



CODEN [USA]: IAJ PBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF  
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.2529241>Available online at: <http://www.iajps.com>

Research Article

**EVALUATION OF RECENT UPDATES REGARDING  
OBSESSIVE COMPULSIVE DISORDER MANAGEMENT AND  
OUTCOMES**

Bodoor Salmi Almotairi<sup>1</sup>, Zainab Ibrahim Albahouth<sup>2</sup>, Jawaher Ahmad AlMusailhi<sup>3</sup>,  
Leena Emad Alghamdi<sup>4</sup>, Deema Abdulwahab AlSadoun<sup>4</sup>, Malak Furaih Alrasheedi<sup>5</sup>,  
Rahaf Sulaiman Alharazi<sup>6</sup>, Alaa Mohammed Alzamil<sup>7</sup>, Haneen Ahmed Bukhari<sup>8</sup>,  
Maha Zuwayyid K Almutairi<sup>8</sup>, Nawaf Fahad Alshuraym<sup>9</sup>

<sup>1</sup>Taibah University, <sup>2</sup>Riyadh Elm University, <sup>3</sup>Imam Abdulrahman bin Faisal University,  
<sup>4</sup>Princess Nora bint Abdul Rahman University, <sup>5</sup>Almaarefa University, <sup>6</sup>Umm Al-Qura  
University, <sup>7</sup>King Saud bin Abdulaziz University for Health Sciences, <sup>8</sup>Taif University, <sup>9</sup>Imam  
Muhammad Ibn Saud Islamic University

**Abstract:****Background**

*Obsessive-compulsive disorder (OCD) is a syndrome characterized by obsessions, distressing, intrusive, and recurrent thoughts, urges, and/or images lead to impairment quality of life. OCD make patients life miserable and effect their functionality in the community.*

**Objective**

*This review will discuss the recent updates regarding obsessive compulsive disorder management and outcomes.*

**Method**

*PubMed database were used for articles selection. All relevant articles related to our review were chosen to cover the following topics: Obsessive Compulsive Disorder, Management, and Outcomes. We excluded other articles, which are not related to our objectives. The data have been extracted according to specific form to be reviewed by the authors.*

**Conclusion**

*The combination of psychotherapeutic and psychopharmacological management is more likely to be more effective than are psychotherapeutic interventions alone.*

**Corresponding author:**

**Bodoor Salmi Almotairi,**  
Taibah University.

QR code



Please cite this article in press Bodoor Salmi Almotairi et al., *Evaluation of Recent Updates Regarding Obsessive Compulsive Disorder Management And Outcomes.*, Indo Am. J. P. Sci, 2018; 05(12).

**INTRODUCTION:**

Obsessive-compulsive disorder (OCD) is a syndrome characterized by obsessions, distressing, intrusive, and recurrent thoughts, urges, and/or images lead to impairment quality of life. The epidemiological studies were found to be 0.25%–4% among children and adolescents UK [1]. OCD is estimated to be the 10th leading cause of disability in the world [2]. The etiology of OCD remains relatively poor understood. However, data from twin, family and segregation studies strongly support a genetic component [3]. In addition, the new literatures mentioned that there is a strong evidence that OCD is associated with increased activation in the lateral and medial orbitofrontal cortex in patients [4]. Inconsistent predictors of decreased likelihood of remission include earlier age of onset of OCD [5]. There is different modalities of treatment, pharmacotherapy with a selective serotonin reuptake inhibitor (SSRI) and cognitive behavioral therapy (CBT). Serotonin reuptake inhibitors are considered the most effective and well-established pharmacotherapy for the treatment of OCD [6]. However, 40–60% of OCD patients do not respond adequately to SRI therapy [7] and an even greater proportion of patients fail to experience complete remission of their symptoms [8]. A lot of literatures have been published discussing a new approaches for management of OCD patients in order to provide for them a better outcomes and complete remission. In our paper, we aim to assess the recent publication

regarding OCD management in order to provide a simple yet a comprehensive review.

**METHODOLOGY:****Sample**

We performed comprehensive search using biomedical databases; Medline, and PubMed, for studies concerned with assessment of recent updates regarding the outcomes and management of obsessive compulsive disorder published in English language. Keywords used in our search through the databases were as {Obsessive Compulsive Disorder, Management, and Outcomes}. More relevant articles were recruited from references lists scanning of each included study.

**Analysis**

No software was used, the data were extracted based on specific form that contain (Title of the study, name of the author, Objective, Summary, Results, and Outcomes). Double revision of each author outcomes was applied to ensure the validity and minimize the errors.

**RESULT:**

A total of 8 studies were enrolled according to inclusion and exclusion criteria mentioned early. The studies characteristics are presented in **Table 1**.

Study (Year)	Study Design	Objectives	Outcomes	Ref
Anish V. Cherian et al. 2014	Prospective Cohort	To examine rates of remission and relapse and their predictors in a 5-year prospective study.	The outcome in OCD patients is good, in moderately sever, short-duration illness. Adherence to drug therapy over extended period of time may enhance likelihood of remissions.	[9]
Laurie J. Zandberg et al. 2015	Randomized controlled trial	To examines the temporal relationship between changes in obsessive compulsive symptoms and changes in depressive symptoms during exposure and response prevention (ex/rp) therapy for obsessive-compulsive disorder (ocd).	These data indicate that reductions in co-morbid depressive symptoms during ex/rp for ocd are largely driven by reductions in obsessive-compulsive symptoms.	[10]

Tania Marcourakis et al. 2015	Randomized clinical trial.	To investigate the influence of demethylation rate on the outcome of obsessive-compulsive disorder patients treated with clomipramine.	A greater improvement in Clinical Global Impression scale rating was associated with a lower desmethylclomipramine/daily dose and the total clomipramine and desmethylclomipramine/daily dose. Moreover, an improved response on the YBOCS-obsession score was associated with higher serum levels of clomipramine and the total clomipramine and desmethylclomipramine/daily dose. Patients with a greater reduction in baseline YBOCS rating had a lower desmethylclomipramine/clomipramine ratio. These data suggest that a lower demethylation rate correlates with better clinical outcome.	[11]
Darin D. Dougherty et al. 2015	Randomized clinical trial	To investigate the efficacy of duloxetine for the treatment of obsessive-compulsive disorder (DSM-IV).	Duloxetine may provide a significant reduction in symptoms for patients with obsessive-compulsive disorder.	[12]
C Nauczyciel et al.2014	Randomized control trial	To assess the efficacy of low-frequency repetitive transcranial magnetic stimulation (rtms) over the Right orbitofrontal cortex (OFC) by means of a double-cone coil in patients suffering from obsessive-compulsive disorder.	Active versus sham PET scan contrasts showed that stimulation was related to a bilateral decrease in the metabolism of the OFC. The OFC should definitely be regarded as a key neuroanatomical target for rtms, as it is easier to reach than either the striatum or the subthalamic nucleus, structures favored in neurosurgical approaches.	[13]

## DISCUSSION:

Obsessive-compulsive disorder (OCD) define as a common disabling mental condition for patients themselves and their families. It's an anxiety disorder with chronic and long-lasting course in which a person has uncontrollable, reoccurring thoughts (obsessions) and behaviors (compulsions) that he or she feels the urge to repeat over and over. It's severe enough to cause clinically significant distress or impairment in social, occupational or other important areas of functioning of those who suffer from this chronic disorder. The prevalence of OCD estimated to be 0.25%–4%. OCD is diagnosed by DSM-V criteria [14]. The aim of this study is to revise the latest papers of OCD management and outcome.

In the recent past, obsessive compulsive disorder was

viewed as a chronic, incurable disease. This view has been radically changed, because of the introduction of several effective treatments. The management plan for OCD include pharmacological and psychological treatment. It's typically treated with medication such as selective serotonin reuptake inhibitors (SSRIs) like fluoxetine, fluvoxamine and sertraline. Serotonin reuptake inhibitors (SRIs) also used in OCD management, and it takes 8 to 12 weeks to start working, but some patients experience more rapid improvement. Tricyclic antidepressants, such as clomipramine has been proven effective treatment in both adults and children with OCD. Other line of management is Psychotherapy which is effective in both adults and children. Research shows that certain types of psychotherapy, including cognitive behavior therapy (CBT) and other related therapies (e.g., habit reversal training) can be as effective as medication

for many patients. Researches also shows that a type of CBT called Exposure and Response Prevention (EX/RP) is effective in decreasing compulsive behaviors in OCD, even in patients who did not respond well to SRI medication. For many patients EX/RP is the add-on treatment of choice when SRIs or SSRIs medication does not effectively treat OCD symptoms. Unfortunately, even with effective medication, most treatment responders show residual symptoms and impairments. There is also a very high relapse rate seen across numerous studies (between 24%-89%)[15]. *Anish V. Cherian et al.*[9]<sup>(1)</sup> evaluated remission and relapse rates and their predictors in 5-year prospective cohort study. From the outpatient services of an OCD clinic, 106 out of 115 subjects followed periodically over 5 years. Patients were moderately ill, mostly self-referred (89%), and less than a half was treatment-naïve. Cumulative probability of at least partial remission was 93% and full remission was 65% at 5 years. Most of the patients achieved remission by 2 years. In those who achieved either partial or full remission, cumulative probability of relapse by 5 years was 36%. Percentage of time on treatment and treatment naïve status at intake predicted at least partial remission, whereas only percentage of time on treatment predicted full remission. Full remission and doubts/checking dimension predicted lesser likelihood of a relapse. The outcome in OCD patients is better, in moderately severe, short-duration illness and regular treatment may enhance likelihood of remission over extended period. Full remission should be the goal of treatment since it is associated with lesser propensity for relapse. Most patients remit in the first 2 years of treatment; therefore, early detection and intervention is important to improve the outcome. *Laurie J. Zandberg et al.*[10] assessed the temporal relationship between changes in obsessive compulsive symptoms and changes in depressive symptoms during exposure and response prevention (EX/RP) therapy for obsessive-compulsive disorder (OCD). In a randomized controlled trial, a total of 40 patients were included in the study and received EX/RP therapy comparing serotonin reuptake inhibitor (SRI) and augmentation strategies were they where enrolled based on specific inclusion and exclusion criteria. Participants completed the assessments of OCD and depressive symptoms by specific scales every four weeks till 32-week follow-up. Lagged multilevel mediational analyses indicated that change in OCD symptoms accounted for 65% of subsequent change in depressive symptoms. In contrast, change in depressive symptoms only partially mediated subsequent change in OCD symptoms, accounting for 20% of the variance in outcome. The data consist of reductions in co-morbid

depressive symptoms during EX/RP for OCD are mostly driven by reductions in obsessive-compulsive symptoms. *Tania Marcourakis et al.* [11] investigated patients treated with clomipramine on the influence of demethylation rate on the outcome of obsessive-compulsive disorder. Eighteen patients who met the OCD diagnostic criteria were enrolled in the study based on specific inclusion and exclusion criteria. The patients received 150–300mg of clomipramine daily in a single-blind design for 12 weeks. A greater improvement in Clinical Global Impression scale rating was associated with a lower desmethylclomipramine/daily dose and the total clomipramine and desmethyl clomipramine/daily dose. Moreover, an improved response on the YBOCS-obsession score was associated with higher serum levels of clomipramine and the total clomipramine and desmethyl clomipramine/daily dose. Patients with a more reduction in baseline YBOCS rating had a lower desmethyl clomipramine/clomipramine ratio. These data indicate that a lower demethylation rate correlates with better clinical outcome. *Darin D. Dougherty et al.*[12] investigated the efficacy of duloxetine for the treatment of obsessive-compulsive disorder. Twenty individuals were enrolled in a 17-week, open-label trial of duloxetine and data were collected between March 2007 and September 2012. The participants were selected based on specific inclusion and exclusion criteria. For the 12 study completers, pre- and posttreatment analyses revealed significant improvements ( $P < .05$ ) on clinician- and self-rated measures of obsessive-compulsive disorder symptoms and quality of life. The results suggested that duloxetine may provide a significant reduction in symptoms in patients with obsessive-compulsive disorder. *C Nauczyciel et al* [13] assessed the efficacy of low-frequency repetitive transcranial magnetic stimulation (rTMS) over the right orbitofrontal cortex (OFC) by means of a double-cone coil in patients suffering from obsessive-compulsive disorder. A randomized, double-blind, crossover design was implemented with two 1week treatment periods (active stimulation versus sham stimulation) separated by a 1-month washout period. Statistical analyses compared the Y-BOCS scores at the end of each period. At day 7, they observed a significant decrease from baseline in the Y-BOCS scores, after both active ( $P < 0.01$ ) and sham stimulation ( $P = 0.02$ ). Active versus sham PET scan contrasts showed that stimulation was related to a bilateral decrease in the metabolism of the OFC. The OFC should definitely be regarded as a key neuroanatomical target for rTMS, as it is easier to reach than either the striatum or the subthalamic nucleus, structures favored in neurosurgical approaches. For pharmacological

intervention, use of SSRIs is more effective than clomipramine as the first-line management since SSRIs is more tolerable than does clomipramine. The combination of medication and psychotherapy is the most effective treatment in management of severe obsessive-compulsive disorder.

### CONCLUSION:

Obsessive-compulsive disorder is an anxiety disorder with long, chronic course. A different line of interventions is effective in the treatment of obsessive-compulsive disorder, but uncertainty and limitations found regarding their efficacy. Considering the effective management, the combination of psychotherapeutic and psychopharmacological management is more likely to be more effective than are psychotherapeutic interventions alone.

### REFERENCES:

- Heyman I, Fombonne E, Simmons H, et al. Prevalence of obsessive—compulsive disorder in the British nationwide survey of child mental health. *Br J Psychiatry* 2001;179:324–9.
- Kessler RC, McGonagle KA, Zhao S, Hughes M, Swartz M, Blazer DG. *Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States*. *Arch Gen Psychiatry* 1994; 51: 8–19.
- Pauls DL. The genetics of obsessive compulsive disorder: a review of the evidence. *Am J Med Genet C Semin Med Genet* 2008;148C:133–9.
- Pauls DL, Abramovitch A, Rauch SL, et al. Obsessive-compulsive disorder: an integrative genetic and neurobiological perspective. *Nat Rev Neurosci* 2014;15:410–24.
- Skoog G, Skoog I. A 40-year follow-up of patients with obsessive-compulsive disorder. *Arch Gen Psychiatry* [Internet]. 1999;56(2):121–7.
- McDonough M, Kennedy N. Pharmacological management of obsessive-compulsive disorder: a review for clinicians. *Harvard Rev Psychiatry* 2002; 10: 127–137.
- Erzegovesi S, Cavellini MC, Cavedini P, Diaferia G, Locatelli M, Bellodi L. Clinical predictors of drug response in obsessive-compulsive disorder. *J Clin Psychopharmacol* 2001; 21: 272–275.
- Goodman WK, McDougle CJ, Barr LC, Aronson SC, Price LH. Biological approaches to treatment-resistant obsessive compulsive disorder. *J Clin Psychiatry* 1993; 54(suppl 6): 16–26.
- Cherian AV, Math SB, Kandavel T, Reddy YC. A 5-year prospective follow-up study of patients with obsessive-compulsive disorder treated with serotonin reuptake inhibitors. *J Affect Disord*. 2014 Jan;152-154:387-94. doi: 10.1016/j.jad.2013.09.042. Epub 2013 Oct 7. PubMed PMID: 24157088.
- Zandberg LJ, Zang Y, McLean CP, Yeh R, Simpson HB, Foa EB. Change in obsessive-compulsive symptoms mediates subsequent change in depressive symptoms during exposure and response prevention. *Behav Res Ther*. 2015 May;68:76-81. doi: 10.1016/j.brat.2015.03.005. Epub 2015 Mar 13. PubMed PMID: 25824533; PubMed Central PMCID: PMC4415155.
- Marcourakis T, Bernik MA, Lotufo Neto F, Gedanke Shavitt R, Gorenstein C. Clomipramine demethylation rate is important on the outcome of obsessive-compulsive disorder treatment. *Int Clin Psychopharmacol*. 2015 Jan;30(1):43-8. doi: 10.1097/YIC.000000000000050. PubMed PMID: 25279584.
- Dougherty DD, Corse AK, Chou T, Duffy A, Arulpragasam AR, Deckersbach T, Jenike MA, Keuthen NJ. Open-label study of duloxetine for the treatment of obsessive-compulsive disorder. *Int J Neuropsychopharmacol*. 2015 Jan 30;18(2). pii: pyu062. doi: 10.1093/ijnp/pyu062. Print 2015. PubMed PMID: 25637377; PubMed Central PMCID: PMC4368895.
- Nauczyciel C, Le Jeune F, Naudet F, Douabin S, Esquevin A, Vérin M, Dondaine T, Robert G, Drapier D, Millet B. Repetitive transcranial magnetic stimulation over the orbitofrontal cortex for obsessive-compulsive disorder: a double-blind, crossover study. *Transl Psychiatry*. 2014 Sep 9;4:e436. doi: 10.1038/tp.2014.62. PubMed PMID: 25203167; PubMed Central PMCID: PMC4203001.
- Leckman, J. F., Denys, D., Simpson, H. B., Mataix-Cols, D., Hollander, E., Saxena, S., Stein, D. J. (2010). Obsessive-compulsive disorder: a review of the diagnostic criteria and possible subtypes and dimensional specifiers for DSM-V. *Depression and Anxiety*, 27(6), 507–527. doi:10.1002/da.20669
- Abramowitz JS, Taylor S, McKay D. Obsessive compulsive disorder. *Lancet*. 2009;374:491–499.