OBSESSIVE-COMPULSIVE AND RELATED DISORDERS

Introduction

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Introduction

Obsessive-compulsive and related disorders (OCRD) is the umbrella term that describes disorders that have several features in common, including obsessive preoccupation and repetitive behaviors. These disorders have enough similarities to group them together in the same diagnostic classification, but enough important differences to exist as distinct subtypes. Because of this, the term OCRD will be used throughout this section to discuss this group of disorders, and the specific disorder names (e.g., "obsessive-compulsive disorder" or "trichotillomania") will be used when those individual disorders are referenced. Information regarding the impact of the subtypes "obsessive-compulsive and related disorder due to another medical condition" and "substance/medication-induced obsessive-compulsive and related disorder" on youth is limited, so this section will not focus extensively on these subtypes.

Typically, OCRD are characterized by obsessions and compulsions (March & Mulle, 1998). Obsessions are persistent and intrusive thoughts, ideas, impulses, or images that result in anxiety (American Psychiatric Association [APA], 2000). Compulsions take the form of overt behavioral acts or rituals, or covert mental acts (e.g., silently counting). Compulsions may also include repetitive washing, checking, touching, counting, and ordering/arranging. Compulsive hoarding and praying may also occur as a reaction to an obsession (March & Mulle, 1998). Compulsions function to reduce the anxiety associated with the child's or adolescent's obsessions (APA, 2013a).

OCRD have several developmental differences in children (Swedo et al., 1989). The adult with OCRD often recognizes that his or her behavior is abnormal and problematic. However, due to undeveloped

cognitive abilities, children with OCRD may not understand that their behaviors are abnormal. Individuals with OCRD experience distress when their compulsions cannot be completed. In children, this distress may manifest as tantrums or angry outbursts. Furthermore, children may not be able to specify the consequence of not engaging in their compulsion and may report a vague sense that "something bad might happen" if they are not able to complete the compulsion (Barrett et al., 2008).

The impairment caused by OCRD is significant. Because compulsions serve as the primary coping mechanism, youth with OCRD who experience increased levels of distress will respond by increasing the intensity and/or magnitude of their compulsion. Thus, these youth may spend more and more time engaging in their rituals. Their dependence on their ineffective coping mechanism, in turn, interferes with school, work, and social functioning. Accordingly, youth with OCRD may be reluctant to attend school for fear of embarrassment, and they often withdraw from social activities. Youth with OCRD also possess a higher risk for comorbid anxiety disorders (e.g., social anxiety and panic disorder) and depression. While symptoms may fluctuate, the overall trend in symptom severity increases over the lifetime (APA, 2013a).

Recent Changes from the DSM-IV-TR to the DSM-5

In 2013, the American Psychiatric Association released the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)*. The chapter on OCRD was created to reflect evidence of OCRD's similarities with, as well as their distinction from, other anxiety disorders (APA, 2013b). Disorders included in the OCRD section include obsessive-compulsive disorder, body dysmorphic disorder, trichotillomania (hair-pulling disorder), excoriation (skin-picking disorder), and hoarding disorder (APA, 2013b). While excoriation disorder and trichotillomania were previously classified as habit disorders, the *DSM-5* re-classified these disorders as OCRD. That is because these disorders share the same characteristics of (1) preoccupations and repetitive behaviors or mental acts, or (2) body-focused repetitive behaviors with repeated attempts to stop doing them (APA, 2013a). Two new disorders were also included in the *DSM-5*. The first, obsessive-compulsive and related disorder due to another medical condition, was included in the *DSM-5* because of evidence that suggested that symptoms are sometimes caused by another medical disorder (APA, 2013a). The second, substance/medication-induced obsessive-compulsive and related disorder in the use of evidence or medication. For this diagnosis to be valid, the substance or medication must be capable of causing the symptoms.

The specifier, "with poor insight," has been broadened. Individuals with obsessive compulsive disorder now fall into one of the following three categories: good or fair insight, poor insight, or absent insight/delusional. Individuals with good or fair insight understand that their obsessions and compulsions are abnormal or irrational. In contrast, individuals categorized as "absent insight/delusional" believe their obsessions and compulsions are normal or rational thoughts, feelings, or actions. A tic specifier for obsessive-compulsive disorder has also been added, because a comorbid tic disorder can be an important factor in the diagnosis and treatment of obsessive-compulsive disorder (APA, 2013b).

A "muscle dysmorphia" specifier was added to body dysmorphic disorder. This specifier was created to be used as a clinical tool because body dysmorphia varies from other forms of body dysmorphic disorder. There are more problematic risk behaviors associated with body dysmorphia, and evidence suggests treatment methods vary from other forms of body dysmorphic disorder (Phillips, Frost, & Mataix-Cols, 2010).

The *DSM-5* is a manual for assessment and diagnosis of mental health disorders and does not include information for treatment of any disorder. In the future, more evidence supporting treatments of disorders with *DSM-5* classifications will be available as clinical studies utilizing *DSM-5* criteria are completed. As a result, this *Collection* will reference studies that utilize *DSM-IV* diagnostic criteria to explain symptoms

and treatments. Because several of these disorders were categorized differently in the past, the *DSM-5* suggests that clinicians be aware of the potential correlations with anxiety disorders.

Categories

The categories of OCRD outlined in the DSM-5 are highlighted in the following section.

Obsessive-Compulsive Disorder

Obsessive-compulsive disorder is characterized by elevated anxiety or distress caused by uncontrollable and intrusive thoughts (called obsessions) and repetitive, ritualistic behaviors (called compulsions) (March & Mulle, 1998; American Academy of Child Adolescent Psychiatry [AACAP], 2012). Obsessions and/or compulsions that take up a significant portion of the youth's day and that cannot be attributed to any other disorders are the hallmark of obsessive-compulsive disorder (APA, 2013a). Figure 1 details additional information about obsessions and compulsions.

> Figure 1 Obsessions and Compulsions

Obsessions:

- Recurrent and persistent thoughts, urges, or images the youth deems intrusive and unwanted at some point in the experience. Such thoughts, urges, or images are distressing and cause anxiety.
- The youth attempts to ignore or suppress the thoughts, urges, or images, or alternatively, neutralizes them by another thought or action (e.g., a compulsion).

Compulsions:

- Repetitive behaviors or mental acts the youth feels compelled to perform in response to an obsession.
 - Repetitive behaviors may include handwashing, ordering, and checking.
 - Mental acts may include praying, counting, and repeating words silently.
- These behaviors/actions are performed in an attempt to prevent or reduce anxiety, distress, or a feared event. Actions are excessive and may not realistically be connected to that which they aim to prevent.

Source: APA, 2013a.

Obsessive-Compulsive and Related Disorder Due to Another Medical Condition

The symptoms caused by obsessive-compulsive and related disorder due to another medical condition are the "direct pathophysiological consequence of another medical condition" from which the youth suffers (APA, 2013a). The judgment that the symptoms are based on another condition must be based in evidence from the youth's medical history, a physical examination or laboratory results, and confirmation that the symptoms are not better explained by another mental disorder (APA). As a result, an obsessive-compulsive and related disorder due to another medical condition diagnosis requires that a medical diagnosis be present (APA). The inclusion of this disorder acknowledges that symptoms similar to primary obsessive-compulsive and related disorders can arise as a result of other medical conditions.

Substance/Medication-Induced Obsessive-Compulsive and Related Disorder

The symptoms caused by substance/medication-induced obsessive-compulsive and related disorder can be those of any other OCRD, including obsessions, compulsions, body-focused repetitive behaviors (APA, 2013a). Symptoms develop during or soon after intoxication or withdrawal from the substance or medication. Data regarding substance/medication-induced obsessive-compulsive and related disorder is

extremely limited, but it does indicate that this disorder is very rare. As such, this section of the *Collection* will focus on the more prevalent forms of OCRD.

Body Dysmorphic Disorder

The *DSM-5* has classified body dysmorphic disorder as a subtype of OCRD. Body dysmorphic disorder causes affected youth to perceive deficits in their physical appearance. However, the body imperfections characterizing body dysmorphic disorder are either not observable or only slightly observable to others. A child or adolescent with body dysmorphic disorder may check the mirror, groom excessively, skin pick, and/or seek reassurance repetitively. Moreover, the child may compare his or her appearance to others (APA, 2013a). The concerns of a person with body dysmorphic disorder are not based in weight or body fat, as they are in individuals with eating disorders.

The *DSM-5* notes that repetitive behaviors or mental acts in response to preoccupations with perceived defects or flaws in physical appearance must be present for a diagnosis of body dysmorphic disorder. Additionally muscle dysmorphia was included in the *DSM-5* as a subtype of body dysmorphia. Muscle dysmorphia is a form of body dysmorphic disorder evidenced by a concern that one is too small or not muscular enough.

Males and females are equally likely to present with body dysmorphic disorder symptoms (Ahmed, Genen, & Cook, 2013). The median onset age is 15 years; however, the most common onset age is 12 to 13 years (APA, 2013a). Almost two thirds of those with body dysmorphic disorder experience onset prior to age 18. These individuals are more likely to have a gradual onset and are more likely to attempt suicide (APA). Families should be cognizant of this slow onset possibility.

Hoarding Disorder

Hoarding disorder is characterized by:

- Ongoing difficulty discarding or parting with possessions, regardless of value;
- Perceived need to save the items; and
- Distress associated with discarding them (APA, 2013a).

Individuals with hoarding disorder accumulate and retain so many items that they congest their living area and substantially compromise the use of the retained items (APA, 2013a). Clinicians diagnosing hoarding disorder may add specifiers that further explain the type of hoarding present. These include "with excessive acquisition" for those who purchase and acquire items for which there is no space. Additionally, specifiers may designate the insight level of the affected youth, noting the degree to which the youth recognizes that his or her hoarding viewpoint and actions are problematic (APA).

Hoarding can be distinguished from collecting by analyzing how the youth views his or her possessions. Generally, collectors are proud of their possessions and experience joy in displaying and discussing them (Anxiety and Depression Association of America [ADAA], 2010). Alternatively, those who hoard are embarrassed about their possessions and feel uncomfortable when others see them (ADAA). Clutter often replaces livable space, and the owner is sad or ashamed after acquiring additional items. Debt frequently accompanies hoarding disorder (ADAA).

Hoarding disorder begins to present symptoms around 11 to 15 years of age, begins to interfere with life around the mid-20s, and causes clinically significant impairment by the mid-30s (APA, 2013a). It appears to become more severe as the affected individual ages and is frequently chronic (APA, 2013a).

Trichotillomania

Trichotillomania involves hair pulling from some or many body parts, including the scalp. A youth may pull hair from anywhere on the body, but it is most commonly pulled from the scalp, eyebrows or eyelashes, then less commonly from other parts of the body like axillary (underarm), facial, pubic and peri-rectal regions (APA, 2013a). These sites may change over time, and the individual may pull hair throughout the day or for sustained periods within a particular day (APA). Hair pulling may continue for years. Hair loss must occur to diagnose trichotillomania, but some youth will pull individual hairs throughout an area such that hair loss is less obvious (APA). Additionally, individuals may wear hats or wigs to camouflage hair loss.

In the *DSM-IV*, trichotillomania was categorized as a habit disorder, characterized by repetitive, yet relatively stable, behaviors that seem to occur beyond the awareness of the person performing the behavior. The *DSM-5* now designates trichotillomania as an OCRD because it shares clinical features with other categories of OCRD.

Some studies suggest that there are two subtypes of pulling: automatic pulling, which occurs largely outside of the individual's awareness, and focused pulling, which is a deliberate response to an urge, unpleasant emotion, or sensation (Woods, Piacentini, & Himle, 2007; McGuire et al., 2012). In addition to subtypes, hair pulling is often accompanied by ritual, such as choosing the right type of hair, pulling it with the root intact, or examining or manipulating the hair after pulling, including rolling it between fingers, biting, or swallowing it (APA, 2013a). Usually hair pulling only occurs when the individual is alone or around immediate family. Some individuals will pull hair from others in secret, or from rugs or dolls to satisfy their urges (APA). Youth may report triggers such as tension, anxiety, or specific cognitions like the appearance of the hair, an itch, boredom, or specific settings (McGuire et al.).

Trichotillomania onset typically begins during childhood, usually during early childhood or early adolescence (McGuire et al., 2012). Although it is not well studied, information available suggests that symptoms may increase and later decrease and that hair pulling sites do change (McGuire et al.). There is little research to show which type of hair pulling begins first, but some research suggests that adolescent girls show a marked increase in focused pulling (McGuire et al.).

Excoriation Disorder

Excoriation (skin-picking) disorder is a new entry to the *DSM-5* (APA, 2013a). Excoriation is characterized by picking at one's own skin, including healthy skin, calluses, and pimples. Individuals with excoriation disorder pick at actual and perceived skin defects, leading to physical damage (APA). Most individuals use fingernails, but they may also use tweezers or pins, and they may also rub or squeeze the skin. The individual will frequently seek out a scab or other area to pick, and then examine, play with, or mouth the removed piece of skin or scab (APA). Some picking is focused, with preceding anxiety or tension and subsequent relief, while in others picking is automatic without full awareness. Most individuals engage in both focused and automatic picking (APA).

Skin picking may occur as a result of boredom or anxiety, and it may lead to a sense of gratification when successfully completed. At least some symptoms of skin picking can be common, as one study found over 60 percent of the cohort causing some skin damage not due to a medical condition (Grant et al., 2012). Only when the symptoms reach the criteria for skin picking disorder (lesions, an attempt to stop, and accompanying distress) should the symptoms require intervention (Grant et al.).

Prevalence

Table 1 outlines the prevalence of OCRD in the general population.

Table 1
Prevalence of Obsessive-Compulsive and Related Disorders (OCRD)

Disorder	Prevalence in the U.S.	International Prevalence	Gender Differences
Obsessive-compulsive disorder	1.2%	1.1 - 1.8%	Males are more commonly affected than females in childhood
Body dysmorphic disorder	2.4% of youth and adults	1.7 – 1.8% of adults	Prevalence is slightly higher in females than males
Hoarding disorder	2-6%	2-6%	Mixed results in clinical and epidemiological data
Trichotillomania	1 – 2% in adolescents		10:1 females to males in adults, but children are more equally represented in both genders
Excoriation disorder	1.4% of adults		75% or more are female
Obsessive-compulsive and related disorder due to another medical condition	Unknown	Unknown	Unknown
Substance/medication-induced obsessive-compulsive and related disorder	Unknown	Unknown	Unknown

Source: APA, 2013a.

Causes and Risk Factors

Although obsessive-compulsive disorder, obsessive-compulsive and related disorder due to another medical condition, substance/medication-induced obsessive-compulsive and related disorder, body dysmorphic disorder, hoarding disorder, trichotillomania, and excoriation are different disorders, they have similar biological, psychological, and social risk factors. The biological risk factors of OCRD are genetic and have neurological bases. The psychological risk factors that influence whether the biological factors are activated include emotional and experiential factors. Finally, social risk factors occur in the child's social environment (e.g., family, friends, and school) and help maintain the disorder. These risk factors will be discussed in the following paragraphs.

Biological Risk Factors

Numerous studies demonstrate abnormal brain functioning in individuals with OCRD (Saxena, Brody, Schawtrz, & Lewis, 1998). These studies identify over-activity in the limbic system, including the basal ganglia and cingulate gyrus, which sets the overall emotional-disposition. The basal ganglia set the body's baseline arousal and suppress regulation of motor movement. Over-activity in this area is associated with the physical sensations of anxiety, avoidance tendencies, and tics. The cingulate gyrus is associated with

an individual's cognitive flexibility. Over activity in this area is associated with rigid and inflexible thinking (obsessions) and behavior patterns (compulsions). As a result, youth with abnormal functioning in these areas may be particularly susceptible to feeling intensified fear and developing rigid thought and behavior patterns.

The causes of these biological abnormalities are unclear. Neuroimaging suggests that youth affected with OCRD have disturbances in front striatal circuits that oversee the capacity for self-regulation (Marsh, Maia & Peterson, 2009). Genes may also cause or contribute to developing obsessive-compulsive disorder. Studies show between 12 and 26 percent of first-degree relatives of those with obsessive-compulsive disorder have a risk of developing it themselves (AACAP, 2012). Family members of people with pediatric obsessive-compulsive disorder are more likely to develop it than families of those whose OCRD developed later in life (AACAP). Studies of twins, however, show that genes are not the only factor that causes OCRD and cannot address whether OCRD run in families due to shared genetic risk factors, shared environmental risk factors, or both. Many cases of OCRD are sporadic – they develop in individuals with no family history of OCRD (AACAP).

Considerable research demonstrates a genetic predisposition to OCRD and tic disorders (sudden, rapid, recurrent, nonrhythmic motor movements or vocalizations; additional information on tic disorders is provided in the *Collection's* section "Motor Disorders"). Research reveals that families of an individual diagnosed with a tic disorder are also more likely to have other first-degree relatives (i.e., parent, sibling, or offspring) with a tic disorder and/or OCRD (March & Mulle, 1998; Marsh, Maia, & Peterson, 2009). There is also evidence that a subset of children with OCRD developed symptoms after an infection of Group A beta hemolytic streptococcus (i.e., strep throat) or Sydenham's chorea, a variant of rheumatic fever (AACAP, 1998). This is called pediatric autoimmune neuropsychiatric disorder associated with strep (PANDAS). It is believed that during infection, antigens react with basal ganglia tissue, leading to OCRD and/or tic symptoms (AACAP). While PANDAS is well accepted by some, there are still dissenters.

Body dysmorphic disorder is more prevalent in youth who have a first-degree relative with OCRD (APA, 2013b). Moreover, abnormal visual processing may be a potential biological cause of body dysmorphic disorder. Visual abnormalities may impair the ability to distinguish certain facial elements; a visual weakness common to those with body dysmorphic disorder compared to individuals without (Feusner et al., 2010). These exhibited patterns suggest individuals with body dysmorphic patients process facial features in pieces rather than as a whole (Ahmed, Genen, & Cook, 2013). While this research is relatively new, it may reveal more information about biological causes of body dysmorphic disorder in the future.

There is a suggested genetic link between hoarding disorder and OCRD in families. The *DSM-5* posits that as many as 50 percent of those who hoard report having a family member who hoards (APA, 2013a). OCRD patients present significantly more hoarding behaviors than those with non-hoarding OCRD relatives (Saxena, 2007; Samuels et al., 2007). A study of OCRD genetics revealed hoarding as the strongest familial disorder, and it revealed considerable similarities in sibling pairs (Saxena; Hasler et al., 2007). About 50 percent of the variability in hoarding may be attributed to genes (APA, 2013b).

Scientists also suggest a different cerebral glucose metabolism pattern in individuals with hoarding disorder that is distinct from both healthy comparison subjects and non-hoarding OCRD patients (Saxena, 2007; Saxena et al., 2004). Non-hoarding patients had hypermetabolism in the orbitofrontal cortex, caudate nuclei, and thalamus where hoarding patients did not; instead hoarding patients had significantly lower activity in the cingulate cortex (Saxena et al., 2004). Note that these hoarding patients were considered to have OCRD with a symptom of compulsive hoarding under the *DSM-IV*, whereas the *DSM-5* acknowledges the link between hoarding disorder and OCRD but provides for a separate diagnosis (APA, 2013a).

There is also a possible genetic predisposition to trichotillomania, as scientists discovered a mutation in the Slit and Trk-like 1 (SLITRK1) gene in patients with trichotillomania that did not exist in comparison subjects (APA, 2013a; Chamberlain et al., 2007). Excoriation disorder is more frequent in individuals with OCRD or in those whose first-degree family members have OCRD (APAb, 2013).

Psychological Factors

Certain symptoms are common in people who develop OCRD, especially during childhood and adolescence. These symptoms include negative emotionality, behavioral inhibition, and a higher incidence of internalizing (APA, 2013a). The specific thought and behavior patterns that youth with OCRD develop are based on learning processes and lifetime experiences. Research suggests that most individuals experience the types of intrusive thoughts that cause distress in youth with OCRD. These thoughts may originate from a traumatic experience, illness, or information from others (e.g. family, friends, news reports, etc.). However, youth with OCRD may experience shame, guilt, or fear in response to these thoughts and have difficulty dismissing them (March & Mulle, 1998). As a result of these unpleasant and/or fearful feelings, the youth attempts to escape or avoid the fear (Mowrer, 1939). Any behaviors that are associated with the reduction in fear are then reinforced, even if these behaviors do not cause the reduction in fear.

While some compulsions, such as excessive washing, are related to the obsession (e.g., fear of contracting a disease), other compulsions are not rationally related (e.g., counting in response to fears about harming others). Furthermore, because the situations that trigger fears are not easily avoided, youth with OCRD attempt to actively avoid feelings of fear by repeatedly engaging in the behaviors associated with fear reduction. The reduction in fear positively reinforces this ritualized behavior (Mowrer, 1939). Behavior patterns maintained through this type of conditioning are difficult to extinguish. These avoidance/escape patterns prevent the youth from fully experiencing the fearful situation. Therefore, the youth's fear cannot naturally depart (in a process called "extinction") (Pierce & Cheney, 2004).

Social Factors

OCRD are not caused by parenting or other family problems. However, the way a family reacts to a youth with OCRD can affect the disorder by either increasing or decreasing anxiety. Barrett, Shortt, and Healy (2002) found that parents of children with OCRD, compared to parents of non-OCRD children, did not as frequently use problem-solving with their children, did not encourage their children's independence, and did not have as much confidence in their children's abilities. Similarly, children with OCRD were less confident in themselves, used problem-solving less, and showed less warmth with their parents than children without OCRD.

Although parenting will not cause OCRD, physical and sexual abuse or severe trauma may contribute to the likelihood of developing the disorder (APA, 2013a). For example, body dysmorphic disorder is often related to childhood neglect and abuse (APA). Additionally, symptoms may vary slightly based on cultural values and preferences (Ahmed, Genen, & Cook, 2013). Individuals suffering from hoarding disorder report stressful and traumatic life events that cause the onset or exacerbation of the disorder, but they make this report retroactively (APA). Although research links trichotillomania to genetics, as discussed above, stress can also be a contributing factor (Chamberlain et al., 2007). Stress is more commonly present in individuals with OCRD and first degree relatives of those with OCRD than the general population (APA).

Assessment

Clinicians should screen for all OCRD when a child or adolescent displays symptoms of any of the corresponding disorders. Additionally, clinicians should be aware of the overlaps among the conditions,

as well as the differences in diagnostic criteria and future treatment options during this assessment (APA, 2013a).

Obsessive-Compulsive Disorder

Pediatric onset obsessive-compulsive disorder is often preceded or accompanied by sensory phenomena, including physical sensations, perceptions of what is "just right," and the need for accuracy or things to be "just right" (AACAP, 2012). Assessment of obsessive-compulsive disorder should follow general diagnostic practices, including obtaining complete developmental, medical, and family histories; evaluation of psychosocial functioning across multiple domains (e.g., family, friends, school, and home); and history of current and past symptoms (AACAP, 1998). Both the parents and the child should complete diagnostic interviews to determine mental rituals and/or obsessions that the parent might not be aware of and behavior problems that the youth may be reluctant to report.

The first challenge in diagnosing a child with obsessive-compulsive disorder is distinguishing developmentally appropriate beliefs and behaviors from those symptomatic of obsessive-compulsive disorder. For example, youth with obsessive-compulsive disorder may fear that, by merely thinking a thought (e.g., hurting a loved one), they will cause it to happen (i.e., thought-action fusion). In children, it is important to differentiate developmentally normal magical thinking from pathological beliefs that drive compulsions and cause distress (Shafran, 2001). Young children may insist on sameness and order or adhere to rigid routines, such as elaborate bedtime rituals, as part of normal development in early childhood, reflecting the need for mastery and control (March & Mulle, 1998). Research suggests that compulsive-like behaviors are particularly common among children between the ages of two and four (Evans et al., 1997). Normal obsessive-compulsive behaviors can be differentiated from obsessive-compulsive disorder based on timing, content, and severity of the symptoms.

The role of the family and school in maintaining the obsessive-compulsive symptoms must also be assessed. Parents and family often become entangled in the youth's symptoms by making accommodations for, or even participating in, obsessive-compulsive behaviors (AACAP, 1998; Barrett, Healy-Ferrell, & March, 2004). The degree to which this occurs influences the degree of intervention in these settings. (AACAP, 2012; Hudziak et al., 2008).

Structured diagnostic interviews can help identify the presence of obsessive-compulsive disorder as well as other potential comorbid conditions. A thorough assessment will also determine the presence, age of onset, duration, and severity of each symptom. This also aids in the conceptualization and formation of a treatment plan.

The following are evidence-based assessment tools for youth with obsessive-compulsive disorder:

Broad Structured Diagnostic Interviews:

- National Institute for Mental Health (NIMH) Diagnostic Interview Schedule for Children-IV (DISC-IV; NIMH, 1997)
- Schedule of Affective Disorders and Schizophrenia for School Aged Children, Present and Lifetime Version (K-SADS-PL; Kaufman et al., 1996)

Anxiety-specific Structured Diagnostic Interviews:

- Anxiety Disorders Interview Schedule for *DSM-IV*: Parent and Child Versions (ADIS-IV:C/P; Silverman & Albano, 1996)
- Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS; Scahill, Riddle, & King, 1997)
- Children's Version of the Leyton Obsessional Inventory (Berg et al., 1988)

Body Dysmorphic Disorder

Obsessive thoughts about perceived physical flaws and compulsive behaviors and avoidances related to how youths perceive their appearance can signal the presence of body dysmorphic disorder in youth. Developmental changes in the adolescent brain may contribute to the onset of body dysmorphic disorder (Phillips & Rogers, as cited by Smith, 2011). These changes increase adolescents' self-consciousness and awareness of social status. Therefore, body dysmorphic disorder may be a disordered response to the psychological, social, and physical changes of adolescence itself. It is important that the clinician distinguishes normal adolescent concerns from body dysmorphic disorder concerns.

The following are commonly utilized assessment tools for body dysmorphic disorder (Smith, 2011; Phillips, et al., 2013):

- Body Dysmorphic Disorder Questionnaire; (BDDQ)
- Body Dysmorphic Disorder Examination (BDDE)
- Yale-Brown Obsessive-Compulsive Scale modified for Body Dysmorphic Disorder (BDD-YBOCS)
- Body Dysmorphic Disorder Diagnostic Module for Adolescents
- Brown Assessment of Beliefs Scale (BABS)

The BDD-YBOCS is a semi-structured interview allowing for further probing and discussion by the clinician. Because the BDD-YBOCS measures severity rather than strictly being a differential diagnostic tool, instructions indicate that clinicians must first be fairly certain that the person has body dysmorphic disorder. However, the BDD-YBOCS can yield valuable information about obsessions, compulsions, insight, avoidance, and severity (Smith, 2011). Special care must also be taken when individuals with body dysmorphic disorder seek cosmetic surgery or enhancement. Only the Body Dysmorphic Disorder Questionnaire-Dermatology Version (BDDQ-DV) and the Dysmorphic Concern Questionnaire (DCQ) have been validated for those individuals seeking cosmetic surgery or enhancement, but they have not been specifically tested in youth (Picavet, Gabriëls, Jorissen & Hellings, 2011).

Hoarding Disorder

Hoarding disorder was previously considered one of many symptoms of OCRD. As a separate disorder, independent evaluation and assessment is in its scientific infancy and will need to be further developed and studied for efficacy. A number of tests have been developed to determine the presence of hoarding disorder, although none meets the strict standards of evidence-based assessment tools at this point.

The following are the rating systems used to assess hoarding disorder (Kennedy & O'Neill, 2012; Nordsletten et al., 2013):

- Activities of Daily Living in Hoarding scale (ADL-H)
- HOMES Multi-disciplinary Hoarding Risk Assessment
- Clutter-Hoarding Scale
- Clutter Image Rating (CIR)
- Saving Inventory-Revised (SIR)
- Structured Interview for Hoarding Disorder (SIHD)
- Hoarding Rating Scale Interview (HRS-I)
- Hoarding Rating Scale Self Report (HRS-SR)
- Saving Inventory Revised (SI-R)

The Activities of Daily Living-Hoarding (ADL-H) assesses how difficult the individual finds completing activities of daily living. The difficulties are based upon clutter or hoarding, living conditions, and safety

considerations (Kennedy & O'Neill, 2012). The Clutter Hoarding Scale looks at five levels of organization within the home, and it is designed for use by professional organizers or clinicians (Institute for Challenging Disorganization [ICD], 2011). The five areas studied by the Clutter Hoarding Scale are structure and zoning, including ingress and egress and heating and electrical; animals and pests, including pets and infestations of rodents or insects; household functions, including safety, functionality and accessibility of rooms; health and safety including sanitation and medication management; and personal protective equipment, which recommends gloves, masks and respirators where appropriate (ICD). The Clutter Image Rating (CIR) cycles through pictures of a room at varying levels of clutter. This scale is used to help people self-evaluate the severity of the problem (International Obsessive-Compulsive Disorder Foundation [IOCDF], 2013) and helps clinicians directly observe the severity of clutter (Tolin, Frost & Steketee, 2010). The Saving Inventory-Revised (SIR) is considered, along with the CIR, to demonstrate good psychometric properties, and both seem useful in clinical and research settings (Tolin, Frost, & Steketee). The Structured Interview for Hoarding Disorder (SIHD) assesses the individual's home room by room and does an in-depth evaluation of its clutter (Kennedy & O'Neill). The interview assesses the comfort level of the individual with his or her hoarding and determines its impact on the lifestyle of the hoarder (Pertusa, Frost, & Mataix-Cols, 2010).

Historically, the Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) has assessed hoarding severity; however, it only includes two questions with yes or no answers to assess hoarding (Tolin, Frost & Steketee, 2010). One rating scale that has gained scientific recognition for evaluating adults is the Hoarding Rating Scale Interview (HRS-I). It consists of five initial questions, with probing follow-up questions as needed at the clinician's discretion. The questions gauge how clutter impacts the use of a living space, the difficulty of discarding possessions, excessive acquisition, emotional distress from the behaviors, and functional impairment (Tolin, Frost, & Steketee). The HRS-I is especially beneficial in that the clinician can determine both whether the individual meets the standards for hoarding and the severity of the hoarding (Tolin, Frost & Steketee). As mentioned above, these tools may gain additional support as they are further studied.

Trichotillomania (Hair-Pulling Disorder)

Assessment of trichotillomania should measure severity, subtypes, level of impairment, and possible comorbid diagnoses (Woods et al., 2006). Assessing trichotillomania may require multiple methods of gathering information, including interviews with youth and a parent. Unfortunately, although some scales do exist, there has been relatively little research on measures of child trichotillomania. The National Institute of Mental Health (NIMH) Trichotillomania Impairment Scale (NIMH-TIS) is a clinician-rated scale that has demonstrated adequate psychometric profiles (Woods et al.). Also, the Trichotillomania Scale for Children, the Child Report (TSC-C) and Parent Report (TSC-P) and Milwaukee Inventory for Styles of Trichotillomania (MIST-C) show promise as a parental tool and self-report measure (McGuire et al., 2012). The former measures the severity of the pulling along with distress and/or impairment, while the latter assesses whether the pulling is focused or automatic (McGuire et al.).

Table 2 outlines evidence-based assessment tools for youth with trichotillomania.

Excoriation (Skin-Picking Disorder)

Unfortunately, there are no psychometric evaluations of any assessment tools for youth with excoriation. In adults, the Skin Picking Scale (SPS) tests the frequency and severity of symptoms. The Skin Picking Impact Scale (SPIS) tests the impact of picking, rather than its severity. The Milwaukee Inventory for Dimensions of Adult Skin Picking (MIDAS) is a self-report, and it assesses both automatic and focused skin picking. Each of the preceding tests shows some consistency in adults, but none have been evaluated for test-retest reliability (McGuire et al., 2012).

Name of Measure	Measure Type	Who Completes	Data Generated
Psychiatric Institute Trichotillomania Scale (PITS)	Clinician rating scale	Clinician	Symptom rating
National Institutes of Mental Health Trichotillomania Impairment Scale (NIMH-TIS)	Clinician rating scale	Clinician	Symptom impairment
Trichotillomania Scale for Children (TSC-C)	Self-report rating scale	Youth	Symptom rating
Trichotillomania Scale for Children (TSC-P)	Parent-report rating scale	Parent	Symptom rating
Milwaukee Inventory for Styles of Trichotillomania (MIST-C)	Self-report rating scale	Youth	Symptom specifier

 Table 2

 Evidence-based Assessment Tools for Youth with Trichotillomania

Sources: Chorpita & Southam-Gerow, 2006; Woods et al., 2006; McGuire et al., 2012.

Comorbidity

While obsessive-compulsive disorder, hoarding disorder, body dysmorphic disorder, trichotillomania, and excoriation are classified together as OCRD, comorbid disorders may vary among each subtype. The disorders that commonly co-occur with these subtypes will be outlined in the following paragraphs. Additional information about the comorbid disorders discussed in this section can be found in the corresponding sections of the *Collection*.

Obsessive-Compulsive Disorder

Comorbid conditions that often occur in youth with obsessive-compulsive disorder include other anxiety disorders, depression, learning disorders, attention deficit hyperactivity disorder (ADHD), and tic disorders. It is estimated that 20 to 70 percent of youth with obsessive-compulsive disorder meet the criteria for mood disorders, potentially due to the impairment and isolation associated with the disorder (AACAP, 1998; March & Mulle, 1998). As many as 33 to 50 percent of youth with obsessive-compulsive disorder meet diagnostic criteria for ADHD or oppositional defiant disorder (ODD). However, clinicians must determine whether oppositional behaviors are a function of ODD or of the rigid compulsions associated with obsessive-compulsive disorder (AACAP, 1998). Up to 30 percent of children with OCRD report a lifetime history of tic disorder (APA, 2013a). The *DSM-5* points out that this comorbidity is most common for males with obsessive-compulsive disorder in childhood.

Obsessive-compulsive disorder is also more prevalent in individuals who also have certain mental health disorders. Obsessive-compulsive disorder prevalence is 12 percent in those with schizophrenia or schizoaffective disorder, and significant in those with bipolar disorder, eating disorders like anorexia nervosa and bulimia nervosa, and Tourette disorder (APA, 2013b). Some researchers believe that obsessive-compulsive disorder and tic disorders like Tourette's disorder may be alternative expressions of the same gene (AACAP, 1998). Children with pre-pubertal onset of obsessive-compulsive disorder are more likely to have a comorbid diagnosis of tic disorder.

Obsessive-compulsive symptoms are also common features of autism spectrum disorder (ASD). Because rigidity and repetitive behaviors are central features of ASD, it can be difficult to determine whether comorbid obsessive-compulsive disorder is present. However, research suggests that obsessive-compulsive symptoms are frequently present in first degree relatives of youth with an ASD diagnosis (AACAP, 1998).

Body Dysmorphic Disorder

Several disorders are often comorbid with body dysmorphic disorder. These also include the most commonly comorbid disorders: major depression, social phobia, and substance use disorders (Feusner, Winograd, & Saxena, 2005; APA, 2013a). It is also frequently comorbid with obsessive-compulsive disorder. Major depressive disorder often presents after body dysmorphic disorder onset (APA).

Hoarding Disorder

Hoarding disorder is often comorbid with several different disorders, and like body dysmorphic disorder, it is frequently comorbid with obsessive-compulsive disorder with almost 20 percent comorbidity (APA, 2013a). Individuals with hoarding disorder may also present with schizophrenia, dementia, eating disorders, autism, and intellectual disability (Saxena, 2007). It may also present with non-clinical levels of symptoms for some or all of these disorders (Saxena). The *DSM-5* notes that as many as 75 percent of individuals with hoarding disorder also have a mood or anxiety disorder.

Trichotillomania and Excoriation

Youth with trichotillomania and excoriation often experience other psychological problems (Woods et al., 2006). Research suggests that 60 to 70 percent of youth with trichotillomania meet the criteria for at least one additional psychiatric disorder, with anxiety and affective disorders being the most frequently diagnosed (Tolin et al., 2007). Trichotillomania and excoriation are more common in individuals with first degree relatives diagnosed with obsessive-compulsive disorder (APA, 2013a). Excoriation often accompanies trichotillomania or obsessive-compulsive disorder and it may accompany major depressive disorder (APA).

Treatments

An overview of treatments for the *DSM-5* categories of OCRD will be highlighted in the following section. Behavioral and pharmacological treatments have demonstrated efficacy in the treatment of OCRD in youth, though behavioral approaches appear to be the most effective in the few studies comparing treatments (AACAP, 1998; Barrett et al., 2008).

Obsessive-Compulsive Disorder

Individual features of obsessive-compulsive disorder may have important implications for treatment planning in terms of compliance, response to treatment, and factors that exacerbate or lessen symptoms (AACAP, 1998). Mild obsessions or compulsions that are not the source of substantial distress or impairment may warrant monitoring over time without the initiation of specific treatment (AACAP, 1998). If such obsessions or compulsions are related to external or developmental stressors, psychotherapy or other psychosocial interventions targeted to these stressors may be useful. Treatments for obsessive-compulsive disorder are discussed are outlined in Table 3.

Psychosocial Treatments

Effectively treating obsessive-compulsive disorder in youth is crucial to aiding in their lifelong functioning. The process of assessment and treatment planning can also be beneficial. The opportunity to

review the child's difficulties and to distinguish the obsessive-compulsive disorder symptoms as a disorder, rather than as a behavior issue, can be very helpful to both the child and family (AACAP, 1998).

Cognitive Behavioral Training (CBT) is the clinical standard first treatment path for obsessivecompulsive disorder in youth (AACAP, 2012). Clinicians should treat mild to moderate cases of obsessive-compulsive disorder youth with CBT, and for moderate to severe cases, CBT should accompany pharmacotherapy (AACAP, 2012). Both individual and individual family-based CBT treatments have been shown to be effective.

The CBT protocol used in the National Institute of Mental Health Pediatric Obsessive-Compulsive Disorder Treatment Study (POTS) requires 14 visits in 12 weeks. The visits are broken into the following five phases:

- 1. Psychoeducation
- 2. Cognitive training
- 3. Mapping obsessive-compulsive disorder
- 4. Exposure and response prevention (ERP)
- 5. Relapse prevention and generalization training (AACAP, 2012; March et al., 2004)

During each session, the clinician and youth state the goals for the session, review the preceding week, practice skills, prepare homework and devise monitoring procedures to prevent obsessive-compulsive disorder symptoms (AACAP, 2012; March et al., 2004). The affected youth visits the clinician twice in the first two weeks, and then once weekly, with a telephone call visit between in person visits.

The ERP phase of CBT treatment was developed as a bi-modal treatment that addresses both the obsessive and compulsive features of obsessive-compulsive disorder. AACAP has noted that ERP is now an integral component of CBT. Accordingly, ERP-based CBT is a standard clinical treatment for pediatric obsessive-compulsive disorder (AACAP, 2012). Most studies evaluated the effectiveness of ERP-based CBT techniques (e.g., relaxation training, cognitive restructuring). When the ERP exposures were present in treatment, they were the main treatment variables, but the other components of CBT were also necessary for the effectiveness of the treatment (March, Mulle & Herbel, 1994). The overall results of these studies suggest that ERP-based CBT is effective in significantly reducing symptoms in children and adolescents. In fact, research suggests that ERP-based CBT may be more effective than pharmacological treatments (Barrett et al., 2008). All studies found statistically and/or clinically significant reductions in symptoms using ERP-based CBT. Most studies directly used or modified the manual by March and Mulle (1998) (Benazon, Ager, & Rosenberg, 2002; DeHaan et al., 1998; March, Mulle, & Herbel, 1994; Pediatric OCD Treatment Study [POTS], 2004; Simons, Schneider, & Herpertz-Dahlmann, 2006; Thienemann et al., 2001; Valderhaung et al., 2007).

Pharmacological Treatment

Although traditionally used to treat depression, serotonin reuptake inhibitors (SRIs), including selective serotonin reuptake inhibitors (SSRIs), are approved by the FDA for treatment of pediatric obsessive-compulsive disorder (AACAP, 1998). There are currently four medications approved by the FDA for treatment of pediatric obsessive-compulsive disorder: the SSRIs fluoxetine, sertraline, and fluvoxamine, and the SRI clomipramine, a tricyclic antidepressant. However, no studies have compared the efficacy of the four drugs (AACAP, 1998; AACAP, 2012). AACAP recommends concurrent pharmacological treatment and CBT for children with severe symptoms, for children too ill to participate in CBT, or for those who do not respond favorably to CBT alone (2012). These medications have been shown to be significantly more effective compared to placebo treatments. Although all of these treatments act on availability of serotonin in the brain, evidence suggests that children may respond differently to different medications (AACAP, 1998). Therefore, youth who do not respond to one SSRI may respond differently to another.

What Works	
Cognitive behavioral therapy (CBT) with exposure and response prevention (ERP)	Treatment path with a consistent and compelling relationship between the disorder, the treatment, and the specified outcome. Combines training with exposure and preventing the accompanying response.
Family-focused individual CBT	Individual CBT that includes a focus on family involvement. It should be noted that the distinction of family focused here is meant to imply a format for treatment delivery.
SRIs	Clomipramine: Approved for children aged ten and older. Recommend periodic electrocardiographic (ECG) monitoring.
SSRIs	Fluoxetine (Prozac): Approved for children aged eight and older Sertraline (Zoloft): Approved for children aged six and older Fluvoxamine (Luvox): Approved for children aged eight and older
What Seems to Work	
Family focused group CBT	Studies show promising results but there have only been a small number of studies. However, each study addresses complex comorbidity and issues impacting community-based clinic treatment.
Not Adequately Tested	
CBT without ERP	Systematic controlled studies have not been conducted using these

Table 3 Summary of Treatments for Obsessive-Compulsive Disorder

Psychodynamic therapy Client-centered therapy	approaches.
Technology-based CBT	Results show preliminary support for telephone CBT and web-camera CBT. Although these results are encouraging, caution must be taken due to the small sample sizes and lack of active control groups.
What Does Not Work	
Antibiotic treatments	Antibiotic treatments are only indicated when the presence of an autoimmune or strep-infection has been confirmed and coincided with onset or increased severity of obsessive-compulsive disorder symptoms.
Herbal therapies	Herbs, such as St. John's Wort, have not been rigorously tested and are not FDA approved. In some instances, herbal remedies may make symptoms worse or interfere with pharmacological treatment.

While these medications may be helpful, they are not without risks and side-effects. In high doses (5mg/kg per day or 250mg/day), clomipramine has been associated with seizures and electrocardiographic (ECG) changes. Youth taking clomipramine should receive periodic ECG monitoring. Other side effects of clomipramine include dry mouth, constipation, dizziness, postural hypotension, sweating, and sedation (AACAP, 2012). There has also been greater awareness of an increased risk of suicidal ideation in youth taking antidepressants, including SSRIs. These risks must be weighed against the potential benefit from the medication when making treatment decisions. Youth taking these medications should be monitored for potential medical or psychological side-effects throughout treatment, particularly if other medications are also prescribed. The interaction of medications is poorly researched, particularly in children and adolescents; therefore, combinations of medications should be

carefully considered (AACAP, 1998). For additional information on this topic, please refer to the *Collection's* section "Antidepressants and the Risk of Suicidal Behavior."

Unproven Treatments

Several treatments are classified as unproven, based on either the absence of conclusive research or research suggesting that there is no benefit. Cognitive therapy, in the absence of ERP, has not demonstrated significant benefits for youth with obsessive-compulsive disorder. The addition of cognitive therapeutic techniques to ERP treatment has suggested that these techniques may increase treatment participation in ERP, but perform no specific action on reducing symptoms (Barrett et al., 2008). Likewise, insight-oriented therapies have not been shown to be effective in treating youth with obsessive-compulsive disorder.

As discussed in the Causes and Risk Factors section of this review, there is a subset of children who develop obsessive-compulsive disorder following a strep-infection (e.g., PANDAS). For these children, treatments with antibiotics reduce symptoms. However, antibiotic treatment does not prevent obsessive-compulsive disorder without a strep infection being present (Gilbert, 2008). Therefore, antibiotic treatment should only be prescribed for children with a confirmed medical diagnosis that leads to the sudden onset or increase of obsessive-compulsive disorder symptoms (AACAP, 1998). Herbal remedies have not been sufficiently tested as a treatment for obsessive-compulsive disorder. St. John's Wort, frequently used by some to treat mild depression, is a popular alternative treatment for anxiety, including obsessive-compulsive disorder. However, a blind placebo-controlled study found no difference between St. John's Wort and the placebo (Kobak et al., 2005).

One treatment gaining attention for obsessive-compulsive disorder is Deep Brain Stimulation (DBS). DBS is also being tested for use in depression and anorexia, and is showing success in very small scientific studies (Stetka & Correll, 2013). In addition, a small study of adults with obsessive-compulsive disorder showed a positive response to intravenous ketamine infusion (Stetka & Correll; Rodriguez et al., 2013). These treatments are in their infancy, but may gain strength in the future.

Trichotillomania (Hair-Pulling Disorder) and Excoriation (Skin-Picking Disorder)

Research exploring treatments for childhood trichotillomania and excoriation is promising, but the treatments have not been researched sufficiently enough to warrant the designation of evidence-based treatment. These and other treatments are summarized in Table 4 and discussed more fully in the paragraphs that follow.

CBT is emerging as a promising treatment for trichotillomania. CBT for trichotillomania involves many components common to habit reversal therapy (HRT) such as awareness training and developing a competing response. However, CBT treatments also incorporate several additional elements like psychoeducation and cognitive skills that are thought to provide additional benefits. Psychoeducation entails teaching youth and parents about hair pulling and how to monitor behavior. Cognitive restructuring helps youth identify and change maladaptive beliefs associated with stressful situations and to distinguish between minor setbacks and full-blown relapses. CBT for trichotillomania also includes a relapse prevention component that encourages the maintenance of learned behaviors after the end of the active treatment phase (Tolin, Franklin, Diefenbach, Anderson & Mercer, 2007).

Components have also been added to HRT to target additional problems. In the treatment of trichotillomania and excoriation, therapists may employ either emotion-regulation techniques, which help youth learn more adaptive ways of coping with emotion, or cognitive restructuring, which helps youth recognize and change the thoughts or emotions that occur before or after pulling or picking (Woods, Flessner, & Conelea, 2008).

CBT may be superior to pharmacotherapy, pill placebo, wait-list, and supportive therapy in treating trichotillomania according to recent adult studies (Flessner, 2011). At the core of CBT is HRT, the three main components of which are:

- 1. Awareness training;
- 2. Competing response training; and
- 3. Social support (Flessner; Woods, Flessner & Conelea, 2008).

There are still no clear evidence-based pharmacological interventions to treat trichotillomania in children (Flessner, 2011).

Table 4 Summary of Treatments for Trichotillomania and Excoriation by Level of Support

What Works	
There are no evidence-based pra	ctices at this time.
What Seems to Work	
Habit reversal therapy (HRT)	Treatment increases awareness to the feelings and context associated with the urges and implements a competing and inconspicuous habit in place of the hair pulling and skin picking.
Cognitive behavioral therapy (CBT) for trichotillomania	Treatment involves exposing children to the stimuli associated with the urge, while challenging thoughts associated with high-risk situations.
Not Adequately Tested	
SSRIs N-acetylcysteine Naltrexone	Some demonstrated improvement on certain measures of picking behavior has been demonstrated in some pharmacological studies.

Sources: Tolin et al., 2007; Grant et al., 2012.

Body Dysmorphic Disorder

Unfortunately, there are no evidence-based treatments yet available for youth with body dysmorphic disorder. CBT has not been investigated on a large enough scale to provide results with great external validity, but shows promise because of its effectiveness with similar disorders (Phillips & Rogers, 2011).

Evidence suggests obsessive-compulsive disorder, major depressive disorder and social phobia are effectively treated with pharmacotherapy. Therefore, because of body dysmorphic disorder's similarities to the aforementioned disorders, scientists posit that pharmacotherapy may be appropriate to treat body dysmorphic disorder (Phillips & Hollander, 2008). However, there are currently no studies that meet evidence-based standards to support this idea (Phillips & Hollander). SSRIs are possibly efficacious treatments for body dysmorphic disorder, and fluoxetine has shown some efficacy (Bjornsson, Didie & Phillips, 2010).

Hoarding Disorder

Unfortunately, no treatments that meet the level of evidence-based standards are available for youth with hoarding disorder. Historically, hoarding as a symptom of OCRD did not react well to medication or CBT (Saxena & Maidment, 2007). Although no treatment path has yet been developed, a combination of (1) discarding excess possessions; (2) organizing remaining possessions; (3) planning to prevent new

acquisitions; and (4) introducing alternative behaviors have shown some success (Saxena & Maidment). Treatment may include education about hoarding, setting goals, enhancing motivation, training decision making skills, and practice sorting and organizing. This can be coupled with discarding old possessions and preventing acquisition of new possessions (Steketee, 2014).

Cultural Considerations

This portion of the *Collection* explores the effect, if any, of culture on the symptoms, presentation, and treatment of OCRD.

Obsessive-Compulsive Disorder

Research is extremely limited on the role of culture and ethnicity in obsessive-compulsive disorder. Although the physiological symptoms are universal, the way in which the experience is interpreted and expressed varies as a function of culture (Washington, Norton, & Temple, 2008). Culture also influences help-seeking behaviors and treatment preferences (Sue, Zane, & Young, 1994). Clinicians should consider, but not assume, cultural influences to ensure proper identification and treatment.

Clinicians should be familiar with the ways in which youth and families conceptualize symptoms. Cultural practices and norms shape the way in which emotions are understood and expressed. This can lead to differences in attributions of emotions and behaviors, expressions of symptoms, and the language used to describe the symptoms. Clinicians and researchers who are unaware of culture-specific idioms of distress may fail to notice important symptoms, dismiss symptoms as irrelevant, or misattribute the symptoms to a different diagnosis. Normative cultural practices should also be considered to avoid characterizing certain behaviors as psychologically abnormal (March & Mulle, 1998). For example, research on standardized measures has demonstrated that African American individuals report higher levels of cleaning and checking symptoms, but do not report anxiety and/or impairment surrounding these symptoms. Thus, they do not always meet diagnostic criteria for obsessive-compulsive disorder during structured interviews (Thomas, Turkheimer, & Oltmanns, 2000; Williams et al., 2005). Similarly, South Asian/East Indian and Southeast Asian individuals are more likely to report obsessive-compulsive symptoms compared to Caucasian, African American, and Latino individuals (Washington, Norton, & Temple, 2008). However, these elevated reports of obsessive-compulsive symptoms were only associated with obsessive-compulsive disorder distress and impairment in South Asian/East Indian individuals. Elevated reports of obsessive-compulsive symptoms in Southeast Asian individuals were not associated with increased incidence of obsessive-compulsive disorder (Washington, Norton, & Temple).

Ethnicity may also play a role in attribution biases of African American youths' behaviors. Lau and colleagues (2004) found that, while African American youth reported slightly higher levels of their own internalizing symptoms compared to Caucasian youth, teachers rated Caucasian students as having higher anxiety and African American students with higher externalizing symptoms. Some children with OCRD may refuse to approach feared situations or have tantrums when compulsions are interrupted or prevented, which may lead observers to interpret this behavior as oppositional behavior (Klein, 2009). Teachers may interpret anxious refusal as oppositional-defiance based on racial stereotypes (Lau et al.).

Literature on pediatric ERP-based CBT treatment is limited because of the exclusion of racial/ethnic minorities and/or participants of various socioeconomic statuses. Only seven studies reported racial/ethnic demographics; four of these were entirely Caucasian, while the others still underrepresented minorities. No studies reported socioeconomic status of the participants. While OCRD prevalence is approximately equal across ethnicities, the representation in randomized clinical trials is heavily weighted to Caucasians (Williams, Powers, Yun & Foe, 2010). Some researchers posit that, along with institutional mistrust, ethnic minorities may not participate in randomized clinical trials because of financial barriers, language barriers, proximity to specialty clinics, and cultural beliefs about the best approaches to mental illness.

Factors such as cultural or social stigma and availability of social and economic resources may impact a family's ability to access treatment and/or conduct CBT with ERP at home. This limits the ability to generalize results of these studies for use in community-based clinics that serve minority and economically disadvantaged patients. General recommendations for adapting treatments to be culturally sensitive apply to the treatment of OCRD in the absence of specific research on treatment for OCRD and individual racial/ethnic/cultural groups. In a recent review of evidence-based treatments and modifications for ethnic minority youth, treatments discussed were the selective use of culturally responsive adaptations based on actual client need and avoidance of overgeneralizations based on race/ethnicity/culture (Huey & Polo, 2008).

Body Dysmorphic Disorder

Body dysmorphic disorder appears across cultures (APA, 2013a). Symptoms may present differently, as Caucasians may be more concerned with body issues where Asian Americans may be more concerned with hair and skin (Marques et al., 2011). Additionally, cultural values may affect the concerns of individuals with body dysmorphic disorder (APA).

Hoarding Disorder

Most research on hoarding disorder has been done in western industrialized countries, specifically in urban areas, but data available from non-western industrialized countries suggest that hoarding disorder is universal and presents consistently across cultures (APA, 2013b; Samuels et al., 2008).

Trichotillomania and Excoriation Disorder

Research suggests rates of trichotillomania are similar between Caucasians and African Americans, and German and American samples demonstrate equivalent rates of excoriation (Woods, Flessner & Conelea, 2008). There is little research on cultural differences affecting trichotillomania. However, one study of trichotillomania in African American women showed that trichotillomania rates positively correlated with anxiety levels in college students in the sample (Neal-Barnett, Statom, & Stadulis, 2011).

Some research suggests that excoriation most frequently occurs in females from teens to late 30s (APA, 2013a). While excoriation is significantly more frequent in females than males, it appears to be consistent across cultures. More research must be done to confirm this finding.

Overview for Families

Children or adolescents with OCRD will often do certain actions or behaviors to ease anxiety caused by obsessive thoughts. Often, the obsessive thoughts (also called obsessions) are irrational and/or unrealistic. The actions or behaviors (called compulsions) are a temporary escape from stress and anxiety. Compulsions can include the following:

- Constant hand washing
- Hoarding
- Repeated ordering of items
- Checking things repeatedly
- Counting or repeating actions a certain number of times or until it "feels right"

Families who suspect a youth may have OCRD should look out for the following:

- Repetitive and obsessive thoughts that persist;
- Urges that result in repetitive behaviors; and
- The youth being driven to perform these behaviors as a result of the obsessive thoughts.

OCRD tends to run in families, but it may develop even without any previous family history. As many as 40 percent of youth with childhood or adolescent-onset OCRD may have remission in adulthood.

Disorders included in the OCRD category include:

- Obsessive-compulsive disorder
- Body dysmorphic disorder
- Trichotillomania (hair-pulling disorder)
- Excoriation (skin-picking disorder)
- Hoarding disorder

Obsessive-compulsive and related disorder due to another medical condition and obsessive-compulsive and related disorder that is substance/medication-induced are also included in this category. Data on these subtypes is limited.

Signs of OCRD include obsessively seeking out things that are "just right." This could be physical ("just right" clothing or body positioning) or based on perception (things feeling "just right"). A youth with OCRD may also seek completeness or accuracy. However, it is important to note that many behaviors similar to those seen in OCRD are a normal part of child development. Therefore, proper assessment by a licensed clinician is imperative to make an accurate diagnosis.

Most children with OCRD can be treated effectively with a combination of psychotherapy (especially cognitive and behavioral techniques) and certain medications (such as selective serotonin reuptake inhibitors (SSRI's)). Family support and education are also central to the success of treatment. Antibiotic therapy may be useful in cases where OCRD is linked to streptococcal infection. Seeking help from a child psychiatrist/psychologist and/or adolescent psychiatrist/psychologist is important both to better understand the complex issues created by OCRD as well as to get help.

As many as an estimated 10 percent of patients with OCRD attempt suicide in adolescent and adult years. While this risk does not solely affect children and adolescents, families should be aware of this risk and monitor their children for signs of suicidal ideation (thinking about suicide). For additional information on this topic, families should consult the "Youth Suicide" section of this *Collection*.

Resources and Organizations

American Academy of Child & Adolescent Psychiatry (AACAP)

https://www.aacap.org/

Anxiety Disorders Association of America (ADAA)

https://adaa.org

International OCD Foundation

https://iocdf.org

Mayo Clinic

Obsessive Compulsive Disorder

https://www.mayoclinic.org/diseasesconditions/obsessive-compulsivedisorder/symptoms-causes/syc-20354432 Mental Health America (MHA) Obsessive-Compulsive Disorder http://www.mentalhealthamerica.net/conditi ons/ocd Tricholtillomania http://www.mentalhealthamerica.net/conditi ons/trichotillomania-hair-pulling National Alliance on Mental Illness (NAMI) https://www.nami.org/ National Anxiety Foundation Obsessive Compulsive Disorder http://www.nationalanxietyfoundation.org/o cd.html

National Institute of Mental Health (NIMH)

Obsessive Compulsive Disorder

https://www.nimh.nih.gov/health/topics/obs essive-compulsive-disorder-ocd/index.shtml https://www.nimh.nih.gov/health/publicatio ns/obsessive-compulsive-disorder-whenunwanted-thoughts-take-over/index.shtml

National Mental Health Information Center

https://www.mentalhealth.gov/

Obsessive-Compulsive Disorder in Children and Adolescents

https://www.aacap.org/AACAP/Families_an d_Youth/Facts_for_Families/FFF-Guide/Obsessive-Compulsive-Disorder-In-Children-And-Adolescents-060.aspx

Obsessive-Compulsive Foundation

https://iocdf.org/

Parent Support Groups for Children with OCD

http://www.childrensdisabilities.info/OCD/g roups-OCD-child.htm

TLC Foundation for Body-Focused Repetitive Behaviors

http://www.bfrb.org/index.php

U.S. Department of Health and Human Services

Substance Abuse and Mental Health Services Administration (SAMHSA)

http://www.samhsa.gov/

Virginia Resources and Organizations

National Alliance on Mental Health (NAMI) Virginia

https://namivirginia.org/

Virginia Commonwealth University (VCU) Medical Center

Virginia Treatment Center for Children

https://www.chrichmond.org/Services/Ment al-and-Behavioral-Health.htm?vtcc=true

Virginia Department of Behavioral Health and Developmental Services (DBHDS)

http://www.dbhds.virginia.gov/

Virginia Polytechnic Institute and State University (VA Tech)

Psychological Services Center

http://www.psyc.vt.edu/outreach/psc

Child Study Center

https://www.psyc.vt.edu/labs/csc University of Virginia Health System

https://neurosciences.uvahealth.com/services /psychiatry/mental-healthconditions/anxiety-disorders

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Additional References of Interest

CBT Treatment Manuals: Individual

- Piacentini, J., Langley, A., & Robleck, T. (2007). Cognitive-behavioral treatment of childhood OCD, it's only a false alarm: Therapist guide (programs that work). New York: Oxford. (Child/adolescent workbook is also available from same authors and publisher.)
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CBT Treatment Manuals: Family

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