OBSESSIVE COMPULSIVE DISORDER

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ABSTRACT

Obsessive compulsive disorder (OCD) is an anxiety disorder characterized by intrusive thoughts that produce uneasiness, apprehension, fear, or worry, by repetitive behaviors aimed at reducing the associated anxiety, or by a combination of such obsessions and compulsions. OCD sufferers generally recognize their obsessions and compulsions as irrational, and may become further distressed by this realization. An Epidemiological Catchment Area (ECA) study showed a lifetime prevalence of OCD of 2.5%. Biological, psychological and psychosocial all play a role in causing the disorder. A diagnosis of OCD is drawn from its clinical presentations. The Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR) is used to aid the diagnosis of OCD. Therapies for OCD are in the form of psychotherapy and psychopharmacology. OCD symptoms persist at moderate levels even following adequate treatment course and a completely symptom-free period is uncommon.

Keywords: Obsessive compulsive disorder (OCD), anxiety disorder, obsessions, compulsions, repetitive behaviours

INTRODUCTION

Obsessive–compulsive disorder (OCD) is an anxiety disorder characterized by intrusive thoughts that produce uneasiness, apprehension, fear, or worry, by repetitive behaviors aimed at reducing the associated anxiety, or by a combination of such obsessions and compulsions. Symptoms of the disorder include excessive washing or cleaning; repeated checking; extreme hoarding; preoccupation with sexual, violent or religious thoughts; relationship-related obsessions; aversion to particular numbers;

and nervous rituals, such as opening and closing a door a certain number of times before entering or leaving a room. These symptoms can be alienating and time-consuming, and often cause severe emotional and financial distress. The acts of those who have OCD may appear paranoid and potentially psychotic. However, OCD sufferers generally recognize their obsessions and compulsions as irrational, and may become further distressed by this realization.

Obsessive–compulsive disorder affects children and adolescents as well as adults. Roughly one third to one half of adults with OCD report a childhood onset of the disorder, suggesting the continuum of anxiety disorders across the life span.[1] The phrase obsessive–compulsive has become part of the English lexicon, and is often used in an informal or caricatured manner to describe someone who is excessively meticulous, perfectionistic, absorbed, or otherwise fixated.[1]

Although these signs are present in OCD, a person who exhibits them does not necessarily have OCD, and may instead have obsessive–compulsive personality disorder (OCPD), an autism spectrum disorder, disorders where perseveration is a possible feature (ADHD, PTSD, bodily disorders or habit problems),[2] or no clinical condition.

EPIDEMIOLOGY

OCD does not have a higher affinity for a specific gender. In 80% of cases, symptoms present before the age of 18.[3] Studies have placed the prevalence of the disorder at between one and three percent, although the prevalence of clinically recognized OCD is much lower, suggesting that many individuals with the disorder may not be

diagnosed.[3] The fact that many individuals do not seek treatment may be due in part to stigma associated with OCD.

In a 1980 study of adults from several U.S. cities, the lifetime prevalence rate of OCD for both sexes was recorded at 2.5 percent. Education also appears to be a factor. The lifetime prevalence of OCD is lower for those who have graduated from high school than for those who have not (1.9 percent versus 3.4 percent). However, in the case of college education, lifetime prevalence is higher for those who graduate with a degree (3.1 percent) than it is for those who have only some college background (2.4 percent). As far as age is concerned, the onset of OCD usually ranges from the late teenage years until the mid-20s in both sexes, but the age of onset tends to be slightly younger in males than in females.

SIGNS AND SYMPTOMS

Obsessions

Obsessions are thoughts that recur and persist despite efforts to ignore or confront them.[4] People with OCD frequently perform tasks, or compulsions, to seek relief from obsession-related anxiety. Within and among individuals, the initial obsessions, or intrusive thoughts, vary in their clarity and vividness. A relatively vague obsession could involve a general sense of disarray or tension accompanied by a belief that life cannot proceed as normal while the imbalance remains. A more intense obsession could be a preoccupation with the thought or image of someone close to them dying or intrusions related to relationship "rightness".[4] Other obsessions concern the possibility that someone or something other than oneself—such as God, the Devil, or

disease—will harm either the person with OCD or the people or things that the person cares about. Other individuals with OCD may experience the sensation of invisible protrusions emanating from their bodies, or have the feeling that inanimate objects are ensouled.[4]

Some people with OCD experience sexual obsessions that may involve intrusive thoughts or images of "kissing, touching, fondling, oral sex, anal sex, intercourse, incest and rape" with "strangers, acquaintances, parents, children, family members, friends, coworkers, animals and religious figures", and can include "heterosexual or homosexual content" with persons of any age.[5] As with other intrusive, unpleasant thoughts or images, most "normal" people have some disquieting sexual thoughts at times, but people with OCD may attach extraordinary significance to the thoughts. For example, obsessive fears about sexual orientation can appear to the person with OCD, and even to those around them, as a crisis of sexual identity.[5] Furthermore, the doubt that accompanies OCD leads to uncertainty regarding whether one might act on the troubling thoughts, resulting in self-criticism or self-loathing.[5]

People with OCD understand that their notions do not correspond with reality; however, they feel that they must act as though their notions are correct. For example, an individual who engages in compulsive hoarding might be inclined to treat inorganic matter as if it had the sentience or rights of living organisms, while accepting that such behavior is irrational on a more intellectual level. In severe OCD, obsessions can shift into delusions when resistance to the obsession is abandoned and insight into its senselessness is lost.

Compulsions

Some people with OCD perform compulsive rituals because they inexplicably feel they have to, others act compulsively so as to mitigate the anxiety that stems from particular obsessive thoughts. The person might feel that these actions somehow either will prevent a dreaded event from occurring, or will push the event from their thoughts. In any case, the individual's reasoning is so idiosyncratic or distorted that it results in significant distress for the individual with OCD or for those around them. Excessive skin picking (i.e., dermatillomania) or hair plucking (i.e., trichotillomania) and nail biting (i.e., onychophagia) are all on the Obsessive-Compulsive Spectrum. Individuals with OCD are aware that their thoughts and behavior are not rational,[6] but they feel bound to comply with them to fend off feelings of panic or dread.

Some common compulsions include counting specific things (such as footsteps) or in specific ways (for instance, by intervals of two), and doing other repetitive actions, often with atypical sensitivity to numbers or patterns. People might repeatedly wash their hands or clear their throats, make sure certain items are in a straight line, repeatedly check that their parked cars have been locked before leaving them, constantly organize in a certain way, turn lights on and off, keep doors closed at all times, touch objects a certain number of times before exiting a room, walk in a certain routine way like only stepping on a certain color of tile, or have a routine for using stairs, such as always finishing a flight on the same foot.[6]

The compulsions of obsessive-compulsive disorder (OCD) must be distinguished from tics, movements of other movement disorders (for example,

chorea, dystonia, myoclonus), movements exhibited in stereotypic movement disorder or some people with autism, and movements from seizure activity.[6] There may exist a notable rate of comorbidity between OCD and tic-related disorders.[6]

People rely on compulsions as an escape from their obsessive thoughts; however, they are aware that the relief is only temporary, that the intrusive thoughts will soon return. Some people use compulsions to avoid situations that may trigger their obsessions. Although some people do certain things over and over again, they do not necessarily perform these actions compulsively. For example, bedtime routines, learning a new skill, and religious practices are not compulsions. Whether or not behaviors are compulsions or mere habit depends on the context in which the behaviors are performed. For example, arranging and ordering DVDs for eight hours a day would be expected of one who works in a video store, but would seem abnormal in other situations. In other words, habits tend to bring efficiency to one's life, while compulsions tend to disrupt it.[6]

In addition to the anxiety and fear that typically accompanies OCD, sufferers may spend hours performing such compulsions every day. In such situations, it can be hard for the person to fulfill their work, family, or social roles. In some cases, these behaviors can also cause adverse physical symptoms. For example, people who obsessively wash their hands with antibacterial soap and hot water can make their skin red and raw with dermatitis.[5]

People with OCD can use rationalizations to explain their behavior; however, these rationalizations do not apply to the overall behavior but to each instance

individually. For example, a person compulsively checking the front door may argue that the time taken and stress caused by one more check of the front door is much less than the time and stress associated with being robbed, and thus checking is the better option. In practice, after that check, the person is still not sure and deems it is still better to perform one more check, and this reasoning can continue as long as necessary.

CAUSES

Psychological

An evolutionary psychology view is that moderate versions of compulsive behavior may have had evolutionary advantages. Examples would be moderate constant checking of hygiene, the hearth, or the environment for enemies. Similarly, hoarding may have had evolutionary advantages. In this view OCD may be the extreme statistical "tail" of such behaviors possibly due to a high amount of predisposing genes.[7]

Biological

OCD has been linked to abnormalities with the neurotransmitter serotonin, although it could be either a cause or an effect of these abnormalities. Serotonin is thought to have a role in regulating anxiety. To send chemical messages from one neuron to another, serotonin must bind to the receptor sites located on the neighboring nerve cell. It is hypothesized that the serotonin receptors of OCD sufferers may be relatively understimulated. This suggestion is consistent with the observation that many OCD patients benefit from the use of selective serotonin reuptake inhibitors (SSRIs), a class

of antidepressant medications that allow for more serotonin to be readily available to other nerve cells.[7]

A possible genetic mutation may contribute to OCD. A mutation has been found in the human serotonin transporter gene, hSERT, in unrelated families with OCD.[7] Moreover, data from identical twins supports the existence of a "heritable factor for neurotic anxiety".[7] Further, individuals with OCD are more likely to have first-degree family members exhibiting the same disorders than do matched controls. In cases where OCD develops during childhood, there is a much stronger familial link in the disorder than cases in which OCD develops later in adulthood. In general, genetic factors account for 45-65% of OCD symptoms in children diagnosed with the disorder.[7] Environmental factors also play a role in how these anxiety symptoms are expressed; various studies on this topic are in progress and the presence of a genetic link is not yet definitely established.

People with OCD evince increased grey matter volumes in bilateral lenticular nuclei, extending to the caudate nuclei, while decreased grey matter volumes in bilateral dorsal medial frontal/anterior cingulate gyri.[6] These findings contrast with those in people with other anxiety disorders, who evince decreased (rather than increased) grey matter volumes in bilateral lenticular / caudate nuclei, while also decreased grey matter volumes in bilateral dorsal medial frontal/anterior cingulate gyri.[7] Orbitofrontal cortex overactivity is attenuated in patients who have successfully responded to SSRI medication, a result believed to be caused by increased stimulation of serotonin receptors 5-HT2A and 5-HT2C.[6] The striatum, linked to planning and the initiation of appropriate actions, has also been implicated; mice genetically engineered

with a striatal abnormality exhibit OCD-like behavior, grooming themselves three times as frequently as ordinary mice.[7] Recent evidence supports the possibility of a heritable predisposition for neurological development favoring OCD.

Neurotransmitters Role

Researchers have yet to pinpoint the exact cause of OCD, but brain differences, genetic influences, and environmental factors are being studied. Brain scans of people with OCD have shown that they have different patterns of brain activity than people without OCD and that different functioning of circuitry within a certain part of the brain, the striatum, may cause the disorder. Differences in other parts of the brain and neurotransmitter dysregulation, especially serotonin and dopamine, may also contribute to OCD.[7] Independent studies have consistently found unusual dopamine and serotonin activity in various regions of the brain in individuals with OCD. These can be defined as dopaminergic hyperfunction in the prefrontal cortex and serotonergic hypofunction in the basal ganglia.[8] Glutamate dysregulation has also been the subject of recent research,[6] although its role in the disorder's etiology is not yet clear.

DIAGNOSIS

Formal diagnosis may be performed by a psychologist, psychiatrist, clinical social worker, or other licensed mental health professional. To be diagnosed with OCD, a person must have obsessions, compulsions, or both, according to the Diagnostic and Statistical Manual of Mental Disorders (DSM). The Quick Reference to the 2000 edition of the DSM[6] suggests that several features characterize clinically significant

obsessions and compulsions. Such obsessions, the DSM says, are recurrent and persistent thoughts, impulses, or images that are experienced as intrusive and that cause marked anxiety or distress. These thoughts, impulses, or images are of a degree or type that lies outside the normal range of worries about conventional problems.[clarification needed] A person may attempt to ignore or suppress such obsessions, or to neutralize them with some other thought or action, and will tend to recognize the obsessions as idiosyncratic or irrational.

Compulsions become clinically significant when a person feels driven to perform them in response to an obsession, or according to rules that must be applied rigidly, and when the person consequently feels or causes significant distress. Therefore, while many people who do not suffer from OCD may perform actions often associated with OCD (such as ordering items in a pantry by height), the distinction with clinically significant OCD lies in the fact that the person who suffers from OCD must perform these actions, otherwise they will experience significant psychological distress. These behaviors or mental acts are aimed at preventing or reducing distress or preventing some dreaded event or situation; however, these activities are not logically or practically connected to the issue, or they are excessive. In addition, at some point during the course of the disorder, the individual must realize that their obsessions or compulsions are unreasonable or excessive. Moreover, the obsessions or compulsions must be time-consuming (taking up more than one hour per day) or cause impairment in social, occupational, or scholastic functioning.[7] It is helpful to quantify the severity of symptoms and impairment before and during treatment for OCD. In addition to the patient's estimate of the time spent each day

harboring obsessive-compulsive thoughts or behaviors, Fenske and Schwenk in their article "Obsessive-Compulsive Disorder: Diagnosis and Management," argue that more concrete tools should be used to gauge the patient's condition (2009). This may be done with rating scales, such as the most trusted Yale–Brown Obsessive Compulsive Scale (Y-BOCS). With measurements like these, psychiatric consultation can be more appropriately determined because it has been standardized.

MANAGEMENT

Behavioural Therapy

The specific technique used in BT/CBT is called exposure and ritual prevention (also known as "exposure and response prevention") or ERP; this involves gradually learning to tolerate the anxiety associated with not performing the ritual behavior. At first, for example, someone might touch something only very mildly "contaminated" (such as a tissue that has been touched by another tissue that has been touched by the end of a toothpick that has touched a book that came from a "contaminated" location, such as a school.) That is the "exposure". The "ritual prevention" is not washing. Another example might be leaving the house and checking the lock only once (exposure) without going back and checking again (ritual prevention). The person fairly quickly habituates to the anxiety-producing situation and discovers that their anxiety level has dropped considerably; they can then progress to touching something more "contaminated" or not checking the lock at all—again, without performing the ritual behavior of washing or checking.[8]

Exposure ritual/response prevention (ERP) has a strong evidence base. It is considered the most effective treatment for OCD.[6] However, this claim has been doubted by some researchers criticizing the quality of many studies.[6]

It has generally been accepted that psychotherapy, in combination with psychiatric medication, is more effective than either option alone. However, more recent studies have shown no difference in outcomes for those treated with the combination of medicine and CBT versus CBT alone.[6]

More recent behavioral work has focused on associative splitting. It is a new technique aimed at reducing obsessive thoughts. The method draws upon the "fan effect" of associative priming:[7] The sprouting of new associations diminishes the strength of existing ones. As OCD patients show marked biases or restrictions in OCD-related semantic networks (e.g., cancer is only associated with "illness" or "death", fire is only associated with "danger" or "destruction"),[7] they are encouraged to imagine neutral or positive associations to OCD-related cognitions (cancer = zodiac sign, animal, crab; fire = fireflies, fireworks, candlelight-dinner). First studies tentatively confirm the feasibility and effectiveness of the approach for a subgroup of patients.

Medication

Medications as treatment include selective serotonin reuptake inhibitors (SSRIs) such as paroxetine, sertraline, fluoxetine, escitalopram and fluvoxamine and the tricyclic antidepressants, in particular clomipramine. SSRIs prevent excess serotonin from being pumped back into the original neuron that released it. Over a period of several

weeks, the increased levels of serotonin downregulate the receptors, making them less responsive to 5-HT. This downregulation is concurrent with the onset of any theraputic benefits from SSRIS, from 2-3 weeks.

Treatment of OCD is an area needing significant improvement in prescribing regimens.[8] Benzodiazepines are sometimes used, although they are generally believed to be ineffective for treating OCD; however, effectiveness was found in one small study.[6] Serotonergic antidepressants typically take longer to show benefit in OCD than with most other disorders they are used to treat. It is common for 2–3 months to elapse before any tangible improvement is noticed. In addition to this, treatment usually requires high dosages. Fluoxetine, for example, is usually prescribed in dosages of 20 mg per day for clinical depression, whereas with OCD the dosage often ranges from 20 mg to 80 mg or higher, if necessary. In most cases antidepressant therapy alone provides only a partial reduction in symptoms, even in cases that are not deemed treatment resistant. Much current research is devoted to the therapeutic potential of the agents that affect the release of the neurotransmitter glutamate or the binding to its receptors. These include riluzole,[7] memantine, gabapentin, N-Acetylcysteine, and lamotrigine.

The atypical antipsychotics olanzapine, quetiapine, and risperidone have also been found to be useful as adjuncts to an SSRI in treatment-resistant OCD. However, these drugs are often poorly tolerated, and have significant metabolic side effects that limit their use. None of the atypical antipsychotics have demonstrated efficacy as a monotherapy.

PROGNOSIS

Psychological interventions such as behavioral and cognitive-behavioral therapy as well as pharmacological treatment can lead to substantial reduction of OCD symptoms for the average patient. However, OCD symptoms persist at moderate levels even following adequate treatment course and a completely symptom-free period is uncommon.

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