

Obsessive-Compulsive Disorder (DSM-IV-TR #300.3)

Obsessive-compulsive disorder, once known as “obsessive-compulsive neurosis,” and occasionally referred to by subtype designations, such as “*déire de doute*” or “*déire de toucher*,” is a relatively common disorder, with a lifetime prevalence of from 2 to 3%. It is probably equally common among males and females.

Patients with this disorder are plagued with recurrent obsessions or compulsions, often with both. Obsessions may manifest as recurrent thoughts, ideas, images, impulses, fears, or doubts. The obsessions are autonomous; although patients who find themselves obsessing may resist them, they are unable to stop them; they come and go on their own. Compulsions, likewise, may manifest in a variety of ways. Patients may feel compelled to touch, to count, to check, to have everything symmetrically arranged, or to repeatedly wash their hands. Attempts to resist the compulsion are met with crescendoing anxiety, which is relieved as soon as the patient gives in to the compulsion.

With the exception of children, most patients at some point recognize the senselessness of their obsessions and compulsions; yet, though their lives may be consumed by them, patients find themselves unable to stop or resist them.

Most patients with this disorder are ashamed of their experience. This shame may be especially profound in the case of certain compulsions, as, for example, the compulsive washer who spends 6 or 8 hours a day in the bathroom, or in certain obsessions, especially those with violent or sexual themes. Such shame makes patients reluctant to report their symptoms, and this may account for the fact that earlier epidemiologic studies reported this to be a rare disorder, with a traditional prevalence figure being about 0.05%.

Before the 1980s these patients had little hope. The extremity of their suffering is perhaps hinted at by the fact that many patients seriously entertained the option of lobotomy, and some underwent it. Modern behavioral treatment and pharmacologic treatment, however, may now provide relief for a majority of sufferers, and as this news has spread in the general population, more and more patients are overcoming their shame and revealing their symptoms to their physicians.

ONSET

In some cases the onset seems to follow an “understandable” precipitating factor. A compulsion to wash, for example, may follow contact with a particularly foul substance. Even with precipitants, however, the symptoms that follow are clearly out of all reasonable proportion. A normal person may feel “compelled” to wash his hands twice, or perhaps even three times, after touching something putrid; this, however, is a far cry from the patient who for years washes his hands dozens of times each day.

Most patients fall ill in adolescent or early adult years; onset in childhood is not rare, but onset past the age of 40 is quite rare.

CLINICAL FEATURES

The majority of patients with obsessive-compulsive disorder experience both obsessions and compulsions; somewhat less than 25% have only obsessions, and about 5% have only compulsions. Very rarely one finds a patient with a subtype known as primary obsessive slowness.

Although the subject matter of an obsession may be neutral, for example recurrent meaningless phrases or songs, one often finds violent or sexual themes. Patients may be horrified to find themselves obsessing over such things; they do their utmost to will the obsession away, and when that fails, as it usually does, they may

avoid situations that might bear a relationship to the subject of their obsessions. A young mother could not stop imagining her toddler being crushed to death by a truck; she would not let him from her sight, and when crossing the street she insisted on carrying him. A seminary student experienced a horrible impulse to utter obscenities upon approaching others; the apprehension that this urge might not be controllable was so great that the student left the seminary. Some patients experience what are known as obsessive-ruminative states, wherein they continuously, ploddingly ponder over abstruse religious or philosophic speculations.

Compulsions spring from recurrent doubts or fears that something awful has happened or will happen. Patients are often subtyped according to what they feel compelled to do. Common subtypes include checkers, washers, touchers, counters, and arrangers. Although patients recognize the senselessness of their compulsive behavior, they are unable to resist acting on the compulsion. If they try to resist, the anxiety associated with their fear or doubt may become so intolerable that they have to give into the compulsion and go back to check, touch, count, or wash. In one case, a patient, upon driving over a bump in the road, was filled with the fear that someone might have been run over and thus was compelled to go back and check to see if there was a body in the road. The relief at not finding one was only momentary, however, because almost immediately the fear arose that the victim had not been killed but simply badly injured and had crawled off the road, and this fear gave birth to the compulsion to check behind the bushes at the roadside, then in nearby backyards, and so on. Other common checkings include going back to see if the door is locked or if the gas is turned off; one patient could not mail a letter because of the need to open it repeatedly to check if everything had been spelled correctly in the letter itself.

Washers generally fear that they have been contaminated by germs, dirt, or excrement; they feel compelled to wash repetitively no matter what the circumstance. To one office worker, doorknobs were a source of contagion, and if one were ever touched a trip to the bathroom was absolutely necessary to repeatedly wash the hands, even if it meant keeping the boss waiting.

Compulsions may or may not have a certain logic to them. In some cases one may “understand” the patient’s feelings. For

example, one can empathize with the patient who fears contamination and experiences a compulsion to wash. What passes empathy, of course, is the fact that the patient feels compelled to wash repeatedly, whereas the normal individual would be satisfied with one or perhaps two washings. Other compulsions, however, seem to defy logic. At times some magical thinking may be associated with them. In fact in some instances, patients themselves have difficulty describing the motive for their compulsive behavior. Arrangers, touchers and counters often fall in this group. One "arranger" felt compelled to have things organized "just so" in the closet before going to bed. Shoes had to be arranged in a certain way, the ties all hanging perfectly straight, none of the suit jackets touching each other as they hung from the rod. Repeatedly the patient would get back out of bed to adjust an article of clothing, moving it this way or that, sometimes only a fraction of an inch. Retiring again, the patient would be seized with the fear that things were not perfectly symmetric, and again would have to get up and go to the closet. When pressed by the exasperated spouse for an explanation of this behavior, the patient could say no more than that he felt a premonition that something awful would happen if the compulsion were not given in to. Another patient, a toucher, felt compelled to touch every hardbound book that came into view; though feeling foolish in doing so and acknowledging that the fear was even more foolish, the patient could not shake the idea that someone would die if the books failed to be touched.

Although most compulsive behaviors are observable, at times "silent" mental rituals may occur. Examples include the patient who had to think "The Lord's Prayer" a precise number of times, or another who was compelled to imagine a certain sequence of scenes.

Initially, at least, almost all patients view their compulsions as senseless, and out of embarrassment, shame, or simply annoyance at having so much time consumed by them, they resist carrying them out. The growing tension that accompanies this resistance, however, is generally unbearable, and indeed many patients eventually give up trying; they eventually either put up no resistance or only a token one and eventually simply give in. In obtaining a history, therefore, one should ask not only about the patient's current response to the compulsion but also the initial one. Rarely, patients with obsessive-compulsive disorder become psychotic. For example, a compulsive washer may develop the delusion that indeed a contamination is present and that the repetitive washings therefore make perfect sense.

In primary obsessive slowness, routine daily activities become transformed into lengthy, meticulous rituals. Dressing or perhaps preparing and eating breakfast may take hours. The sequence and form of each step in the process is carefully and scrupulously observed; they experience intense anxiety should any deviation occur or even threaten to occur. Only when perfectly satisfied that the job has been rightly done can the patient move on to the next task of the day. Patients with primary obsessive slowness also tend to have, or to have had earlier in life, other compulsions, such as checking or washing.

Three disorders associated with obsessive-compulsive disorder are major depression, Tourette's syndrome, and any of a number of different personality disorders. Perhaps one half of all patients with obsessive-compulsive disorder also have one or more depressive episodes in their lifetimes. About 5% of patients with obsessive-compulsive disorder

also have Tourette's syndrome, and almost 25% have some form of tic. The relationship between obsessive-compulsive disorder and obsessive-compulsive personality disorder deserves special comment. Early writings held that the obsessive-compulsive personality style provided fertile soil for the development of true obsessions and compulsions and suggested an etiologic relation between the two disorders. Recent research, however, fails to support this notion. Although the majority of patients with obsessive-compulsive disorder indeed have one of the personality disorders, only a minority have an obsessive-compulsive personality disorder; other personality disorders, such as histrionic, passive-aggressive, and schizotypal, are more common.

COURSE

Although obsessive-compulsive disorder generally pursues a gradually waxing and waning course, exceptions do occur. In a small minority, perhaps 5%, symptoms will undergo a complete, or near-complete, spontaneous remission; in such cases, however, relapses generally occur in the following years. In another minority of cases, perhaps 10 to 15%, the course is progressively downhill until patients' lives are consumed by obsessions and compulsions and their responses to them.

COMPLICATIONS

The complications of obsessive-compulsive disorder are for the most part directly related to the time and energy consumed by the obsessions and/or the compulsions. In mild cases, especially if characterized primarily by obsessions, there may be little encroachment on the patient's work and family life. In severe cases, however, little time is left for other activities, and job and marriage may be lost. The hands of hand washers may become so raw, even bleeding, that dermatologic consultation may be sought. Unfortunately, often in such cases the dermatologist is kept in the dark about the cause of the lesion, and a fruitless search for a primary dermatologic disorder may be undertaken.

ETIOLOGY

Family studies have demonstrated an increased prevalence of obsessive-compulsive disorder in the first degree relatives of patients as compared to controls, and twin studies, though not conclusive, suggest a higher concordance rate in monozygotic as compared to dizygotic twins. There is also, in a subset of patients, a familial relation with Tourette's syndrome.

Serotonergic transmission is disturbed in obsessive-compulsive disorder. The only currently available medicines that are consistently effective in obsessive-compulsive disorder, clomipramine and the SSRIs, all preferentially affect serotonergic transmission, with noradrenergic and dopaminergic transmission being relatively unaffected directly. Medications such as desipramine, which have a preferential affect on noradrenergic transmission, are ineffective. Furthermore, m-chlorophenylpiperazine (mCPP), a mixed serotonin agonist/antagonist, has been shown in some studies to increase the severity of obsessions and compulsions.

PET scanning has strongly implicated involvement of the orbito-frontal cortex, the caudate nucleus and the thalamus:

remarkably, the increased metabolic activity found in these structures reverts toward normal in successfully treated patients.

Overall, it appears plausible to say that in most cases, obsessive-compulsive disorder represents an inherited abnormality of serotonergic functioning in the fronto-striato-thalamo-cortical circuit; the molecular nature of this abnormality, however, is not as yet clear.

In a minority of cases, it appears that obsessive-compulsive disorder occurs as a sequela to Sydenham's chorea. As noted in the section on differential diagnosis, below, prominent obsessions and compulsions are seen in the majority of patients with Sydenham's chorea, and it appears that, in an as yet unknown proportion of these cases, obsessions and compulsions may reappear in the future, unaccompanied by chorea. One clue to the diagnosis of this etiologic variant of obsessive-compulsive disorder is a "triggering" of obsessions or compulsions by a preceding group A beta-hemolytic streptococcal pharyngitis.

DIFFERENTIAL DIAGNOSIS

The first diagnostic task is to determine whether or not patients have true obsessions or compulsions. Once it has been established that they do, then a differential diagnosis of these "true" symptoms must be pursued.

Various disorders may produce symptoms quite similar to true obsessions and compulsions; however, with close inquiry, these "look-alikes" may be correctly identified.

Paraphilias, alcoholism, bulimia nervosa, pathologic gambling, or pyromania are all accompanied by a sense, on the patient's part, of being "compelled" to do something, whether it be aberrant sexual acts, drinking, eating, gambling or fire-setting. Importantly, however, in these conditions, in contrast with obsessive-compulsive disorder, gratification or pleasure is involved in giving in to the "compulsion." Paraphiliacs enjoy giving in to the compulsion to, say, engage in sadomasochistic behavior, and alcoholics enjoy the drink they feel compelled to take. By contrast, although the patient with obsessive-compulsive disorder may experience some relief at giving in to the compulsion, say, to wash, there is no actual pleasure in the act of washing itself.

Obsessive-compulsive personality disorder is characterized by an "obsession" with detail and a "compulsion" to do things perfectly; these drives, however, are not "true" obsessions and compulsions: unlike "true" obsessions and compulsions, which patients view as senseless and try and resist, the drives for order and perfection seen in the personality disorder are experienced as quite purposeful, and, rather than being resisted, are often pursued with righteous vigor.

Social phobia may resemble obsessive-compulsive disorder in those cases where patients are obsessed with doing something potentially embarrassing. For example, a patient obsessed with a fear of cursing may avoid giving lectures, and thus appear similar to the patient with a social phobia of public speaking. The difference here is that whereas patients with obsessive-compulsive disorder worry about what they might do to the audience, e.g., curse, patients with social

phobia worry about what the audience might do to them, e.g., laugh at their trembling hands and quavering voice.

Depression may be characterized by brooding or rumination, which may appear similar to obsessions. Here, however, in contrast to the attitude of patients with obsessive-compulsive disorder regarding obsessions, the depressed patient considers the ruminations quite sensible; the endless repetitive thoughts of guilt, sin, and punishment strike such a patient as quite fitting.

Various psychoses, such as schizophrenia, may be characterized by the Schneiderian First Rank delusion of "thought insertion," which may appear very similar to an obsession. Here, however, the patient experiences the thought as alien, as being "inserted" by "outside forces." Furthermore, patients with this psychotic symptom may have further unusual beliefs related to the source of the thought, believing it to be induced by computers, rays, or UFOs.

Once it has been established that the patient, indeed, does have obsessions or compulsions, the following should be considered in the differential diagnosis.

Lesions of the basal ganglia are especially prone to cause obsessions or compulsions, as may be seen with infarction, closed head injury, Fahr's syndrome, or subsequent to cerebral anoxia or viral encephalitis. Lesions of the right parietal lobe may, albeit less commonly, also be at fault. Second generation antipsychotics, including clozapine, risperidone and olanzapine, may also be responsible. Simple partial seizures may manifest with recurrent, intrusive thoughts; here the correct etiology is suggested by a history of other, more obvious, epileptic phenomena, such as complex partial or grand mal seizures.

Sydenham's chorea is especially important in the differential of obsessions and compulsions: up to 70% of patients with Sydenham's will have these, and in most cases they appear before chorea does. Here, a history of other rheumatic manifestations (e.g., arthritis), and, of course, the eventual appearance of the chorea, make the diagnosis.

Tourette's syndrome, schizophrenia and depression are often complicated by obsessions or compulsions, but in such cases the accompanying symptomatology serves to indicate the correct diagnosis.

Finally, it must be kept in mind that the occasional obsession or compulsion is part of normal life. Most people, at some point, complain of a "song I can't stop thinking about" or of wondering whether or not they locked the door or turned off the gas. Here, however, the obsessions or compulsions are of brief duration and do not cause any disability.

TREATMENT

Effective treatment involves using behavior therapy, cognitive therapy, or a serotonergic medication such as clomipramine, or one of the SSRIs of fluoxetine, fluvoxamine, paroxetine, sertraline, citalopram or escitalopram; in most cases patients are best served by a combination of behavior or cognitive therapy plus a medication.

Behavioral techniques, such as exposure and response prevention, are quite effective, and although clinician-guided therapy is most successful, many patients also benefit from a computer-guided self-help therapy accessed through an interactive telephone system. Cognitive therapy is likewise successful, and indeed, if added in cases of treatment failure with medication, may turn a non-responder into a responder.

SSRIs are by and large equally as effective as clomipramine, and, because they are generally better tolerated, are usually a first choice. The effective dose for fluoxetine is from 20 to 60 mg, for fluvoxamine 100 to 300 mg, for paroxetine 40 to 60 mg, for sertraline 50 to 200 mg, for citalopram 10 to 40 mg, and for escitalopram 5 to 20 mg. Clomipramine is given in a dose from 150 to 300 mg. Importantly, up to six weeks may be required for an initial response, and three months for a full response to any given dose.

In cases where patients do not respond, consideration may be given to using a higher dose, provided it is tolerated. Should that be unfeasible or ineffective, one option is to switch to a different medication, e.g., from an SSRI to clomipramine, or vice versa. Importantly, if one is switching from an SSRI to clomipramine, it is generally prudent to wait until the SSRI has “washed out” before starting clomipramine in order to avoid an SSRI-induced elevation in clomipramine blood level. Another option is to add either risperidone or haloperidol. Risperidone may be effective in low doses of from 2 to 3 mg daily; haloperidol, in doses of perhaps 5 mg, may also be effective, but only in those cases where there is a history of tics. Importantly, these antipsychotics are effective only as augmenting agents; used by themselves they do not relieve obsessions or compulsions. Some clinicians will also combine an SSRI and clomipramine; however, this approach has not been demonstrated effective in double-blinded trials. In disabling cases, where treatment with combinations of medications and either behavior or cognitive therapy are ineffective, consideration may be given to a neurosurgical procedure, such as cingulotomy, anterior capsulotomy or chronic electrical stimulation of the anterior capsules.

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