mental health problems.	Even very young children may show early warning signs of mental health concerns. Half of those with mental health disorders show first signs before the age of 14.
People with mental health issues are violent, unpredictable, and dangerous.	The great majority of people with mental illness are no more likely to be violent than anyone else. Most people with mental illness are not violent, and only 3% to 5% of violent acts can be attributed to persons living with a serious mental illness. In fact, people with severe mental illnesses are over 10 times more likely to be victims of violent crime than the general population.
People with mental health issues, even those who are managing their illness, cannot tolerate the stress of holding down a job.	People with mental health issues are just as productive as other employees. Employers who hire people with mental illness report attendance and punctuality as well as motivation, good work, and tenure on par with or greater than other employees.
Mental health problems are caused by a personality weakness or character flaw, and the individual can snap out of it if they try hard enough.	Mental health problems have nothing to do with being lazy or weak, and many people need help to get better. Many factors contribute to mental health problems, including biology, life experiences, and family history of mental health problems.
There is no hope for people with mental illness.	People with mental illness can get better and many recover completely.
Therapy and self-help are a waste of time.	Treatment varies depending on the person and may include medications, therapy, or both.



Mental illness is the same as intellectual disability.	An intellectual disability diagnosis is characterized by limitations in intellectual functioning and difficulties with certain daily living skills. In contrast, people with mental illnesses have varied intellectual functioning, as does the general population.
Psychiatric disorders are not true medical illnesses like heart disease and diabetes.	Research demonstrates that there are genetic and biologic causes for psychiatric disorders and that they can be treated effectively.
Addiction is a lifestyle choice and shows a lack of will power. People with substance use problems are morally weak.	Addiction is a disease that generally results from changes in brain chemistry, and genetic vulnerability contributes to the risk of developing an addiction.
Depression is a normal part of the aging process.	It is not normal for older adults to be depressed, and depression in the older adult is often undiagnosed.
(USDHHS, 2017)	

### TRAINING TO REDUCE STIGMA IN HEALTHCARE SETTINGS

Effectively reducing stigma in healthcare settings requires training in how to respond to those with mental health problems or disorders. Training methods may include:

- Workshop-based interventions: to support changes in clinician behavior through face-to-face, action-oriented activities
- Skills-based interventions: to improve clinician confidence, comfort, and understanding of mental illness and the recovery process
- Intensive social-based interventions: to refute stereotypes, decrease anxiety, and increase empathy through clinician interactions with a person who has recovered from mental illness

(Knaak et al., 2017)

## DEFINING MENTAL HEALTH ALONG A CONTINUUM

Everyone has mental health, as does everyone have physical health. Someone can be in good health, and someone else can be in poor health. With this in mind, mental health can be conceptualized as a continuum, with good health at one end and illness at the opposite end.

At the healthy end of the continuum, people are emotionally well-balanced, stable, and goal-oriented. In the mid-range of the continuum, people may show varying degrees of distress and inability to cope but still remain capable of performing functions of daily life. At the illness end of the continuum, people are unable to cope with stress and exhibit significant changes in thoughts, behaviors, and actions. Everyone falls somewhere along this mental health continuum



and can shift gradually or suddenly from one area to another depending on internal or external factors (Halter, 2018).

To be **mentally healthy** is defined as a state of well-being in which an individual can realize their own potential, cope with normal stressors of life, work productively, and make a contribution to the community. Good mental health gives people the ability to think rationally, communicate skillfully, learn, grow emotionally, become resilient, and have a good sense of self-esteem (Halter, 2018).

**Mental illness** refers collectively to all diagnosable mental health disorders involving significant changes in thinking; emotion and/or behavior; and distress and/or problems functioning in social, work, or family activities. Mental illness can take many forms. Some are mild and only interfere in limited ways with daily life, and others are so severe that a person may require hospitalization (NIMH, 2019a).

MENTAL HEALTH CONTINUUM	
Category on Continuum	Characteristics
<b>Healthy:</b> Adaptive coping	<ul style="list-style-type: none"> <li>• Normal fluctuations in mood</li> <li>• Normal sleep patterns</li> <li>• Physically well and full of energy</li> <li>• Performs daily functions consistently</li> <li>• Is socially active</li> </ul>
<b>Reacting:</b> Mild and limited distress	<ul style="list-style-type: none"> <li>• Muscle tension</li> <li>• Nervousness</li> <li>• Irritability</li> <li>• Sadness</li> <li>• Trouble sleeping</li> <li>• Feels tired, with low energy</li> <li>• Is less socially active</li> </ul>
<b>Injured:</b> Significant functional impairment	<ul style="list-style-type: none"> <li>• Anxiety</li> <li>• Anger</li> <li>• Pervasive sadness or hopelessness</li> <li>• Disturbed sleep</li> <li>• Fatigue</li> <li>• Aches and pains</li> </ul>



	<ul style="list-style-type: none"> <li>• Work and ADL (activities of daily living) performance declines</li> <li>• Avoids or withdraws from social interactions</li> </ul>
<b>III: Severe and persistent functional impairment</b>	<ul style="list-style-type: none"> <li>• Excessive anxiety, panic attacks</li> <li>• Easily enraged</li> <li>• Depressed mood</li> <li>• Inability to fall or stay asleep</li> <li>• Constant fatigue or exhaustion</li> <li>• Physical illness</li> <li>• Significant thinking disturbances</li> <li>• Disturbed contact with reality</li> <li>• Suicidal thoughts, intent, or behaviors</li> </ul>
(Adapted from Government of Canada, 2017)	

## EPIDEMIOLOGY OF MENTAL ILLNESS IN THE UNITED STATES

For providers to better understand the scope and impact of mental illness among the patient population being served, it is important to have knowledge of the statistical data surrounding the issue. The following are statistics relating to the status of mental illness in the United States.

### Prevalence of Mental Illness

- Approximately 1 in 5 adults (46.6 million) experience mental illness in a given year.
- Approximately 1 in 25 adults (11.2 million) experience a serious mental illness in a given year that substantially interferes with or limits one or more major life activities.
- Approximately 1 in 5 youth ages 13–18 (21.4%) experience a severe mental disorder at some point during their life. For children ages 8–15, the estimate is 13%.
- Half of all chronic mental illness begins by age 14 and three quarters by age 24.
- 1.1% of adults live with schizophrenia.
- 2.6% of adults live with bipolar disorder.
- 6.9% of adults (16 million) had at least one major depressive episode in the past year.



- 18.1% of adults experienced an anxiety disorder such as posttraumatic stress disorder, obsessive-compulsive disorder, and specific phobias.
- Among the 20.2 million adults who experienced a substance use disorder, 50.5% (10.2 million) had a co-occurring mental illness.  
(MHA, 2017; NAMI, 2019a)

## **Mental Illness and Social Issues**

- An estimated 26% of homeless adults staying in shelters live with serious mental illness, and an estimated 46% live with severe mental illness and/or substance use disorders.
- Approximately 20% of state prisoners and 21% of local jail prisoners have “a recent history” of a mental health condition.
- 70% of youth in juvenile justice systems have at least one mental health condition, and at least 20% live with a serious mental illness.
- Only 41% of adults with a mental illness received mental health services in the past year. Among adults with a serious mental illness, 62.9% received mental health services in the past year.
- Just over half (50.6%) of children ages 8–15 with a mental health illness received mental health services in the previous year.
- African Americans and Hispanic Americans each use mental health services at about one half the rate and Asian Americans at about one third the rate of white Americans.  
(MHA, 2017; NAMI, 2019a)

## **Consequences of Lack of Treatment**

- Untreated mental illness costs the nation as much as \$300 billion each year in lost earnings, disability payments, and long-term support.
- Mood disorders, including major depression, dysthymic disorder, and bipolar disorder, are the third most common cause of hospitalization in the United States for both youth and adults ages 18–44.
- Individuals living with serious mental illness face an increased risk of having chronic medical conditions, and adults living with serious mental illness die on average 25 years earlier than others, largely due to treatable medical conditions.
- Over one third (37%) of students ages 14–21 and older who have a mental health illness and are served by special education drop out of school, which is the highest dropout rate of any disability group.



- Suicide is the tenth leading cause of death in the United States and the second leading cause of death for people ages 10–34, and more than 90% of those who die by suicide show symptoms of a mental illness.  
(MHA, 2017; NAMI, 2019a)

## Mental Illness among Older Adults

- 20% of adults over 55 have a mental disorder, most commonly anxiety, severe cognitive impairment, and mood disorders such as depression or bipolar disorder.
- 66% of nursing home residents exhibit mental and behavioral problems.
- As many as 37% of nursing home residents have depression.
- Even though older Americans make up only 13% of the population, they account for 20% of those who die by suicide, the highest suicide rate of any group.
- 7% of adults over age 65 and 30% over age 85 have dementia with concurrent depression, paranoia, and anxiety.
- Alcohol abuse among older Americans is one of the eight leading causes of death.
- 5% of older men and 1% of older women have alcohol abuse and dependency problems.
- 85% of older adults have at least one chronic illness that contributes to mental and behavioral health concerns.
- 70% of all primary care visits are driven by psychological factors such as panic, generalized anxiety, major depression, somatization, stress, and adjustment disorders.  
(APA, 2018)

## ETIOLOGY OF MENTAL DISORDERS

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Throughout history there have been three general theories of the etiology of mental illness:

- **Supernatural:** Attributes mental illness to possession by evil or demonic spirits, the displeasure of gods, eclipses, curses, and sin
- **Somatogenic:** Identifies disturbances in physical functioning resulting from either illness, genetic inheritance, or brain damage/imbalance
- **Psychogenic:** Focuses on traumatic or stressful experiences, maladaptive learned associations and cognitions, or distorted perceptions



In time, the supernatural theory was discarded, and the somatogenic and psychogenic theories joined together to form a **biopsychosocial perspective**, which states that mental illness is multidimensional:

- **Biological:** Includes genetics, chemical imbalances in the brain, and the functioning of the nervous system
- **Psychological:** Includes learning, personality, stress, cognition, self-efficacy, and early life experiences; includes psychodynamic, behavioral, cognitive, and humanistic-existential perspectives
- **Sociocultural:** Includes factors such as gender, religious orientation, race, ethnicity, and culture  
(Bridley & Daffin, 2018; Farreras, 2019)

Psychiatric practice today is influenced by many advances in molecular biology, genetic studies, neuroimaging, and psychopharmacology, and the current approach to the etiology of mental illness has become biological. Biology is involved in all the variations in what people think and feel and how they behave. The capacity for certain behaviors and the tendencies for those behaviors to be shaped by specific psychological, social, and environmental events are completely determined by a biological organ—the brain (Johnson, 2016).

The **biological model** (also called the *medical model*) theorizes that mental illness is attributed to genetic or biochemical causes and treats these causes/abnormalities using medically grounded procedures including pharmacology, electroconvulsive therapy, or psychosurgery.

When considering biologic causes of mental illness, however, it is useful to note that there are currently no genetic, biological, chemical, or other physical tests that can determine the presence or absence of any mental disorder. Unlike physical illness diagnoses, mental health diagnoses are based on symptoms and the results of clinical interviews (NAMI, 2019b).

## Genetics

At present, there are no known genes that cause mental illness. A growing body of research, however, has found that certain genes and gene variations are “associated with” mental disorders. This is especially true for autism, ADHD, bipolar disorder, major depression, and schizophrenia. For instance, family and twin studies have long identified bipolar disorder as a genetic condition with heritable factors estimated to be in the region of 70% (Drevets, 2018; Bridley & Daffin, 2018).

## Epigenetics

Epigenetics is the study of the biologic mechanisms that naturally “switch” genes on and off. Epigenetics controls genes, and certain circumstances in life can cause genes to be silenced or expressed over time, such as where people live, whom they interact with, age, diet, exercise,



when and how they sleep, and other aspects of daily living. The different combinations of genes that are turned on or off makes each individual person unique (Beauchaine & Hinshaw, 2017).

Although epigenetic studies have discovered that these environmental inputs impact gene expression, it has been difficult to establish whether epigenetic changes contribute to psychiatric problems. Epigenetic aberrations are known to play a role in complex psychiatric disorders including autism, Huntington's disease, bipolar disorder, dementia, alcohol use disorder, and schizophrenia (Kular & Kular, 2018; Moosavi & Ardekani, 2016).

### THE DIATHESIS-STRESS MODEL

While the exact cause of mental illness is unknown, one of the most accepted explanations for mental illness is the diathesis-stress model. This model theorizes that biologic predisposition interacting with environmental stress or trauma is the cause for development of a mental illness. According to this model, people are born with a certain genetic or biological predisposition or vulnerability to a mental illness. However, not all those with such predispositions will develop the mental illness they are predisposed to. Some of them will experience situations that increase the likelihood that they will develop one.

There are three main concepts involved in this model:

- **Diathesis** (the underlying vulnerability to a particular disease or disorder)
  - Genetics (e.g., family history of mental illness)
  - Biology (e.g., prenatal oxygen deprivation, poor nutrition during early childhood)
  - Childhood experiences (e.g., isolation, caregiver quality)
- **Stress factors** and the person's perception of the stress
  - Daily stress in home or external environment
  - Life events such as divorce, death of a family member, loss of a job
  - Short-term factors such as job or school assignment stress
  - Long-term stress such as chronic pain or illness
- **Modifying protective factors** (resilience)
  - Family nurturing
  - High self-esteem
  - Supportive network of friends and social environment
  - Normal psychological development and interaction during childhood

(Kearney & Trull, 2018)



## Chemical Imbalances

Another biological theory in the field of mental health is that chemical imbalances are responsible for many mental disorders. Chief among these are **neurotransmitter** imbalances. It is believed that if neurotransmitters are out of balance or not working properly, symptoms of mental illness can occur (Bridley & Daffin, 2018). The neurotransmitters most often studied and possibly implicated in mental illness are described in the following table:

EFFECTS OF CHEMICAL IMBALANCES ON MENTAL HEALTH		
Neurotransmitter	Associated with Increased Level	Associated with Decreased Level
<b>Dopamine</b>	<ul style="list-style-type: none"> <li>• Mania</li> <li>• Schizophrenia</li> </ul>	<ul style="list-style-type: none"> <li>• Parkinson's disease</li> <li>• Depression</li> </ul>
<b>Acetylcholine</b>	<ul style="list-style-type: none"> <li>• Depression</li> </ul>	<ul style="list-style-type: none"> <li>• Alzheimer's disease</li> <li>• Huntington's disease</li> <li>• Parkinson's disease</li> </ul>
<b>Norepinephrine</b>	<ul style="list-style-type: none"> <li>• Mania</li> <li>• Anxiety states</li> <li>• Schizophrenia</li> </ul>	<ul style="list-style-type: none"> <li>• Attention deficit disorder</li> </ul>
<b>Serotonin</b>	<ul style="list-style-type: none"> <li>• Anxiety</li> <li>• Aggression</li> <li>• Aggressive acts</li> <li>• Suicidal acts</li> </ul>	<ul style="list-style-type: none"> <li>• Depression</li> </ul>

(Townsend & Morgan, 2018)

Recent studies have also now linked elevated **cortisol** levels as a trigger for mental illness and decreased resilience, especially in adolescence (Glad et al., 2017).

## Brain Region Activity

Regions of the brain implicated in the development of mental illness include:

- Amygdala, which helps create memories of fear and safety
- Prefrontal cortex, which is the seat of executive functions
- Anterior cingulate cortex, which is involved in motivation and attention as well as management of emotional reactions
- Hippocampus, which helps create and store memories and may also be involved in mood disorders

The amygdala has been closely associated with depression. It is overly active in people with depression when they are shown sad stimuli and underactive when they are shown positive stimuli such as smiling faces. When neurosurgeons stimulate the amygdala, they can elicit the



entire range of emotional experiences that people with depression also describe. Bipolar disorder has also been associated with abnormalities of function and structure in the amygdala as well as the hippocampus and cingulate regions. Brain regions specifically associated with schizophrenia are numerous and include the hippocampus and prefrontal cortex (Drevets, 2018).

## The Physical Illness and Mental Illness Connection

Poor mental health is a risk factor for the development of chronic physical conditions, and poor physical health can increase the risk of developing mental health problems. There is a strong connection between mental and physical health, but as yet little is known about the pathways leading from one to the other.

Studies have shown that people with severe mental illness—including schizophrenia, bipolar disorder, and major depression—have a 53% higher risk for developing cardiovascular disease and an 85% higher risk of dying from the disease than those of a similar age in the general population. Depression has been linked to a 50% increased risk of death from cancer, and schizophrenia can triple the risk of death from respiratory disease. Additionally, mental illness can reduce life expectancy by 10 to 20 years (MHF, 2018; Correll et al., 2017).

Likewise, physical problems can give rise to mental health problems. Examples include:

- Perinatal brain injury: attention deficit disorder
- Severe head injury: mood disorders
- HIV infection: depression
- Neurological space-occupying lesions: personality changes, mood disorders
- Temporal lobe epilepsy: psychosis
- Post myocardial infarction: depression
- Hyperthyroidism: anxiety
- Hypothyroidism: depression
- Addison's disease: depression
- Stroke: depression, personality changes

Medications prescribed to treat physical disorders may also cause symptoms associated with mental illness, including:

- Anabolic steroids: aggression, personality changes
- Corticosteroids: mood elevation/depression
- Methylphenidate (Ritalin): psychosis, even in very young children (Dogra et al., 2017)



Because of these factors, it is always important to consider physical disorders and medication side effects when caring for patients with behavioral presentations.

## DEPRESSIVE DISORDERS

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Depressive disorders are recurrent disturbances in mood that cause psychological distress and behavioral impairment. Mood is the pervasive and sustained emotion that affects an individual's perception of the world and how one fits into it.

About 20% of the U.S. population report at least one depressive symptom in a given month, and 12% report two or more in a year. Having another psychiatric disorder increases the chance for developing major depression. Alcohol and substance abuse are also related to depression, although it is not known whether depression leads to drug abuse or drug abuse is a cause of depression. Most people with major depression also show some signs of anxiety and 15%–30% have panic attacks. Chronically anxious people may also medicate themselves with alcohol or drugs that cause depression (MHA, 2018a).

Depression is also associated with medical illness. Some 25% of hospitalized medical patients have depressive symptoms, and about 5% have major depression. Chronic medical conditions associated with depression include:

- Heart disease
- Cancer
- Vitamin deficiencies
- Diabetes
- Hepatitis
- Malaria

Depression is also common with neurological disorders including Parkinson's and Alzheimer's disease, multiple sclerosis, stroke, and brain tumors. Depression can mimic medical illness, and any illness feels worse to someone with depression (MHA, 2018a).

Illnesses classified as depressive disorders include:

- Major depressive disorder
- Persistent depressive disorder (dysthymia)
- Premenstrual dysphoric disorder

Other disorders include depression related to substance or medication use and depression due to another medical condition.



## Major Depressive Disorder

Major depressive disorder (MDD) is characterized by depressed mood or loss of interest or pleasure in nearly all activities and impaired social and occupational functioning that has been present for at least 2 weeks. There is no history of manic behaviors, and the symptoms cannot be attributed to the use of substances or a general medical condition. People often describe themselves as depressed, sad, hopeless, discouraged, or down in the dumps. A depressed mood can sometimes be inferred from the person's facial expression and demeanor.

MDD is commonly a progressive recurrent illness, and with time, episodes tend to occur more frequently, become more severe, and are of longer duration. Symptoms usually develop over a period of days to months. Many people have significant depressive symptoms before the first identified episode.

Depression affects both men and women, and symptoms of depression in both are alike. However, there is a difference in how the genders express the symptoms. **Men** often have undiagnosed depression which may be related to a tendency to deny having or experiencing mental health problems due to the way in which they have been raised. In most cultures, boys are raised to believe that expressing emotions is a feminine trait, and as a result, men who are depressed often suppress emotions that may be early signs of depression and exhibit poor impulse control, risk-taking behaviors, and alcohol/drug misuse. **Women**, on the other hand, express more openly at a higher frequency and intensity the typical signs and symptoms that are included in the diagnostic criteria for depression (NIMH, 2018a; Cavanagh et al., 2016).

### MAJOR DEPRESSIVE DISORDER DSM-5 DIAGNOSTIC CRITERIA

- A. Five or more of the following symptoms reported subjectively or observed by others have been present over a two-week period and represents a change from previous functioning; at least one of the symptoms is either a depressed mood or loss of interest or pleasure:
1. Depressed mood most of the day and nearly every day
  2. Markedly diminished interest or pleasure in all, or almost all activities most of the day, nearly every day
  3. Changes in appetite nearly every day; in children, failure to make expected weight gain
  4. Psychomotor agitation or retardation nearly every day
  5. Significant weight loss or gain (more than 5% of body weight in one month)
  6. Insomnia or hypersomnia nearly every day
  7. Feelings of worthlessness or excessive or inappropriate guilt nearly every day



8. Difficulty thinking, concentrating, or making decisions nearly every day
  9. Recurrent thoughts of death or suicide, plans, or attempt
- B. Symptoms cause significant distress in social, occupational, or other important areas of functioning.
- C. Symptoms cannot be attributed to the physiological effects of a substance or other medical condition.
- D. There has never been a manic episode.
- E. The occurrence of MDD is not better explained by a schizophrenic spectrum or other psychotic disorder.
- (APA, 2013)

### **Persistent Depressive Disorder (Dysthymia)**

This disorder is a milder but more chronic form of major depression. This diagnosis is made when an individual has had a depressed mood for most days for at least 2 years.

#### **PERSISTENT DEPRESSIVE DISORDER DSM-5 DIAGNOSTIC CRITERIA**

- A. Depressed mood for most of the day, for more days than not for at least two years, reported subjectively or through observation by others. In children and adolescents, mood can be irritable, and duration must be at least one year.
- B. Presence, while depressed, of two or more of the following:
1. Poor appetite or overeating
  2. Insomnia or hypersomnia
  3. Low energy or fatigue
  4. Low self-esteem
  5. Poor concentration or difficulty making decisions
  6. Feelings of hopelessness
- C. During the two-year period (one year for children or adolescents), the person has never been without the above symptoms for more than two months at a time.
- D. Criteria for a major depressive disorder may be continuously present for two years.



- E. There has never been a manic episode or hypomanic episode, and criteria have never been met for cyclothymic disorder.
- F. Symptoms cannot be attributed to the physiological effects of a substance or another medical condition.
- G. Symptoms cause major impairment in social, occupational, or other areas of functioning.  
(APA, 2013)

## Premenstrual Dysphoric Disorder

Premenstrual dysphoric disorder (PMDD) is a serious health problem that is similar to, but more severe than, premenstrual syndrome. Researchers are not sure of the causes for PMDD; however, hormonal changes throughout the menstrual cycle may play a role, and some women are more sensitive to these changes. This disorder causes clinically significant distress or interference with day-to-day functioning (USDHHS, 2018).

### PREMENSTRUAL DYPHORIC DISORDER DSM-5 DIAGNOSTIC CRITERIA

- A. For a majority of menstrual cycles, five or more symptoms must be present in the final week before onset of menses, start to improve after the onset of menstruation, and become minimal or absent in the week post menses.
- B. One or more of the following must be present:
  - 1. Significantly depressed mood
  - 2. Irritability, anger, or increased interpersonal conflicts
  - 3. Mood swings
  - 4. Excessive anxiety
- C. Additionally, one or more of the following must be present to reach a total of five when combined with criteria B above:
  - 1. Decreased interest in usual activities
  - 2. Difficulty concentrating
  - 3. Lethargy or significant lack of energy
  - 4. Changes in appetite, overeating, or having food cravings
  - 5. Insomnia or hypersomnia



6. Feeling overwhelmed, out of control
  7. Physical symptoms including breast tenderness or swelling, joint or muscle pain, a bloating sensation, weight gain
- D. Symptoms are associated with significant interference with school, work, social activities, or relationships.
- E. Symptoms are not part of the physiological effects of a substance, another psychiatric disorder, or medical condition.
- (APA, 2013)

## Risk Factors for Depression

Because depression is so common, it has been difficult to agree on risk factors. Those factors that seem to increase the risk of triggering or developing depression include:

- Personality traits such as having low self-esteem or being overly dependent, self-critical or pessimistic
- Traumatic or stressful events such as death or loss of a loved one, physical or sexual abuse, problems within a relationship, or financial difficulties
- Blood relatives with a history of depression, bipolar disorder, alcoholism, or suicide
- Being gay, lesbian, bisexual, or transgender, or having genital organs with developmental variations not clearly male or female and being in unsupportive social environments
- A history of other mental health disorders, such as posttraumatic stress disorder, anxiety disorder, or eating disorders
- Abuse of alcohol or other recreational drug use
- Serious or chronic physical illness, including cancer, stroke, chronic pain, or heart disease
- Certain types of medications such as some hypertension or sleeping pills  
(Mayo Clinic, 2018a)

## Consequences Associated with Depressive Disorders

An individual with a depressive disorder that is untreated can experience various complications including:

- Excess weight or obesity which can lead to heart disease and diabetes
- Pain or physical illness



- Alcohol or drug misuse or abuse
- Anxiety, panic disorder or social phobia
- Family conflicts, relationship difficulties, problems at work or school
- Social isolation
- Self- mutilation, such as cutting
- Suicidal feelings, suicide attempts or suicide
- Early death resulting from medical conditions  
(Mayo Clinic, 2018a)

## Depression in Children and Adolescents

Depression in children and adolescents manifests similarly to that in adults, however, mood may be irritable rather than sad in adolescents. Females and males exhibit similar rates of depression in childhood, but risk of depression doubles in females beginning in adolescence. Depression is rare in early childhood and increases somewhat in mid to late childhood. It then rises sharply in adolescence. The average age of onset is 14, and although almost all recover, follow-up studies report high rates of relapse and recurrence (Beauchaine & Hinshaw, 2017).

Predictors of recurrence of depression in this age group include:

- Early onset
- Severity
- Psychotic symptoms
- Suicidality
- Previous major depression episodes
- Residual symptoms after recovery
- Family history of major depressive disorder
- Adverse family environment
- Poor academic performance
- Early pubertal development

Early-maturing girls have a higher risk, as they are faced with expectations, pressures, and reactions from peers they may not be ready to handle.

Children with major depression are less likely to experience psychosis, but if they do, auditory hallucinations are more common than delusions. They more often have symptoms of anxiety, including fear of separation, and somatic symptoms such as headaches and stomachaches.



Children with depression may avoid playing or interacting with their peers. They may discontinue recreational activities they normally participate in. Adolescents may exhibit significant impairment in family, school, and peer functioning, and are at risk for dropping out of school and unplanned pregnancy. The risk for suicide, which peaks in adolescence, is high.

Depression in this population can be confused with neuro-endocrine disorders, psychoactive substances, and other psychiatric disorders (Beauchaine & Hinshaw, 2017).

## Depression in Older Adults

Depression in adults over 65 is not a normal part of aging but is often under-recognized and under-treated. Symptoms in this age group may be confused with symptoms of dementia or cerebrovascular disorders. Compared to older adults without depression, those with depression often need greater assistance with self-care and daily activities, and often recover more slowly from physical disorders. Suicide is a very serious risk for the older adult experiencing depression, especially for men.

The older adult may show different symptoms than younger people. Sadness may not be the main symptom. Instead, they may feel tired, have trouble sleeping, or seem grumpy and irritable. Depression in older adults may be linked to several risk factors, including:

- Medical illnesses, especially chronic health conditions associated with disability or decline
- Chronic pain, disability, or feelings of poor health
- Sensory loss (progressive deterioration of sight and hearing)
- Frequent falls
- Sleep disturbances
- Mental impairment or dementia
- Medication side effects, including beta blockers, corticosteroids, hormones, benzodiazepines, narcotics
- Alcohol or prescription medicine misuse or abuse
- Prior depression episode
- Family history of depression
- Extended bereavement
- Stressful life events
- Unsatisfactory social network (MHA, 2018b)



## Screening for Depression

It is recommended that **all patients** be screened for the presence of depressive symptoms. The rationale for screening includes:

- Patients often complain of somatic symptoms and may be reluctant to talk about emotional difficulties; therefore, depression can be difficult to detect.
- Treatment of depression can be successful and is most effective when begun early.

Screening can be done for all patients during routine visits or by evaluating only those with a clinical presentation that triggers suspicion of depression. There are short **screening instruments** available that are self-administered by the patient including the:

- Patient Health Questionnaire-9 (PHQ-9)
- Patient Health Questionnaire-2 (PHQ-2)
- Beck Depression Inventory for Primary Care (BDI-PC)
- 5-Item World Health Organization Well-Being Index (WHO-5)
- Geriatric Depression Scale (GDS)

When a provider suspects the possibility that a patient is depressed, the quickest screening tool is the **PHQ-2**, also called the ***Two-Question Screen***, which has the advantage of being brief and easy to administer verbally. It is accurate for depression screening in adolescents, adults, and older adults, and it can be done by asking for yes/no answers or using a rubric rating scale:

1. During the past month, have you been bothered by feeling down, depressed, or hopeless? (Yes/No)
2. During the past month, have you been bothered by having little interest or pleasure in doing things? (Yes/No )

Or using a rubric rating scale:

1. Over the past two weeks, how often have you been bothered by feeling down, depressed, or hopeless?
  - Not at all (0)
  - Several days (1)
  - More than half (2)
  - Nearly every day (3)



2. Over the past two weeks, how often have you been bothered by having little interest or pleasure in doing things?
  - Not at all (0)
  - Several days (1)
  - More than half (2)
  - Nearly every day (3)

A single yes response to the yes/no screening or a score of 3 or higher out of a possible 6 on the rubric scale suggests possible clinically significant depression. When screening indicates that depression may be present, further evaluation should be done so a diagnosis can be confirmed (Williams & Nieuwsma, 2018).

## Treatment Modalities for Depression

The first step in considering treatment for MDD is the establishment of the least restrictive setting. This involves assessment of the patient's symptom severity, co-occurring psychiatric or general medical conditions, level of functioning, available support systems, ability to care for oneself, and safety.

For patients with severe MDD who pose a threat to self or others, lack social support, or have not responded to outpatient treatment, hospitalization may be required. Hospitalization provides milieu therapy, a stable and coherent social organization that facilitates a patient's treatment. Milieu therapy provides safety and security, validation, structured interaction, and open communication. The overriding concern for people with depressive disorders is safety, and suicide risk assessment should routinely be done for any person with depressive symptomatology.

**Initial treatment** for depression is recommended using a combination of pharmacotherapy and psychotherapy.

### PHARMACOTHERAPY (ANTIDEPRESSANTS)

Animal studies have shown that antidepressants spur the growth and enhanced branching of nerve cells in the hippocampus. So, the theory holds, the real value of these medications may be in generating new neurons (a process called *neurogenesis*), strengthening nerve cell connections, and improving the exchange of information between nerve circuits.

These medications take time to become effective, usually 2 to 4 weeks. Often symptoms such as sleep, appetite, and concentration problems improve before the mood lifts. Antidepressants are used for 6 to 12 weeks before determining effectiveness.

The most commonly used include selective serotonin reuptake inhibitors (SSRIs) or serotonin norepinephrine reuptake inhibitors (SNRIs). Tricyclics are another alternative that have been shown to be more effective than other antidepressants for severe depression; however, one



drawback to their use is the discontinuation of treatment due to adverse side effects (Simon, 2017; HUMS, 2019).

<b>MEDICATIONS FOR TREATMENT OF DEPRESSIVE DISORDERS</b>		
<b>Type of Antidepressant</b>	<b>Examples</b>	<b>Common Side Effects</b>
<b>Tricyclics (TCAs), Tetracyclics (TeCAs)</b>	<ul style="list-style-type: none"> <li>• Clomipramine (Anafranil)</li> <li>• Amitriptyline (Elavil)</li> <li>• Maprotiline (Ludiomil)</li> <li>• Mirtazapine (Remeron)</li> </ul>	<ul style="list-style-type: none"> <li>• Blurred vision</li> <li>• Constipation</li> <li>• Dry mouth</li> <li>• Drowsiness</li> <li>• Orthostatic hypertension</li> <li>• Urine retention</li> <li>• Weight gain</li> </ul>
<b>Monoamine oxidase inhibitors (MAOIs)</b>	<ul style="list-style-type: none"> <li>• Isocarboxazid (Marplan)</li> <li>• Phenelzine (Nardil)</li> <li>• Tranylcypromine (Parnate)</li> </ul>	<ul style="list-style-type: none"> <li>• Dry mouth</li> <li>• Diarrhea</li> <li>• Constipation</li> <li>• Headache</li> <li>• Drowsiness</li> <li>• Insomnia</li> <li>• Dizziness</li> <li>• Lightheadedness</li> <li>• Requires diet restrictions</li> </ul>
<b>Selective serotonin reuptake inhibitors (SSRIs)</b>	<ul style="list-style-type: none"> <li>• Fluoxetine (Prozac)</li> <li>• Paroxetine (Paxil)</li> <li>• Sertraline (Zoloft)</li> <li>• Citalopram (Celexa)</li> <li>• Fluvoxamine (Luvox)</li> <li>• Escitalopram (Lexapro)</li> </ul>	<ul style="list-style-type: none"> <li>• Drowsiness</li> <li>• Nausea</li> <li>• Dry mouth</li> <li>• Insomnia</li> <li>• Diarrhea</li> <li>• Agitation</li> <li>• Dizziness</li> <li>• Sexual function changes</li> <li>• Headache</li> <li>• Blurred vision</li> </ul>



<p><b>Serotonin and norepinephrine reuptake inhibitors (SNRIs)</b></p>	<ul style="list-style-type: none"> <li>• Duloxetine (Cymbalta)</li> <li>• Venlafaxine (Effexor)</li> </ul>	<ul style="list-style-type: none"> <li>• Nausea</li> <li>• Dry mouth</li> <li>• Dizziness</li> <li>• Headache</li> <li>• Excessive sweating</li> <li>• Sexual function changes</li> </ul>
<p><b>Atypical antidepressants</b></p>	<ul style="list-style-type: none"> <li>• Bupropion (Wellbutrin)</li> <li>• Nefazodone (Serzone)</li> <li>• Trazodone (Desryel)</li> </ul>	<ul style="list-style-type: none"> <li>• Agitation</li> <li>• Dry mouth</li> <li>• Headache</li> <li>• Nausea</li> <li>• Vomiting</li> <li>• Insomnia</li> <li>• Rashes</li> <li>• Seizures</li> <li>• Cardiac effects</li> </ul>
<p>(Mayo Clinic, 2018a; FDA, 2016)</p>		

Patients taking antidepressants should be carefully monitored for **serious risk factors**. The U.S. Food and Drug Administration has issued a warning about the increased risk of suicidal thinking or suicidal behavior in children, adolescents, and young adults through age 24 who are taking antidepressants, especially during early treatment and with dose increases. Therefore, these patients should be screened for suicide.

An example of a very brief **screening for suicide risk** among youth is ASQ (Ask Suicide-screening Questions), which asks four yes/no questions and takes only 20 seconds to administer:

1. In the past few weeks have you wished you were dead?
2. In the past few weeks, have you felt that you or your family would be better off if you were dead?
3. In the past week have you been having thoughts about killing yourself?
4. Have you ever tried to kill yourself?

Screening identifies individuals who require further mental health/suicide safety assessment (FDA, 2018a; NIMH, 2019b).

The FDA (2018a) reports that some antidepressant medications might harm a fetus if taken during pregnancy, and that patients taking monoamine oxidase inhibitors are at risk for a sharp increase in blood pressure if they are taken with foods that contain high levels of the chemical tyramine, which is found in many cheeses, wines, and pickles as well as some medications, including decongestants.



## PSYCHOTHERAPY

Several forms of psychotherapy are used to treat depression:

- **Cognitive behavioral therapy (CBT)** is short-term, goal-oriented treatment to help the person understand the connection between thoughts and emotions and to change patterns of thinking or behavior underlying the person's difficulties.
- **Behavioral activation (BA)** is a specific CBT skill that can be a treatment by itself or used alongside other CBT skills to help the person understand how behaviors influence emotions.
- **Interpersonal therapy (IPT)** focuses on interpersonal relationships by helping the person to identify emotions, express emotions in a healthy way, and deal with unresolved issues from past relationships.
- **Problem-solving therapy** is an intervention geared toward improving the person's ability to cope with stressful life experiences.
- **Family and couples' therapy** uses a family systems approach, treating the entire unit (e.g., the couple, the entire family), with the aim of identifying and changing destructive relationship patterns.
- **Psychodynamic psychotherapy** is an insight-oriented therapy focusing on unconscious processes as manifested in present behavior.
- **Supportive psychotherapy** provides an emotional outlet and helps people deal with distress and problems encountered in day-to-day living; it includes comforting, advising, encouraging, reassuring, and listening.

(NAMI, 2017a; Cleveland Clinic, 2018)

## NEUROMODULATION PROCEDURES

Neuromodulation treatments are used when medications do not reduce symptoms.

- **Electroconvulsive therapy (ECT)** is a noninvasive convulsive procedure done under general anesthesia and involving small electric currents passed through the brain to trigger a brief seizure, which changes brain chemistry and relieves symptoms.
- **Repetitive transcranial magnetic stimulation (rTMS)** is a noninvasive, nonconvulsive treatment using electric current or magnetic field to stimulate focal areas in the brain; it requires daily treatments over many weeks.
- **Vagus nerve stimulation (VNS)** is an invasive procedure in which a device is implanted in the chest wall to stimulate vagus nerve fibers in the neck that carry impulses to specific areas of the brain.

(Mayo Clinic, 2018a, 2018b)



## The Patient with Signs and Symptoms of Depression

Patients with depressive disorders may not present with typical symptoms of depression. Often, they may be seeking treatment for somatic complaints such as headache or abdominal distress. Children with depressive disorder may also present with misleading symptoms such as irritability or failing grades in school. The older adult may present with somatic complaints, confusion, or general functional decline. For this reason, it is recommended that all patients be screened for depression.

When a patient describes signs and symptoms of depression, it is important to consider the possibility of an **organic cause**, which can include:

- Central nervous system disorders
- Endocrine disorders
- Drug-related conditions
- Infectious disease
- Sleep-related disorders

(Halverson, 2019)

It is also important to determine if the signs and symptoms are the result of other psychiatric conditions, such as bipolar disorder, which also presents with signs and symptoms of depression.

**Assessment** should include a relevant physical examination, laboratory and other diagnostic studies, a mental state examination, and a cognitive assessment.

Patients who present with the signs and symptoms of depression should also be carefully assessed for warning signs of suicide. **Indications of suicidal thinking** may include:

- Feeling hopeless or worthless in a persistent way
- Putting affairs in order, giving things away, making changes to wills
- Stockpiling medication or any other specific plans to harm oneself
- Previous suicide or self-harm attempts
- Saying good-byes (e.g., “I will not need any more appointments.”)
- Preoccupation with death or lack of concern about personal safety

If the patient has been diagnosed with depression and treatment is underway, the patient should be assessed for medication side effects and for the effectiveness of the treatment(s) (Ng et al., 2017).



## Responding to the Patient with Signs and Symptoms of Depression

The central element of responding to the patient is the development of a quality **therapeutic relationship** with the patient. Healthcare providers are encouraged to:

- Acknowledge the patient’s pain and elicit talk about how the patient feels.
- Be empathic and supportive and avoid being sympathetic.
- Avoid giving advice. Saying, “This is what I think ...” or “You should ...” can make patients believe problems should be easily solved, resulting in feelings of inadequacy because they have not done so. Giving advice may also cause patients to feel resentment when they disagree with the advice, which can then interfere with the clinician-patient relationship.
- Avoid statements such as, “Everything will be okay,” which can make the person unwilling to share other feelings.
- Encourage self-compassion. Challenge the person’s negative assumptions about self and provide alternative perspectives, such as, “What would you say to friends who spoke about themselves that way?”
- Avoid agreeing or disagreeing. When this is done, the clinician sets the standards on what is acceptable based on the clinician’s values. This may result in patients feeling judged about their own values and prevent further interaction for fear of not conforming. Agreeing with patients makes it difficult for future modifications of opinions.

Other measures important in working with an individual who has a depressive disorder include:

- Encouraging the person to participate in purposeful activity and daily routine
- Pointing out any improvements in the patient’s condition
- Monitoring medication compliance
- Providing education about medication and side effects
- Providing family members with information about depression  
(Townsend, 2015; Tabangcora, 2016)

### CASE

#### A Patient with Signs of Depression

Yolanda, a physical therapist, is making her fourth visit to Loren, a male patient who lives in Forest Park, an assisted-living facility. Loren is 78 years old and recovering from a stroke affecting his left side. He has been doing quite well and normally greets Yolanda with a smile, but today he simply opens the door for her to come in without any greeting.



During the treatment session, Yolanda notes that Loren seems distracted and not his usual self. He appears to be tired and out of sorts. She begins a conversation with Loren in order to learn more about his condition.

Yolanda: “You don’t seem to be your usual self today.”

Loren: “Well, I’m kind of tired is all.”

Yolanda: “Are you not sleeping well?”

Loren: “Oh, I don’t know. Things get to me.”

Yolanda: “You’ve been through a lot lately. Perhaps this is affecting your sleep.”

Loren: “Oh, dear. I can’t sleep at all lately.”

Yolanda: “Tell me more about that.”

Loren: “Well, I wake up during the wee hours of the morning and just can’t get back to sleep.”

Yolanda: “What do you think about when you’re trying to get back to sleep?”

Loren: “Oh, I just lay awake, turn this way and that way, and think of all the mistakes I’ve made in my life.”

Yolanda: “That sounds very distressing.”

Loren: “Yes, it is.”

Yolanda: “Tell me ...”

### **Discussion**

Yolanda recognizes that sleep disturbances, especially early morning awakenings, are a major physical symptom of a depressive disorder and that Loren’s negative ruminations are also a problem. Her next step will be to inquire about other signs and symptoms of depression (e.g., changes in appetite, feelings of hopelessness, etc.) and then to inform Loren’s primary care provider about her findings. Another serious consideration is determining the presence of any indicators of suicidal thinking. This is especially important with older male patients like Loren who have comorbid health problems, since they have the highest rate of suicide.

## **BIPOLAR DISORDER (MANIC DEPRESSION)**

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Bipolar disorder causes dramatic shifts in a person’s mood, energy, and cognitive ability. These shifts involve extreme highs and lows (mania and depression) that differ from the normal ups and downs most people experience.

Average age at onset is about 25. The disorder affects men and women equally, and after the first manic episode, the disorder tends to become recurrent. In the United States, 2.5% of the population have been diagnosed with bipolar disorder, and 83% of these cases are classified as severe (NAMI, 2017b).



Symptoms, as well as their severity, vary. An individual can have distinct depressive or manic episodes but can also experience extended periods without symptoms. Both mood extremes can be experienced at the same time or in rapid succession, and suicide is a danger during these episodes.

**Manic moods** (the highs) can rapidly move on to irritability, with unpredictable behavior and impaired judgment. During a manic episode, a person can behave impulsively, recklessly, and take unusual risks. One feature of manic episodes is the failure of the person to be aware of negative consequences. They are oblivious to the magnitude of impairment and harmful behaviors. Harmful behaviors that can occur during manic episodes include belligerence, drug abuse, promiscuity, plundering financial resources, gambling, and impulsive unannounced journeys. Social strife and rage are common. Persons in a manic state may also be uncharacteristically creative, charismatic, or generous. They are intelligible and coherent.

It is important to remember that mania can also be caused by medical disorders such as certain metabolic abnormalities, neurological disorders, central nervous system tumors, medications, or by certain substances of abuse.

**Depressive moods** (the lows) of bipolar disorder often are so incapacitating that the person may not be able to get out of bed. Some persons may have problems falling and staying asleep, while others may sleep more than usual. Persons with bipolar disorder may be unable to make apparently minor decisions and become obsessed with feelings of guilt, loss, failure, hopelessness, and helplessness, which increases the risk for suicide. The depressive episodes of bipolar disorder differ from major depressive disorder in that the person's mood may brighten when pleasant things occur.

Severe bipolar episodes may include symptoms of psychosis (e.g., hallucinations or delusions, which may be paranoid, persecutory, or grandiose).

For a diagnosis of bipolar disorder to be considered, the person must have had at least one episode of mania or hypomania. People with hypomania (less severe) often function quite well in social and occupational settings. There are two subtypes to be considered:

- **Bipolar I:** Patients experience manic episodes and nearly always experience hypomania and major depressive disorders.
- **Bipolar II:** This subtype is marked by at least one hypomanic episode, at least one major depressive episode, and the absence of manic episodes.  
(Stovall, 2018)

To be diagnosed with bipolar disorder, the depressive symptoms interfering with function must be present almost every day for at least two years (NAMI, 2017b).



### **BIPOLAR DISORDER DSM-5 DIAGNOSTIC CRITERIA**

- A. A distinct period of abnormally and persistently elevated, expansive, or irritable mood and increased activity or energy, lasting at least one week and present most of the day, nearly every day.
- B. During the period of mood disturbance and increased energy or activity, three or more of the following symptoms have persisted (four if the mood is irritable only) and represent a noticeable change from usual behavior.
  1. Grandiosity or inflated self-esteem
  2. Decreased need for sleep
  3. Pressured speech, more talkative than usual
  4. Flight of ideas or racing thoughts
  5. Distractibility as reported or observed
  6. Increase in activity (socially, at work or school, or sexually) or psychomotor agitation (i.e., purposeless non-goal-directed activity)
  7. Excessive usually impulsive involvement in pleasurable activities having a high potential for painful consequences (buying sprees, sexual indiscretions)
- C. The mood disturbance is sufficiently severe to cause marked impairment in social or occupational functioning or to necessitate hospitalization to prevent harm to self or others, or there are psychotic features.
- D. The episode is not attributable to the physiological effects of a substance or to another medical condition.

(APA, 2013)

### **Risk Factors for Bipolar Disorder**

Several factors that may increase the risk of developing bipolar disorder or that act as triggers for the first episode include:

- Having a first-degree relative (e.g., parent, sibling) with bipolar disorder
- Periods of high stress
- Drug or alcohol abuse
- Onset of mood disorder prior to age 20
- Previous history of depression

(Mayo Clinic, 2018c)



## Consequences Associated with Bipolar Disorder

If untreated, bipolar disorder can result in problems affecting every area of life, including:

- Problems secondary to drug and alcohol use
- Suicide or suicide attempts
- Legal or financial problems
- Damaged relationships
- Poor work or school performance

Co-occurring conditions that can worsen bipolar disorder or make treatment less successful include:

- Anxiety disorders
- Eating disorders
- Attention deficit hyperactivity disorder (ADHD)
- Alcohol or drug disorders
- Physical health problems such as heart disease, thyroid problems, obesity, headaches (Mayo Clinic, 2018c)

## Bipolar Disorder in Children and Adolescents

Bipolar disorders are difficult to diagnose in children and adolescents. Among young people, bipolar is one of the more lethal of psychiatric disorders. The manifestations of bipolar disease that occur among mature adults might produce different behaviors among youth. Symptoms of bipolar disorder are difficult to assess in children; they may also present with comorbid conduct disorders or ADHD (Townsend, 2015).

The terms *silly* and *giddy* are often used to describe a child's euphoria. Among children, inflated self-esteem may be hard to differentiate from excessive bragging. Psychotic symptoms among children may be attributed to magical and unrealistic thinking. The hallmark of childhood bipolar disorder is intense unprovoked rage that can last for as long as 2 to 3 hours (NAMI, 2017b).

## Bipolar Disorder in Older Adults

Up to 25% of all bipolar patients are adults 60 years and older, and the number is expected to increase over the next few decades. Geriatric bipolar patients are predominantly female, and the prevalence of geriatric bipolar disorders is high in the following clinical settings:

- Nursing homes: 3%
- Psychiatric outpatients: 6%–7%



- Psychiatric inpatients: 7%–19%
- General hospital emergency departments: 17%  
(Sajatovic & Chen, 2017)

Diagnosing bipolar disorder in older adults can be difficult, as many conditions that occur later in life share symptoms with this disorder. **Organic causes** for geriatric bipolar disorder include:

- Multiple sclerosis
- Stroke
- Brain tumors
- Mild traumatic brain injury due to falls
- Systemic infection (HIV, tertiary syphilis, Epstein-Barr, pneumonia)
- Hyperthyroidism
- Neurodegenerative disorders (dementias, Huntington's disease, basal ganglia calcification)
- Neoplasia
- Others (systemic lupus erythematosus, chronic inflammatory or autoimmune disorders, heart failure)

Geriatric bipolar disorder differs from that of younger bipolar patients in the following ways:

- Cognitive impairment is more common and severe.
- Comorbid general medical illnesses are more common.
- Excessive sexual interest and behavior appear to be less common.
- Comorbid anxiety and substance use disorders are less common.  
(Sajatovic & Chen, 2017)

## Screening for Bipolar Disorder

Current screening tools for bipolar disorder do not perform well, and screening in primary and general patient settings is **not suggested** because it is not known whether it improves patient outcomes. Additionally, studies indicate that screening is a benefit only in settings that can provide follow-up to ensure accurate diagnosis and effective treatment (Suppes, 2017).

The most commonly used screening tool in those settings is the **Mood Disorder Questionnaire**, a brief self-report which takes about 5 minutes and can be scored immediately. It screens for a range of different types of bipolar disorder and asks 13 questions pertaining to symptoms of the disorder. Another screening tool for adults is the Composite International Diagnostic Interview (CIDI), which is administered by a clinician. The Child Bipolar Questionnaire (CBQ) can be administered by a child's primary caregiver or by a clinician.



Each screening tool can be used to determine if further comprehensive evaluation should be considered (SAMHSA, 2019a).

## Treatment Modalities for Bipolar Disorder

The **treatment setting** for manic or hypomanic patients depends on the severity of the symptoms, the presence of comorbid psychopathology (such as substance use disorder), the level of psychosocial functioning, and available support. Patients may be admitted to the hospital to manage safety and symptoms, including suicidal ideation with plan or intent, psychotic features, and poor judgment. Acutely ill patients may require physical or chemical restraints such as benzodiazepines, typical or first-generation antipsychotics, and atypical (i.e., second-generation) antipsychotics.

Partial hospitalization in a day program may be the setting for patients who are moderately ill, including those with suicidality but who do not pose imminent risk for suicide. Other patients who are less acutely ill with no plan or intent to die by suicide are treated on an outpatient basis (Bobo & Shelton, 2019).

### PHARMACOTHERAPY

Medications are the basis for treatment of bipolar disorder. In the acute phase of the illness, the goal of treatment is symptom reduction and mood stabilization. Mood stabilizers may need to be combined with antipsychotics or benzodiazepines. When the patient has been stabilized, the next treatment goal is to prevent relapse of the current episode or cycling into the opposite pole. The usual pharmacological procedure is to continue the mood stabilizer and monitor the patient closely for symptoms of relapse. During the maintenance phase, the goal is to sustain remission and prevent new episodes (Carvalko & Vieta, 2017).

MEDICATIONS FOR TREATMENT OF BIPOLAR DISORDER (MANIA)		
Type	Example	Common Side Effects
Mood stabilizer	Lithium carbonate (Carbolith, Duralith, Eskalith, Lithane, Lithizine, Lithobid, Lithonate)	<ul style="list-style-type: none"> <li>• Nausea</li> <li>• Thirst</li> <li>• Metallic taste</li> <li>• Polyuria</li> <li>• Weight gain</li> <li>• Loose stools</li> <li>• Cognitive impairment</li> <li>• Edema of hands or feet</li> <li>• Fine hand tremor</li> <li>• Muscle weakness, fatigue</li> <li>• Difficulty concentrating</li> <li>• Toxicity</li> </ul>



<p><b>Anticonvulsants</b> (used as mood stabilizers)</p>	<ul style="list-style-type: none"> <li>• Divalproex sodium (Depakote)</li> <li>• Carbamazepine (Tegretol)</li> <li>• Divalproex sodium (Depakote)</li> <li>• Valproic acid (Depakene)</li> <li>• Lamotrigine (Lamictal)</li> </ul>	<ul style="list-style-type: none"> <li>• Dizziness</li> <li>• Drowsiness</li> <li>• Fatigue</li> <li>• Nausea</li> <li>• Tremor</li> <li>• Rash</li> <li>• Weight gain</li> </ul>
<p><b>Antipsychotics</b> (atypical)</p>	<ul style="list-style-type: none"> <li>• Olanzapine (Zyprexa)</li> <li>• Risperidone (Risperdal)</li> <li>• Quetiapine (Seroquel)</li> <li>• Aripiprazole (Abilify)</li> <li>• Ziprasidone (Geodon)</li> <li>• Lurasidone (Latuda)</li> <li>• Asenapine (Saphris)</li> </ul>	<ul style="list-style-type: none"> <li>• Blurred vision</li> <li>• Dry mouth</li> <li>• Drowsiness</li> <li>• Muscle spasms</li> <li>• Tremors</li> <li>• Weight gain</li> </ul>
<p><b>Anti-anxiety medications</b> (benzodiazepines)</p>	<ul style="list-style-type: none"> <li>• Alprazolam (Xanax, Niravam)</li> <li>• Clonazepam (Klonopin)</li> <li>• Lorazepam (Ativan)</li> <li>• Diazepam (Valium)</li> </ul>	<ul style="list-style-type: none"> <li>• Drowsiness</li> <li>• Dizziness</li> <li>• Nausea</li> <li>• Blurred vision</li> <li>• Headache</li> <li>• Confusion</li> <li>• Fatigue/tiredness</li> <li>• Nightmares</li> <li>• Tolerance</li> <li>• Addiction</li> </ul>
<p>(Stovall, 2018; Mayo Clinic, 2018c)</p>		

Bipolar disorder is a complex, chronic condition that can be difficult to treat. As a result, polypharmacy is commonplace, and many patients require multiple medications to control their symptoms effectively. It is important that clinicians become educated about the various **side effects** of the wide array of medications available for treatment and to be aware that the tolerability of these medications is one of the key reasons for noncompliance (Nasrallah & Kuo, 2019).

Clinicians should also be aware that patients who are taking a mood stabilizer (lithium carbonate) are at risk for **lithium toxicity**, and periodic blood samples must be taken to ensure the appropriate level of medication is present. Signs of lithium toxicity include:

- Severe nausea and vomiting
- Severe hand tremors
- Confusion
- Vision changes
- Unsteadiness while standing or walking



Blood levels are also done to assess for side effects such as changes in blood cell counts or kidney function. Patients who are taking lithium and are pregnant should be monitored monthly during pregnancy and weekly near delivery, and breastfeeding is not recommended while taking lithium.

Patients who are taking lithium should be advised against drinking alcohol, using illegal drugs, or excessive intake of caffeinated beverages, as they may decrease the levels and benefits of the medication. They should be instructed to avoid low sodium diets, dehydration, and OTC and prescription pain medications that contain nonsteroidal anti-inflammatory medications, as these increase the risk of lithium toxicity (NAMI, 2019c).

## PSYCHOTHERAPY

To meet the goals for an effective outcome, treatment requires evidence-based psychological interventions in addition to medications. Psychological interventions diminish recurrence rates and play an important prophylactic role.

- **Interpersonal and social rhythm therapy (IPSRT)** focuses on stabilization of daily rhythms, such as sleeping, waking, and mealtimes.
- **Psychoeducation** is an approach aimed at improving treatment outcomes and helping to prevent future episodes. It provides education to help understand the condition, develop a plan to prevent relapse, and comply with treatment.
- **Cognitive behavioral therapy (CBT)** has been found to be useful for improving adherence to treatment and for insomnia.
- **Family-focused therapy** can provide support and communication that can help with treatment compliance and manage warning signs of mood swings.

(Mayo Clinic, 2019c)

## ELECTROCONVULSIVE THERAPY

Treatment may include ECT for severely depressed patients and for patients with severe mania accompanied by psychotic symptoms, significant suicidality, life-threatening malnutrition, catatonia, and those who fail to respond to medications (Muse, 2018).

## The Patient with Signs and Symptoms of Bipolar Disorder

It is often difficult to diagnose bipolar disorder, and it may take months or even years for a diagnosis to be made. Many patients are misdiagnosed as having a depressive disorder because they often report only depression. Depression is perceived as psychically painful (negative), whereas hypomania and even mania can be perceived by the patient as positive (Covin & Hofmann, 2017).



In contrast to patients with major depressive disorder, patients with bipolar disorder are more likely to present with racing thoughts and/or irritability when they are not depressed and are more likely to have suicidal thoughts during periods of depression. Clinicians in healthcare settings outside of mental health should suspect a bipolar disorder when a patient presents with:

- Family history of bipolar disorder
- Early age onset of severe depression in childhood or early adulthood
- History of postpartum mood disorder
- History of risk-taking behaviors
- Erratic patterns at work and in relationships
- Problems with substance abuse
- Lack of or erratic response to treatment with antidepressants  
(Koirala & Anand, 2018)

### **Responding to the Patient with Bipolar Symptoms and Behaviors**

When involved in the care of a patient with bipolar disorder, it is true that some conduct associated with the disorder can be very difficult to contend with. It is therefore necessary to remember that these behaviors are actually symptoms and the result of illness. It is also important to recognize some of the **typical reactions clinicians may have** toward persons with manic behaviors and to consider them during interactions. These can include:

- Amusement. It is easy to laugh and respond to the outrageous things a patient may say or do, but it is important to ensure that respect for the patient is maintained at all times.
- Irritation. Manic patients may be noncompliant with routines, rules, or personal health care. They often test limits. This can cause providers to feel irritated or even angry with such patients.
- Embarrassment. Some providers feel embarrassed at what is seen as the patient's apparent lack of control. If the behavior occurs in front of others, providers may feel embarrassed that they cannot effectively intervene.
- Discomfort. The patient can be verbally abusive and can make personally demeaning comments to and about providers.

**Effective ways to respond** include:

- Be patient when attempting to communicate; do not rush or pressure the patient to talk.
- Answer questions briefly, quietly, calmly, and honestly.
- Give the patient clear, simple directions.



- Attempt to educate patients about the inappropriateness of their behavior without criticizing or blaming them.
- Avoid judging the person and do not give negative feedback.
- Avoid verbal confrontations with the person, who is likely to have a low tolerance for debate.
- Do not try to appeal to the patient using logic, as the patient is not thinking rationally.
- Encourage the patient to respect the personal space of others.
- Provide consistent limits on behaviors and verbal abuse; make sure all staff are clear about these limits and that they reinforce them.
- Encourage and support any ideas the person has that are realistic and in keeping with their healthcare regimen. It is far more effective to suggest alternative strategies rather than forbid (e.g., “Stop!/Don’t!”) an action, because the person can be easily distracted.
- Encourage the person to organize and slow thoughts and speech patterns by focusing on one topic at a time and asking questions that require brief answers only.
- If a patient’s thoughts and speech become confused, try to cease the conversation and sit quietly together to help calm them.
- Limit the person’s interactions with others as much as possible and remove any external stimulation where possible.

**Nursing interventions** include:

- Provide structured solitary activities to help the patient stay focused.
  - Provide frequent rest periods.
  - Maintain a low level of stimuli, which helps to minimize escalation of anxiety.
  - If the patient is taking lithium, observe for signs of toxicity.
  - Redirect aggressive or violent behavior.
- (Townsend, 2015; Martin, 2019)



**CASE****A Patient with Bipolar Disorder**

Michael is a 34-year-old who has a diagnosis of bipolar disorder. He is seeing Nadia, an occupational therapist, to improve his ability to manage his money and communicate more effectively with family and caregivers. Today in a group session, Michael is more talkative and his speech is pressured. He makes grandiose statements about how much money he has and that he is going to be married soon to a movie star. He makes sexually inappropriate comments and gestures to one of the other patients in the group. Nadia asks Michael to go with her to a quiet corner of the room.

Nadia, speaking calmly in a neutral tone and with a low-pitched voice: “Michael, making sexual comments and gestures to other patients is not acceptable.”

Michael: “Why not? She’s cute and single, and so am I.”

Nadia, speaking firmly: “I hear what you are saying, but it is not acceptable to make sexual comments and gestures to other patients.”

Michael: “Well, how about I go ask her what she thinks?”

Nadia: “Again, Michael, this behavior is not acceptable and will not be tolerated.”

Michael: “Well, if you’re going to be that way about it!”

Nadia: “Michael, to remain here today, you may not make sexual comments and gestures to other patients.”

Michael, giggling: “Well, I’ll try to be good.”

Nadia: “Thank you, Michael.”

**Discussion**

Nadia recognizes that hypersexuality is not unusual among persons with bipolar disorder and that it should be dealt with like any other behavioral symptom. By removing Michael from the group setting (distracting him), Nadia is stopping the behavior and limiting his interactions with others. Nadia then utilizes several communication techniques when interacting with Michael, including confrontation using a nonjudgmental approach.

- She is respectful while focusing Michael on his behavior to encourage him to have respect for others.
- She sets boundaries in a kind, firm, and calm manner (accepting) and does not deviate from the goal of having Michael understand that his behavior is unacceptable.
- She does not argue or debate the issue.
- She does not respond to his attempts to show anger or humor.
- She does not forbid the behavior, but rather offers him the alternatives of remaining or leaving the group.



## ANXIETY DISORDERS

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Anxiety disorders are the **most common mental illness** in the United States, affecting an estimated 48 million adults ages 18 and older. Because the majority of these individuals will access medical care at some point in their lives, anxiety disorders are likely the most common psychiatric illnesses to be encountered by healthcare professionals (NAMI, 2019a).

Anxiety, an uncomfortable feeling of apprehension or dread in response to internal or external stimuli, occurs in healthy individuals in certain circumstances. Anxiety involves physiological arousal (fight-or-flight) and alterations in cognitive processes (decision-making), requiring implementation of coping strategies.

A person's response to anxiety can be positive and motivate the individual to act. Normal anxiety can be handled and used to help identify the underlying problem producing it, but in some individuals, it can produce paralyzing fear causing inaction. When anxiety levels rise in response to a perceived threat, it can result in cognitive, emotional, or behavioral symptoms.

While anxiety disorders are highly treatable, only 36.9% of those with this diagnosis receive treatment. People with anxiety disorders are 3 to 5 times more likely to go to a doctor and 6 times more likely to be hospitalized for a psychiatric disorder. Anxiety disorders affect persons of all ages, but women are twice as likely to be affected as men.

Anxiety disorders may be associated with other mental or physical **comorbidities**. It is not uncommon for someone with an anxiety disorder to also have major depression. In fact, nearly half of those diagnosed with an anxiety disorder have a dual diagnosis. Many people with anxiety disorders also have co-occurring physical illnesses (e.g., heart disease, respiratory disease), which can worsen their symptoms and make recovery more difficult (ADAA, 2018a; NAMI, 2019a).

### Generalized Anxiety Disorder

Several characteristics distinguish generalized anxiety disorder from normal, everyday anxiety. First, worries are excessive and typically interfere a great deal with psychosocial functioning. Secondly, worries associated with generalized anxiety disorder are more pervasive, pronounced, and distressing. They are of longer duration and frequently occur without precipitants.

Generalized anxiety is more likely to be accompanied by physical symptoms associated with muscle tension, such as trembling, twitching, feeling shaky, muscle aches, or soreness. Some patients also experience somatic symptoms such as sweating, nausea, or diarrhea. They may also have an exaggerated startle response (NIMH, 2018a).



**GENERALIZED ANXIETY DSM-5 DIAGNOSTIC CRITERIA**

- A. Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least six months, about several events or activities (such as work or school performance).
  - B. The individual finds it difficult to control worry.
  - C. The anxiety and worry are associated with three (or more) of the following six symptoms (with at least some symptoms having been present for more days than not for the past six months). (Note: only one item is required in children.)
    - 1. Restlessness or feeling keyed up or on edge
    - 2. Being easily fatigued
    - 3. Difficulty concentrating or mind going blank
    - 4. Irritability
    - 5. Muscle tension
    - 6. Sleep disturbance (difficulty falling or staying asleep, or restless and unsatisfying sleep)
  - D. The anxiety, worry, or physical symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
  - E. The disturbance is not attributable to the physiological effects of a substance such as drug abuse, or a medication or another medical condition (e.g., hyperthyroidism).
  - F. The disturbance is not better explained by another mental disorder.
- (APA, 2013)

**Panic Disorder**

Panic disorder is an extreme, overwhelming form of anxiety. Panic attacks are sudden periods of intense fear or discomfort and are accompanied by physical and cognitive symptoms. Panic disorder is characterized by the spontaneous and unexpected occurrence of panic attacks. The frequency of these attacks can vary from several per day to only a few per year.

It is important to note that physical symptoms are similar to medical conditions such as cardiac emergencies or pulmonary embolism and can cause fear of death. Approximately 25% of patients who present to an emergency department with chest pain have panic anxiety disorder, and few are referred to mental health professionals. Panic attacks are physically taxing and psychologically frightening to patients. Heightened anxiety can result from fear of experiencing another panic attack and can interfere with ability to function (Memon, 2018).



Panic disorder is a lifelong disorder, peaking in the teenage years and then again in the 30s. Panic disorder is treatable, but even after years of treatment, many people remain symptomatic.

#### **PANIC DISORDER DSM-5 DIAGNOSTIC CRITERIA**

- A. The person experiences recurrent, unexpected panic attacks during which at least four of the following symptoms occur.
  - 1. Palpitations and/or pounding heart
  - 2. Sweating
  - 3. Trembling or shaking
  - 4. Shortness of breath or a sense of being smothered
  - 5. Feelings of choking
  - 6. Chest pain or discomfort
  - 7. Nausea
  - 8. Feeling dizzy, unsteady, lightheaded, or faint
  - 9. Hot flashes or chills
  - 10. Numbness or tingling sensation
  - 11. Derealization (feelings of unreality) or depersonalization (feeling detached from oneself)
  - 12. Fear of losing control or “going crazy”
  - 13. Fear of dying
- B. One or more of the attacks are followed by a month (or longer) of both of the following:
  - 1. Persistent worry about having more panic attacks or their consequences (e.g., having a heart attack)
  - 2. A significant maladaptive change in behavior in response to the attacks, such as avoidance of unfamiliar situations
- C. Panic attacks cannot directly or physiologically result from substance use (intoxication or withdrawal) or medical conditions, or other psychiatric disorder. (APA, 2013)



## Other Types of Anxiety Disorders

Besides generalized anxiety disorder and panic disorder, there are several other types.

### **SOCIAL ANXIETY DISORDER**

Persons with this disorder experience fear of social or performance situations. They are highly anxious about being with and talking to other people and worry about being judged. They have difficulty making and keeping friends.

### **OBSESSIVE-COMPULSIVE DISORDER**

In generalized anxiety disorder the focus of a person's worry concerns forthcoming events, and it is the excessiveness of the worry about future events that is abnormal. In obsessive-compulsive disorder, the obsessions are inappropriate ideas that take the form of intrusive and unwanted thoughts, urges, or images. Examples include: repeatedly cleaning oneself or one's surroundings to reduce fear of germs, repeatedly checking door locks or stove burners (Gorrindo & Parekh, 2017).

### **PHOBIAS**

A phobia is an excessive and persistent fear of a specific object, situation, or activity that is generally not harmful. Agoraphobia is the fear of being in situations where escape may be difficult or where help might not be available in the event of panic symptoms (e.g., open spaces, using public transportation). Persons with a phobia:

- May have an irrational or excessive worry about encountering the feared object or situation
- Take active steps to avoid the feared object or situation
- Experience immediate intense anxiety about encountering the feared object or situation
- Endure unavoidable objects and situations with intense anxiety, i.e., fear of:
  - Flying
  - Heights
  - Specific animals
  - Receiving injections
  - Blood

(NIMH, 2018b)



## SEPARATION ANXIETY DISORDER

Separation anxiety disorder involves fear or anxiety about being separated from those to whom the person is attached. Physical symptoms of distress often develop in childhood but can carry through into adulthood (Parekh, 2017).

## POSTTRAUMATIC STRESS DISORDER

Posttraumatic stress disorder (PTSD) is an anxiety disorder that develops following the experience or witnessing of a traumatic event or learning that a trauma event has happened to a loved one. DSM-5 defines such an event as exposure to real or threatened death, serious injury, or sexual violence. To be diagnosed with PTSD a person must have all the following for at least one month:

- At least one re-experiencing symptom (flashbacks, bad dreams, frightening thoughts)
- At least one avoidance symptom (staying away from places, objects, thoughts, feelings)
- At least two arousal and reactivity symptoms (easily being startled, feeling on edge, angry outbursts)
- At least two cognitive and mood symptoms (guilt, blame, negative thoughts) (NIMH, 2019c)

## Risk Factors for Anxiety Disorders

Researchers are finding that both genetic and environmental factors contribute to the risk of developing an anxiety disorder. Factors that increase the risk of anxiety disorders include:

- Temperamental traits of shyness or behavioral inhibition in children
- Exposure to stressful and negative life or environmental events in early childhood or adulthood
- Trauma, such as abuse
- Being female
- Being divorced or widowed
- Stress due to illness
- Stress buildup, e.g., financial worries
- Personality type, such as high neuroticism (emotionally reactive), low extroversion (less outgoing), and other personality disorder traits



- Presence of other mental disorders, such as depression
- Having blood relatives with an anxiety disorder
- Some physical health conditions, such as thyroid problems or heart arrhythmias
- Medications or caffeine
- Drug or alcohol use or misuse (withdrawal can cause or worsen anxiety)  
(Mayo Clinic, 2018d; NIMH, 2018b)

## Consequences Associated with Anxiety Disorders

Patients with anxiety disorders may experience impaired capacity to do things quickly and efficiently at home, work, or school. They may have associated symptoms related to muscle tension, including tiredness, sleep disturbances, or poor concentration contributing to impairment. Of greater concern is the increased risk for developing chronic medical conditions such as gastrointestinal disorders, chronic respiratory disorders, and heart disease. Such patients also have more severe symptoms and a greater risk of death when they become ill (HUMS, 2018).

## Anxiety in Children and Adolescents

Anxiety disorders are the most common frequently treated mental disorder in children. Prevalence estimates range from 10% to 20% in children up to 12 years of age and adolescents from 13 to 18 years. Anxiety disorders are associated with educational underachievement and co-occurring psychiatric conditions as well as functional impairments that can extend into adulthood.

**Parenting style** appears to be a critical environmental factor in the development of children's anxiety. Anxious, overprotective, or overly critical parenting behaviors can contribute to the development of pathological anxiety. **Clinical manifestations** in children and adolescents include:

- Avoidance of academic and social activities
- Being overly conforming or a perfectionist
- Somatic symptoms
- Sleep difficulties
- Unsure of oneself and needing excessive reassurance
- Poor school performance
- Explosiveness and oppositional behavior
- Eating problems
- Suicidal thoughts or behavior



Early-onset anxiety disorders are often chronic when left untreated, although the nature of the symptoms may change during childhood and adolescent development. A history of an anxiety disorder in childhood or adolescence increases the risk two- to threefold of having an anxiety disorder or depressive disorder in adulthood (Bennett & Walkup, 2018).

## Anxiety in Older Adults

Anxiety is as common among older adults as among the young. Many older adults with an anxiety disorder had one when they were younger. Generalized anxiety disorder is the most common among the older adult population and is frequently associated with traumatic events such as a fall or an acute illness.

Recognizing an anxiety disorder in an older adult can be difficult. Aging often brings with it a higher prevalence of medical conditions, concerns about physical problems, and a greater use of prescription medications. A diagnosis of an anxiety disorder can be missed, since older adults present anxiety differently than younger patients do. Older adults tend to somaticize psychiatric problems. Separating a medical condition from symptoms of an anxiety disorder can, therefore, be complicated, and the presence of dementia can add to the difficulties (MHA, 2018b; ADAA, 2018a).

## Screening for Anxiety

**Regular screenings** in primary care and other healthcare settings enables earlier identification of mental health disorders and should be provided to people of all ages. **Tools** used to screen for anxiety disorders include:

- Generalized Anxiety Disorder-7 (GAD-7) is a screen for adults. It asks seven questions and uses a rubric scale to identify whether a complete assessment for anxiety is indicated.
- Primary Care Posttraumatic Stress Disorder (PC-PTSD) is a four-item screen designed for use in primary care and other medical settings to screen for posttraumatic stress disorder. It is currently used by the Veterans Administration.
- Screen for Child Anxiety Related Disorders (SCARED) is a parent-completed questionnaire of 41 questions using a scale of 1 to 3.

There are also screening tools for obsessive-compulsive disorder, panic disorder, PTSD, social anxiety, and specific phobias, all using yes/no questions (ADAA, 2018b; SAMHSA, 2019b). (See “Resources” at the end of this course.)

## Treatment Modalities for Anxiety Disorders

Treatment of anxiety disorders generally involves both pharmacotherapy and psychotherapy.



## PHARMACOTHERAPY

Pharmacotherapy includes antidepressants and benzodiazepines.

**Antidepressant** agents are the drugs of choice in the treatment of anxiety disorders, particularly the newer agents, such as selective serotonin reuptake inhibitors (SSRIs), which have a safer adverse effect profile and higher ease of use than the older tricyclic antidepressants (TCAs) (Bhatt, 2019). Some antidepressants may cause an initial increase in anxiety, except when given at very low doses.

Intravenous or oral acute sedation with **benzodiazepines** can be used for patients with panic disorder; however, they can produce physiological and psychological dependence and are recommended only as an initial adjunct while SSRIs are titrated to an effective dose. They are then tapered off over a period of 4 to 12 weeks (Bhatt, 2019).

MEDICATIONS FOR TREATMENT OF ANXIETY DISORDERS		
Type	Examples	Common Side Effects
<b>Antidepressants</b>	<b>SSRIs</b>	<ul style="list-style-type: none"> <li>• Drowsiness</li> <li>• Nausea</li> <li>• Dry mouth</li> <li>• Insomnia</li> <li>• Diarrhea</li> <li>• Agitation</li> <li>• Dizziness</li> <li>• Sexual function changes</li> <li>• Headache</li> </ul>
	<b>Tricyclics (TCAs)</b>	<ul style="list-style-type: none"> <li>• Orthostatic hypotension</li> <li>• Urine retention</li> <li>• Weight gain</li> </ul>
<b>Benzodiazepines</b>	<ul style="list-style-type: none"> <li>• Alprazolam (Xanax)</li> <li>• Clonazepam (Klonopin)</li> <li>• Clorazepate (Tranxene)</li> <li>• Diazepam (Valium)</li> <li>• Lorazepam (Ativan)</li> <li>• Oxazepam (Serax)</li> </ul>	<ul style="list-style-type: none"> <li>• Drowsiness</li> <li>• Dizziness</li> <li>• Nausea</li> <li>• Blurred vision</li> <li>• Headache</li> <li>• Confusion</li> <li>• Fatigue/tiredness</li> <li>• Nightmares</li> <li>• Tolerance</li> <li>• Addiction</li> </ul>



<b>Other anxiolytics</b>	<ul style="list-style-type: none"> <li>• Buspirone (BuSpar)</li> </ul>	<ul style="list-style-type: none"> <li>• Nausea</li> <li>• Headaches</li> <li>• Changes in dreams</li> <li>• Dizziness</li> <li>• Drowsiness</li> <li>• Lightheadedness</li> </ul>
(Bhatt, 2019; Bystritsky, 2019)		

There are many **concerns** when a patient is placed on benzodiazepines for treatment of anxiety disorders:

- Benzodiazepines are schedule IV controlled substances and have the potential for abuse, addiction, and diversion.
- They should be used with extreme caution in older adults due to the risk for excessive sedation, confusion, falls, and fractures.
- When combined with other sedatives or alcohol, the risk for lethal overdose increases.
- Many drug interactions can occur with benzodiazepines, and a drug interaction screen should be completed each time a new drug is added to or discontinued in the patient’s treatment regimen.
- Kava, St. John’s wort, grapefruit, and grapefruit juice interactions are known to occur with certain benzodiazepines as well as with buspirone.
- They should not be used during pregnancy or breastfeeding.
- Physical dependence can occur after prolonged or even short-term treatment in some patients.
- They should be discontinued slowly to minimize withdrawal symptoms.  
(Anderson, 2019; Bystritsky, 2019)

## PSYCHOTHERAPY

Although medications are the quickest way to treat anxiety disorders, it is agreed that for long-term improvement, patients should combine medications with psychotherapy.

- **Cognitive-behavioral therapy** has been found to be effective in treating all forms of anxiety disorders. CBT is a problem-focused method which assumes that anxiety is a result of a maladaptive response to inaccurate or negative thinking that causes dysfunctional behavior, and focuses on exploring the patterns of thinking that lead to inappropriate responses (Bhatt, 2019).



- **Exposure therapy** treats anxiety disorders in a safe environment by exposing patients to their fears in a systematic and secure way and attempts to counter maladaptive signals by confronting the fear (APA, 2019a).

## CRANIAL ELECTROTHERAPY STIMULATOR

In 2019, the FDA approved a cranial electrotherapy stimulator (CES) that delivers micro pulses of electrical current across the brain. It has been found to reduce anxiety, depression, and insomnia. It uses Bluetooth-enabled headphones and is managed through an app (Brooks, 2019).

## The Patient with Signs and Symptoms of Anxiety Disorder

Because anxiety disorders manifest with a number of physical symptoms, patients who present with symptoms suggesting an anxiety disorder should have a physical examination and basic laboratory studies to rule out the many medical conditions that may present with anxiety-like symptoms. Anxiety disorders have one of the longest differential diagnosis lists of all psychiatric disorders and can be due to a wide variety of medical or psychiatric syndromes. Symptoms can also be the result of certain medications.

Patients with panic disorder frequently present to the emergency department with the complaint of chest pain, dyspnea, and the fear that they are experiencing a heart attack. Others with an anxiety disorder may exhibit **physical signs** of anxiety such as tremor, sweaty palms, restlessness, and distractibility. Patients may also complain of other **physical symptoms** including:

- Tachycardia
- Tachypnea
- Dyspnea
- Increased sweating
- Stomach cramping
- A lump in the throat or inability to swallow
- Urinary frequency
- Dry mouth
- Nausea
- Diarrhea
- Headache, neck or backaches  
(Bhatt, 2019)

It is common for patients with these symptoms to present to health professionals repeatedly, with pressing but long-standing concerns that prove to be medically unexplained.



Patients suspected of having an anxiety disorder should have a complete physical examination and a workup that includes a complete blood count, chemistry profile, thyroid function tests, EKG, urinalysis, and urine drug screen. For those with a higher index of suspicion of other medical causes, more detailed evaluations are indicated (Bhatt, 2019).

Components of an **assessment and psychiatric evaluation** should include:

- A substance abuse history, including alcohol, prescription drugs, caffeine, and nicotine
- A medical history that focuses on possible contributing factors relating to current medical disorders or medication side effects
- A family psychiatric history
- A social history that screens for stressful events and past sexual, physical, and emotional abuse, and emotional neglect (Baldwin, 2018)

## Responding to the Patient with Anxiety Symptoms

It can be easy to discount someone's anxiety when it is obviously out of proportion to the situation or circumstances. This can lead to minimizing or disregarding the patient's symptoms. Providers can also experience feelings of frustration when they are unable to get the panicked person to calm down. It is also not uncommon for providers caring for an anxious patient or a patient having a panic attack to respond to the contagious atmosphere and become anxious themselves.

These are **effective strategies** when encountering a patient with anxiety disorders:

- Remain calm, present a calm demeanor, and speak in a soothing voice.
- If possible, move to a quiet place.
- Acknowledge what patients are experiencing but remind them that they are not in danger, they will be okay, and you are there to help. Attacks last from 20 to 30 minutes.
- Speak in short, simple sentences and encourage the patient.
- Tell the patient that you are there and will remain with them, and that it is not a problem to do so.
- Remind patients to breathe; if they are hyperventilating, have them breathe into their hands cupped over the mouth and nose or a small paper bag.
- Guide the patient through a simple, distracting physical task, such as raising the arms over the head.



- Ask patients what they need, e.g. “Do you need a drink of water?”
- Offer a distraction:
  - Ask the person to list five things they can see, four things they can touch, three things they can hear, two things they can smell, and one thing they can taste.
  - Talk about mundane things.

The following are **actions to be avoided** in interactions with such patients:

- Touching patients. Patients experiencing a panic attack are concerned about survival, experience serious threat to self, and usually distort intentions of those who invade their personal space.
- Telling patients experiencing a panic attack to calm down. This suggests that they have control over their symptoms and can result in increased anxiety.
- Telling patients they have nothing to fear or be nervous about. This implies that their fear is unfounded. These patients usually already understand there is no reason to be so anxious but are unable to prevent the attack from finishing its course.
- Telling patients that their behavior is embarrassing. This can increase anxiety and feelings of shame.
- Telling patients they are overreacting. Minimizing can be discouraging, increase the patient’s discomfort, and make it even harder for them to calm down.

When the level of anxiety has been reduced, explore with patients the possible reasons for its occurrence so that they can learn to interrupt escalating anxiety in the future. Discuss ways to interrupt the progression, such as relaxation techniques, brisk walks, or meditation (Townsend, 2015; Vera, 2016).

## CASE

### A Patient Having a Panic Attack

Andrew is a visiting nurse caring for Rhiddhi’s grandmother, who is recovering from a surgical procedure. Andrew arrives at her home to change her dressings. When he has finished, Rhiddhi, who is 31 years old, enters the room. Andrew notices that Rhiddhi is quite short of breath and appears pale and frightened. He asks her how she is feeling, and she says she is feeling dizzy, her heart is pounding, and she can’t breathe. She says she is having a panic attack and that she’s had them before. Andrew walks with her to the sofa.

Andrew says to her, “Rhiddhi, come sit down on the sofa with me. You’re having a panic attack, and it will be over soon. You’re safe here. You’ll get through this.”



Andrew continues, speaking slowly and in a soothing voice: “You are doing a great job, Rhiddhi. You’ll be okay. I’m here to help you. I’ll stay with you. I’m okay staying here with you.”

Andrew begins to model slow breathing. He breathes in through his nose for a count of 4 seconds and out through his mouth for 8 seconds and says: “Rhiddhi, look at me. I’m breathing slowly. Follow my breathing.”

When Rhiddhi’s breathing has begun to slow down, Andrew asks her to focus on a physical task: “Good, Rhiddhi. Now raise your arms over your head like this.”

Rhiddhi raises her arms. Andrew then says, “Okay, now put them in your lap.” They both lower their arms.

Andrew asks her to repeat the movement. “Let’s do that again.” Rhiddhi responds by following along with Andrew. Andrew says, “Good, Rhiddhi. Now raise both arms over your head. Like this.”

As they raise and lower their arms, Andrew asks, “Have you been to the new supermarket yet?” Rhiddhi, becoming calmer, replies, “No, not yet.”

“Well, it’s really quite beautiful,” replies Andrew.

### **Discussion**

Andrew recognizes that Rhiddhi is experiencing serious physical symptoms, but when she tells him she is experiencing a panic attack, which she has had before, it allows him to change his initial reaction from her physical symptoms to focus instead on her psychological symptoms. He begins by staying calm and speaking quietly while guiding her to a comfortable place. Andrew verbally encourages Rhiddhi and reassures her that she is safe and that he will remain with her.

Andrew asks her to focus on performing slow breathing, and when she makes an effort to do so, he instructs her to perform a physical task in order to distract her from her symptoms. As she follows along, he attempts to distract her further by discussing a mundane matter (the supermarket).

At no point during his intervention does Andrew tell Rhiddhi there are no grounds for her fear (accepting). He does not minimize her symptoms, shame her in any way, or tell her to calm down.



## PSYCHOTIC DISORDERS

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A psychotic disorder involves a loss of contact with reality. At some point in their lives, 13% to 23% of people experience psychotic symptoms. The cause of psychotic disorders is not well established, but research has implicated abnormalities in the semantic system, which refers to the relationship between words, phrases, signs, or symbols and what they stand for. Psychotic disorders are often accompanied by general disorganization and problems with executive functioning and include:

- Fixed false beliefs (delusions)
- Paranoia
- Hallucinations
- Feelings incongruent to the situation
- Social isolation
- Impaired functioning at home, work, school
- Odd behaviors
- Disorganized behaviors

Evidence for the presence of a psychotic disorder includes:

- Poverty of speech: restricted, brief, unelaborated responses
- Poverty of speech content: adequate quantity but vague
- Pressured speech: increased rate and quantity, loud and difficult to interrupt
- Distractible speech: difficulty staying on topic due to nearby distractions
- Tangentiality: totally irrelevant replies to questions
- Derailment (loosening of associations): marked impairment maintaining topic
- Incoherence (word salad, flight of ideas): severe lack of cohesive speech, illogicality
- Clanging: word choice is governed by word sound rather than meaning; rhyming or punning
- Neologism: the creation of new “words”
- Word approximations: unconventional word use
- Circumstantiality: excessively indirect, includes irrelevant details
- Loss of goal: failing to arrive at the goal of a statement
- Perseveration: excessive repetition of words, ideas, or subject
- Echolalia: repeats words or phrases of person speaking



- Blocking: interruption of speech while seemingly in pursuit of a goal
- Stilted speech: odd language use, i.e., formal, pompous, outdated, or quaint
- Self-reference: refers the subject of conversation back to oneself
- Paraphasic errors: word mispronunciation, slip of the tongue, substitution of an inappropriate word to make a specific statement  
(Rivkin & Barta, 2017)

## Schizophrenia

Schizophrenia is a severe and chronic psychotic disorder that usually starts between the ages of 16 and 30. In rare instances, children have schizophrenia. This disorder involves the breakdown in the relationship between thought, emotion, and behavior, leading to faulty perceptions, inappropriate behaviors and feelings, withdrawal from personal relationships and reality into fantasy and delusion, and a sense of mental fragmentation (NIMH, 2016).

### SCHIZOPHRENIA DSM-5 DIAGNOSTIC CRITERIA

- A. To meet the criteria the patient must have experienced at least two of the following symptoms:
1. Delusions
  2. Hallucinations
  3. Disorganized speech
  4. Disorganized or catatonic behavior
  5. Negative symptoms
- B. At least one of the symptoms must be the presence of delusions, hallucinations, or disorganized speech.
- C. Continuous signs of the disturbance must persist for at least six months, during which the patient must experience at least one month of active symptoms (or less if successfully treated), with social or occupational deterioration problems occurring over a significant amount of time.
- D. The disturbance is not caused by the effects of a substance or another medical condition.  
(APA, 2013)

**Symptoms** of schizophrenia are placed in four domains:

- Positive: psychotic symptoms including hallucinations (usually auditory), delusions, and disorganized speech and behavior



- Negative: inertia, decrease in emotional range, poverty of speech, and loss of interest and drive
- Cognitive: deficits in working memory, attention, executive function, understanding nuances and subtleties of interpersonal cues and relationships
- Mood: may be cheerful or sad in a way that is difficult to understand, often depressed (Frankenburg, 2018)

## Other Psychotic Disorders

Besides schizophrenia, other types of psychotic disorders include:

- **Schizophreniform:** Similar to schizophrenia, but functional decline does not need to be present
- **Schizoaffective:** Psychotic symptoms concurrent with a major mood episode
- **Delusional disorder:** Characterized by presence of delusion(s) only
- **Brief psychotic disorder:** Often associated with an intense stressor or traumatic event

## Risk Factors for Psychotic Disorders

Factors that increase the risk for development of a psychotic disorder include:

- Having a first-degree relative with schizophrenia
- Perinatal maternal malnourishment or viral disease
- Heavy cannabis use in adolescents 15 to 17 years of age (may hasten onset) (Frankenburg, 2018)

## Consequences Associated with Psychotic Disorders

There are profound consequences for individuals with psychotic disorders. The prognosis for these patients is guarded, and full recovery is unusual. Persons who develop psychotic disorders in adolescence may experience interruption in development tasks. Few are able to finish an education or maintain employment, and many slide into poverty, homelessness, or incarceration. The disorder impacts families, and their responses can affect the course of the patient's illness. Schizophrenia is associated with social dysfunction, and many have few or limited social relationships outside of their immediate families (Frankenburg, 2018).



## Psychotic Disorders in Children and Adolescents

Schizophrenia has been diagnosed reliably in children older than 7 years; however, schizophrenia with onset in childhood (prior to 12 years of age) is relatively rare and onset is typically quite gradual. There is uncertainty regarding prevalence, but the disorder increases dramatically once children reach 13 years of age.

It may be difficult to differentiate common childhood phenomena such as imaginary friends or magical thinking from true delusions and hallucinations. Children are less likely to experience psychotic symptoms as alien to their experience than are adults, as young children do not have a firm concept as to what normal experiences involve.

The most difficult symptom to diagnose is disorganized speech, such as derailment, loose associations, tangentiality, incoherence, and word salad. Children with schizophrenia speak less than healthy children and show poorer discourse skills.

There is an excess ratio of boys to girls when onset is prior to 12 years of age. After age 12, the sex distribution is nearly equal (Beauchaine & Hinshaw, 2017).

## Psychotic Disorders in Older Adults

Psychotic disorders may continue into old age, or they may manifest for the first time during senescence. In most instances, psychotic disorders that manifested in early life show a decline as the individual ages. Late-onset schizophrenia after age 60 is not common, but when it does occur, it often is characterized by delusions or hallucinations of a persecutory nature. Delirium is one of the most common and critical forms of psychosis in the older adult, and neurocognitive disorders are common causes of psychopathology, especially Alzheimer's disease (Townsend, 2015).

## Screening for Psychotic Disorders

There are several **screening tools** available to assess for symptoms of psychosis. These include:

- Prime Screen-Revised (PS-R) is a self-administered questionnaire designed to quickly assess individuals at risk for developing a psychotic disorder.
- Structured Interview for Psychosis-Risk Syndromes (SIPS) is a screening tool designed to identify early symptoms of psychosis and to identify individuals with psychosis-risk syndromes.
- Youth Psychosis at Risk Questionnaire-Brief (YPRQB) is a brief and easy tool to assess self-reported subclinical psychotic experiences in adolescents.
- Prodromal Questionnaire-Brief (PDQ-B) asks 21 questions about a person's experiences with early symptoms of psychosis. A positive score on this test suggests the need for further evaluation by a qualified professional trained in recognizing early



symptoms of psychosis and is considered the first step in a two-stage screening process.

(MHA, 2018c)

## Treatment Modalities for Psychotic Disorders

Some patients with psychosis require inpatient care. Residential and inpatient psychosis treatment facilities provide around-the-clock care for those who need more help than an outpatient program offers. Others may have a condition that can be managed at home along with outpatient psychotherapy.

### PHARMACOTHERAPY

Antipsychotic medications are universally indicated for the treatment of psychotic disorders. These medications are effective in the treatment of acute and chronic psychotic disorders and for maintenance therapy to prevent exacerbation of symptoms. These are referred to as “typical” (first-generation, conventional antipsychotics) or “atypical” (second generation or newer antipsychotics).

MEDICATIONS FOR TREATMENT OF PSYCHOTIC DISORDERS		
Type	Examples	Common Side Effects
<b>Typical antipsychotics</b>	<ul style="list-style-type: none"> <li>Chlorpromazine (Thorazine)</li> <li>Fluphenazine (Prolixin, Prolixin Deconate)</li> <li>Trifluoperazine (Stelazine)</li> <li>Perphenazine (Trilafon)</li> <li>Thioridazine (Mellaril)</li> </ul>	<ul style="list-style-type: none"> <li>Slowed thinking</li> <li>General sluggish feeling</li> <li>Dystonia</li> <li>Parkinsonian symptoms</li> <li>Restlessness</li> <li>Rigidity</li> <li>Tardive dyskinesia (abnormal movements of face, tongue, dysphagia)</li> <li>Tremor</li> <li>Agranulocytosis</li> </ul>
<b>Atypical antipsychotics</b>	<ul style="list-style-type: none"> <li>Aripiprazole (Abilify)</li> <li>Asenapine (Saphris)</li> <li>Brexipipine (Rexulti)</li> <li>Cariprzine (Vraylar)</li> <li>Clozapine (Clozaril, FazaClo)</li> </ul>	<ul style="list-style-type: none"> <li>Increased risk of diabetes</li> <li>Weight gain</li> <li>Difficulty sleeping</li> <li>Sexual dysfunction</li> <li>Drowsiness</li> </ul>



	<ul style="list-style-type: none"> <li>• Iloperidone (Fanapt)</li> <li>• Lurasidone (Latuda)</li> <li>• Olanzapine (Zyprexa)</li> <li>• Paliperidone (Invega)</li> <li>• Quetiapine (Seroquel)</li> <li>• Risperidone (Risperdal)</li> <li>• Ziprasidone (Geodon)</li> </ul>	<ul style="list-style-type: none"> <li>• Drooling</li> <li>• Difficulty concentrating or speaking</li> <li>• Restlessness</li> <li>• Shuffling walk</li> <li>• Tremor</li> <li>• Agranulocytosis (especially with clozapine)</li> </ul>
(Fookes, 2018; Mayo Clinic, 2018e)		

The many benefits of antipsychotic medications are often negated by their many **adverse effects**. In general, the older typical antipsychotic drugs tend to have more serious side effects, but the atypical antipsychotics also can produce side effects. It is important for healthcare providers to be aware of the many problems that can arise in patients they are caring for who are being treated with these medications and to monitor them carefully taking the following into consideration:

- Tardive dyskinesia (TD) is considered the worst complication that develops after months or years taking a drug. It manifests with involuntary movements of the lower face, extremities, and/or trunk muscles as well as other signs and symptoms, and they persist after medication is discontinued. However, they also may be permanent.
- Neuroleptic malignant syndrome is one of the most dangerous adverse effects of antipsychotics. It is a medical emergency, often requiring intensive care, that manifests with fever, autonomic instability, rigidity, and altered mental status.
- Neutropenia, the presence of too few infection-fighting neutrophils, and the more serious form, agranulocytosis, are most commonly a side effect of clozapine. Both increase susceptibility to infection and require monitoring of granulocyte counts.
- Impulse control disorders or behavioral addictions are associated with the atypical antipsychotic aripiprazole (Abilify).
- Excessive production of saliva (sialorrhea) is a side effect common for those treated with clozapine and can result in aspiration pneumonia.
- Weight gain is a significant issue, increasing the risk of adverse health outcomes. Those taking an atypical antipsychotic should have weight, glucose levels, and lipid levels monitored regularly.
- Sudden cardiac death is associated with antipsychotic medications.
- Orthostatic hypotension is a risk factors for all antipsychotics, requiring blood pressure monitoring to prevent dizziness, syncope, falls, and worsening of angina.



- Anticholinergic side effects include dry mouth, constipation, blurred vision, increased pupil size, tachycardia, and urinary incontinence.
- Prolactin increase can lead to sexual dysfunction, anovulation, inappropriate lactation, and gynecomastia.
- Sedation may be a factor in the increased risk for venous thromboembolism.  
(Stroup & Gray, 2018; Freudenreich & McEvoy, 2018; Wijdicks, 2019; Jibson, 2019d)

## PSYCHOTHERAPY

Psychosocial therapies are indicated along with medications and may include:

- **Cognitive behavior therapy** decreases positive symptoms, reduces distress, and improves quality of life.
- **Relapse therapy** involves providing psychoeducation to the family that specifically targets the high level of stress among members, which can lead to relapse.
- **Social skills training** strengthens interpersonal competence; social problem-solving training takes place in group settings.
- **Metacognitive reflection and insight therapy** is aimed at deficits in the ability to form complex and integrated representations of self and others resulting in difficulties engaging in goal-directed activities in social and vocational settings.
- **Cognitive remediation** aims to improve quality of life through directed development of basic skills, focusing on development of attention, memory and executive function, or on improvement of social cognition and recognition of emotions.  
(Muse, 2018; Hillis et al., 2018)

## The Patient with Signs and Symptoms of Psychotic Disorder

It is difficult to identify psychotic symptoms in a patient who is not in a specialized mental health setting. Patients rarely complain of hallucinations or delusions, and it is often family members who report that something is “not quite right” with the person. In the early stages of psychosis development, abnormal perceptions and thought disorder may not be obvious and delusions will not be well-formed. The **hallmark features**, however, are increasing distress and decline in functioning. A person may present with:

- Sleep disturbance
- Anxiety, irritability, or depressive features
- Social withdrawal
- Unexplained decline in academic or work performance



- Incoherent or unusual speech
- New or unusual preoccupation with mystical or religious themes
- Paranoid ideations

An important distinction must be made between psychotic symptoms caused by delirium and/or medical conditions. Delirium is most often diagnosed in older or hospitalized patients and must be ruled out. **Delirium** can be caused by:

- Hypo- or hyperglycemia
- Hypoxia
- ICU psychosis
- Medication interactions or withdrawal
- Sepsis
- Serum electrolyte or metabolic abnormalities
- Sleep deprivation

**Medical causes** for chronic disturbance in mental function can be due to:

- Endocrine disorders: thyroid disease, parathyroid disease, adrenal disease
- Hepatic and renal disorders: hepatic or uremic encephalopathy
- Infectious diseases: HIV, syphilis, herpes simplex encephalitis, Lyme disease, prion disorders
- Autoimmune inflammatory or demyelinating disorders: multiple sclerosis, systemic lupus erythematosus, leukodystrophies
- Illicit drug use (the most common medical cause of acute psychosis)
- Metabolic disorders or acute processes: Wilson's disease, acute intermittent porphyria
- Neurodegenerative disorders: Alzheimer's disease, dementia with Lewy bodies, Parkinson's disease, Huntington's disease, temporal lobe epilepsy
- Neurological disorders: traumatic brain injury, space-occupying lesions, seizure disorders, stroke, Parkinson's disease
- Oncological conditions: ovarian teratoma, lung cancer
- Vitamin B<sub>12</sub> deficiency  
(Marder & Davis, 2019; Griswold et al., 2015)



Patients who present with symptoms that are suggestive of a psychotic disorder should have a complete medical and mental status examination. A history includes establishing a timeline of symptoms, a psychiatric history including prior diagnoses and treatments, a substance use history, a family history for psychiatric illness, and a complete medical history.

Social history may reveal recent stressors or significant changes in the patient's life, and a travel history may suggest exposure to infection, such as malaria. A dietary history is important to identify possible nutritional deficits, a common finding in frail older persons. Occupational or environmental exposures should be noted, and a history of multiple sex partners may suggest HIV or syphilis (Griswold et al., 2015; Sullivan et al., 2018; Sami et al., 2017).

## Responding to the Patient with Psychotic Symptoms

### THE PATIENT WHO IS HALLUCINATING

A hallucination is a sensory experience in which a person can see, hear, smell, taste, or feel something that is not there. It is a distortion in a person's perception of reality and is accompanied by a strong sense that it is real. **Types** of hallucinations include:

- Visual: involve the sense of sight
- Auditory: involve the sense of hearing
- Olfactory: involve the sense of smell
- Gustatory: involve the sense of taste
- Tactile: involve the sense of touch
- Hypnogogic: vivid and dreamlike, occurring at the onset of sleep
- Hypnopompic: vivid and dreamlike, occurring on awakening
- Kinesthetic: involve the sense of bodily movement
- Lilliputian: involve seeing things, people, or animals as smaller than they would be in reality
- Somatic: involve the perception of a physical experience occurring within the body (Dreyden-Edwards, 2018)

**Signs** that a person is hallucinating include:

- Intent listening when there is nothing to hear
- Wild eye movements
- Talking to nonpresent persons



- Inappropriate facial expressions
- Increased signs of fear and/or agitation
- Preoccupation or being unaware of surroundings
- Isolating and using radio or TV to drown out the “voices”

**Responding** to a patient who is hallucinating requires the provider to:

- React calmly and quickly with reassuring words. Speak slowly, clearly, and keep sentences simple as the person may have difficulty concentrating.
- Ask the patient directly if they are hallucinating.
- Do not respond as if the hallucinations are real (e.g., “Hey, you voices, stop telling her these things!”).
- Do not argue with the patient or deny the patient’s experience, but do suggest your own perceptions.
- Use touch only after asking permission to do so; some psychotic patients are prone to react negatively.
- Acknowledge the feelings behind the hallucination and try to find out what it means to the person.
- Use distractions. Hallucinations often subside in well-lit areas where others are present. Try to distract with music, conversation, or other enjoyable activity.
- Modify the environment by turning off the television or radio or turning on lights to reduce shadows.
- Help with reality testing by comparing the patient’s perceptions with those of others (e.g., if inpatient, if voices are telling the patient to harm self or others, follow unit protocol; if outpatient, notify physician, police, or administration and evaluate for need for hospitalization).
- Stay with hallucinating patients and direct them to tell the voices to go away; repeat often in a matter-of-fact manner. The patient can learn to push the voices aside when given repeated instructions to do so.
- Monitor medication compliance as well as physical health; be certain antipsychotic medications are being prescribed.  
(Townsend, 2015; Martin, 2016)



**CASE****A Patient Who Is Hallucinating**

Michaela is 20 years old and was admitted for treatment of an asthma exacerbation. She was recently diagnosed with schizophrenia and is currently on an antipsychotic medication. The nursing staff have noticed and reported that Michaela frequently has been seen to be watching something moving about the room, talking, and laughing at something unseen and unheard by any of them.

This morning when Sharon entered the room, she found Michaela looking frightened, crying, and talking to someone who wasn't there. She approached her bed slowly and spoke softly.

Sharon: "Michaela, don't worry, I'm here and will protect you. What are you seeing now?"

Michaela: "Him! Can't you see him?"

Sharon: "No, Michaela, I don't see anyone. Is he speaking to you?"

Michaela: "Yes, yes! Can't you hear him?"

Sharon: "I don't see or hear anything, but I can see you are very upset about this."

Michaela: "Yes, it's awful!"

Sharon: "What is he saying to you?"

Michaela: "He's telling me I'm a terrible person and should die!"

Sharon: "I know this must be very scary for you. Michaela, is it all right if I hold your hand?"

Michaela: "Yes."

Sharon took Michaela's hand and said: "Let's get out of bed and take a ride down to the dayroom and talk to some other people."

While they were going to the dayroom, Sharon began to help with reality testing by saying: "It doesn't appear that your roommate has been seeing or hearing the same things you are."

**Discussion**

Sharon became aware that Michaela was exhibiting signs of hallucinating. Because Michaela was obviously frightened, Sharon reacted calmly and reassured the patient that she was safe and not alone. To be certain of her observation, Sharon then asked Michaela if she was seeing and hearing things and encouraged a description of her perceptions. When Michaela replied that she was, Sharon acknowledged how upset Michaela must be. Sharon did not tell the patient that her hallucination was not true, since to Michaela the hallucinations seemed quite real. Instead, she told Michaela that she herself was not seeing or hearing things, thereby avoiding an argument about what was or was not true. Sharon asked the patient to describe what was happening and again attempted to reassure her by asking if she could touch her.

In order to distract Michaela from her hallucinations, Sharon then suggested they leave the room and go to a place where there were others. She also began a conversation to help



Michaela test reality by suggesting that her perception of what is real is not the same as that compared to her roommate.

Sharon must report and document this incident, since it will assist in determining the effectiveness of the medication Michaela has recently been started on.

## THE PATIENT WITH DELUSIONS

A delusion is a fixed, and oftentimes bizarre, belief that someone clings to despite all evidence to the contrary. Delusional disorders are **based on a theme**, including:

- Erotomania: the belief that someone is in love with them, usually someone important or famous, which can contribute to stalking behaviors.
- Grandiose: an overinflated sense of worth, power, knowledge, or identity, of the belief that they have a special talent or made a great discovery
- Jealousy: the belief that a spouse or sexual partner is unfaithful
- Magical thinking: the belief that their thoughts or behaviors have control over specific situations or people
- Persecutory: the belief that they or someone close to them is being mistreated, spied upon, or planning to harm them; may include repeated complaints to legal authorities
- Reference: the view that all events occurring in the environment refer to oneself
- Somatic: the belief that they have a physical defect or medical problem
- Mixed: a combination of two or more types listed above  
(Bhandari, 2018)

When interacting with a person who is having a delusion, it is important to understand that the delusion cannot be challenged and that the patient cannot be dissuaded despite evidence to the contrary. **Effective responses** to such a patient include:

- Do not challenge the delusion directly; this can increase defensiveness and reinforce the delusion. Challenging a delusion shuts off any further interaction.

Clinician (incorrect): “That’s simply not true that your infection is due to parasites in the drinking water. In reality, you have an infection caused by bacteria.”

- Do not go along with or feed the delusion, as this will strengthen the person’s belief.

Clinician (incorrect): “So, you say you are the queen of England. How long have you been on the throne?”



- Convey acceptance of the person's need for the false belief, but indicate that you do not share the belief. The person must understand that you do not view the belief as real.

Clinician: "So, you believe you are the president of the United States. That's very interesting, but I believe the president is (name of president)."

- Attempt to understand the significance of delusional beliefs by seeking more information. This challenges the person in a healthy way, forcing a discussion about how the belief developed.

Patient: "The post office is spying on me every day."

Clinician: "What makes you believe the post office is spying on you?"

Patient: "Because they send someone to my house every day to look in my front door."

Clinician: "Do they come on Sundays too?"

Patient: "Well, no, as a matter of fact, they don't."

- Recognize that the delusion is the patient's perception and inquire about it so as to uncover the feelings related to the delusion. This can help to decrease anxiety.

Patient: "My roommate is trying to poison me."

Clinician: "You sound like you are afraid that she's trying to harm you."

Patient: "Those people are trying to control me with their thoughts."

Clinician: "It must make you uncomfortable to feel so helpless."

- Distract from delusion by engaging in reality-based activities. This can decrease delusional thinking and focus the patient's attention externally.

Clinician: "Let's put on your robe and go brush your teeth now."

- Explain all procedures thoroughly to decrease a patient's anxiety related to fear of being tricked.
- Avoid unnecessary touch and use gestures carefully, since they can be misinterpreted and cause suspicion about intent, such as aggression or a sexual advance.
- Utilize safety measures to protect the patient and others. It is important to remember that a patient experiencing delusions cannot make good decisions, and if delusions are not addressed, they can cause the person to act upon them. For example, the person



experiencing erotomania may begin to harass or stalk the love object, and the person who believes the post office is spying on him may one day threaten the postal carrier. (Townsend, 2015; Martin, 2016)

## CASE

### A Patient with Delusions

Yuan is 25 years old and has been admitted for treatment of septicemia. He had stepped on a nail four weeks prior to admission and attempted to treat the wound by soaking his foot in hot water. A piece of the nail had remained embedded in the foot and was surgically removed two days ago. Today during wound treatment, he begins speaking with his nurse, Julian:

Yuan: "I'm infested with these awful parasites. They're crawling all around inside me."

Julian: "That's quite interesting. How did this start?"

Yuan: "When I was soaking my foot, a bug fell into the water, and before I could get it out, the water became infested with the parasites the bug was carrying."

Julian: "What happened after that?"

Yuan: "The parasites got into the wound, and now they're crawling around inside of me and I haven't been well since."

Julian: "Well, that is quite interesting. Let's get you set up now to eat. The breakfast trays are on their way."

### Discussion

Julian considered that Yuan may be having a somatic delusion. While he could have responded that Yuan does indeed have parasites (bacteria) in his body that are making him sick, instead, he first encouraged the patient to describe the perception. Yuan's story confirmed that his belief was a delusion. Therefore, Julian chose distraction as a good response in this situation.

## PERSONALITY DISORDERS

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A personality disorder is a way of thinking, feeling, or behaving that deviates from the expectations of the culture and causes distress or problems functioning. There are several types of personality disorders. Common to them all is that, without treatment, the behaviors and experience are long-lasting and inflexible. Personality disorder patterns begin by late adolescence or early adulthood.

### Borderline Personality Disorder

Historically the term *borderline personality disorder* (BPD) was used to describe individuals thought to have a mental illness that bordered between neurosis and psychosis. The term *neurosis* is no longer in use today, and personality disorder is no longer strictly considered a



psychotic disorder, although psychotic symptoms in these disorders are common (D'Agostino et al., 2019).

The cause of borderline personality disorder is not known, but most hypotheses suggest it is due to a combination of genetic, neurobiological, and psychosocial factors. The **core features** of BPD are impulsive-behavioral dyscontrol, unstable and stormy interpersonal relationships, unstable self-image and affect, and cognitive-perceptual symptoms (suspiciousness, ideas of reference, paranoid ideation, illusions, derealization, depersonalization, and hallucination-like symptoms).

BPD is complex, challenging, and notoriously difficult to treat. First-line treatment is psychotherapy. BPD can wreak total havoc on the person with the illness as well as their loved ones. They can be exhausting and engage in “black-and-white” thinking, meaning others are either 100% for them or 100% against them, “all good” or “all bad” (referred to as *splitting*) (Slotema et al., 2018; Skodol, 2019).

#### **BORDERLINE PERSONALITY DISORDER DSM-5 DIAGNOSTIC CRITERIA**

To be diagnosed with BPD, the following must be present:

- A. Significant impairments in personality functioning manifested by:
  1. Self-functioning (a or b):
    - a. Identity: empty feeling; markedly impoverished, poorly developed, or unstable self-image
    - b. Self-direction: instability in goals, aspirations, values, or career goals
  - AND
  2. Impairments in interpersonal functioning (a or b):
    - a. Lacks empathy for others, perceives others negatively
    - b. Intense, unstable, and conflicted close relationships; fear of abandonment
- B. Pathological personality traits:
  1. Negative affects:
    - a. Emotional instability
    - b. Intense anxiety or panic
    - c. Separation insecurity: fear of rejection and/or separation from significant others
    - d. Depression: pessimism, shame, low self-worth, suicidal ideation and behavior



2. Disinhibition:
    - a. Impulsivity, self-harming behavior under distress
    - b. Risk taking: lack of concern for personal danger
  3. Antagonism
    - a. Hostility: persistent or frequent angry feelings in response to trivial slights and insults
- C. Impairments are:
1. Stable across time and consistent across situations
  2. Not normative for the person's developmental stage or sociocultural environment (e.g., tantrums)
  3. Not due to effects of a substance or general medical condition (APA, 2013)

BPD is common in both the general population and in clinical settings. Studies have shown that BPD is present in 6.4% of urban primary care patients, 9.3% of psychiatric outpatients, and approximately 20% of psychiatric inpatients. The lifetime prevalence of BPD does not differ between men and women and is often accompanied by co-occurring psychiatric disorders. Eighty-five percent have at least one comorbid mental disorder (e.g., PTSD, eating disorder, substance use disorder).

Impulsive and self-damaging behavior is common and can take many forms. Patients abuse substances, binge eat, engage in unsafe sex, spend money irresponsibly, and drive recklessly. They may engage in nonsuicidal self-injurious behavior, such as cutting or burning, and suicidal threats, gestures, and attempts are common manifestations. Approximately 8% to 12% have been found in retrospective studies to have died by suicide (Skodol, 2019).

## Types of Personality Disorders

There are ten personality disorders, grouped into three categories called *clusters*.

- Cluster A: odd or eccentric behaviors
  - Paranoid personality disorder
  - Schizoid personality disorder
  - Schizotypal personality disorder
- Cluster B: dramatic, emotional, or erratic behavior
  - Borderline personality disorder



- Histrionic personality disorder
  - Narcissistic personality disorder
  - Antisocial personal disorder
  - Cluster C: anxious, fearful behavior
    - Avoidant personality disorder
    - Dependent personality disorder
    - Obsessive-compulsive personality disorder (OCPD) (not to be confused with obsessive-compulsive disorder [OCD])
- (MHA, 2019)

Of these, some of the more common are:

- Antisocial: use of manipulative behaviors directed toward gaining power or material gratification; disregard for others' rights, often violating them; lack of empathy for others
- Histrionic: affective, manipulative, and attention-seeking behaviors
- Narcissistic: angry reactions to fairly minor provocations; a grandiose self-image, with a need for attention and admiration, superficial relationships, and a lack of empathy; generally unhappy and disappointed when not given the special favors or admiration they believe they deserve
- Paranoid: interpret the actions of others as deliberately threatening or demeaning; untrusting, unforgiving, and prone to angry or aggressive outbursts without justification because they perceive others as unfaithful, disloyal, condescending, or deceitful  
(NIH, 2018; MHA, 2018d)

## **Risk Factors for Borderline Personality Disorder**

Risk factors for the development of borderline personality disorder include:

- Being female
- Separation from caregiver(s) early in life
- Either fear of or real abandonment in childhood or adolescence
- Disrupted, chaotic family life during childhood
- Poor communication in the family
- Personal history of substance use or addiction
- Family history of BPD or other mental health disorders
- Sexual, physical, or emotional abuse



Trauma in childhood may or may not be present, but when it is, people with BPD have high rates of childhood physical and sexual abuse (NIH, 2018).

## Consequences Associated with Borderline Personality Disorder

The person with borderline personality disorder does not “do” life successfully. They often experience:

- Difficulty maintaining a stable, nonchaotic home environment
- Problems at work resulting in job loss
- Lack of financial security
- Divorce
- Lack of social support
- Separation from family and friends
- Feeling of worthlessness and poor self esteem
- Substance abuse
- Suicidal ideation and behaviors
- Conflict in interpersonal relationship  
(Belmont Behavioral Hospital, 2018)

## Borderline Personality Disorder in Adolescents

BPD can be reliably diagnosed in adolescents as young as 11 years, and the prevalence in adolescents is around 3%. Because BPD has historically been stigmatized and misunderstood in youth, adolescents with BPD often go unidentified and untreated. Studies show that oppositional defiant disorder (ODD), attention-deficit hyperactivity disorder (ADHD), and marijuana use among male children predict BPD symptoms during early adulthood. The presence of BPD in adolescence is also predictive of negative outcomes in adulthood, such as low academic/occupational attainment, high medical and mental health service utilization, and low partner involvement (Beauchaine & Hinshaw, 2017; Guilé et al., 2018).

BPD and self-injury often co-occur. The age of nonsuicidal self-injury (NSSI) onset is generally between 12 and 16. Active suicide ideation is found in 59% of adolescents with BPD, and NSSI is observed in 58%. It has been reported that 68% of adolescents who were admitted to an emergency department after a suicide attempt presented with BPD (Guilé et al., 2018).

## Borderline Personality Disorder in Older Adults

Personality disorders are very common in older adults, and an increase in the demand for treatment is expected as the population ages. BPD prevalence in the older adult is estimated to be 10%.



Presentation can differ from those in younger age groups, since the more objective and observable behaviors, such as impulsivity and aggression, often decline in intensity and frequency as a person ages. Symptoms that persist with age are emotional instability and dysfunctional interpersonal relationships characterized by a lack of empathy, and the generation of chaotic environments in the home, work, and other places. There is a greater incidence of somatization in older adults, which is often expressed in dramatic and demanding complaints of medical attention (Mattar & Farooq, 2017; Jimenez, 2018).

Most studies on the evaluation and treatment of BPD occur with the adolescent and adult population, and there is very little literature on BPD in older adults and no diagnostic or rating instruments developed for this cohort. Other difficulties include the absence of relatives, which prevents the collection of biographic data, as well as the coexistence of neurological/systemic diseases that overlap the diagnosis. It is interesting to note that patient-reported traits show a decline over time, while coinformant-reported traits show an increase (Mattar & Farooq, 2017; Jimenez, 2018).

## Screening for Personality Disorders

While there are no specific screening tests that can diagnose BPD, there are screening instruments that can assist in identification of personality disorders, including BPD.

- McLean Screening Instrument for Borderline Personality Disorder (MSI-BPD) is a commonly used, 10-item measure based on the DSM-5 diagnostic criteria. It is useful for detecting individuals who may have borderline personality features and is very effective in detecting possible BPD in people who are seeking treatment or who have a history of treatment for mental health problems. However, it is not known whether it is good at detecting BPD in the general public.
- Structured Clinical Interview for DSM-5 Personality Disorders (SCID-5-PD) is a clinician administered or self-reported questionnaire with 108 questions based upon DSM-5 criteria for personality disorders.
- Personality Diagnostic Questionnaire, 4th edition, (PDQ-4) consists of 99 true-false questions that can help screen for different personality disorders.
- Zanarini Rating Scale for Borderline Personality Disorder (ZAN-BPD) is useful for patients who have already been diagnosed with the disorder to determine if there have been any changes over time.  
(Salters-Pednault, 2019)

## Treatment Modalities for Borderline Personality Disorder

Treatment can be problematic, as people with personality disorders tend to externalize, seeing their problems as “out there” and not within themselves. **Psychotherapy** is the first-line treatment for BPD and includes:



- **Dialectic behavioral therapy (DBT)** behaviorally analyzes and manages treatment targets including suicidal/dangerous behavior, treatment-interfering behavior, and quality of life interfering behavior.
- **Mentalization-based therapy** teaches patients to observe their state of mind at each moment and to develop alternative ways to view the subjective experience of themselves and others.
- **“Good psychiatric management”** is treatment developed for use by the general psychiatrist which involves less specified psychotherapeutic techniques. It provides a set of principles and practices to meet the patient’s clinical needs and assists the clinician in avoiding the pitfalls that can occur in the treatment of BPD.
- **Transference-focused therapy** aims to correct the patient’s distorted perceptions of significant others.
- **Cognitive behavioral therapy (CBT)** addresses distorted cognitions about self and others and utilizes behavioral strategies to improve social and emotional function.
- **Schema-focused therapy** combines CBT with psychodynamic techniques to modify maladaptive mental structures that are rooted in childhood experience and are used to organize knowledge of the world.
- **Systems Training for Emotional Predictability and Problem Solving (STEPPS)** is an effective CBT-oriented group therapy that involves skills training and family education.  
(Skodol, 2018)

Treatment may require many months to years, and during periods of crisis the person may require an inpatient stay, participation in a partial hospitalization or intensive outpatient program, or multiple outpatient sessions weekly. Less frequent outpatient treatment may be required during times when there are milder symptoms and greater instability (Skodol, 2018).

Medications are only used as an adjunct to psychotherapy for personality disorders. There are no FDA-approved medications for the treatment of BPD. However, some medications (mood stabilizers, antipsychotics, or antidepressants) may be employed to treat specific symptoms (Skodol, 2019).

### **The Patient with Signs and Symptoms of Borderline Personality Disorder**

Patients who have this particular personality disorder have always been present in medical settings and most often are described as “hard to care for” or “difficult.” Interactions with these patients can make most healthcare providers feel mentally exhausted. Patients may display various **behaviors** that are suggestive, but not diagnostic, of BPD. These may include:

- Aggressive or disruptive behavior: refusing treatment, angry outbursts out of proportion to the situation, demandingness, or intimidation



- Intentional sabotage of medical care: making medical situations worse, such as preventing wounds from healing, which may function as a means to cause self-injury
- Excessive healthcare utilization: seeing a great number of primary care physicians, taking more prescription medications, and being more frequently referred to specialists
- Alcohol and substance misuse, including abuse of prescription medications
- Multiple somatic complaints, attempting to elicit caring responses from others
- Chronic pain syndromes, thought to be related to the inability to self-regulate, including pain
- Sexual impulsivity: greater sexual preoccupation, greater number of sexual partners, and broader range of sexual experience, which may manifest in higher rates of sexually transmitted infections

Providers working with a patient presenting with BPD symptomatology should obtain a history of suicidal thoughts, gestures, or attempts. A social history can reveal a long history of unstable interpersonal relationships and conflict in various settings. Physical exam should include examination of the skin to look for scarring from self-mutilation (note that some patients today are using tattoos to hide their scars) (Sheppard & Duncan, 2018; Sansone & Sansone, 2015).

## Responding to Patients with Borderline Personality Behaviors

Living or working with a person with borderline personality disorder can be challenging. Patients with BPD have very complex interpersonal behaviors that tend to illicit negative responses from those around them, professionals included, who perceive them as unrelenting, time-consuming, having poor coping skills, engaging in crisis behaviors, and demonstrating poor social interactions. As a result, many providers respond to such patients with social distance, less helpfulness, less empathy, more negative emotions and attitudes, and anger.

Healthcare professionals must be aware that it is not possible to change or eliminate the person's behavior, and so the goal is to learn techniques that allow communication in a manner that respects oneself as well as the patient. The first thing to remember is to separate the behavior from the patient, making it clear that it is the behavior and not the patient that is disliked (Sansone & Sansone, 2015).

Certain approaches should be **avoided** when trying to communicate with BPD patients:

- Trying to please the unpleasable
- Getting defensive
- Lecturing the person
- Attempting to rescue the person



For complicated reasons, persons with BPD have a need to provoke others into confrontation. These **provocations and effective responses** include:

- Making sweeping generalizations, exaggerations, and outrageous accusations in an effort to get the other person to discredit or invalidate them. When this occurs, it is helpful to 1) recognize that there is always some element of truth in what the patient is saying and 2) find and validate that element of truth and ignore the exaggeration.

Patient: “You don’t really care whether I get well or not. You’re just here so you can get paid.”

Clinician (based on the element of truth that you do indeed work here): “Well, as you know, I do earn my living working here.”

- Being very demanding and finding nothing that is done to be pleasing in order to make the provider feel helpless and bad about being unable to please them.

Patient: “You can never do anything right for me. You’re hopeless as a nurse.”

Clinician (based on the element of truth of being a nurse and being unable to please the person): “I am a nurse, and I wish I could find a way that would satisfy your demands.”

- Making absurd statements or illogical arguments in order to instigate an argument that will meet a negative need to be discredited or invalidated.

Patient: “I should be able to take my own stitches out whenever I want to.”

Clinician: “I disagree.”

Patient: “What do you mean, you disagree?”

Clinician: “I won’t insult your intelligence by arguing with you.”

- Thinking in black and white (known as *splitting*) which is a common defense mechanism in which the patient behaves one way with one person (all good) and differently with another person (all bad), designed to make one the persecutor and the other the rescuer. This results in disagreements about what the patient has said or done or accused someone of doing or saying. The staff must compare notes, recognize what is happening, and create a plan of care that does not allow the behavior and does not invalidate the patient.

Clinician (in response to splitting actions by the patient): “I was not there, so I cannot have an opinion or make a judgment about that.” or “I refuse to take sides on this issue.”

Other **communication strategies** for clinicians include:

- Delaying: “Why don’t we think about this and talk about it later?”
- Distraction: “Let’s take care of that later when we’ve finished with your bath.”
- Depersonalizing: not taking the person’s comments personally, no matter how cruel or hostile, recognizing they are part of the disorder



- Detaching: avoiding being caught up in an emotional upheaval by withdrawing emotionally from the interaction (Steinman, 2018)

## CASE

### A Patient with Borderline Personality Disorder

Thaddeus is a 27-year-old patient with paraplegia and a history of borderline personality disorder who has been receiving physical therapy from the therapist Sheri. One day, Thaddeus angrily approached Ahmed, the rehab director, and complained that Sheri was being unfair and treating him badly. He insisted that Ahmed assign him to another therapist. Ahmed listened respectfully and responded by telling Thaddeus that he could not do that but that Thaddeus could bring his concerns directly to Sheri. It seemed that this was not the response Thaddeus wanted, and he left disgruntled.

Later, Ahmed approached Sheri to let her know that Thaddeus had come to him and angrily complained about her. Thaddeus didn't say why he was angry and upset but asked to be seen by another therapist. Sheri replied that she had no inkling at all that there was anything wrong between Thaddeus and herself. He was responding well to therapy and was always pleasant. She began to feel angry herself now and said, "I didn't do anything wrong. I don't understand!"

Ahmed listened and then replied, "I think Thaddeus is upset about something, cannot tell you about it, and is going behind your back to me. This may be an example of splitting behavior due to his BPD history." He told Sheri that he had informed Thaddeus to bring up any problems directly with her.

At Thaddeus's next appointment, Sheri brought up what Ahmed had told her and asked him to talk to her about what was bothering him.

Sheri: "Thaddeus, tell me what happened that made you go to Ahmed and tell him you were upset with me."

Thaddeus: "I bet you're angry with me for doing that."

Sheri: "No, I'm not angry. I just want to know how I can help you. What has happened that made you feel upset and angry?"

Thaddeus: "Well, last week you told me I wasn't working hard enough and would never get better."

Sheri: "I disagree."

Thaddeus: "You're saying you didn't tell me that?"

Sheri (based on the element of truth): "It is true that I said we needed to add a new exercise."

Thaddeus: "But you said I wasn't working hard enough."

Sheri: "I disagree. Now, let's move on to do some more work today."



**Discussion**

When Thaddeus went to Ahmed with a complaint about Sheri, Ahmed listened but did not respond and “rescue” Thaddeus, as Thaddeus was likely expecting him to do. Instead, Ahmed directed Thaddeus back to Sheri to discuss his concerns.

When Ahmed described this interaction to Sheri, she was confused, concerned, and then upset with herself, wondering what she had done to make Thaddeus angry. But when Ahmed suggested that Thaddeus may be engaging in splitting behavior due to his BPD diagnosis, making Sheri the “persecutor” and Ahmed the “rescuer,” she considered this possibility and stopped taking Thaddeus’s complaints personally.

When Sheri next met with Thaddeus, she directly confronted the issue, denied being angry, did not attempt to defend herself, remained detached, acknowledged the element of truth in what Thaddeus said, and distracted him to bring him back to the task.

## SUBSTANCE USE DISORDERS

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Many people use substances recreationally. Alcohol is commonly enjoyed socially, millions of people drink caffeinated beverages, many millions smoke, and more and more states are legalizing recreational marijuana use. So, the question is, how does day-to-day use of substances such as these relate to the topic of substance use disorders?

In the United States, fully 28% of adults have unhealthy alcohol use; 25% of those ages 12 and older report “binge” drinking (five or more standard drinks for males, four or more for females) on one occasion; and 18% report some type of illicit drug use in the past year, including nonmedical use of prescription drugs (Saitz, 2018).

In the case of alcohol, there are terms and definitions that describe use that does not yet meet the criteria to be diagnostic of a substance use disorder. These include:

- **Low-risk use:** Below the level identified as hazardous and in situations that are not hazardous
- **Moderate use:** For women, up to one drink per day; for men, up to two drinks per day
- **Risky/at-risk use:** Consumption above recommended daily, weekly, or per-occasion amounts
- **Excessive use:** Binge drinking, heavy drinking, and any alcohol use by people under the age of 21 years and by pregnant women
- **Unhealthy use:** Any use that increases the risk for health consequences
- **Hazardous use:** A pattern of use that increases the risk of harmful consequences



- **Harmful use:** A pattern that results in health consequences in the absence of addiction (O’Connor et al., 2018)

In the past, the *Diagnostic and Statistical Manual of Mental Disorders* used the terms *misuse* and *abuse*, but in the current version (DSM-5) these terms are no longer used.

In order for a person to be diagnosed as having a substance use disorder, certain behaviors must be present. There are four categories of behavior used to determine the presence of a disorder. These are:

1. Impaired control
2. Social impairment
3. Risky use
4. Pharmacological indicators (tolerance and withdrawal)

Among these categories there are 11 criteria that could lead to a diagnosis of substance use disorder. Depending on the number of diagnostic criteria a person meets, a substance use disorder is diagnosed along a spectrum from “mild” to “severe” (see box “DSM-5 Diagnostic Criteria” below) (SAMHSA, 2016).

There are two groups of substance-related disorders: substance use disorders and substance-induced disorders.

**Substance use disorders** are prevalent in particular among those ages 18 to 24 and are diagnosed more commonly in men than women. The DSM-5 recognizes substance use disorders resulting from the use of the following classes of drugs over a 12-month period. The pharmacological mechanisms for each drug class are different, but the reward system is similar for all, i.e., producing pleasurable feelings or euphoria.

SUBSTANCES THAT MAY CAUSE SUBSTANCE USE DISORDERS	
Type	Examples and Common Street Names (not all inclusive)
<b>Alcohol</b>	<ul style="list-style-type: none"> <li>• Beer, wine, liquor (booze, brew, hooch, sauce, suds, liquid courage, hard stuff)</li> </ul>
<b>Cannabis</b>	<ul style="list-style-type: none"> <li>• Marijuana (joint, weed, pot, grass, Mary Jane, Texas tea, locoweed, MJ, hay, stick)</li> <li>• Hashish (hash, bhang, ganja, charas)</li> </ul>
<b>Hallucinogens</b>	<ul style="list-style-type: none"> <li>• Mescaline (cactus, mesc, mescal, big chief, bad seed, peyote)</li> <li>• LSD (acid, cube, microdots, sugar, peace tablets, purple haze)</li> <li>• PCP (angel dust)</li> <li>• Ecstasy (California sunrise, Molly)</li> </ul>



<p><b>Inhalants</b></p>	<ul style="list-style-type: none"> <li>• Nitrites: air deodorizers (Ames, boppers, pearls, bolt, bullet, quicksilver)</li> <li>• Aerosols: paint cans (chroming), deodorant (aroma of men)</li> <li>• Gases: propellants, such as in whipping cream and lighter fluid (shoot the breeze)</li> <li>• Volatile solvents: glue, paint thinner, typewriter correction fluid, rubber cement (whiteout, snotballs)</li> </ul>
<p><b>Opioids</b></p>	<ul style="list-style-type: none"> <li>• Opium (black stuff, poppy, tar)</li> <li>• Morphine (M, white stuff, Miss Emma)</li> <li>• Codeine (terp, syrup schoolboy)</li> <li>• Heroin (junk, horse, smack, Harry, slag, TNT)</li> <li>• Oxycodone (perks, oxy, perkies, O.C.)</li> <li>• Methadone (dollies, done)</li> <li>• Fentanyl (Apache, China girl, jackpot, goodfella)</li> </ul>
<p><b>Sedatives, hypnotics, and anxiolytics</b></p>	<ul style="list-style-type: none"> <li>• Barbiturates: pentobarbital (yellow jackets, yellow birds, Peter, Mickey)</li> <li>• Nonbarbiturate hypnotics: chloral hydrate, Ambien (sleepers)</li> <li>• Antianxiety agents: Xanax, Ativan (green &amp; whites, candy); Valium (Vs)</li> <li>• Club drugs: Rohypnol (date rape drug, rape, roofies), gamma hydroxybutyric acid (grievous bodily harm, easy lay)</li> </ul>
<p><b>Stimulants</b></p>	<ul style="list-style-type: none"> <li>• Amphetamines: Adderall (beanies, pep pills, speed, uppers), Ritalin (kiddie coke)</li> <li>• Cocaine: cocaine hydrochloride (coke, blow, toot, snow, lady, flake, crack)</li> <li>• Caffeine: coffee, tea, colas, chocolate (Java, mud, brew, cocoa)</li> <li>• Nicotine: cigarettes, cigars, pipe tobacco, snuff (weeks, fags, butts, chaw, cancer sticks)</li> </ul>

(Townsend, 2015; NIDA, 2018a)



### **SUBSTANCE USE DISORDER DSM-5 DIAGNOSTIC CRITERIA**

There are **11 criteria**:

1. Taking a substance in large amounts or for longer than intended
2. Inability to stop or cut down on use despite wanting to do so
3. Spending a lot of time getting, using, or recovering from use
4. Cravings to use the substance
5. Impaired functioning at home, work, or school due to substance use
6. Continued use despite relationship problems resulting from it
7. Giving up important social, occupational, or recreational activities
8. Using repeatedly, even if it places the person in danger
9. Continued use even when a physical or psychological problem is known to have been caused or made worse by the substance
10. Needing more to get the same effect (tolerance)
11. Development of withdrawal symptoms only relieved by more substance

#### **Severity:**

- Mild: presence of 2 or 3 symptoms
- Moderate: presence of 4 or 5 symptoms
- Severe: presence of 6 or more symptoms

(APA, 2013)

**Substance-induced disorders** develop in persons who do not have mental health problems before using substances. Such induced disorders are:

- Substance-induced depressive disorder
- Substance-induced anxiety disorder
- Substance-induced sleep disorder
- Substance-induced sexual dysfunction
- Substance-induced delirium
- Substance-induced neurocognitive disorder

(APA, 2013)



## Signs and Symptoms of Substance Use Intoxication and Withdrawal

Each substance with the potential for intoxication and withdrawal has signs and symptoms that are unique.

### ALCOHOL INTOXICATION

**Signs and symptoms** of alcohol intoxication include:

- Disinhibition of sexual or aggressive impulses
- Mood lability
- Impaired judgment
- Impaired social or occupational functioning
- Slurred speech
- Incoordination
- Unsteady gait
- Nystagmus (rapid, involuntary movement of the eyes)
- Flushed face

Following reduction or cessation in heavy or prolonged use (several days or longer), these **withdrawal symptoms** may appear:

- Coarse tremor of hands, tongue, or eyelids
- Nausea or vomiting
- Malaise or weakness
- Tachycardia
- Diaphoresis
- Elevated blood pressure
- Anxiety
- Depressed mood or irritability
- Transient hallucinations or illusions (misperceptions or misinterpretations of the environment)
- Headache
- Insomnia



A complicated withdrawal may progress to **delirium**:

- Difficulty sustaining and shifting attention
- Distractibility
- Disorganized thinking
- Rambling, irrelevant, pressured, or incoherent speech
- Flight of ideas
- Impaired reasoning or goal-directed behavior
- Disorientation to time and place
- Impaired recent memory
- Illusions
- Hallucinations
- Fluctuating psychomotor activity
- Emotional instability

Between 3% and 5% will have the serious form of withdrawal called *delirium tremens (DTs)*. DTs may appear suddenly and is evidenced by:

- Seizures
- Fever
- Severe confusion
- Agitation
- Hallucinations

DTs can be fatal without swift medical intervention, making alcohol withdrawal safest when monitored around the clock by a medical professional (Townsend, 2015, AAC, 2018).

### **SEDATIVES, HYPNOTICS, AND ANXIOLYTICS**

These drugs are all capable of inducing CNS depression, from tranquilizing relief of anxiety to anesthesia, coma, and even death. **Signs and symptoms** of intoxication with these substances involve the presence of clinically significant maladaptive behaviors and physiological or psychological changes, including:

- Inappropriate sexual or aggressive behavior
- Mood lability
- Impaired judgment



- Impaired social or occupational functioning
- Slurred speech
- Incoordination
- Unsteady gait
- Nystagmus
- Impairment in attention or memory
- Stupor
- Coma

Club drugs produce anterograde amnesia, which is the inability to remember events that occurred while under the influence of the drug. Signs and symptoms of **withdrawal** from these substances include:

- Autonomic hyperactivity (diaphoresis, tachycardia)
- Hand tremor
- Insomnia
- Nausea or vomiting
- Hallucinations
- Illusions
- Psychomotor agitation
- Anxiety
- Grand mal seizures

Severe dependence confers increased risk for medical complications during withdrawal, including death (Erlach, 2017).

## **STIMULANT INTOXICATION**

**Signs and symptoms** of stimulant intoxication include:

- Euphoria or affective blunting (decreased intensity of emotion)
- Changes in sociability
- Hypervigilance
- Interpersonal sensitivity
- Anxiety
- Tension



- Anger
- Stereotypical behaviors (aimless and repetitive, such as pacing, rocking)
- Impaired judgment
- Tachycardia or bradycardia
- Pupillary dilation
- Elevated or lowered blood pressure
- Perspiration or chills
- Nausea or vomiting
- Weight loss
- Psychomotor agitation or retardation
- Muscle weakness
- Respiratory depression
- Chest pain
- Cardiac arrhythmias
- Confusion
- Seizures
- Dyskinesia (impairment of voluntary movement)
- Dystonia (involuntary muscle contractions)
- Coma  
 (Erlach, 2017; Townsend, 2015)

Signs and symptoms of **withdrawal** from these substances include dysphoric mood and the presence of two or more of the following symptoms:

- Jittery reactions
- Anxiety
- Chills
- Dehydration
- Dulled senses
- Slowed speech
- Loss of interest
- Slowed movements
- Slow heart rate



- Irritability
- Hallucinations
- Paranoia
- Fatigue
- Depression
- Increased appetite
- Impaired memory
- Weight loss or gaunt appearance
- Insomnia or hypersomnia
- Body aches
- Drug cravings
- Unpleasant dreams  
 (Juergens, 2019)

### OPIOID INTOXICATION

These drugs desensitize the person to both psychological and physiological pain and induce a sense of euphoria. Following the initial euphoria, **signs and symptoms** of intoxication include:

- Apathy
- Dysphoria
- Psychomotor agitation or retardation
- Impaired judgment
- Pupil constriction
- Pupillary dilatation due to anoxia from severe overdose
- Drowsiness
- Slurred speech
- Impaired attention or memory

Severe opioid intoxication can lead to respiratory depression, coma, and death. Symptoms of **withdrawal** from opioids include:

- Dysphoric mood
- Nausea or vomiting
- Muscle aches and pains



- Abdominal cramping
  - Teary eyes
  - Rhinorrhea
  - Dilated pupils
  - Piloerectors (goose bumps)
  - Diaphoresis
  - Diarrhea
  - Yawning
  - Fever
  - Insomnia
- (Townsend, 2015; AAC, 2018)

## **Risk Factors for Substance Use Disorder**

The following are factors that increase the risk of developing a substance use disorder:

- Genetic predisposition
  - Biochemical brain characteristics that make a person more vulnerable to addiction
  - Psychological issues
    - Stress
    - Personality traits such as high impulsivity or sensation seeking
    - Depression
    - Anxiety
    - Eating disorders
    - Personality and other psychiatric disorders
  - Environmental influences
    - Exposure to physical, sexual, or emotional abuse or trauma
    - Substance use addiction among family members or peers
    - Access to addictive substances
    - Exposure to popular culture that encourages substance use
    - Starting alcohol, nicotine, or other drug use at an early age
- (Center on Addiction, 2017; Townsend, 2015)



## Consequences Associated with Substance Use Disorders

Substance use disorders have many short- and long-term direct and indirect effects that depend on the drug or drugs being used, how much has been taken, how long they have been taken, how they are taken, the person's health, and other factors.

**Short-term health effects** can range from changes in appetite, wakefulness, pulse rate, blood pressure, or mood all the way to myocardial infarction, stroke, psychosis, overdose, and death. Such effects have been found to occur even after a single use.

**Long-term health effects** may include cardiac or respiratory diseases, cancer, mental illness, HIV/AIDS, hepatitis, or brain changes.

**Direct effects** can include decreased level of education, loss of employment or housing, broken relationships, and involvement in the criminal justice system.

**Indirect effects** can occur for both the people who are using drugs as well as those they are in relationships with. These can include changes in nutrition, sleep, decision-making ability, impulsivity, and risk for trauma, injury, or communicable disease.

Not everyone who uses drugs will become addicted, but some people are affected by changes in the brain that interfere with ability to experience normal pleasures such as food and sex, ability to control stress levels, and ability to learn and remember. These changes can make it harder for a person to stop using the drug when they want to, even when it is having negative effects (NIDA, 2017).

Use of alcohol or drugs **during pregnancy** can result in different effects depending on the substance being used. These can include neonatal abstinence syndrome (NAS) (withdrawal), birth defects, preterm birth, fetal death, and increased long-term medical and behavioral problems. Opioid use can cause placental abruption (separation of the placenta from the uterine wall before birth) (ACOG, 2017).

## Substance Use Disorders in Children and Adolescents

Because the human brain does not stop developing until around age 25, use of addictive substances during adolescence interferes with this development. Drinking during this critical period can lead to lifelong damage in brain function, especially relating to memory, motor skills, and coordination. Drug and alcohol use can cause loss of consciousness, fragmentary to full blackouts (memory loss), interpersonal conflict, poor academic performance, and increased risk for accidents, homicides, suicides, and serious health conditions.

Alcohol and other addictive substances affect adolescents differently than adults. Adolescents exposed to low doses of alcohol exhibit greater social facilitation. Adolescents are less sensitive to the sedating and intoxicating effects of alcohol and may drink more, consequently achieving a much higher blood alcohol concentration before becoming incapacitated. This increases the adolescent's risk for neurotoxicity and memory problems. There are greater long-term behavioral



effects and more brain impairment among adolescents than among adults exposed to alcohol. Animal studies have helped to understand these differences. Adolescent rats demonstrate less alcohol-induced impairments in balance and coordination and more alcohol-induced impairment in learning and memory (Beauchaine & Hinshaw, 2017; Duke University, 2019).

Trends in **alcohol** use since 1975 indicate there has been a steady decline among 8th-, 10th-, and 12th-grade adolescents and a rise in the percentage that believe there is a great risk in having five or more drinks (binge drinking) in a row once or twice a weekend. At the same time, there has also been an increase in the percentage of adolescents who disapprove of having five or more drinks in a row once or twice in a weekend, and a steep decline in the percentage that say alcohol is fairly easy or very easy to obtain (Johnston et al., 2019).

**Marijuana** has been the most widely used substance among adolescents after alcohol. While both current alcohol and cigarette use among 12th-grade students declined, marijuana use has increased, with 5% using it in the 8th grade and 23% using it in the 12th grade. Prevalence rates for marijuana show that 1 in 17 12th graders smoke marijuana daily. Adolescents do not think using marijuana is as risky as using other substances, and the disapproval rate has declined (Johnston et al., 2019).

Vaping is a newer and popular way to use marijuana and other substances. Among 8th-grade students, 2% report vaping marijuana in the past 30 days compared to 4% of 10th graders and 5% of 12th graders. More students across all grade levels reported vaping nicotine or flavored oil than reported vaping marijuana (Johnston et al., 2019).

#### **LUNG ILLNESSES ASSOCIATED WITH USE OF VAPING PRODUCTS**

Severe respiratory illness has occurred with the use of vaping products. The CDC and FDA are collaborating to determine the nature of the chemical exposure(s) that may contribute to the lung injury outbreak that has occurred from the use of e-cigarettes or other vaping products. The CDC and FDA encourage clinicians to report possible cases of vaping-associated respiratory illness to their local or state health department for further investigation (FDA, 2019).

Another common drug used by adolescents is **nicotine**. Cigarette use and the perceived availability of nicotine products have both declined significantly since the mid-90s, and the perception of great risk in and approval of smoking a pack or more per day has had a steady rise. Approximately 4.9 million middle and high school students were tobacco users in 2018, and less than 1 in 25 high school seniors was a daily smoker (Johnston et al., 2019).

**Indicators of substance use** (physical, socio-emotional, and health changes) include:

- Deterioration in appearance (rapid weight loss, unusual breath and body odors, cuts, and bruises)
- Bloodshot eyes, very large or small pupils, watery or blank stares
- Increased energy or lethargy



- Insomnia or excessive sleep
- Significant levels of depression or anxiety
- Deviant behavior not evident in childhood
- Decreases in school grades
- Changes in social activities or peer group
- Chronic coughing or sniffing
- Skin boils or sores
- Nasal bleeding
- Needle tracks from IV use  
(Beauchaine & Hinshaw, 2017)

## Substance Use Disorders in Older Adults

Current research indicates that substance use is a growing public health concern among older adults. More than 1 million people aged 65 or older had a substance use disorder in 2014, 978,000 with alcohol use disorder and 151,000 with illicit drug use disorder. On average, six million older adults use alcohol. The number of older Americans with substance use disorders is expected to rise due in part to the relatively higher drug use rates among the baby boomer generation compared with past generations.

Illicit drug use among the older adult population includes marijuana, cocaine (including crack), heroin, hallucinogens, inhalants, as well as nonmedical use of prescription pain relievers, tranquilizers, stimulants, and sedatives.

Older adults are more likely to have chronic health conditions and to take prescription medications, which can complicate the adverse effects of substance use (Mattson et. al., 2018).

Drinking problems among older adults are sometimes overlooked or even misdiagnosed. The symptoms of depression can mirror the warning signs of alcoholism. Substance abuse screenings are rarely part of annual physical exams, making it more challenging to detect the early signs of a patient substance use problem (Galbicsek, 2019).

People 65 and older are more sensitive to the effects of alcohol, and the levels consumed safely when they were young may now be unhealthy. Alcohol use can negatively affect a person's sense of balance, increasing the likelihood of falls and their consequences. Alcohol can exacerbate some medical conditions, including stroke, hypertension, diabetes, osteoporosis, memory loss, and mood disorders. It can also interact negatively with over-the-counter drugs, herbal remedies, and prescription medications.



**Signs** of possible substance use disorder among older adults can include:

- Injuries
- Increased tolerance to medications
- Blackouts
- Cognitive impairment

**Psychiatric symptoms** that may raise a suspicion that there is a problem with substance use may include:

- Sleep disturbances
- Anxiety
- Depression
- Mood swings

**Social symptoms** indicating a possible substance use disorder may include:

- Legal problems
  - Financial problems
  - Family problems
  - Loss of a spouse
  - Involvement with the criminal justice system
- (Mattson et al., 2018)

## Screening for Substance Use

Despite the frequent presentation of drug and alcohol use in primary care, substance use disorder often goes unrecognized. The U.S. Preventive Services Task Force recommends that all adults ages 18 and older in primary care be screened to identify unhealthy alcohol use, and that those with unhealthy use receive a brief counseling intervention. The task force also states that while clinicians should be alert to the signs and symptoms of illicit drug use in patients, the added benefit of screening for illicit drug use in asymptomatic patients in primary care practice remains unclear (Saitz, 2018; USPSTF, 2018 & 2019).

There are several **screening tools** available for both alcohol and substance use in adults, including:

- AUDIT (Alcohol Use Disorders Identification Tests) is a 10-item questionnaire administered by a clinician that screens for hazardous or harmful alcohol consumption. It is suitable for use in primary care settings and has been used with a variety of populations and cultural groups.



- AUDIT-C is a simple, 3-question screen for hazardous or harmful drinking that can stand alone or be incorporated into general health history questionnaires, and can be self-administered or clinician-administered.
- CAGE AID is a commonly used, 4-question tool administered by a clinician to screen for both drug and alcohol use in order to determine if an alcohol assessment is needed.
- DAST-10 (Drug Abuse Screen Test), designed for clinical screening, is a 10-item, yes/no self-report instrument that takes less than 8 minutes to complete and can be used for both adults and older youth.  
(SAMHSA, 2019a; NIDA, 2019)

The American Academy of Pediatrics recommends universal screening in pediatric primary care settings, and the National Institute on Drug Abuse has launched two brief online validated **adolescent substance use screening tools** that can be administered by either the patient or clinician.

- BSTAD (Brief Screener for Tobacco, Alcohol, and Drugs)
- S2BI (Screening to Brief Intervention)  
(NIDA, 2019)

## Treatment Modalities for Substance Use

Treatment modalities include those used to manage the symptoms of withdrawal from alcohol and drugs and those for treating the disorders themselves.

### TREATING WITHDRAWAL

Withdrawal medications and devices can help suppress symptoms that occur during detoxification. Benzodiazepines are the most widely used group of drugs used during **alcohol withdrawal**. They treat the psychomotor agitation that occurs and prevent progression from minor to major symptoms. The most commonly used agents include intravenous:

- Chlordiazepoxide (Librium)
- Oxazepam (Serax)
- Lorazepam (Ativan)
- Diazepam (Valium)

Because thiamine is commonly deficient in patients with chronic alcohol use, daily injections or oral administration of this vitamin is given to prevent neuropathy, confusion, and encephalopathy (Hoffman & Weinhouse, 2019).



Drugs used for **opioid withdrawal** include narcotic antagonists:

- Naloxone (Narcan) is used to reverse the effects of opioid overdose.
- Methadone (Dolophine, Methadose) is given on the first day in a dose sufficient to suppress withdrawal symptoms and then tapered over time. Clonidine (Catapres) is also used to suppress opiate withdrawal symptoms.
- Buprenorphine in combination with naloxone (Suboxone) is given in the same manner as methadone.
- Lofexidine (Lucemyra) was the first medication approved by the FDA for reducing symptoms of opioid withdrawal in adults.

To date, no other medications have been approved to treat opioid withdrawal symptoms (NIDA, 2018b; Sevarino, 2019).

### **MAINTENANCE MEDICATIONS**

Because the maintenance drugs methadone, buprenorphine, naltrexone, and lofexidine are themselves opioids, they are able to produce euphoria in people who are not dependent on opioids. It has therefore been assumed that these simply substitute a new substance use for an old one. This belief has hampered the adoption of these effective treatments. Many programs have not allowed the use of these medications in favor of an “abstinence only” philosophy (NIDA, 2018c).

The FDA has also approved a new electronic stimulation device (NSS-2 Bridge) for use in helping to reduce opioid withdrawal symptoms. This device is placed behind the ear and sends electrical pulses to stimulate certain nerves in the brain (Voelker, 2018).

**Withdrawal from sedatives/hypnotics/anxiolytics** depends upon the dependence severity.

- For patients who have a mild dependence, withdrawal can be managed by a slow taper of the drug in an outpatient setting. An alternative is to replace short-acting benzodiazepines with equivalent dosing of a longer-acting drug, which may provide for a milder withdrawal syndrome during the taper.
- The use of a long-acting barbiturate decreases the severity of withdrawal symptoms, but due to its long half-life places patients at risk for toxicity, especially in the older adult and those with hepatic impairment.
- Treatment of severe sedative/hypnotic withdrawal is most safely managed in an ICU. Intravenous phenobarbital is recommended for most patients and should be given until signs of intoxication or reduction of withdrawal signs occur. (Erlach, 2017)



**Detoxification from stimulants** is safest and most successful under the supervision of medical professionals. Tapering the drug of use produces less severe withdrawal symptoms, and buprenorphine and naloxone (Suboxone) may be used in place of stimulants during the tapering off period (Addiction Center, 2018).

### ***Treating the Disorder***

Treatments specific for **alcohol use disorder** include:

- Alcoholics Anonymous is an 80-year-old community-based approach that involves a set of principles to be used as a guide for tackling problems caused by addiction, making amends, and continuing to live as a recovering alcohol user. The program involves support from others who are also recovering from alcohol addiction (AAC, 2019a).
- Counseling on a one-to-one basis and group therapy are also offered for persons with alcohol abuse disorder.
- Pharmacological treatment for alcohol use disorder to reduce cravings includes disulfiram (Antabuse), which causes a great deal of discomfort for the individual within 5 to 10 minutes of ingestion of alcohol. Other medications for reducing cravings and urges are acamprosate (Campral) and naltrexone (ReVia) (AAC, 2019b).

Treatments specific for **opioid use disorder** include:

- Pharmacological treatments include medications such as opioid agonists (methadone and buprenorphine), which block the effects of other opioids; and opioid antagonists (naltrexone), which prevent the user from experiencing intoxication or physiologic dependence on subsequent use, thereby reinforcing abstinence (Strain, 2019).

Methadone is administered daily in an oral liquid concentrate, tablet, or oral solution from a dispersible tablet or powder. Buprenorphine administration options include sublingual or buccal tablet or film daily, subdermal implants every 6 months for up to a year, or monthly subcutaneous injections of extended release in abdominal regions for at least one week. Extended-release naltrexone is given intramuscularly every 4 weeks or once-per-month (SAMHSA, 2018).

- These medications are combined with behavioral counseling and referred to as *Medication Assisted Treatment (MAT)*, which is subject to federal legislation, opioid treatment regulations, and guidelines (SAMHSA, 2019b).

The following research-based treatment modalities are those most commonly used for **substance-use disorders in general**:



- **Motivational interviewing (MI)** is a collaborative, therapeutic, conversation between licensed clinicians and patients that addresses the problem of ambivalence for change.
- **Cognitive behavioral therapy (CBT)** encourages patients to question and examine recurring thoughts in order to phase out those that are negative and unhealthy.
- **Rational emotive behavior therapy (REBT)** is similar to CBT and helps patients identify, challenge, and replace destructive thoughts and convictions with healthier, adaptive thoughts.
- **Dialectical behavioral therapy (DBT)** teaches patients how to regulate emotions to reduce self-destructive behavior; DBT focuses on the development of distress tolerance, emotional regulation, mindfulness, and interpersonal effectiveness.
- **Eye movement desensitization and reprocessing (EMDR)** is a newer structured therapy associated with a reduction in the vividness and/or emotionality of trauma memories and that incorporates the use of eye movements or other forms of rhythmic left-right stimulation while the patient focuses briefly on a trauma memory (APA, 2019b).
- **Seeking Safety** is a present-focused therapy that helps patients attain safety from trauma and substance use by emphasizing coping skills, grounding techniques, and education.  
(AAC, 2019b)

The FDA has also approved prescription digital therapeutic apps (reSET and reSET-O) that can be downloaded to a patient's mobile device. They are intended to be used while participating in an outpatient substance use disorder program. This type of treatment relies on behavioral and lifestyle changes that are spurred by a collection of digital impetuses and a compliance award system (FDA, 2018b).

## The Patient with Signs and Symptoms of Substance Use Disorder

Substance use is common among patients in all healthcare settings and is known to have a substantial impact on health. However, many practitioners report low levels of preparedness to identify and assist those patients with substance use disorders. It is a challenge to address drug use disorders and to detect problematic use. Studies have shown that patients tend to deny or underreport substance use, and those with substance use disorders may not report any problems at all. Therefore, it is important to determine the presence of clinically relevant characteristics that may indicate substance use problems so as to identify patients in need of comprehensive screening, intervention, and referral (Krause, 2016).



**Screening** in diverse healthcare settings is the first step in identifying substance use problems and assisting patients to engage in an appropriate level of care, and a simple screening tool that can be used in all healthcare settings is the CAGE-AID, which asks 4 questions. A yes answer to two or more questions is considered clinically significant:

1. Have you ever felt you should cut down on your drinking or drug use?
2. Have people annoyed you by criticizing your drinking or drug use?
3. Have you ever felt bad or guilty about your drinking or drug use?
4. Have you ever had a drink or used drugs first thing in the morning to steady your nerves or to get rid of a hangover?

(UW, 2019)

**Common presentations** of disorders due to substance use may include:

- Appearing affected by alcohol or other substances (e.g., odor of alcohol, slurred speech, sedated or erratic behavior)
- Signs of recent drug use (recent injection marks, skin infections)
- Deterioration of social functioning (e.g., difficulties at home or work, unkempt appearance)
- Signs of chronic liver disease (jaundiced skin and eyes, palpable and tender liver edge, ascites, spider-like blood vessels on the surface of the skin, and altered mental status)
- Problems with balance, walking, coordinating movements, and nystagmus
- Dilated pupils, disordered thinking, aggression, and elevated blood pressure in patients who may be using a stimulant
- Patients who make repeated requests for psychoactive medications including analgesics
- Presence of infections associated with intravenous drug use (HIV/AIDS, hepatitis C)

If a patient appears intoxicated or confused, **medical conditions** which might explain the confusion must be ruled out. These may include:

- Head trauma
- Hypoglycemia
- Pneumonia or other infections
- Hepatic encephalopathy
- Stroke

(WHO, 2016)



## Responding to Patients with a Substance Use Disorder

Historically, addiction has been looked on as a moral failing or lack of self-control. As a result, denial is the major defense mechanism among those who have substance use disorders.

Healthcare providers often have an emotional and uncomfortable response to patients who have problems with substance addiction.

Caregiver negative attitudes can affect a patient's willingness to be assessed, limit the therapeutic relationship, and intensify the patient's avoidance of healthcare. When a patient with substance use disorder perceives a provider is negatively judgmental, he or she may react in a hostile manner, which is of benefit to neither the patient nor provider. Interactions must start with compassion, care, and a nonjudgmental attitude. If patients do not believe they have to defend themselves, hostile reactions may not occur.

Some clinicians also feel uncomfortable about teaching patients how to live a life that helps them reduce adverse health effects and avoid spreading infection while using their substance of choice. Efforts to teach patients safe injection practices, safer sex practices, and use of needle exchange programs are often seen as negative and unethical.

Harm reduction information should be provided, including overdose prevention and responding to overdose, sexual health, and HIV prevention strategies. Healthcare providers should also educate patients regarding the various modes of treatment for substance use disorders as well as their health consequences. In all settings, clinicians should have access to a list of potential local treatment options to provide to patients.

It is important with each new patient contact to consider screening for drug use. Following screening, in a very short conversation, a provider can educate patients about how their drug use may be putting their health at risk. The "5 As of Intervention" can be used to assist with this conversation (see box).

When encountering a patient who may be experiencing immediate, life-threatening medical consequences of substance use, the patient will require admission to the emergency department or hospital (NIDA, n.d.).

### FIVE AS OF INTERVENTION

1. **Ask:** Ask one or more questions related to drug use. When a patient answers no to drug use, probe gently, perhaps by asking: "Not even when you were in high school or college?"
2. **Advise:** Provide medical advice about the patient's drug use. Recommend quitting before problems (or more problems) develop. Medically supervised detoxification may be advised for discontinuing the use of some drugs. If patients appear ashamed or embarrassed, state that this is a health-related medical recommendation and is not meant to judge or stigmatize them.



3. **Assess:** Assess how willing a patient is to change his or her behavior after hearing the clinician's advice. Acknowledge ambivalence about changing behavior. State concerns about specific ways that the drug of choice may affect the person's health or personal life. If the patient becomes upset or argumentative, do not argue. Give the patient time, unless the condition is life-threatening.
4. **Assist:** Assist the patient to make a change if ready and in whichever manner the patient will allow.
5. **Arrange:** Arrange for a referral for further assessment and treatment, if appropriate. If the patient resists referral, explore the concerns.  
(NIDA, n.d.)

## CASE

### A Patient Withdrawing from Substance Use

Patrick, an accountant, had been admitted to the surgical unit following laparoscopic appendectomy. During the evening he was stable and had good pain relief. Later, Yin, the night nurse, made rounds and found him to be sleeping soundly. A short while later she ran to his room because he was yelling. When Yin arrived at the bedside, Patrick was awake and told her he had had a terrible nightmare. He was sweating profusely and was quite shaken and jittery. She reassured him that he was safe. He then stated that he was very hungry.

Yin took the patient's vital signs. His pulse rate was 65, despite his bad dream, and everything else was within normal limits. She did a brief physical examination and found no abnormalities. Yin told him she would get him something to eat from the unit kitchen. On her way back to his room, Yin checked his history and physical and nursing assessment for comorbid medical or mental conditions and found no mention of alcohol or drugs.

Yin sat down next to the bed while the patient ate. He began to speak with her.

Patrick: "Geez, I never have nightmares. Not like that anyhow."

Yin: "Tell me how you're feeling right now, Patrick."

Patrick: "I've got a slight headache, and I'm really feeling down in the dumps."

Yin: "You're feeling depressed?"

Patrick: "Yeah, and I don't have a clue why I should be."

Yin: "Is anything else bothering you?"

Patrick: "Well, yeah, as a matter of fact, I feel totally worn out."

Yin: "You feel fatigued."

Patrick: "Yeah, I do."



Yin began to wonder if these could be signs of a stimulant withdrawal, and so she began a short screening conversation:

Yin: “Patrick, I need to ask you an important question. Do you use any recreational drugs?”

Patrick: “No! Never!”

Yin: “Have you ever used any drugs?”

Patrick (hesitatingly): “No.”

Yin (smiling): “Not even when you were younger?”

Patrick: “Well, yeah. I’ve done that.”

Yin: “What type of drug have you used?”

Patrick: “Oh, a little coke now and then.”

Yin: “When did you last use this drug?”

Patrick: “Gee ... I don’t remember.”

Yin: “Have you by any chance used this recently?”

Patrick: “Yeah, I guess so.”

Yin: “When was the last time you used cocaine?”

Patrick (looking ashamed): “Well ... yesterday after work.”

Yin nods encouragingly.

Patrick: “I suppose you think that’s awful.”

Yin: “No, Patrick, I don’t think that’s awful. I’m only concerned about your well-being.”

Patrick: “Okay. Thanks.”

Yin: “Can you tell me how often you use cocaine?”

Patrick: “Oh, not too often.”

Yin: “Tell me what you mean by ‘not too often.’”

Patrick (pausing): “Actually, I use it every day.”

Yin: “Patrick, I’m concerned that you may be experiencing some withdrawal symptoms, and I want to call your doctor to find out what he wants me to do to help you out. I’ll be right back to talk with you.”

Yin then contacts the physician on call and informs him that Patrick may be going through withdrawal from cocaine.

### **Discussion**

Yin suspected that the signs and symptoms Patrick was experiencing may be indications of withdrawal from a stimulant. These included his jitteriness, an unpleasant dream, slowed heart



rate despite his bad dream, increased appetite, and feeling depressed and fatigued. She found that his record did not show any indication of substance use, and so she gently eased into the topic in a nonjudgmental manner, recognizing that people often diminish or deny their use of drugs and alcohol. Her nonthreatening approach allowed Patrick to overcome his concern about her judging him, and he eventually acknowledged his use of cocaine. Following this acknowledgment, Yin reassured him that she was concerned only with his well-being and would be there to help him.

## EATING DISORDERS

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Eating disorders are serious medical illnesses characterized by abnormal eating behaviors, maladaptive efforts to control body shape or weight, and disturbances in perceived body shape or size. These disorders can affect a person's physical and mental health and can even be life-threatening.

There are 30 million or more people of all ages, genders, races, and ethnic groups with an eating disorder in the United States, and every 62 minutes at least one person dies as a direct result of such a disorder, 1 in 5 by suicide. Nearly half of all patients with anorexia have comorbid anxiety disorder, including obsessive-compulsive disorder and social phobia. Nearly 1 in 10 people with bulimia have a comorbid substance use disorder, usually alcohol (ANAD, 2019).

Common types of eating disorders include anorexia nervosa, bulimia nervosa, and binge-eating disorder. Anorexia nervosa and bulimia nervosa have the highest mortality rate of any mental illness, with cause of death due to medical conditions and complications resulting from starvation (ANAD, 2019).

### **Anorexia Nervosa**

This disorder involves avoiding food, severely restricting food, or eating very small quantities of only certain foods. Even when people are dangerously underweight, they see themselves as overweight. There are two subtypes of anorexia nervosa:

- Restrictive: severe restrictions on the amount and type of food consumed
- Binge-purge: severe restrictions on the amount and type of food consumed together with binge eating and purging behaviors (e.g., vomiting, laxative and diuretic use) (NIMH, 2018b)



### **ANOREXIA NERVOSA DSM-5 DIAGNOSTIC CRITERIA**

A person must meet all of the following criteria:

- A. Restriction of energy intake relative to requirement, leading to a significantly low body weight in the context of age, sex, developmental trajectory, and physical health.
  - B. Intense fear of gaining weight or becoming fat, or persistent behavior that interferes with weight gain, even though at a significantly low weight.
  - C. Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or persistent lack of recognition of the seriousness of the current low body weight.
  - D. Denial of serious illness.
- (APA, 2013)

### **SIGNS AND SYMPTOMS OF ANOREXIA NERVOSA**

Common **physical** signs and symptoms of anorexia that develop over time include:

- Muscle wasting and weakness
  - Dry skin
  - Hypercarotenemia (yellowish skin)
  - Lanugo (fine downy hair over the body to help retain body heat)
  - Bradycardia
  - Bradypnea
  - Hypotension
  - Enlarged salivary glands and eroded dental enamel resulting from purging
  - Dehydration and electrolyte imbalance
  - Severe constipation
  - Lowered internal body temperature resulting in feeling cold
  - Lethargy, sluggishness
- (NIMH, 2018b)

**Emotional** symptoms of anorexia nervosa include:

- Irritability
- Social withdrawal



- Absent emotions
- Inability to understand the seriousness of the illness
- Fear of eating in public
- Obsessions with food and exercise  
(NAMI, 2018)

## Bulimia Nervosa

Bulimia nervosa is characterized by recurrent episodes of binge-eating unusually large amounts of food accompanied by the feeling of lack of control. People with bulimia nervosa, unlike those with anorexia nervosa, may maintain a normal weight or be overweight.

### BULIMIA NERVOSA DSM-5 DIAGNOSTIC CRITERIA

- A. Recurrent episodes of binge eating, characterized by both of the following:
1. Eating, in a discrete period of time, an amount of food that is definitely larger than most individuals would eat during a similar period of time and under similar circumstances.
  2. A sense of lack of control over eating during the episode.
- B. Recurrent inappropriate compensatory behaviors in order to prevent weight gain (self-induced vomiting; misuse of laxatives, diuretics, or other medications; fasting; excessive exercise).
- C. The binge eating and inappropriate compensatory behaviors both occur, on average, at least once a week for three months.
- D. Self-evaluation is unduly influenced by body shape and weight.
- E. The disturbance does not occur exclusively during episodes of anorexia nervosa.  
(APA, 2013)

### SIGNS AND SYMPTOMS OF BULIMIA NERVOSA

**Physical** signs and symptoms of bulimia nervosa include:

- Chronically inflamed and sore throat
- Swollen salivary glands of the neck and jaw
- Worn tooth enamel with increasingly sensitive and decaying teeth related to stomach acid exposure
- Scarring or calluses of the knuckles from using fingers to induce vomiting



- Esophagitis and other GI problems
- Intestinal discomfort and irritation from laxative abuse
- Severe dehydration
- Electrolyte imbalance  
(NIMH, 2018b)

**Emotional** symptoms of bulimia nervosa include:

- Low self-esteem overly linked to body image
- Feelings of being out of control
- Feeling guilty or shameful about eating
- Withdrawal from family and friends  
(NAMI, 2018)

## Binge-Eating Disorder

People with this disorder lose control over their eating but do not purge, exercise excessively, or fast. As a result, they are most often overweight or obese.

### **BINGE-EATING DISORDER DSM-5 DIAGNOSTIC CRITERIA**

A person with this disorder has current episodes of binge eating and loss of control over eating during these episodes. In addition:

- A. The binge-eating episodes are associated with three (or more) of the following:
  1. Eating much more rapidly than normal
  2. Eating until feeling uncomfortably full
  3. Eating large amounts of food when not feeling physically hungry
  4. Eating alone because of embarrassment about how much one is eating
  5. Feeling disgusted with oneself, depressed, or very guilty after overeating
- B. Marked distress during binge eating.
- C. The binge eating occurs, on average, at least once a week for 3 months.
- D. The binge eating is not associated with the recurrent use of inappropriate compensatory behavior as in bulimia nervosa and does not occur exclusively during the course of bulimia nervosa or anorexia nervosa.  
(APA, 2013)



## SIGNS AND SYMPTOMS OF BINGE-EATING DISORDER

It is extremely difficult to detect binge-eating disorder, as most signs and symptoms do not present to others. Although these patients eat large amounts of food and eat rapidly, they eat normally when around others. They are often of normal weight or obese and may go on diets to try to lose weight. Often one of the first signs of a binge-eating disorder is someone finding the patient's stash of hidden high-calorie foods or empty wrappers or food packages. Due to the hidden nature of the disorder, it is important to routinely ask patients about their eating habits. If an individual is reluctant to discuss this issue, it may be considered a red flag for an eating disorder (Kornstein et al., 2016).

Persons with binge-disorder who are obese often present with the following:

- Hypertension
- Hyperlipidemia, particularly elevated triglyceride and cholesterol levels
- Hyperglycemia
- Osteoarthritis due to trauma to weight-bearing joints
- Angina or respiratory insufficiency related to increased workload (NIMH, 2018b)

## OTHER EATING DISORDERS

Other eating disorders associated include:

- **Avoidant/restrictive food intake disorder:** more than just a “picky eater”
- **Diabulimia:** deliberate insulin restriction in people with type 1 diabetes for purposes of controlling weight; this disorder increases the risks for retinopathy, neuropathy, and diabetic ketoacidosis, increasing the mortality risk threefold.
- **Pica:** repeated eating of nonfood substances
- **Rumination disorder:** repeated regurgitation to re-chew, re-swallow, or spit out what has been eaten (ANAD, 2019)

## Risk Factors for Eating Disorders

The following are factors that increase the risk for development of an eating disorder:

### Biological factors:

- Having a first-degree relative with an eating disorder



- Having a close relative with a mental health disorder
- History of dieting
- Having type 1 diabetes

**Psychological factors:**

- Self-oriented perfectionism (setting high standards for oneself)
- Body image dissatisfaction
- Personal history of an anxiety disorder
- Behavioral inflexibility

**Social factors:**

- Weight stigma and discrimination
- Teasing or bullying about weight
- Socially defined messages of the “ideal body”
- Acculturation of racial and ethnic minority groups
- A history of physical or sexual abuse
- Having limited social networks
- Historical or intergeneration trauma (e.g., the Holocaust) (NEDA, 2018a)

**Consequences Associated with Eating Disorders**

Many **medical complications** can occur due to starvation or persistent purging. Complications of eating disorders may include:

- Myocardial atrophy
- Mitral valve prolapse
- Pericardial effusion
- Bradycardia
- Functional hypothalamic amenorrhea
- Infertility
- Osteoporosis
- Gastroparesis
- Rupture of the stomach



- Constipation
- Erosion of the esophagus causing rupture
- Pancreatitis
- Intestinal obstruction, perforation, or infections
- Loss of protective layer of lipids on neurons
- Obesity-related sleep apnea
- Growth disturbance can occur in adolescents (NEDA, 2018b)

## Eating Disorders in Children and Adolescents

Eating disorders can be seen in both children and adolescents. Eating disorders typically develop during adolescence or early adulthood; however, they can begin in childhood also. The onset of anorexia is in mid-adolescence, and bulimia nervosa begins in late adolescence. However, most patients report body image concerns and disordered eating before adolescence.

Over one half of teenage girls and nearly one third of teenage boys use unhealthy weight control behaviors such as skipping meals, fasting, smoking cigarettes, vomiting, and taking laxatives. Of first- through third-graders, 42% want to be thinner, and 81% of 10-year-old girls are reported to be afraid of becoming fat. Signs, symptoms, risk factors, and consequences are the same for this population as for the adult population (Dawson, 2018).

## Eating Disorders in Older Adults

The stereotype of an individual with an eating disorder is a young person. However, eating disorders can and do occur in older adults and many often go unnoticed or unrecognized. Thirteen percent of women over the age of 50 engage in eating disorder behaviors (ANAD, 2019). Older adults who have eating disorders fall mainly into three categories:

- Those who have had an eating disorder in the past and went untreated
- Those whose eating disorder went into remission and resurfaced later in life
- Those whose disorder emerged later in life

The largest category is those who have had eating disorders throughout their entire lives.

**Triggers** for older adults dealing with eating disorders can include:

- Divorce
- Loss of parents
- Death of a spouse
- Retirement



- Chronic illness/disability
- Death of an adult child
- Facing mortality
- Living conditions (e.g., nursing home, economic hardship)
- Medical conditions

It can be difficult to identify or diagnose an eating disorder in older adults, but the following **signs** can be clues:

- Significant changes in weight over a relatively short period of time
- Changes in behavior such as disappearing after a meal or using the restroom after eating something
- Boxes of laxatives, diet pills, or diuretics
- Desire to eat in the bedroom alone rather than eating with family or spouse
- Missing food
- Sensitivity to cold
- Excessive hair loss, dental change, heart or gastrointestinal problems (Schaeffer, 2019)

## Screening for Eating Disorders

A number of screening instruments have been developed to identify patients with eating disorders. Some are long and not ideally suited for screening in a primary care setting, but shorter instruments have been developed that may help identify patients who need further evaluation.

- **SCOFF** is a clinician-administered 5-question screening that asks:
  1. Do you make yourself **sick** because you feel uncomfortably full?
  2. Do you worry you have lost **control** over how much you eat?
  3. Have you recently lost more than **one** stone (14 pounds) in a three-month period?
  4. Do you believe yourself to be **fat** when others say you are too thin?
  5. Would you say that **food** dominates your life?
- Eating Disorder Screen for Primary Care (ESP), like the SCOFF, consists of 5 questions.



- Eating Attitudes Test (EAT-26) is one of the most widely used self-report eating disorder instruments.  
(Yager, 2018)

## Treatment Modalities for Eating Disorders

The foundation for treatment of eating disorders includes:

- Adequate nutrition
- Reducing excessive exercise
- Discontinuing purging behaviors

Treatment and therapy may include:

- Medical care and monitoring
- Individual psychotherapy
- Group therapy
- Family therapy
- Nutritional counseling
- Weight restoration and monitoring

Medications such as antidepressants, antipsychotics, or mood stabilizers approved by the FDA may also be helpful in treating these disorders and other co-occurring illnesses such as anxiety or depression (NIMH, 2018b).

Most patients with eating disorders are treated on an outpatient basis, but others may require treatment in a hospital or residential treatment center. Both provide additional support, structure, medical care, and monitoring. Inpatient hospitalization is required for medical instability. Some patients may require medical refeeding, which carries the risk of developing “refeeding syndrome.” This syndrome can occur when patients that have been starved begin to eat again, causing changes in metabolism and shifts in salts and fluids in the body. These changes can result in death (Shashidhar, 2017).

## The Patient with Signs and Symptoms of an Eating Disorder

A patient with an eating disorder may not be easy to identify, and patients may not be forthcoming because of the secrecy and shame that go hand-in-hand with eating disorders. The stereotype of an underweight person makes it easier to identify an eating disorder, but it must be remembered that patients of normal weight or those who are obese also may have an eating disorder.



An assessment should include a screening for eating disorders. A complete physical examination includes vital signs, weight and height, BMI calculation, laboratory analyses, a review of dental examination results, and an assessment of patient safety, self-injury, and suicidal ideation. Orthostatic hypotension or postural orthostatic tachycardia may also help uncover an eating disorder (Harvard Pilgrim Health Care, 2019; Olwyn, 2016).

## Responding to a Patient with an Eating Disorder

Patients in primary care often are not diagnosed with eating disorders most probably due to the fact that they present with apparently unrelated physical or psychiatric complaints. It is important for healthcare providers in outpatient settings to know the signs and symptoms of the disorders, as early intervention produces the best outcomes. The following are factors to keep in mind when working with outpatients:

- Be nonjudgmental. Because there is stigma surrounding eating disorders, patients are often reluctant to discuss them; they are embarrassed and ashamed and are very successful at hiding their behaviors.
- Men in particular are reluctant to disclose such problems because they have learned that “only women develop eating disorders”; they often attribute their symptoms to some other issue or problem.
- Men may not appear to be thin or skinny—only “slim” or “slender.” The message for females is to focus on being skinnier and thinner, but the messages aimed at males promote hypermasculine bodies that are toned and muscular.
- Eating disorders can exist behind a “healthy diet” disguise (e.g., low-fat, vegetarian, vegan), and many patients report multiple food allergies.

If the provider knows the signs and symptoms and when there is any suggestion that a patient may have such a disorder, two simple questions can help rule out or open the door to a more in-depth conversation about eating disorders:

1. Does your weight affect how you feel about yourself?
2. Are you satisfied with your eating patterns?  
(NEDA, 2018c; David, 2016)

### CASE

#### A Patient with an Eating Disorder

Grace is a 20-year-old female college student who has come to the clinic with the chief complaint of abdominal pain and constant constipation. She says she has been using over-the-counter laxatives, but they “don’t work.” While taking her health history, the intake nurse, Helen, notes that Grace looks thin, pale, and tired, and she reports being a bit moody.



Helen: "You look a bit tired."

Grace: "Oh, yes. I am. I'm so stressed out. I have my college finals next week."

Helen: "I see. What else is concerning you, Grace?"

Grace: "My periods have been a bit erratic lately."

Helen: "Erratic?"

Grace: "Yeah. Some months I miss my period. I get scared I might be pregnant."

Helen: "Have you lost any weight lately, Grace?"

Grace: "Yeah, I've lost a couple of pounds, but I think that's because of the stress of my finals."

Helen: "Do you think your diet might have anything to do with your constipation?"

Grace: "Oh, I don't think so. I'm a vegan now because I have allergies to meat and dairy, so now I only eat vegetables."

Helen: "Grace, does how much you weigh affect how you think and feel about yourself?"

Grace: "Well, of course. Nobody wants to be fat and ugly. I'd die if I was fat."

Helen: "Do you feel fat and ugly?"

Grace: "Well, I am, aren't I?"

Helen: "So, are you happy with how you eat and with what you eat?"

Grace: "I try to watch what I eat very carefully. I'm quite picky and don't like a lot of stuff."

Using Grace's complaint of erratic menstrual periods, along with the two questions "Have you lost any weight lately?" and "Does how much you weigh affect how you think and feel about yourself?", Helen has validated her suspicion that Grace may have an eating disorder. She will discuss this with the physician and further screening and treatment recommendations should follow.

### **Discussion**

Helen was alerted to the possibility of an eating disorder by Grace's appearance, her complaints of abdominal pain and constant constipation, her use of over-the-counter laxatives that "don't work," and her complaints of being under stress. A big red flag went up when Grace talked about her erratic menstrual cycles and her recent weight loss.

As Helen continued to interview Grace, she understood that patients with eating disorders often complain of many food allergies and restriction to one food group (in this case, only vegetables). To further clarify her suspicion that Grace has an eating disorder, Helen asked questions that involved her perceptions about weight, her self-image, and her approach to eating. Helen is now in a position to refer Grace for further assessment and intervention. Throughout the interaction, Helen used active listening skills, encouraged description of perception, and restatement.



## CONCLUSION

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Providers who do not work in the mental health arena often do not consider that mental health issues may contribute to their patients' physical problems, and that their physical problems may contribute to their mental health problems. Therefore, healthcare providers in every setting must become aware of the significance of mental health disorders among their patient populations and learn to understand and respond to them effectively.

Many in the general public as well as in the healthcare professions also have opinions and attitudes that stigmatize patients with mental illness, thus preventing patients (and healthcare professionals themselves) from speaking out and seeking help or treatment for their mental health issues.

It is often said that working with patients who have mental health disorders is “not my domain.” But mental health is everyone's domain. Mental illness is all around us, and healthcare providers must make it a priority to learn about them and about ways in which to communicate and help patients have a better quality of life. That is what ensuring quality healthcare means.



## RESOURCES

American Addiction Centers  
<https://americanaddictioncenters.org>

American Psychiatric Association  
<https://www.psychiatry.org>

Anxiety and Depression Association of America Screening Tools  
<https://adaa.org/living-with-anxiety/ask-and-learn/screenings>

Mental Health America  
<https://www.mhanational.org>

National Alliance on Mental Illness  
<https://www.nami.org>

National Association of Anorexia Nervosa and Associated Diseases  
<https://www.anad.org>

National Eating Disorders Association  
<https://www.nationaleatingdisorders.org>

National Institute of Mental Health  
<https://nimh.nih.gov>



National Institute on Drug Abuse  
<https://www.drugabuse.gov>

Substance Abuse and Mental Health Services Administration  
<https://www.samhsa.gov>

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## TEST

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1. The strongest barrier for individuals with mental illness to seek healthcare is:
  - a. Affordability.
  - b. Family responsibilities.
  - c. Healthcare system and provider stigma.
  - d. Transportation problems.
  
2. Which is a **true** statement about mental illness?
  - a. Mental illness is not experienced by very young children.
  - b. All persons with mental illness are unpredictable and dangerous.
  - c. Mental illness does not include addiction.
  - d. People with mental illness can get better.
  
3. The concept of mental health is best described along a continuum from:
  - a. Fatigue to mental illness.
  - b. Disturbances to a dysfunctional disorder.
  - c. Adaptive coping to stress.
  - d. Well-being to illness.
  
4. Which is a **correct** statement about older adults and health?
  - a. Older adults with mental illness have the lowest suicide rate of any group.
  - b. Alcohol abuse is one of the eight leading causes of death among older Americans.
  - c. Older adults with dementia do not have concurrent mental illnesses.
  - d. Seventy percent of primary care visits for older adults are driven by physical factors.
  
5. Approximately which percentage of people who die by suicide in the United States display symptoms of mental illness?
  - a. 20%
  - b. 30%
  - c. 50%
  - d. 90%



6. While the exact cause of mental illness is unknown, one of the most accepted explanations is the:
- Epigenetic theory.
  - Diathesis-stress model.
  - Somatogenic model.
  - Sociocultural model.
7. Which is a **correct** statement regarding the biological causes of mental illness?
- There are blood tests to determine the biological causes of specific mental illnesses.
  - Epigenetics does not play a role in the cause of mental illness.
  - Susceptibility to certain mental illnesses tends to run in families.
  - Environmental stress does not play a role in causing mental illness.
8. Major depressive disorder (MDD) is a psychiatric disorder that:
- Causes no outward interference with functioning.
  - Causes more symptoms in men than women.
  - Is the result of alcohol or drug abuse.
  - Is commonly a progressive recurrent illness.
9. Which is an accurate description of depression in children and adolescents?
- It manifests very differently than in adults.
  - It is more common in early childhood.
  - It rises sharply in adolescence.
  - It decreases in mid to late childhood.
10. Depression in older adults may be linked to:
- Normal aging.
  - Chronic pain or disability.
  - Residual symptoms of recovery.
  - Being pessimistic.
11. Screening for depression is recommended:
- Only when patients have symptoms of depression.
  - Only for older adults over age 80 during routine visits.
  - For youth once they reach the age of 14 years.
  - For all patients during routine visits.



- 12.** The initial treatment modality for depression is:
- Pharmacotherapy only using antidepressants.
  - A combination of pharmacotherapy and psychotherapy.
  - Pharmacotherapy and electroconvulsive therapy.
  - Behavioral activation and vagus nerve stimulation.
- 13.** Children, adolescents, and young adults who are taking antidepressants should be carefully monitored for:
- Skin rash.
  - Fluid retention.
  - Suicidal thinking or behavior.
  - Medication efficacy before six weeks of therapy.
- 14.** Effectively responding to persons with depressive symptoms involves:
- Reassuring them that everything will be okay.
  - Giving them helpful advice about how to deal with their problems.
  - Encouraging self-compassion within themselves.
  - Disagreeing when they make negative assumptions about themselves.
- 15.** Which is a **true** statement concerning bipolar disorder?
- The average age of onset is 15 years of age.
  - Bipolar disorder affects men more than women.
  - Persons in a manic state are unintelligible and incoherent.
  - Manic episodes may include symptoms of psychosis.
- 16.** Which is a **true** statement regarding bipolar disorder in children and adolescents?
- The manifestations in youth are always the same as those among mature adults.
  - The hallmark of bipolar disorder in children is intense, unprovoked rage.
  - The symptoms of bipolar disorder are easy to assess in children.
  - Children with bipolar disorder do not present with comorbid conduct disorders.
- 17.** Which medication used for the treatment of bipolar disorder has a high risk of toxicity?
- Diazepam
  - Lithium carbonate
  - Valproic acid
  - Risperidone



- 18.** Which is a psychological intervention for bipolar disorder that focuses on stabilization of daily sleeping, waking, and mealtime cycles?
- Interpersonal and social rhythm therapy
  - Cognitive behavioral therapy
  - Family-focused therapy
  - Psychoeducation
- 19.** Clinicians in healthcare settings outside of mental health should suspect bipolar disorder when a patient presents with:
- Multiple somatic complaints.
  - A strong family history of depression.
  - Erratic patterns at work and in relationships.
  - Personality traits such as low self-esteem.
- 20.** An effective way to respond to a patient with bipolar disorder symptoms or behaviors is to:
- Appeal to the patient using logic in an attempt to change a behavior.
  - Tell the patient you forbid them to behave and say things that are inappropriate.
  - Provide consistent limits on the patient's behaviors and verbal abuse.
  - Encourage the patient to focus on more than one topic at a time.
- 21.** Which is a **true** statement regarding anxiety disorders?
- They are the least common mental illness in United States.
  - They do not affect children.
  - Women are affected more than men.
  - Co-occurring mental disorders are uncommon.
- 22.** An anxiety disorder in which inappropriate ideas take the form of intrusive and unwanted thoughts, urges, or images is called:
- Obsessive-compulsive disorder.
  - Generalized anxiety disorder.
  - Posttraumatic stress disorder.
  - Separation anxiety disorder.
- 23.** Recognizing an anxiety disorder in older adults can be difficult because they:
- Have an absence of affect.
  - Have fewer psychological concerns.
  - Present anxiety similarly to children and adolescents.
  - Tend to somaticize psychiatric problems.



- 24.** Which class of medication for treatment of anxiety disorders should be used with extreme caution in older adult patients?
- Selective serotonin reuptake inhibitors
  - Tricyclic antidepressants
  - Anticonvulsants
  - Benzodiazepines
- 25.** An effective strategy when responding to a patient experiencing symptoms of an anxiety disorder is to:
- Acknowledge what the patient is experiencing.
  - Ask the patient to calm down.
  - Remind the patient there is nothing to fear or be nervous about.
  - Tell the patient not to overreact.
- 26.** Which domain of dysfunction in schizophrenia involves the symptoms of inertia, decrease in emotional range, poverty of speech, and loss of interest and drive?
- Positive
  - Negative
  - Cognitive
  - Mood
- 27.** Which is a **true** statement about the consequences for patients with psychotic disorders?
- The prognosis in patients is positive for full recovery.
  - Patients are normally outgoing and social.
  - Most patients are able to maintain employment.
  - Many patients slide into poverty or incarceration.
- 28.** Which is a **true** statement about psychotic disorders in children and adolescents?
- Schizophrenia has been reliably diagnosed in children younger than 7 years.
  - Children with schizophrenia have hallucinations but do not have delusions.
  - Schizophrenia increases dramatically once children reach 13 years of age.
  - After age 12, there is an excess ratio of girls to boys with schizophrenia.
- 29.** One of the most dangerous side effects of antipsychotics that is a medical emergency is:
- Neuroleptic malignant syndrome.
  - Orthostatic hypotension.
  - Sedation.
  - Neutropenia.



- 30.** The psychosocial therapy indicated for patients with schizophrenia that aims to improve quality of life through directed development of basic skills focusing on attention, memory, and executive function is called:
- Relapse therapy.
  - Cognitive remediation.
  - Social skills training.
  - Cognitive behavioral therapy.
- 31.** To respond effectively to a patient who is hallucinating voices, the clinician:
- Avoids asking the patient if they are hallucinating.
  - Speaks to the voices and tells them to stop talking to the patient.
  - Explains to the patient that none of the experience is real.
  - Directs the patient to tell the voices to go away.
- 32.** When responding to a patient who is having a delusion, the clinician:
- Does not challenge the delusion directly.
  - Goes along with the patient's delusion.
  - Touches the patient to offer reassurance.
  - Does not attempt to distract the patient.
- 33.** Angry reactions to fairly minor provocations, a grandiose self-image, needing admiration, and a lack of empathy are symptoms of which type of personality disorder?
- Paranoid
  - Narcissistic
  - Histrionic
  - Antisocial
- 34.** The first-line treatment for patients with borderline personality disorder is:
- Exercise.
  - Pharmacotherapy.
  - Psychotherapy.
  - Relaxation.



- 35.** Which is an effective response when communicating with a patient who has symptoms and behaviors of borderline personality disorder?
- Lecturing the patient about the appropriate ways to behave
  - Agreeing with the patient's absurd statements or illogical arguments
  - Finding and validating the element of truth in what the patient has said
  - Taking sides when the patient says another staff person is being cruel to them
- 36.** The most serious form of withdrawal from alcohol is:
- Anxiety and tachycardia.
  - Rambling and incoherent speech.
  - Delirium tremens.
  - Elevated blood pressure.
- 37.** A **unique** symptom of “club drugs” is that they cause:
- Impaired social or occupational functioning.
  - Hallucinations.
  - Psychomotor agitation.
  - Anterograde amnesia.
- 38.** Which is a sign or symptom of withdrawal from opioids?
- Abdominal cramping
  - Grand mal seizures
  - Unpleasant dreams
  - Euphoria
- 39.** Which is an indicator of possible substance use among children and adolescents?
- Periodic depressed mood
  - Rapid weight gain
  - Chronic coughing or sniffing
  - Absence of deviant behavior
- 40.** Which symptom in the older adult may raise suspicion of a problem with substance use?
- A chronic health problem
  - New weight gain
  - Sensory impairment
  - Depression



- 41.** The most widely used group of drugs used during treatment of alcohol withdrawal are:
- Intravenous anticonvulsants.
  - Oral methadone and naltrexone.
  - Intravenous benzodiazepines.
  - Long-acting barbiturates.
- 42.** Which treatment for substance use disorders can be described as a collaborative, therapeutic conversation that addresses the problem of ambivalence for changes?
- Cognitive behavioral therapy (CBT)
  - Rational emotive behavior therapy (REBT)
  - Dialectical behavior therapy (DBT)
  - Motivational interviewing (MI)
- 43.** When a clinician assesses a patient with a substance use disorder using the “5 As,” the **first** step is to:
- Approach the person with a list of concerns.
  - Ask the person questions to ascertain possible drug use.
  - Advise the person about the health risks they are taking.
  - Assist the person to make a change in their behavior.
- 44.** A symptom of binge-eating disorder is:
- Worn tooth enamel.
  - Hidden stashes of food.
  - A fear of eating in public.
  - The appearance of lanugo.
- 45.** Which treatment can result in a serious outcome for patients who have been starved because of an eating disorder?
- Medications such as mood stabilizers
  - Medical refeeding
  - Discontinuation of purging
  - Weight restoration and monitoring

