Obsessive-compulsive disorder

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ABSTRACT

يستعرض المقال اضطراب الوسواس القهري من منظور المعلومات السريرية ذات الصلة والتي يحتاجها الأطباء الممارسين، وأطباء الأسرة، والمجتمع، وغيرهم من المتخصصين في مجال الرعاية الصحية. يركز المقال على مدى انتشار المرض، ومسبباته، ومعايير التشخيص، ومصاحبة أعراض المرض لأمراض أخرى. كما يلخص المقال أيضاً الطرق المتاحة المعترف بها لعلاج هذه الحالة.

This review article addresses obsessive-compulsive disorder from the prospective of information that is relevant to general practitioners, family physicians, and other medical health specialists, focusing on epidemiology, etiology, diagnostic criteria, comorbidity, and a summary of well recognized treatment modalities and approaches that are available to treat this condition.

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Obsessive-compulsive disorder (OCD) is a common and incapacitating neuropsychiatric disorder that occurs across the whole life span. It is characterized by recurrent obsession, compulsions, or both.[1] Obsessions are frequent and troubling thoughts, feelings, ideas, or sensations, while compulsions are conscious, steady, and constant pattern of actions, for example counting, checking, or avoiding. Obsessions increase the anxiety, and compulsions usually reduce it. Anxiety is usually worsened in patients who try to oppose executing their compulsions.[2] Obsessive-compulsive related disorders (OCRD) are a group of disorders with overlapping symptoms and compulsive qualities that are otherwise, distinct disorders from OCD.[3] Regrettably, OCD and related disorders are frequently under-diagnosed and under treated. A recent study indicated that 59.5% of OCD patients worldwide receive no treatment for their disorder.[1] The financial costs of OCD are enormous. In the USA, the projected direct cost of treatment of OCD is estimated to be within $5 billion a year.[4]

Epidemiology. There is a lack of data estimating either the prevalence or the incidence of this disorder within the Kingdom of Saudi Arabia. It is estimated that 2-4% of individuals in the general population will develop OCD before the age of 18 years,[5,6] and epidemiologic research studies have revealed that OCD has a lifetime prevalence of 2-3%.[7] Some researchers have projected that the disorder is found in as many as 10% of outpatients in psychiatric clinics. The peak ages of onset appear to be from 10-19 years, closely followed by the ages of 20 and 29.[8] Studies have shown a prevalence of approximately 1% in children and adolescents.[7] Throughout adulthood, OCD symptoms follow a chronic course, with exacerbations accompanying periods of life stress. In adults, pronounced functional impairment has been observed in all areas of daily functions such as education, employment, marital status, life satisfaction, and general health. Retrospective studies suggest that most children with OCD will continue to have significant symptoms through adolescence and adulthood.[9,10] It is estimated that 90% of OCD patients describe low self-esteem, and around 75% of them have impaired family relations. In addition, around 66% of them complain of difficulties maintaining friendships, poor school performance, and low vocation ambitions. Also, around 40% of patients are incapable of working for a period of 2 years; and unfortunately, 15% eventually commit suicide.[11] Also, data showed that late adolescence is the period of increased vulnerability for the development of OCD; OCD affects predominantly female adults and male children and adolescents; and that those who are unmarried or abusing drugs are more likely to present with OCD.[12]

The OCD is considerably more common in children and adolescents than expected. It is estimated that OCD has a 6-month prevalence of one in 200 children and adolescents,[13,14] and it is linked with a significant functional impairment in a wide range of domains.[15] It is believed that one third to one half of adult OCD patients develops the disorder during the childhood period but unfortunately, the disorder often goes unrecognized until adulthood.[16] The most common obsessive symptoms

relate to aggression, contamination, symmetry, saving/collecting, sexual impulses, or religious matters. The most common compulsive rituals include checking, cleaning, counting, ordering, and hoarding rituals.[8,16,17] In Saudi Arabia, religious themes predominate in both the obsessions (66%) and compulsions (78%).[18]

Etiology. Several etiological theories have been proposed for OCD, which include neurobiological, immunologic, genetics, and psychosocial theories.

Neurobiology. Evidence from neurochemistry and neuroimaging studies offer substantial support for neurobiological causes of OCD.[19] Serotonin dysregulation is implicated in the mediation of idiopathic OCD symptoms. The data show that serotonergic agents that block the presynaptic uptake of serotonin are effective, but the sites of activity of these agents are unknown.[20] Various neuroimaging studies including positron emission tomography (PET) have indicated differences in radiotracer uptake between patients with OCD and healthy controls, mainly in the orbital gyrus and the head of the caudate nucleus.[21] Also, there is an increase in the cortical and basal ganglia metabolism and blood flow of patients with OCD compared with controls.[22] A recent meta-analysis study[23] of brain volume in OCD points toward volumetric variations in the cortical and thalamic regions in OCD patients and control subjects, suggesting that structural change of the thalamocortical pathways may contribute to the functional disruptions of front subcortical circuits in OCD. Also, MRI and CT studies have revealed a mild reduction in caudate nuclei volume,[24] and white matter abnormalities in the frontal lobe region.[25]

Immunology. A group of researchers at the National Institute of Mental Health described a subgroup of OCD in children, which was triggered or exacerbated by group A beta-hemolytic streptococcal (GABHS) infection.[26,27] It is theorized that the obsessive and compulsive symptoms are related to caudate nucleus enlargement caused by an autoimmune reaction between caudate tissue and anti-neuronal antibodies formed against GABHS.[28] The acronym PANDAS (pediatric autoimmune neuropsychiatric disorders associated with streptococcal infections) is used to identify a subgroup of pediatric patients who meet the following 5 criteria: presence of OCD and/or tic disorder, pre-pubertal symptom onset, sudden onset or episodic course of symptoms, temporal association between streptococcal infections and neuropsychiatric symptom exacerbations, and associated neurological abnormalities.[29,30]

Genetics. Although some cases of OCD appear to have a sporadic form, twin, family, segregation, and linkage studies have demonstrated that OCD is familial and that the familiality is due in part to genetic factors, and there are regions of the genome that very likely harbor susceptibility loci for OCD.[31,32] Studies in twins found a higher concordance rate among monozygotic twins, 53% and 87%, compared with 22% and 47% in dizygotic twins.[32,33] Also, the rate of OCD among first-degree relatives is 5-6 folds higher than in the general population.[34,35]

There are certain regions in the genome that are expected to retain OCD susceptibility loci.[32] There are more than 60 studies focusing on genes in the serotonergic and dopaminergic pathways, but unfortunately, with the exception of the glutamate transporter gene, none have accomplished genome-wide significance or are constantly replicated.[36]

Psychosocial. An earlier psychodynamic conceptualizations model of obsession did not hold up for long because of poor response of OCD patients to psychoanalytic and equivalent forms of treatment. However, most behavioral conceptualizations of OCD are based on Mowrer's 2-factor conditioning theory,[37] which states that a neutral event or object may become aversive (namely, a conditioned stimulus) when it is associated with an unrelated fear-inducing event. Any act such as compulsion could lead to a decline in the level of fear or of some other negative affect, which is then reinforced through principles of higher-order conditioning. According to this theory, compulsions build up as a result of their anxiety-reducing properties. Unfortunately, conditioning theories do not explain why the OCD develops as most patients cannot remember specific fear-eliciting events associated with the beginning of their OCD symptoms. More recent behavioral conceptualizations have included other mechanisms, which include modeling, observation, and informational learning, as required precursors to the development of the disorder.[38]

Diagnostic criteria and clinical features. The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) classification categorizes OCD as an anxiety disorder jointly with agoraphobia, panic disorder, generalized anxiety disorder (GAD), and posttraumatic stress disorder (PTSD).[1] The essential criteria for OCD according to the DSM-IV-TR are intrusive thoughts or images (obsessions), which increase anxiety, and by repetitive or ritualistic actions (compulsions), which decrease anxiety.[1] The most recent revision of the diagnostic criteria for OCD in DSM-IV emphasizes that compulsions can be observable behaviors or mental rituals.[1] Obsessive-compulsive disorder symptoms can vary little by time or place and similar symptoms are seen across many cultures.[39] Although the major symptoms can vary with time in any patient with OCD, the symptoms are similar in both children and adults.[39] The DSM-IV-TR criteria specify that, the obsessions or compulsions must cause marked distress, consume more than one hour a day, or interfere considerably with routine, professional or academic function, social

activities or relationships of OCD patients. Also, DSM-IV-TR states that symptoms must not be caused by a general medical condition or a substance.[1]

Four clinical dimensions were identified in OCD. The first is obsessions/checking, which is characterized by obsessions related to aggression, gender, religion, own body, and various checking behaviors. The second is engagement and preoccupations with rituals such as order, symmetry, or exactness, and/or involvement with various compulsions for instance counting, rearranging, or ritualistic repetitions. The third is obsessions concerning contamination and compulsive washing and cleaning. The final dimension is hoarding obsessions and compulsions.[40]

Comorbidity. Coexistence of mood disorders, other anxiety disorders, tic disorders, attention deficit hyperactivity disorder (ADHD), eating disorders and psychotic symptoms with obsessive-compulsive symptoms were reported in the early psychiatric literature. The Epidemiology Catchment Area study found that two-thirds of OCD patients had a lifetime comorbid psychiatric disorder.[41,42] Comorbidity in childhood OCD is common; as many as 80% of children with OCD meet diagnostic criteria for an additional Axis I disorder, and as many as 50% experience multiple comorbid conditions.[15]

Mood disorder. Patients with OCD frequently have complicated depression. It may be difficult to distinguish them from depressed patients with obsessive symptoms. In studies, 53% of adult OCD patients,[43] and 25% of children had a diagnosis of affective disorder.[44]

Other anxiety disorders. Although anxiety is not a requisite manifestation of OCD, OCD is formally categorized among the anxiety disorders. Patients with OCD who experience a high level of anxiety may describe panic-like episodes. Several studies have assessed the occurrence of OCD in patients in treatment for other anxiety disorders. Seventeen percent of panic disorder patients suffered from OCD,[45] and 23% of adults, and 13% of children with OCD had comorbid anxiety disorders.[43] Another study of 100 subjects with primary OCD reported estimated lifetime rates of social phobia (18%), panic disorder (12%), and specific phobia (22%).[46]

Tic disorders. At least 50% of children and adolescents with Tourette's disorder expand to develop OC symptoms or disorder by adulthood.[47] The necessity to touch or rub, the blinking and staring rituals, the anxiety over symmetry and exactness, the sense of incompleteness, and the intrusive aggressive thoughts and images are notably more common in OCD patients specially with comorbid tics.[48,49] In contrast, contamination doubts and cleaning compulsions are more frequent in patients with non-tic-related OCD.[50]

Trichotillomania. It is well known that trichotillomania resembles OCD, but also has some differences, and that leads to the assumption that the repetitive hair pulling behavior is an obsessive-compulsive spectrum disorder.[51] Studies of OCD and trichotillomania (compulsive hair-pulling) have shown that both share common co-morbidity, phenomenology, and familial transmission. However, the extent to which these 2 disorders share a similar cognitive phenotype has yet to be elucidated.[52] In a recent study, Chamberlain et al[53] found out that OCD and trichotillomania share spatial working memory problems, while the neuropsychological dysfunction, which is present in OCD was intact in trichotillomania. Although the frequency of OCD is elevated among children and adolescents with trichotillomania and their first-degree relatives, most patients with this condition do not have other obsessive or compulsive symptoms.[54]

The disruptive behavior disorders are usually reported in children and adolescents with OCD with an estimation of 51% and 36% for ADHD; and 51% and 47% for oppositional defiant disorder. It was also found that 53% of boys are likely to have comorbid ADHD compared with 24% in girls.[55,56] Also, it was noted that unusually high rates of both specific and pervasive developmental disorders are identified in some OCD referred samples, but it is unclear whether this increase reflects referral bias (Berkson's bias) or is a correlate of associated comorbidity rather than being a correlate specific to childhood-onset OCD.[57]

Other psychiatric conditions. Obsessive compulsive symptoms and disorders are common in patients with anorexia nervosa (AN) or bulimia nervosa. It is estimated that the lifetime obsessions and compulsions occurred in 68% of the AN restricting type, and in 79.1% of the AN binge/purge type.[58] Body dysmorphic disorder (BDD) also can present with obsessive preoccupation with an imagined or slight defect in appearance. It can either exist alone or be accompanied by compulsive behaviors such as excessive mirror-checking and grooming.[59] Some patients with OCD can act in bizarre ways, show near-delusional tenacity in their conviction of potential unrealistic dangers or the necessity of performing rituals, and have a dramatic deterioration in adaptive functioning that may raise the question of psychotic or schizophrenic worsening. The absence of thought disorder or hallucinations and the preservation of reality testing outside the area of obsessional concern can help to differentiate OCD symptoms from those of psychosis. In a recent study, the co-occurrence of OCD with schizophrenia in adolescent patients was estimated at 26%.[38] For this reason, OCD must be considered as part of the differential diagnosis in older children and adolescents with psychotic features.[60]

Other medical conditions. Obsessive compulsive disorder has been reported to arise as a result of a variety of neurological conditions, following carbon monoxide poisoning, tumors, allergic reactions to wasp sting, postviral encephalitis, brain injury, Sydenham's chorea (SC), and other basal ganglia pathologies.[61] Compulsive eating and preoccupation with food also has been found in at least 50% of children with Prader-Willi syndrome, a genetic condition resulting from deletion of a portion of chromosome 15.[62]

Psychiatric assessment of OCD. Symptoms of OCD vary between mild and moderate severity, wax and wane over time, become prominent in one setting and not another. Sometimes, symptoms are kept secret from others - including families - for years before they acquire medical attention. Factors that point out the need to screen and treat individuals for OCD include: time engaged by OC symptoms, level of subjective stress on the individual, and severity of functional impairment. These factors are best and reliably assessed using the Yale-Brown Obsessive-Compulsive Scale (Y-BOCS),[63] and the Children's Yale-Brown Obsessive-Compulsive Scale (CY-BOCS).[64] Due to the inconsistency of phenotype of OCD, clinicians may pursue heterogeneous symptoms occurring in OCD and assess their presence, consistency, and severity. A complete psychiatric evaluation should include a full psychiatric history, assessment of other comorbid psychiatric disorders, and current mental state exam. Also, it is important to perform a full family, medical, school, and developmental history as a part of standard assessment of all patients with OCD.

Treatment modalities. The main central immediate therapeutic intervention in OCD is education and destigmatization. On average, an OCD patient may remain 7 years after their first symptoms before seeking help.[65] Patience and persistence in treatment and intervention with those individuals are the keys for a successful outcome. It is likely that treatment may take a full 6 weeks for benefit to occur. On average, treatment is generally continued for 6-12 months following stabilization and then slowly withdrawn. To optimally treat patients suffering from OCD, the clinician needs to integrate various approaches with the patient. Two treatment modalities, cognitive behavioral therapy (CBT) and selective serotonin reuptake inhibitors (SSRIs), have been studied systematically and have empirically shown specific efficacy for the core symptoms of OCD.

Cognitive behavioral therapy (CBT). The best development in the last decade for the treatment of OCD pertains to well-conducted systemic trials of CBT applied to OCD patients. Numerous studies have shown its consistency, acceptability, and efficacy.[66] It is now considered the first line of treatment for mild to moderate cases of OCD. In 1966, Meyer[67] was the first to expose 2 patients with OCD to anxiety-evoking stimuli, and with constant staff supervision prevented them from engaging in compulsions. Both patients remained improved at the end of 2-year follow-up.

Recent research studies have shown that CBT is a recognized treatment for OCD, equal or maybe superior to pharmacotherapy.[68] The CBT is effective in reducing compulsive rituals and obsessive thoughts by exposure to the feared situation or object, and response prevention in which the patient resists the urge to perform the compulsion after exposure.[69] Hierarchy-based exposure and response prevention (E/RP) are the central part in the treatment, which relies on the fact that anxiety is usually reduced after adequate length of contact with a feared stimulus. Outcome research studies of E/RP have found that around 60-70% of OCD patients significantly improved, and approximately all patients have continued their improvement after 2 years of follow-up following behavioral treatment.[70] Unlike the adults, children with OCD are found to be "embedded" within their families. Because these children are very reliant on their caregivers, they are susceptible to many influences over which they have little control. Behavioral family intervention is of great importance and has influenced the course of treatment of children with OCD.[71] Cognitive behavioral family treatment (CBFT) has been found to be highly efficient in the treatment of these children.[72,73] Records have shown that when applied to adults with OCD, CBT has caused an obvious reduction in the number of symptoms and associated functional impairments - and so has great potential. However, the experimental findings' base value resulting from the application of CBT to youths has many restrictions. It is primarily related to the treatment of OCD in very young children.[74]

Pharmacotherapy. While CBT is the first line treatment for mild to moderate OC symptoms, more severe symptoms are an indication for medication trials. Pharmacotherapy is an essential component of the multimodal treatment of adults, children, and adolescents with OCD. Severe impairment based on time spent in rituals, subjective distress, and functional limitations provide a reasonable consideration for drug intervention. Also, the presence of any situation that impedes successful CBT treatment may lead to an earlier consideration of medication treatment. The presence of additional psychopathology such as comorbid anxiety disorders, major mood disorder, and disruptive behavioral disorder may reduce acceptance of or compliance with CBT and may require medication.

The past decade has seen rapid advances in our understanding of pharmacotherapy for OCD. The SSRIs have emerged as a main therapeutic progress in psychopharmacology. Large systemic multi-site randomized controlled trials of SSRIs (including

sertraline,[75] fluoxetine,[76] paroxetine,[77] fluvoxamine,[78] and escitalopram[79]) have demonstrated significant efficacy compared with placebo. The current literature recommends that pharmacotherapy should be continued in responders. The SSRIs have to be continued in the same doses (if possible) for a minimum of 1-2 years and may be lifetime in those with persistent symptoms and in those with multiple relapses after satisfactory acute treatment response.[80]

Generally, the SSRI medications are well tolerated and much safer than tricyclic antidepressants (TCA) especially if there is misuse or overdose. Adjusting the dose and finding the therapeutic window that provides the best clinical response can minimize side effects. The most common described side effects in various SSRIs include nausea, headache, gastrointestinal complaints, drowsiness, or insomnia.[81]

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