Cognitive Behavioral Treatment of Obsessive Compulsive Disorder: A Broader Framework

Guy Doron, PhD,[1] and Richard Moulding, PhD[2]

[1] *New School of Psychology, Interdisciplinary Center (IDC), Herzliya, Israel*
[2] *Faculty of Life and Social Sciences, Swinburne University of Technology, Melbourne, Australia*

Abstract: Obsessive Compulsive Disorder (OCD) is rated as a leading cause of disability by the World Health Organization (1996). OCD is a heterogeneous and complex anxiety disorder characterized by the occurrence of repeated and distressing intrusive thoughts, and compulsive actions that are performed in order to lessen distress or prevent the negative outcome associated with the intrusions. Over the last several decades, cognitive behavioral treatments (CBT) of OCD have dramatically improved the prognosis for the disorder. However, a significant proportion of individuals presenting with OCD may still fail to benefit from treatment. In this paper, we present current CBT treatment models of OCD. We then propose several ways of enhancing CBT for OCD by targeting clients' attachment anxiety and dysfunctional self perceptions.

Obsessive Compulsive Disorder (OCD) is one of the most incapacitating of the anxiety disorders, and a leading cause of disability worldwide (1). OCD is a heterogeneous disorder, where obsessional themes include contamination fears, pathological doubt, a need for symmetry or order, somatic obsessions and sexual or aggressive obsessions. Common compulsive behaviors include repeated checking, washing, counting, reassurance seeking, ordering behaviors and hoarding. In addition to the wide variety of clinical presentations, treatment of OCD is further complicated by the fact that similar motivations may underlie different symptoms and the same symptom may be driven by different underlying motivations. For instance, both checking and washing routines can be motivated by fear of causing harm to others while perfectionistic tendencies or fear of causing harm may both drive repeated washing behaviors. Thus, OCD is a highly disabling, heterogeneous and complex disorder that poses many challenges in its treatment.

Cognitive-behavioral therapy (CBT) with exposure and response prevention (ERP) is an effective treatment for OCD (2). Indeed, the benefits of CBT treatments alone, or in conjunction with selective serotonin reuptake inhibitors (SSRIs) for OCD in adulthood have been shown in several meta-analyses (3, 4). In this paper, we will present current CBT models of treatment of OCD. Based on recent development in OCD research, we will also propose future directions for treatment that may enhance the efficacy of CBT for refractory OCD.

Obsessive Compulsive Disorder

The central features of OCD are obsessions and/or compulsions. Obsessions are repetitive and persistent thoughts, images or impulses that the individual experiences as intrusive and inappropriate, and which lead to marked distress (5). Compulsions are deliberate, repetitive and rigid behaviors or mental acts that a person performs in response to obsessions, in order to reduce distress or prevent some feared outcome from occurring (5).

OCD has a lifetime prevalence of 1 to 2.5% (6), affects all cultural and ethnic groups (5) and a slight predominance of females are affected (7). Most individuals presenting with OCD have comorbid psychiatric disorders, with the most common being major depression. The typical age of onset in OCD is the early to mid-twenties, although most

Address for Correspondence: Guy Doron, New School of Psychology, Interdisciplinary Center (IDC) Herzliya, POB 167, Herzliya 46150, Israel. E-mail: gdoron@idc.ac.il

patients report earlier sub-clinical symptoms (8). A minority of patients may develop OCD during childhood.

Of note is a recent debate pertaining to the reclassification of OCD from the category of an anxiety disorder into a wider category of spectrum of disorders (obsessive-compulsive spectrum disorders [OCSD]) (9–12). While many clinicians and researchers agree with the need for reclassification of OCD into a wider OCSD category that would include other disorders (e.g., body dysmorphic disorder, hypochondriasis) the defining features of the proposed category are still under heated debate (10–12). An in-depth discussion of these nosological issues is beyond the scope of this paper. Consistent with current cognitive conceptualizations of OCD and a large body of empirical research, we consider the main features of OCD to be patterns of thinking and behaviors such that obsessional fears lead to purposeful acts (i.e., covert or overt neutralizing behaviors) aimed at reducing discomfort, anxiety or distress (13).

Cognitive Behavioral Therapy for OCD

Cognitive models of OCD are based on empirical research indicating that the vast majority of the population experience intrusive thoughts at times, and that the difference between common intrusive thoughts and "obsessions" is in terms of the frequency, intensity and discomfort elicited by the thoughts, rather than in their content (13). Cognitive models suggest that individuals with OCD misappraise such normal intrusive thoughts (e.g., as indicating a danger that the individual is responsible for averting), leading to extreme emotional responses and strategies to manage the thoughts or their feared consequences (e.g., thought control strategies or compulsive behaviors to avert perceived danger). These strategies paradoxically perpetuate obsessive and compulsive symptoms leading to increased sensitivity to intrusive thoughts (13).

The Obsessive Compulsive Cognitions Working Group identified six belief domains that increase the likelihood of such misappraisals of intrusions (14). These are: (1) an inflated belief in one's personal responsibility for averting danger; (2) a belief

that the mere presence of a thought indicates it is important; (3) a belief that one can and should control their thoughts; (4) an increased likelihood of perceiving threat; (5) a belief that perfection is necessary in order to avoid threatening outcomes, and (6) a concomitant intolerance of any uncertainty. In addition, clients may present with a belief that anxiety is unacceptable or dangerous (14).

Thus, according to the CBT model, obsessions develop because of the meaning given to the experience and/or content of intrusive phenomena and the resulting responses or worries regarding these intrusions. The treatment rationale for individuals presenting with compulsions/rituals (i.e., overt neutralizing behaviors) and obsessions only (i.e., covert neutralizing behaviors) would therefore be similar. For instance, an individual who believes people should control their thoughts may be highly distressed by his/her inability to prevent the occurrence of intrusive thoughts that are inconsistent with his/her personal values (e.g., repugnant sexual thoughts). This leads to an increased likelihood of dysfunctional responses such as checking the occurrence of thoughts, attempting to suppress them, or praying in a ritualized manner. Such responses increase the likelihood of the re-occurrence of these unwanted thoughts and the exacerbation of symptoms.

Current cognitive behavioral treatments of OCD incorporate several main components, which commonly progress in the following order: assessment and information gathering, psycho-education, identification of dysfunctional thinking patterns, exposure and response prevention, and relapse prevention techniques (15, 16).

Assessment and Information Gathering Sessions

The initial assessment sessions are a good opportunity to establish rapport with the client and to collect detailed clinical information. These sessions should include a clinical interview to ascertain the diagnosis of OCD and coexisting disorders or medical conditions. A thorough history would include the presenting problem(s), background of the problem(s) and more general personal and family history. It is of utmost importance to collect detailed information about the triggers of obsessions,

their frequency and duration, the expected feared outcome or worry about the obsessions, and the responses to these intrusions. Responses include emotions (e.g., anxiety, guilt), overt compulsions (e.g., checking, washing, reassurance seeking, etc.), covert compulsions (e.g., thought suppression, praying, self-blame), and avoidance or safety behaviors. It is recommended to use additional instruments to quantify OCD symptom severity (Yale Brown Obsessive Compulsive Scale, Obsessive Compulsive Inventory), OCD-related cognitions (Obsessive Beliefs Questionnaire), mood or anxiety (Depression Anxiety Stress Scales).Where ambivalence towards the therapeutic process is present, preliminary evidence and clinical experience suggest that motivational interviewing techniques can be very useful (17).

Psycho-education

It is important to socialize the client to the cognitive model of OCD as soon as possible in therapy. CBT for OCD requires the client to tolerate a degree of distress and discomfort. The psycho-education component of therapy is aimed at providing the client with a clear understanding of the rationale for undergoing therapy including such discomfort. This stage commonly consists of providing general information about OCD, its phenomenology and prevalence. The cognitive model of psychological disorders is presented and the "triangle" of relationships between thoughts, behaviors and emotions is introduced. Anxiety symptoms are discussed in terms of their adaptive evolutionary function in fight-flight responses; this is significant as many

clients may fear experiencing anxiety itself. It is important to emphasize the rationale for homework exercises, behavioral experiments and monitoring tasks during this phase. Finally, it is noted that the course to recovery is not constant and linear; this can be achieved by introducing the metaphor of mountain climbing. That is, traveling to the top of a mountain often involves a bumpy road, with many ups and downs along the way.

Cognitive Model of OCD

The therapist provides the rationale for the cognitive model of OCD, emphasizing that everyone experiences intrusive thoughts, and such intrusions are not harmful, dangerous or uncommon. A list of common intrusive thoughts may be presented to the client. This leads to the discussion that the difference between individuals with and without OCD is the negative meaning assigned to intrusions. Such negative appraisals would logically lead to worry and preoccupation with the intrusions and to dysfunctional responses. Dysfunctional responses, in turn, increase the frequency of intrusions and associated distress. This model is personalized for the client through fitting their experiences into the Trigger→ Intrusion→ Appraisal→ Response model. The client's dysfunctional beliefs are identified (e.g., responsibility, perfectionism) and their influence on the appraisals of intrusions is explored (Table 1).

Exposure and response prevention (ERP) is introduced as the most effective way of breaking the dysfunctional response cycle. ERP consists

Table 1. *Examples of the relationship between triggers, intrusive thoughts, dysfunctional appraisals and responses in OCD clients*

Trigger	Intrusion	Appraisal and related belief	Response
Hearing about a car accident	Image of a loved one being killed	"If I had the thought, I must have wished it to happen" (importance of thoughts).	• anxiety • preoccupation • suppressing/ avoiding thought. • seeking reassurance
Leaving the house	Thought that may have left the stove on	"The house will burn down and I'll be to blame" (responsibility/ threat).	• checking • suppressing thought • seeking reassurance

of gradually and repeatedly exposing the client to increasingly feared stimuli while refraining from escaping or ritualizing. For instance, a client presenting with fear of being responsible for causing harm (e.g., fire at home) would be encouraged to develop an hierarchy whereby he/she is gradually exposed to the feared stimuli (e.g., electric tea pot, toaster, heater, iron, stove) while refraining from using neutralizing behaviors (e.g., leaving the room without checking), or gradually reducing the use of such neutralizing behaviors. ERP is conceptualized as a behavioral experiment whereby one's beliefs about the expected disastrous outcomes from not performing a covert/overt compulsion are "put to the test." The client learns that anxiety naturally declines, that the feared consequence is unlikely to occur, and as this information is processed the existing dysfunctional belief system is challenged. After each trial of ERP is completed, it is important to examine, in detail, the behavioral experiment and the evidence it provides, so to challenge the client's underlying belief structure.

Important Notes for Exposure and Response Prevention (ERP) Exercises

- Exposure should be anxiety evoking, but not traumatizing.
- Use moderately distressing situations, stimuli and images and gradually escalate to increasingly distressing situations.
- Repeat exposure in several different environmental contexts for a prolonged period of time.
- Review how the ERP exercise challenged underlying dysfunctional beliefs.
- Encourage the client to continue exposure exercises after treatment.

Other behavioral experiments can also be undertaken to challenge specific dysfunctional beliefs systems. Commonly, a version of the "white bear" experiment is used to challenge dysfunctional beliefs about thought control. In this task, the client is asked to think about a white bear for a period of two minutes. Each time the thought of a white bear leaves his/her mind, he is to raise his hand, with the therapist counting such failures of thought control. The client is then asked to do the same task, but this time is requested *not* to think of the white bear. The therapist counts the times the client raises his hand. Generally, clients show incomplete mental control, both by not being able completely to hold the bear in their minds or to prevent it from entering their minds; the few clients who succeed usually do so through great mental effort. This exercise can be used to challenge beliefs that thoughts are meaningful simply because they occur despite efforts at suppression or avoidance. This exercise should also challenge the belief that one can and should control one's thoughts; clients can see the difficulty in that by trying not to think about a thought, they have to simultaneously think about it in order to complete the task.

Relapse Prevention
During the final sessions of therapy, a review should be performed regarding the particular beliefs or appraisals that play a role in the client's symptoms. It is important to note the behavioral experiments, ERP tasks and cognitive strategies that have been effective in challenging the dysfunctional beliefs. Summarizing these in an easily remembered and accessible way can benefit the client following therapy. It is also useful to devise a "tool-box" to help the client work through and prepare for high-risk situations (e.g., at times of low mood or stress, such as following interpersonal conflict or professional difficulty). It is important to discuss with the client in what circumstances it would be useful to seek professional assistance.

Example of an OCD tool-box

- Understanding – Review the OCD model and your reading material
- Relaxation – Do daily relaxation exercises to decrease your base anxiety and stress levels
- Life balance – Use activity scheduling to stabilize your mood
- Identify – Identify your current problematic behaviors and underlying appraisals and beliefs
- Hierarchies – Plan exposure hierarchies and use ERP exercises
- Remember – When feeling down, encourage yourself!! (Self criticism is not productive)
- Support – share your difficulties with people close to you

Enhancing CBT for Refractory OCD

While CBT treatments of OCD have dramatically improved prognosis for the disorder, a significant proportion of individuals presenting with OCD may still fail to benefit from treatment. A recent review of predictors of treatment response for CBT found lower treatment response to be linked with greater symptom severity, specific symptom subtypes (e.g., hoarding), co-morbidity with severe depression and personality disorders, family dysfunction and accommodation (e.g., family members' participation in the client's rituals) and weaker therapeutic alliance (18). In this section, we propose techniques for enhancing CBT for treating refractory OCD clients based on our clinical experience and recent developments in the literature implicating attachment and self perceptions in OCD (19–21).

Some individuals with OCD may perceive themselves as incompetent in domains that they view as extremely important for self-worth (i.e., sensitive self domains) such as the areas of morality, social acceptance and job/school performance (19, 20). Experiences challenging such self-domains (e.g., failure in an important exam) may lead to an increase in unwanted intrusions that heighten the accessibility of negative self-cognitions (e.g., "I'm bad," "I'm immoral," "I'm unworthy"). In this way, aversive experiences or the intrusion of unwanted thoughts may activate overwhelming negative evaluations in specific self domains, and other dysfunctional cognitive processes (e.g., inflated sense of responsibility).

Consistent with research, attachment insecurities, mainly along the anxiety dimension, can impair the process of coping with such experiences and thereby increase the chances of consequent OCD symptoms. Anxiously-attached people may fail to find inner representations of security or external sources of support (22). Such a failure may initiate a cascade of distress-exacerbating mental events, such as catastrophizing, exaggerating the negative self-relevant consequences of the aversive experience, mentally ruminating on these negative consequences, and hyperactivating attachment wishes and fears (22). All these feelings and cognitions tend to perpetuate the overestimation of

threat to the self, leading to the experience of overwhelming, uncontrollable distress exacerbating unwanted intrusions and negative self-views and, in this manner, may contribute to the development of obsessions and compulsions (19–22).

Attachment anxiety in the treatment of OCD
Attachment anxiety is defined as the extent to which the individual adopts "hyperactivating" attachment strategies (i.e., energetic, insistent attempts to obtain care, support and love from relationship partners) as a means of regulating distress and coping with threats and stressors (22). It is expressed as a strong fear of abandonment and separation. High attachment anxiety has been linked with OCD-related beliefs (e.g., overestimation of threat, perfectionism), increased OCD symptoms, lower mood, personality difficulties and dysfunctional self-perceptions (19–22). Therefore, attachment orientation may have an impact on OCD-specific processes (e.g., OCD-related beliefs, self perceptions), co-morbid conditions (depression and personality difficulties) and more general aspects of therapy (e.g., the therapeutic alliance). Clients' attachment orientations can be assessed using self-report questionnaires (e.g., Experiences in Close Relationship questionnaire).

It is not uncommon for OCD symptoms to be linked with strong attachment–related fears. For instance, a client presenting with vivid horrific images of his partner having accidents (car crashes, fires, etc.), followed by checking symptoms (e.g., repeated phone calls), identified his underlying feared consequence as being abandoned. A different client recognized that his fear of rejection and abandonment was driving his obsessional fears of being perceived as a pervert or being gay. Even fears that do not initially seem attachment-related may be motivated by a fear of abandonment. For instance, a client with contamination fears described his fear as being linked to the effect that symptoms of stomach illness could have on his acceptance by his partner and peers. In such cases, fear of abandonment can be conceptualized with the client as the "engine" of OCD. Fear of abandonment can then be targeted in several ways: (a) challenging the dysfunctional perceptions of reality (e.g., "are there circumstances in the world that could assure you

will never be abandoned?"); (b) exploring the relationship between such fears and OCD related cognitions (e.g., "can you ever be certain that you will not be abandoned"; "would being perfect assure you will not be abandoned?"; "will being over-vigilant to threat assure nothing bad will happen to your loved ones?"); (c) devising behavioral experiments aimed at increasing tolerance for abandonment related fears (e.g., exposure to the word "abandonment"; incrementally increasing tolerance for uncertainty regarding the partner's whereabouts, etc.); and (d) exploring and challenging the link between fear of abandonment and perceptions of self-worth (e.g., "I am not worth anything and will therefore be abandoned"; also see section below).

Within such "Attachment-based CBT" it is important to address issues regarding trust (i.e., "I cannot trust others to stay with me in times of need") and heightened fear of abandonment within the therapeutic context. The therapeutic alliance may be strengthened by the therapist challenging patterns of relating resulting from such issues, using methods such as immediacy and interpersonal problem solving. This may serve to reduce the client's tendency to negatively interpret internal and external stimuli, improve therapeutic efficacy and possibly reduce "drop-outs" and relapse rates compared to traditional CBT.

Dysfunctional self perceptions and OCD
OCD can also be associated with several types of dysfunctional self perceptions (19–20). Anxiety, distress and preoccupation with particular intrusions may stem from sensitivity in particular self-domains (e.g., job competence), thus hindering habituation to intrusions and progression of therapy. Commonly, an individual's self-worth may be almost solely dependent on competence in one specific domain. Intrusions challenging competence in this domain, therefore, result in distress and dysfunctional responses. For instance, a client presenting with checking and ordering rituals described her greatest fear as showing incompetence at work. Several hours per day were dedicated to routines (e.g., counting her steps, ordering her room, etc.), with these routines being aimed at preventing her from having difficulty with falling asleep, which she thought would lead to work problems the following

day. A common overvalued domain in OCD is morality. Individuals may have a rigid and limited perception of morality (e.g., being free of sexual urges before marriage) such that any urge or thought that challenges these values leads to self-criticism, continuous rumination and compulsions.

When a client presents with such a limited self-view, special emphasis should be put on expanding their self-concept. This could be done by detailed mapping of additional important domains for the client, adding variety to his daily activities and increasing his skills in other domains (using activity scheduling, professional courses, etc.), as well as by challenging the rigidity and boundaries of the valued domain (e.g., "what does being moral mean to you?"; "what other behaviors/beliefs/attitudes could be included in this concept?"). The contingency of self worth on the self-domain should be explicitly explored, such that the client understands the relationship between anxiety and perceptions of failure in that self-domain. This assists with the case formulation, particularly the understanding of why the intrusion leads to such heightened emotional responses for the client.

Conclusion

In this paper we have discussed the cognitive model of OCD and basic elements of CBT for the disorder. As one of the few empirically-supported treatments for OCD, CBT should be considered as an option whenever a client presents with OCD symptoms. When individuals fail to benefit from traditional CBT it may also be useful to challenge wider cognitive and motivational bases for the disorder, such as attachment relationships and self-perceptions. While awaiting empirical study, such techniques may prove useful for socializing the client into the CBT model, addressing client-therapist variables, reducing anticipatory anxiety and facilitating habituation to intrusive phenomena.

References

1. World Health Organization. Global burden of disease: A comprehensive assessment and morbidity from disease, injuries, and risk factors in 1990 and projected to 2020. Harvard: World Health Organization, 1996.

2. Abramowitz JS. Understanding and treating obsessive-compulsive disorder: A cognitive-behavioral approach. Mahwah, N.J.: Lawrence Erlbaum, 2006.

3. Kobak KA, Greist JH, Jefferson JW, Katzelnick DJ, Henk HJ. Behavioral versus pharmacological treatments of obsessive compulsive disorder: A meta-analysis. Psychopharmacology (Berl) 1998;136: 205–216.

4. Rosa-Alcázar AI, Sánchez-Meca J, Gómez-Conesa A, Marín-Martínez F. Psychological treatment of obsessive compulsive disorder: A meta-analysis. Clin Psychol Rev 2008; 28: 1310–1325.

5. American Psychiatric Association. Diagnostic and statistical manual of mental disorders (Text Revision, 4th ed.). Washington, D.C.: American Psychiatric Association, 2000.

6. Kessler R, Berglund P, Demler O, Jin R, Walters E. Lifetime prevalence and age of onset distributions of DSM-IV disorders in the National Comorbidity Survey replication. Arch Gen Psychiatry 2005; 62: 593–602.

7. Bebbington P. Epidemiology of obsessive-compulsive disorder. Br J Psychiatry 1998; 173: 2–6.

8. Rasmussen S, Eisen J. The epidemiology and clinical features of obsessive compulsive disorder. Psychiatr Clin North Am 1992; 15: 743–758.

9. Abramowitz JS, McKay D, Taylor S, editors. Obsessive-compulsive disorder: Subtypes and spectrum conditions. Amsterdam: Elsevier, 2008.

10. Mataix-Cols D, Pertusa A, Leckman JF. Issues for DSM-V: How should obsessive–compulsive and related disorders be classified? Am J Psychiatry 2007; 164: 1313–1314.

11. Hollander E, Zohar J. Beyond refractory obsessions and anxiety states: Toward remission. J Clin Psychiatry 2004; 14: 3–5.

12. Storch EA, Abramowitz JS, Goodman WK. Where does obsessive compulsive disorder belong in DSM-V? Depress Anxiety 2008; 25: 336–347.

13. Clark DA. Cognitive-behavioral therapy for OCD. New York, N.Y.: Guilford, 2004.

14. Obsessive Compulsive Cognitions Work Group. Cognitive assessment of obsessive-compulsive disorder. Behav Res Ther 1997; 35: 667–668.

15. Freeston M, Léger E, Ladouceur R. Cognitive therapy of obsessive thoughts. Cogn Behav Pract 2001; 8: 61–78.

16. Antony M, Purdon C, Summerfeldt L, editors. Psychological treatment of OCD: Fundamentals and beyond. Washington, D.C.: APA, 2006.

17. Simpson HB, Zuckoff A, Page JR, Franklin ME, Foa EB. Adding motivational interviewing to exposure and ritual prevention for obsessive–compulsive disorder: An open pilot trial. Cogn Behav Ther 2008; 37: 38–49.

18. Keeley ML, Storch EA, Merlo LJ, Geffken GR. Clinical predictors of response to cognitive-behavioral therapy for obsessive–compulsive disorder. Clin Psychol Rev 2008; 28: 118–130.

19. Doron G, Kyrios M. Obsessive compulsive disorder: A review of possible internal representations within a broader cognitive theory. Clin Psychol Rev 2005; 25: 415–432.

20. Doron G, Moulding R, Kyrios M, Nedeljkovic M. Sensitivity of self-beliefs in Obsessive Compulsive Disorder (OCD). Depress Anxiety 2008; 25: 874–884.

21. Doron G, Moulding R, Kyrios M, Nedeljkovic M, Mikulincer M. Adult attachment insecurities are related to obsessive compulsive phenomena. J Soc Clin Psychol 2009; 28: 1025-1052.

22. Mikulincer M, Shaver P, Pereg D. Attachment theory and affect regulation: The dynamics, development, and cognitive consequences of attachment-related strategies. Motiv Emotion 2003; 27: 77–102.