Obsessive-compulsive disorder in adults: Epidemiology, clinical features, and diagnosis

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INTRODUCTION

Obsessive-compulsive disorder (OCD) is characterized by recurrent intrusive distressing thoughts, images, or urges (obsessions), and/or by behavioral acts (compulsions) that the individual feels driven to perform. Obsessions cause distress – typically anxiety, but sometimes disgust or an inchoate sense of wrongness or incompleteness. Compulsions are typically performed in response to obsessions, often according to rules that must be applied rigidly. Most individuals with OCD have both obsessions and compulsions.

OCD typically starts in childhood or adolescence, persists throughout life, and produces substantial impairment in functioning due to the severe and chronic nature of the illness. However, natural history can vary, with some cases improving, some worsening over time, and some waxing and waning [1].

The epidemiology, pathogenesis, clinical manifestations, course, and diagnosis of OCD are described here. Pharmacotherapy, psychotherapy, and deep brain stimulation for OCD and topics on OCD in children and adolescents, as well as pregnancy and postpartum females, are discussed separately.

- (See "Management of obsessive-compulsive disorder in adults".)
- (See "Obsessive-compulsive disorder in adults: Psychotherapy".)
- (See "Deep brain stimulation for treatment of obsessive-compulsive disorder".)

- (See "Obsessive-compulsive disorder in children and adolescents: Epidemiology, pathogenesis, clinical manifestations, course, assessment, and diagnosis".)
- (See "Obsessive-compulsive disorder in pregnant and postpartum patients".)

EPIDEMIOLOGY

Prevalence — The lifetime prevalence of obsessive-compulsive disorder (OCD) worldwide has been estimated at 1.5 percent for women and 1.0 percent for men [2,3]. Estimated lifetime prevalence among adults in the United States is slightly higher, at 2.3 percent [3,4]. Onset of OCD is common in adolescents and young adults. Subclinical symptoms are common, which may explain the variable prevalence rates reported in different studies. (See 'Onset' below.)

Females are affected at a slightly higher rate than males in adulthood, although males are more commonly affected in childhood [4,5].

Comorbidities — OCD is commonly comorbid with many different disorders; only a minority of patients have OCD with no comorbidities. The presence and severity of comorbid conditions such as depression, tic disorders, and obsessive-compulsive personality disorder are associated with a lower response rate to treatment.

- **Psychiatric disorders** – Psychiatric disorders that are more commonly seen in individuals with OCD than in the general population include:
  - **Anxiety disorders** – In epidemiologic samples, 76 percent of individuals have a comorbid anxiety disorder, including panic disorder (13 to 56 percent) [6], social anxiety disorder, generalized anxiety disorder (30 percent) [6], and specific phobia.
  - **Mood disorders** – In epidemiologic studies, 63 percent of individuals with OCD have a lifetime history of a mood disorder, most commonly major depressive disorder (41 percent) [3]. Bipolar disorder appears to be present in up to 22 percent of individuals with OCD [6].
  - **Obsessive-compulsive personality disorder** – In clinical studies, up to 32 percent of individuals have comorbid obsessive-compulsive personality disorder [7].
  - **Tic disorders** – In clinical studies, up to 29 percent of individuals with OCD have a comorbid tic disorder, or a history of tics. This is most commonly seen in males with childhood onset of OCD [8].

- **Obsessive-compulsive related disorders** – These include body dysmorphic disorder, hoarding disorder, trichotillomania (hair pulling disorder), and excoriation (skin picking) disorder. These disorders are more commonly seen in individuals with OCD than in the general population [9].

OCD appears to be more common in individuals with some psychiatric disorders than in the general population. When these disorders are diagnosed, we typically assess for OCD as well. These include schizophrenia or schizoaffective disorders (12 percent with OCD) [10,11], bipolar disorder (13 percent) [12], Tourette disorder (30 to 50 percent) [6,13], body dysmorphic disorder (33 percent) [14], and eating disorders such as anorexia nervosa or bulimia nervosa (40 percent) [15]. Among eating disorders, genetic evidence suggests a particular association with anorexia nervosa [16].(See "Tourette syndrome: Pathogenesis, clinical features, and diagnosis" and "Comorbid anxiety and depression in adults: Epidemiology, clinical manifestations, and diagnosis" and "Bipolar disorder in adults: Clinical features", section on 'Obsessive-compulsive disorder'.)

- **Neurologic disorders** – OCD symptoms are often described in individuals with neurologic conditions characterized by basal ganglia dysfunction, such as Huntington disease, Sydenham chorea, and Parkinson disease [6]. They have also been described in temporal lobe epilepsy [6]. (See "Huntington disease: Clinical features and diagnosis" and "Sydenham chorea", section on 'Neuropsychiatric symptoms' and "Focal epilepsy: Causes and clinical features", section on 'Neuropsychiatric symptoms'.)

  Additionally, evidence suggests potential associations between OCD and dementia [17,18] and OCD and ischemic stroke [19].

- **Cognitive disorders/dementia** – In a longitudinal study from the Taiwan National Health registry involving 1347 individuals with OCD, the risk of developing any dementia was greater than for comparative controls (hazard ratio 4.28, 95% CI 2.96-6.21) [20]. The risk included the development of Alzheimer disease and vascular dementia. It is possible that the obsessive-compulsive symptoms may be an early manifestation of dementia rather than dementia occurring as a complication of OCD.

- **Cardiovascular and cerebrovascular disease** – Cardiovascular and cerebrovascular disease appear to be associated with OCD. However, it is unclear whether these associations are due to a shared pathogenesis (eg, inflammation) or whether they result from unhealthy lifestyle in some with OCD. In a longitudinal study (also using the Taiwan National Health registry) of over 28,000 individuals with OCD, OCD was associated with ischemic stroke (hazard ratio 3.02, 95% CI 1.91-4.77) [19]. However, the risk for

hemorrhagic stroke did not significantly differ between individuals with OCD and those without OCD (hazard ratio 0.87, 95% CI 0.42-1.8).

A similar study of 33,561 individuals with OCD in Sweden found smaller increases in risk of thromboembolism (hazard ratio 1.48, 95% CI 1.38-1.58) and of heart failure (hazard ratio 1.37, 95% CI 1.28-1.46) [21].

In some cases, there is symptomatic overlap in the presentation of individuals with OCD and comorbid disorders. (See 'Differential diagnosis' below.)

PATHOGENESIS

Studies suggest that genetic, neurobiological, psychological, infectious, hormonal, and traumatic factors may contribute to the pathogenesis of obsessive-compulsive disorder (OCD) [22-34].

Genetic factors — Twin and family studies suggest that there is a genetic contribution to OCD, with greater genetic influences in pediatric-onset OCD than in adult-onset OCD [24]; heritability has been estimated to be 40 to 50 percent – less than that of autism and schizophrenia but greater than that of major depressive disorder [28]. The precise genes involved in OCD are not known, although work in this area is ongoing [25-28,35].

Neurobiology — Numerous lines of research support a role for alterations in cortico-striato-thalamo-cortical (CSTC) circuits and/or neurochemical abnormalities in the pathogenesis of OCD.

- **CSTC circuit alterations** – Structural and functional imaging studies have found abnormalities in CSTC circuits in patients with OCD [22,36]. While there are inconsistencies among studies, the most commonly reported abnormalities occur in the orbitofrontal cortex, medial prefrontal cortex, the anterior cingulate cortex, striatum, hippocampus and the pallidum [37,38]. Furthermore, case reports show that neurosurgical alteration to CSTC circuits can reduce symptoms of OCD and that new onset of OCD can occur after brain lesions within this circuitry [39-42].

  Abnormalities in other brain regions have also been reported, and current models of brain dysregulation in OCD include abnormalities in multiple brain circuits [43].

- **Neurochemical abnormalities** – Neurochemical abnormalities, including changes in serotonergic [44], dopaminergic [45], and/or glutamatergic [46-48] concentration are

hypothesized to play a role in the pathophysiology of OCD [1]. However, studies testing these hypotheses are inconclusive.

Psychological predisposing factors — Certain transdiagnostic cognitive traits have been shown to predispose to the development of OCD. These were characterized by the Obsessive-Compulsive Cognitions Working Group and include:

- An inflated sense of responsibility
- Overestimation of threat or risk
- Perfectionism
- Intolerance of uncertainty
- Exaggerated importance of thoughts
- Exaggerated importance of controlling one's thoughts

These domains can be assessed using the Obsessive Beliefs Questionnaire [49]. These cognitive traits are continuously distributed in the population and are not specific to OCD.

Other factors — Several other factors (eg, infectious, hormonal, and traumatic factors) have been implicated in OCD. However, causal associations have not been established [29]. As examples:

- **Infectious** – Onset of OCD or OCD symptoms is associated with recent infection in some children; this is described as pediatric autoimmune neuropsychiatric disorder associated with group A streptococcal infection (PANDAS) or pediatric acute-onset neuropsychiatric syndrome (PANS). It is hypothesized that infection in susceptible children leads to autoreactive antibodies through the phenomenon of molecular mimicry, leading to inflammation of the basal ganglia and thereby to symptoms; immune modulating treatments are used in some such cases [50]. The details of this proposed pathophysiology remain unclear, and more research is needed. (See "PANDAS: Pediatric autoimmune neuropsychiatric disorder associated with group A streptococci".)

- **Hormonal** – Hormonal fluctuations may play a role in the development of OCD. New onset or exacerbation of OCD has been described in premenstrual and perinatal periods [51]. (See "Obsessive-compulsive disorder in pregnant and postpartum patients".)

- **Stress/trauma** – Stress may play a role in precipitating OCD [52]. Acute OCD onset has been reported in adults following exposure to traumatic events.

CLINICAL FEATURES

Obsessions and compulsions — The majority of individuals with obsessive-compulsive disorder (OCD) manifest both obsessions and compulsions; however, both are not necessary for a diagnosis [53,54]. Patients who self-describe as having only obsessions ("pure-O") are often found upon careful evaluation to have covert compulsions. Obsessions and compulsions typically have a functional relationship to one another [55].

- **Obsessions** – Obsessions are intrusive, unwanted, repetitive, and persistent thoughts, images, or urges that usually cause marked distress. The distress is often described as anxiety but may also be experienced as disgust or as a sense of wrongness or incompleteness. Obsessions may involve content that is odd, irrational, or of a seemingly magical nature (eg, harm will come if the closet is not arranged in a specific order), but they can also be of unremarkable content that has become excessive or rigid. Obsessions are not always thoughts that can be readily put into words. They can be distressing mental images, which are often quite vivid but understood to be internally generated. They can also be intrusive urges to engage in behaviors discordant with the sufferer's actual intentions, often of a violent, suicidal, or sexual nature. Care must be taken to discriminate between such intrusive unwanted urges and actual violent, suicidal, or sexual intentions. (See 'Assessment' below.)

  Although intrusive thoughts are nearly universal, obsessions are characterized by a maladaptive interpretation of these thoughts as being particularly powerful or important [55]. Individuals with OCD attempt to ignore, suppress, or neutralize these thoughts, often with another thought or behavior, which can become a compulsion.

- **Compulsions** – Compulsions, or rituals, are behaviors that an individual feels driven to perform to reduce the distress triggered by an obsession or according to rules that must be applied rigidly. They are, by definition, irrational or clearly excessive. While some compulsions are observable, such as repetitive or ritualized washing or double-checking, others can be covert or entirely mental, such as mentally counting or reciting a prayer or other phrase.

  Compulsions are often thematically related to an obsession (eg, washing rituals typically occur with obsessive fears of contamination), but they may not be connected to the content of the obsession in a realistic way (ie, they may be superstitious). As an example, an individual may feel the need to turn a doorknob three times every time they leave a room to prevent a soldier from being killed on a battlefield far away.

  The content of obsessions and the nature of compulsions can vary almost infinitely, but certain themes or dimensions are typical. These include:

- Contamination obsessions accompanied by cleaning compulsions
- A need for symmetry or exactness, accompanied by ordering or arranging compulsions
- Fear of harm to self or others, accompanied by checking compulsions or by other behaviors superstitiously felt to avert harm, such as counting or praying
- Forbidden or taboo thoughts (aggressive, sexual, or religious obsessions and related compulsions), accompanied by checking, neutralizing behaviors, or compulsively seeking reassurance

Characterizing the content of obsessions and compulsions is critical to tailor cognitive-behavioral therapy. (See "Obsessive-compulsive disorder in adults: Psychotherapy".)

Associated features — Clinical features beyond these core characteristics may affect the level of psychosocial impairment. Some of these features (eg, avoidance behaviors) are potential targets for psychotherapy. (See "Obsessive-compulsive disorder in adults: Psychotherapy", section on 'Cognitive-behavioral therapy'.)

- **Suicidality and thoughts of harm to others** – Suicidality in OCD patients is associated with comorbid axis I disorders, severity of symptoms, feelings of hopelessness, and past history of suicide attempts. Suicidal ideation may vary throughout the course of the disease. For example:
  - In a large collaborative survey including 3711 individuals with OCD, suicidal ideation in the past month was reported in 6 percent of individuals. A lifetime suicide attempt was reported in 9 percent [56].
  - In a meta-analysis investigating the relationship between individuals with OCD and suicidality, lifetime rates of suicidal ideation were as high as 64 percent (across 18 studies), while lifetime rates of suicide attempt were as high as 46 percent (across 22 studies) [57].

  Some individuals with OCD experience intrusive thoughts and/or urges about harming others (see 'Clinical features' above). These patients do not appear to be more likely to act on these thoughts than are individuals in the general population [58,59]. In fact, because they are distressed by these intrusive thoughts, they may be particularly unlikely to act on them.
- **Avoidance behaviors** – Individuals with OCD often avoid places and situations that may trigger obsessive thoughts. Avoidance can be effective in reducing obsessions and

compulsions but may become pervasive and severely restrict functioning. For example, individuals with contamination concerns might avoid public places (eg, restaurants, public restrooms) to reduce exposure to feared contaminants. Individuals with intrusive thoughts about causing harm to others may avoid social interactions.

- **Level of insight** – Individuals with OCD differ in the degree to which they believe that their obsessions and compulsions are excessive or unreasonable [53,54,60] or that the beliefs underlying their obsessions are true [56]. Insight can vary over the course of the illness. Poor insight has been linked in some studies (but not all) to worse long-term outcomes [61]. In a minority of people with OCD (≤4 percent) insight is absent, such that their beliefs are delusional in nature [60]. For example, an individual may be convinced that their thoughts can physically harm another person. Such individuals should be diagnosed with OCD with absent insight/delusional beliefs rather than a psychotic disorder [62]. Because OCD with absent insight can resemble psychosis, differential diagnosis can be challenging. (See 'Psychotic disorders' below.)

- **Panic attack** – Most individuals with OCD experience anxiety. This can lead to panic attacks in some cases. If panic attacks are triggered by OCD symptoms, "OCD with panic attacks" should be diagnosed rather than panic disorder [62].

CLINICAL COURSE AND COMPLICATIONS

Onset — Symptom onset is often gradual. Many individuals suffer with obsessions and compulsions for many years before recognizing them as a mental illness for which treatment is available. Some individuals have more rapid onset and may trace their symptoms to a particular stressor or other event; however, since such attributions are typically reported retrospectively, it is difficult to ascertain whether these associations are causal. Rapid onset is sometimes seen in children in conjunction with a recent infection, as discussed above. (See 'Other factors' above.)

In the United States, the mean age of onset of obsessive-compulsive disorder (OCD) is 19.5 years. Nearly 25 percent of cases begin by age 14 years [3,4]. Males tend have an earlier age of onset than females, with 25 percent having onset before age 10 [3]. Onset after age 35 years is unusual [63]. (See 'Prevalence' above.)

Course and effect of treatment — While many individuals with onset of OCD in childhood or adolescence will have lifetime symptoms, some individuals will remit by early adulthood [64]. In a meta-analysis of 16 studies, individuals with OCD were followed for up to 15.6 years [65]. Forty percent of individuals (most treated with cognitive-behavioral therapy, pharmacologic

management, or both) achieved remission (not meeting criteria for full or subthreshold OCD). Without treatment, rates of remission (usually defined as minimal to no symptoms) of OCD in adults are low. For example in a prospective study, over the 40-year follow-up of 144 adults with OCD, only 20 percent met criteria for remission [66].

Remission rates also vary depending on comorbidity, treatment selection, treatment adequacy and how treatment is delivered, and how remission is defined. As an example, a trial found that adults with OCD who received optimally delivered evidence-based treatment for 12 weeks (ie, serotonin reuptake inhibitor [SRI], exposure and response [ritual] prevention, or SRI+exposure and response prevention) had remission rates ranging from 25 to 58 percent depending upon the specific treatment received. Remission was defined as no more than mild symptoms [67]. (See 'Comorbidities' above.)

Effects on development, functioning, and quality of life — OCD is associated with impaired social and occupational functioning and reduced quality of life [68,69].

When OCD starts in childhood or adolescence, individuals may experience developmental difficulties. As examples, adolescents may avoid socializing with peers; young adults may struggle to leave home and live independently. Individuals with OCD may try to impose rules and prohibitions on family members or other caregivers because of their disorder. This may result in family/caregiver accommodation of rituals or participation in rituals. Family accommodation contributes to symptom severity and persistence and can impede treatment [70]. High family or caregiver burden leads to reduced quality of life among those who live with and care for individuals with OCD.

Impairments may be related to specific symptoms. As examples, obsessions about harm can make relationships with family and friends feel hazardous and result in avoidance. Obsessions related to symmetry or perfectionism can derail the timely completion of school or work projects. Individuals with contamination concerns may avoid health care settings due to fear of exposure to germs or may develop dermatologic problems (eg, skin lesions) due to excessive washing. In some cases, symptoms of OCD can interfere with its own treatment (eg, when medications are considered contaminated).

ASSESSMENT AND DIAGNOSIS

Assessment — We suspect a diagnosis of obsessive-compulsive disorder (OCD) in individuals with intrusive, recurrent, and persistent thoughts, urges, or images, or in those with repetitive mental acts or repetitive behaviors. Certain classic symptoms may immediately raise the

possibility of an OCD diagnosis (eg, extensive washing, checking of stoves and doors), but OCD is protean, and other symptom patterns may be easily missed. When possible, we obtain history from family members or other reliable sources in addition to the patient. We also evaluate for other features that may suggest alternative or coexisting disorders.

- **Determining pathologic nature of symptoms** – We differentiate symptoms due to OCD from intrusive thoughts or repetitive behaviors that are common in the general population and produce little impairment by establishing how much time is consumed by the symptoms and the amount of distress and impairment associated with them. In OCD, symptoms are time consuming (eg, more than one hour spent per day with obsessions or compulsive behaviors) and/or cause significant distress or impairment in social or occupational functioning [71-73]. The frequency, amount of time consumed, and extent to which obsessions/compulsions cause the patient distress or interfere with their life distinguish OCD from occasional intrusive thoughts or repetitive behaviors that are common in the general population (eg, double-checking that a door is locked) [71-73]. It is important to account for avoidance in this assessment; pervasive avoidance can effectively constrain obsessions and compulsions but then becomes a source of impairment in its own right.

  We assess whether there is a link between the compulsive behavior and obsessional symptoms, and whether there are specific feared consequences if a ritual or compulsion is not performed. Compulsions that are done as an attempt to neutralize obsessional thoughts or impulses are typical in OCD; this relationship may be a helpful diagnostic clue. For example, individuals with OCD may perform rituals to avoid perceived harm (eg, showering repeatedly to avoid "contaminants" and subsequent illness).

- **Evaluating for other symptoms or behaviors** – Individuals with OCD may have symptoms commonly seen in other disorders. For example, individuals may present with severe anxiety and panic attacks (as in panic disorder), avoidance of social situations (as in social anxiety disorder), or difficulty discarding objects (as in hoarding disorder). In such cases, OCD should be diagnosed rather than the disorder that OCD symptoms resemble. If OCD symptoms trigger panic attacks, OCD with panic attacks should be diagnosed rather than panic disorder. However, in many cases comorbid diagnoses are present. We evaluate individuals with symptoms of obsessions or compulsions for the presence of co-occurring psychiatric disorders. In cases where an individual meets diagnostic criteria for both disorders, both are diagnosed. (See 'Differential diagnosis' below.)

Monitoring — The standard scale for measuring OCD severity is the Yale-Brown Obsessive Compulsive scale (Y-BOCS) (figure 1) [74,75]; it consists of a checklist of obsessions and

compulsions and a scale that assesses their severity. We undertake a baseline assessment of a new patient with suspected OCD and follow this with routine reassessment over time to monitor the patient's course of illness and response to treatment.

The Y-BOCS has both an interviewer version and a self-report version [76]. Simpler self-report scales, the Obsessive Compulsive Inventory-Revised, the Florida Obsessive-Compulsive Inventory, and the Dimensional Obsessive-Compulsive Scale [77-79], provide alternatives to the Y-BOCS but may miss some symptoms, especially when insight is poor, and may underestimate impairment.

Diagnosis — A diagnosis of OCD is made in accordance with the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision (DSM-5-TR) diagnostic criteria for OCD [62]:

- "A. Presence of obsessions, compulsions, or both:

  Obsessions as defined by both:

  - 1. Recurrent and persistent thoughts, urges, or images that are experienced, at some time during the disturbance, as intrusive and unwanted, and that in most individuals cause marked anxiety or distress.

  - 2. The individual attempts to ignore or suppress such thoughts, urges, or images, or to neutralize them with some other thought or action (ie, by performing a compulsion).

  Compulsions as defined by both:

  - 1. Repetitive behaviors (eg, hand washing, ordering, checking) or mental acts (eg, praying, counting, repeating words silently) that the individual feels driven to perform in response to an obsession, or according to rules that must be applied rigidly.

  - 2. The behaviors or mental acts are aimed at preventing or reducing anxiety or distress or preventing some dreaded event or situation; however, these behaviors or mental acts either are not connected in a realistic way with what they are designed to neutralize or prevent or are clearly excessive.

- B. The obsessions or compulsions are time-consuming (eg, take more than one hour per day) or cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

- C. The obsessive-compulsive symptoms are not attributable to the physiological effects of a substance (eg, a drug of abuse, a medication) or another medical condition.
- D. The disturbance is not better explained by the symptoms of another mental disorder, for example:
  - Excessive worries, as in generalized anxiety disorder
  - Preoccupation with appearance, as in body dysmorphic disorder
  - Difficulty discarding or parting with possessions, as in hoarding disorder
  - Hair pulling, as in trichotillomania (hair-pulling disorder)
  - Skin picking, as in excoriation (skin-picking) disorder
  - Stereotypies, as in stereotypic movement disorder or autism spectrum disorder
  - Ritualized eating behavior, as in eating disorders
  - Preoccupation with substances or gambling, as in substance-related and addictive disorders
  - Preoccupation with having an illness, as in illness anxiety disorder
  - Sexual urges or fantasies, as in paraphilic disorders
  - Impulses, as in disruptive, impulse-control, and conduct disorders
  - Guilty ruminations, as in major depressive disorder
  - Thought insertion or delusional preoccupations, as in schizophrenia spectrum and other psychotic disorders
  - Repetitive or restricted patterns of behavior, as in autism spectrum disorder
- Specifiers for OCD in DSM-5-TR – Specifiers for the disorder include assessments of the patient's insight and presence/history of a tic disorder.
  - Patient's degree of insight into the illness
    - With good or fair insight – The individual recognizes that OCD beliefs are definitely or probably not true or that they may or may not be true.
    - With poor insight – The individual thinks OCD beliefs are probably true.

- With absent insight/delusional beliefs – The individual is completely convinced that OCD beliefs are true.

- Tic-related – The individual has a current or past history of a tic disorder." (See "Tourette syndrome: Pathogenesis, clinical features, and diagnosis", section on 'Obsessive-compulsive disorder'.)

Differential diagnosis — In diagnosing OCD, we rule out other disorders that may present with similar or overlapping features. We do this by taking a careful history and review of the symptoms, including their course, quality, and presence of precipitating factors. In individuals who meet criteria for both disorders simultaneously, both are diagnosed.

Anxiety disorders

Generalized anxiety disorder — Recurrent thoughts that are present in generalized anxiety disorder are usually about real-life concerns such as work or school, while the obsessions in OCD usually are not.

OCD-related concerns generally involve content that is odd, irrational, or of a seemingly magical nature, or are clearly unrealistically excessive. In OCD, compulsions are almost always present and usually linked to the obsessions; compulsions are not characteristic of generalized anxiety disorder. (See "Generalized anxiety disorder in adults: Epidemiology, pathogenesis, clinical manifestations, course, assessment, and diagnosis".)

Specific phobia — Individuals with specific phobia, like those with OCD, may have a fear reaction to specific objects or situations. However, the feared objects in specific phobia are usually more circumscribed than those in OCD, and not associated with compulsions. (See "Specific phobia in adults: Epidemiology, clinical manifestations, course, and diagnosis".)

Social anxiety disorder — In social anxiety disorder, the feared objects or situations are limited to social interactions or performance situations. Avoidance or reassurance-seeking is focused on reducing this social fear. (See "Social anxiety disorder in adults: Epidemiology, clinical features, assessment, and diagnosis".)

OCD spectrum disorders — Other disorders that include intrusive thoughts and repetitive behaviors can be distinguished from OCD by the nature of the thoughts and behaviors. These include:

- Body dysmorphic disorder – Individuals with body dysmorphic disorder focus on perceived defect(s) in their physical appearance (which can include symmetry concerns) [80]. In OCD, the symptoms do not focus on perceived defects in appearance. (See "Body dysmorphic

disorder: Clinical features" and "Body dysmorphic disorder: Assessment, diagnosis, and differential diagnosis".)

- Trichotillomania – The repetitive behavior is limited to hair-pulling and is not triggered by obsessions. (See "Skin picking (excoriation) disorder and related disorders".)

- Excoriation disorder – The repetitive behavior is limited to skin picking and is not triggered by obsessions. (See "Skin picking (excoriation) disorder and related disorders".)

- Hoarding disorder — In hoarding disorder, symptoms focus exclusively on the persistent difficulty discarding or parting with possessions, marked distress associated with discarding items, and excessive accumulation of objects. The accumulation of objects is not a response to obsessional thoughts, as in individuals with OCD. As an example, in OCD, the individual may have a compulsion to accumulate and retain objects in response to an obsession (eg, to attain a sense of completeness), while in hoarding disorder there is an inability to discard objects. (See "Hoarding disorder in adults: Epidemiology, clinical features, assessment, and diagnosis" and "Hoarding disorder in adults: Treatment".)

Tic disorders — A tic is a sudden, rapid, recurrent, nonrhythmic motor movement or vocalization (eg, eye blinking, throat clearing). Tics are typically less complex than compulsions and are not aimed at neutralizing obsessions, though they may be associated with uncomfortable sensations. (See "Hyperkinetic movement disorders in children", section on 'Tic disorders' and 'Comorbidities' above.)

Obsessive-compulsive personality disorder — Obsessive-compulsive personality disorder is an enduring and pervasive maladaptive pattern of excessive perfectionism and rigid control. It is associated with substantial disability, especially in the domain of interpersonal relations.

Obsessive-compulsive personality disorder is not a subsyndromal version of OCD. For example, repetitive or inflexible behaviors can occur in obsessive-compulsive personality disorder but are not performed in relation to obsessions. A classic discriminating feature, applicable in many cases, although not all, is that an individual with OCD usually sees their drive to perform particular behaviors (eg, cleaning, ordering) as uncomfortable and problematic, whereas an individual with obsessive-compulsive personality disorder sees their behaviors as appropriate, and they experience irritation, impatience, or a sense of superiority because others do not do them in the same way. (See "Overview of personality disorders" and 'Comorbidities' above.)

Major depressive disorder — The ruminative thoughts present in major depressive disorder are typically mood-congruent, are not necessarily experienced as intrusive, and are rarely linked to compulsive behavior. This contrasts with OCD, where the obsessive ruminations are intrusive

and are typically linked to compulsive behaviors. (See "Unipolar depression in adults: Assessment and diagnosis".)

Psychotic disorders — We distinguish OCD from delusional disorder or other psychotic disorder by the lack of associated symptoms such as hallucinations, disorganized thinking, or affective blunting that is seen with psychotic disorders. (See 'Comorbidities' above and "Psychosis in adults: Epidemiology, clinical manifestations, and diagnostic evaluation".)

Other disorders

- Anorexia nervosa – The intrusive thoughts and repetitive behaviors are limited to concerns about weight, food, or body image. (See "Anorexia nervosa in adults: Clinical features, course of illness, assessment, and diagnosis".)

- Illness anxiety disorder – Recurrent thoughts are exclusively related to fear of currently having a serious disease. Compulsions or associated repetitive behaviors may be present but are typically directed towards fears of illness (eg, repetitive tests or physical examinations). (See "Illness anxiety disorder: Epidemiology, clinical presentation, assessment, and diagnosis".)

- Somatic symptom disorder – In somatic symptom disorder, excessive thoughts, feelings, or behaviors are related to somatic symptoms or associated health concerns. Compulsions or repetitive behaviors may be present but are typically directed towards investigating perceived somatic symptoms (eg, repetitive tests or physical examinations). (See "Somatic symptom disorder: Assessment and diagnosis".)

Other disorders that are sometimes considered “compulsive” include sexual behavior (in the case of paraphilias), gambling (eg, pathological gambling), and substance use (eg, alcohol use disorder). In these conditions, an individual generally derives pleasure from the activity (at least early in the illness) and may wish to resist it only because of its deleterious consequences. (See "Risky drinking and alcohol use disorder: Epidemiology, clinical features, adverse consequences, screening, and assessment".)

SOCIETY GUIDELINE LINKS

Links to society and government-sponsored guidelines from selected countries and regions around the world are provided separately. (See "Society guideline links: Obsessive-compulsive disorder and related disorders".)

SUMMARY AND RECOMMENDATIONS

- **Epidemiology** – The approximate lifetime prevalence of obsessive-compulsive disorder (OCD) worldwide is 1 to 1.5 percent. Lifetime prevalence in the United States is 2.3 percent. Females are affected at a higher rate than males in adulthood, although males are more commonly affected in childhood. (See 'Prevalence' above.)

- **Comorbidities** – Psychiatric disorders such as anxiety disorders and mood disorders are more common in individuals with OCD than in the general population. Furthermore, OCD appears to be more common in individuals with schizophrenia, mood disorders, body dysmorphic disorder, eating disorders, and tic disorders than in the general population. (See 'Comorbidities' above.)

- **Clinical features** – Most individuals with OCD manifest both obsessions and compulsions. (See 'Clinical features' above.)

  - **Obsessions** – Obsessions are intrusive or unwanted repetitive and persistent thoughts, images, or urges that usually cause marked distress or anxiety. Individuals with OCD attempt to ignore, suppress, or neutralize these thoughts, often with another thought or behavior (compulsion). (See 'Obsessions and compulsions' above.)

  - **Compulsions** – Compulsions (or rituals) are repetitive behaviors (eg, washing, checking) or mental acts (eg, counting, repeating words silently) that an individual feels driven to perform to reduce the distress triggered by an obsession or according to rules that must be applied rigidly. (See 'Obsessions and compulsions' above.)

  - **Associated features** – Associated features often seen in individuals with OCD include avoidance behaviors, suicidal thoughts or behaviors, and varied level of insight. Rates of suicidal thoughts vary broadly among studies. Individuals with OCD do not appear to be more likely to harm others at a rate higher than the general population. (See 'Associated features' above.)

- **Course** – OCD typically starts in childhood or adolescence and persists throughout life. OCD is associated with impaired functioning and reduced quality of life. (See 'Clinical course and complications' above.)

- **Assessment** – We suspect a diagnosis of OCD in individuals with intrusive, recurrent and persistent thoughts, urges, or images, or in those with repetitive mental acts (eg, counting) or behaviors. We determine if the symptoms are pathological by assessing how

much time is consumed by the symptoms and the level of distress and impairment associated with them. We also evaluate for other features that may suggest alternative or coexisting disorders. (See 'Assessment' above.)

- **Diagnosis** – Diagnosis of OCD is made by the presence of obsessions, compulsions, or both. The symptoms must be either time consuming (eg, more than one hour per day) or cause significant distress or significant impairment in social, occupational, or other areas of functioning. (See 'Diagnosis' above.)

- **Differential diagnosis** – We differentiate OCD from other disorders by assessing for a link between the compulsions and underlying obsessions, the quality and course of the symptoms (eg, are symptoms limited to a specific idea such as a perceived defect in physical appearance, as in body dysmorphic disorder), and the level of psychosocial distress. The differential diagnosis includes anxiety disorders, OCD spectrum disorders (such as trichotillomania, hoarding disorder, and body dysmorphic disorder), tic disorder, obsessive-compulsive personality disorder, major depressive disorder, and psychotic disorders. (See 'Differential diagnosis' above.)

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