Targeting the function of inner experiences in obsessive compulsive and related disorders

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Abstract

Current versions of cognitive behavior therapy have been shown to be effective for obsessive compulsive and related disorders. Recently there has been an increased shift toward targeting the function of inner experiences (e.g., obsessions, urges to hair pull) over targeting their form or content. A handful of treatments target the function of inner experiences to such a large extent that they might be considered a shift. This paper reviews these treatments and their supporting data in the treatment of obsessive compulsive and related disorders.

Categorization of obsessive compulsive and related disorders (i.e., body dysmorphic disorder, hoarding, trichotillomania, and excoriation disorder) as separate from other anxiety disorders occurred in the Diagnostic and Statistical Manual of Mental Disorders 5([1](#_ENREF_1)) because they appeared to represent a categorically different set of disorders than anxiety disorders([2](#_ENREF_2)). Recent meta-analyses show that cognitive behavior therapy (CBT), significantly outperform control conditions([3](#_ENREF_3)) and pharmacotherapy([4](#_ENREF_4)) in the treatment of obsessive compulsive disorder (OCD). While treatments for related disorders exist, they are more limited, with recent reviews suggesting greater efficacy over control conditions for trichotillomania([5](#_ENREF_5)), body dysmorphic disorder (BDD)([6](#_ENREF_6)), excoriation disorder([7](#_ENREF_7)), and hoarding, as that disorder is only recently officially being categorized outside of OCD. Nevertheless, while psychological interventions are successful, they are still far from being 100% successful.

Originally, the treatment of OCD was quite behavioral with treatment directly linked to learning theory([8](#_ENREF_8)). The same was true for the treatment of trichotillomania and excoriation disorder([9](#_ENREF_9)). The treatment of OCD became less behavioral and more cognitive behavioral with the onset of the cognitive revolution and treatments such as exposure with response prevention (ERP) focusing on cognitive change as a central component([10](#_ENREF_10)). Additionally, cognitive therapy alone for OCD grew in popularity as did cognitive conceptualizations of OCD([11](#_ENREF_11)). At the core of these conceptualizations was the idea that there were different cognitive styles (e.g., importance of thoughts, responsibility, etc.) that had corresponding treatment techniques that addressed those styles([11](#_ENREF_11)). This also influenced the work in BDD([12](#_ENREF_12)), trichotillomania([13](#_ENREF_13)), and hoarding([14](#_ENREF_14)). While there are multiple conceptualizations of what the focus is in cognitive therapy, one that is held by some is that particular cognitions lead to problematic behavior and that problematic behavior is reduced by correcting cognitive errors([15](#_ENREF_15)). The position taken within behavior analysis, which is also part of the CBT tradition, is that cognitions (and other inner experiences) are examples of behavior that affect the likelihood of an action, but are not causal as both behaviors are the product of external stimuli. Thus while both conceptualizations are part of the CBT tradition, they may be distinct models of CBT([16](#_ENREF_16)).

Consistent with this behavioral view of cognitive activity, there has been an increased interest in versions of CBT for OCD that focus heavily on the function of cognitions and other inner experiences over their form. Specific examples include Acceptance and Commitment Therapy (ACT), Dialectical Behavior Therapy (DBT), Mindfulness-based Stress Reduction (MBSR), Mindfulness-based Cognitive Therapy (MBCT), and Metacognitive Therapy, to name the more common ones([16](#_ENREF_16)). Target constructs in these types of therapies include acceptance (allowing inner experiences to occur with no attempts to regulate them), mindfulness (watching inner experiences occur), cognitive defusion (seeing inner experiences as an ongoing process), as well as reducing thought control (learning not to engage with thoughts and simply allowing them to occur), to name some central ones. There are also modern constructs that lean towards these topics but have elements that are not completely function-based such as tolerance (allowing inner experiences to occur without fight until they lessen) and tolerance of uncertainly (coming to terms with the belief that some things in life cannot be predicted or certain).

The increased emphasis on function-based treatment elements to our conceptualization of obsessive-compulsive and related disorders might be considered a more dramatic turn versus the steady shift that is occurring in ERP and CBT based treatments([17](#_ENREF_17)). Because these disorders are looked at functionally, treatments are becoming more uniform across presentations of one disorder (e.g., across subtypes of OCD) and across disorders (OCD, trichotillomania, etc.). Hayes et al.([18](#_ENREF_18)) termed actions in the service of reducing or preventing inner experiences, that result in poor functioning, experiential avoidance. Consistent with this functional view, these newer approaches have more of a focus on *stepping back and watching than directly addressing* inner experiences. The central goal of this paper is to highlight some of the newer versions of CBT that we feel target the function of inner experiences over their form, frequency, or content.

**Acceptance and Commitment Therapy**

ACT aims to increase *psychological flexibility*, or the ability to let inner experiences occur and change or persist in behavior as doing so serves valued ends. ACT applied to obsessive compulsive and related disorders suggests that attempts to eliminate or control the frequency or content of obsessions and related inner experiences are not only ineffective, but become so central that they decrease quality of life. Therefore, ACT aims to increase psychological flexibility by promoting an open, flexible stance toward internal experiences, decreasing attempts to control these experiences, and increasing contact with naturally reinforcing, values-consistent behaviors([19](#_ENREF_19)).

Psychological flexibility is targeted through the use of six core processes of change: *present moment awareness*, *defusion, acceptance*, *self*, *committed action*, and *values*. All these skills reduce entanglement with inner experiences, allowing movement in meaningful directions; there is no concern for the content or veracity of the inner experiences themselves. A recent meta-analysis analyzing data from 66 laboratory studies found significant positive effects for present moment awareness, defusion, acceptance, and values([20](#_ENREF_20)). Another recent meta-analysis found psychological inflexibility to be moderately and significantly correlated with OCD and related disorders, and moderate support for changes in psychological inflexibility as mediators in ACT for anxiety disorders studies([21\*](#_ENREF_21)).

To date, there is one randomized clinical trial of ACT for OCD and many single subject designs of ACT for various subtypes of OCD. These studies have all excluded in-session exposure exercise to determine whether the effects of ACT could be seen without the use of already supported procedures. In the randomized clinical trial, utilizing blind assessments, 79 participants with OCD completed 8, 1-hour sessions of ACT or progressive relaxation training (PRT)([22\*\*](#_ENREF_22)). Participants in the ACT condition achieved a significantly greater rate of improvement in OCD symptom severity than those in PRT, with an effect size of 0.84. The ACT condition also had a significantly greater number of treatment responders than PRT at post (ACT = 46%-56%, PRT = 13%-18%) and 3-month follow-up (ACT = 46%-66%, PRT = 16%-18%). Of participants with at least mild depression, those in the ACT condition were significantly less depressed than those in PRT at post and follow-up, with effect sizes of 1.40 and 1.52 respectively.

Two studies utilizing a multiple-baseline across participants design investigated the efficacy of the same ACT protocol without in-session exposures for chronic skin picking([23\*](#_ENREF_23)) and problematic pornography viewing([24\*](#_ENREF_24)). Both studies showed large decreases in target behaviors at post, with results maintained at follow-up in most cases, and increases in psychological flexibility. A randomized clinical trial compared ACT plus habit reversal to a waitlist control for trichotillomania([25\*](#_ENREF_25)). In the ACT condition there was a 45% reduction in symptom severity (WL = 0%), a 33% reduction in impairment (WL = 6%), and a 58% reduction in hairs pulled per day (WL = 28% increase), along with a 13% increase in psychological flexibility (WL = 6% decrease), from pre to post. Similar results were seen following treatment for those in the waitlist control.

**Metacognitive Therapy**

Metacognitive therapy is based on the idea that patterns of thinking characterized by worry and rumination, increased threat monitoring, and avoidant coping strategies are the product of certain metacognitions (or beliefs about thinking) and result in psychological disorders([26](#_ENREF_26)). Three types of metacognitions are particularly problematic in OCD: thought-fusion beliefs, the need to engage in rituals, and “stop signals” for ending rituals([27](#_ENREF_27)). According to the model, the strength of these metacognitions will impact the degree to which obsessions are negatively appraised, and negative appraisals and attempts at suppression will make obsessions more likely. Therefore, treatment focuses on fostering a state of “detached mindfulness” characterized by meta-awareness, cognitive de-centering, attentional flexibility, low conceptual processing, and low goal directed coping([28](#_ENREF_28)). Metacognitive beliefs are also challenged with brief exposure “experiments”([29](#_ENREF_29)).

Metacognitive beliefs have been shown to predict obsessive-compulsive symptoms after controlling for worry([30](#_ENREF_30), [31](#_ENREF_31)), and a brief exposure experiment with a metacognitive rationale resulted in decreases in self-reported anxiety/distress, metacognitive beliefs, and the urge to neutralize, as opposed to a habituation rationale in which the same variables increased([29](#_ENREF_29)). Changes in metacognition have also been shown to predict outcome following a course of ERP for OCD([32](#_ENREF_32)).

To date, there have been two small randomized clinical trials evaluating the efficacy of metacognitive therapy for OCD. On study compared the effects of metacognitive therapy, fluvoxamine, and their combination in 19 adults with OCD([33\*\*](#_ENREF_33)). Participants in the metacognitive therapy and combined groups showed significant improvements compared to fluvoxamine in symptom severity, depression, and anxiety. There were no differences between the metacognitive therapy and combined groups. Clinically significant change was achieved in 83.33% of participants receiving either metacognitive therapy or combined treatment and 16.66% receiving fluvoxamine. Another randomized clinical trial compared metacognitive therapy to ERP in 10 adolescents with pediatric OCD([34\*\*](#_ENREF_34)). Clinically and statistically significant changes in symptom severity were observed at post, 3-month, and 2-year follow-up in both groups. Two open trials, one of individual therapy and one of group therapy, also support the use of metacognitive therapy for OCD, with nearly all participants achieving clinically significant change in symptom severity at post and most maintaining gains at follow-up([35\*](#_ENREF_35), [36](#_ENREF_36)). A multiple baseline study of pure obsession found favorable results for metacognitive therapy([37](#_ENREF_37)), as did a randomized trial of an metacognitive therapy-based self-help program versus waitlist for OCD([38](#_ENREF_38)).

**Mindfulness-Based Approaches**

Mindfulness is commonly defined as “paying attention in a particular way; on purpose, in the present moment, and non judgmentally” ([39](#_ENREF_39)). Mindfulness involves the detached observation of experiences now, in the present moment, whatever those experiences may be. As with other therapies reviewed here, mindfulness-based approaches emphasize the function of thoughts over their form, encouraging seeing thoughts as a flow of mental events rather than becoming “caught” in their content. A recent meta-analysis found that mindfulness-based approaches had large effects on anxiety (*g* = .97) and mood symptoms (*g* = .95) in diagnosed individuals([40](#_ENREF_40)). There is also preliminary evidence for meditation and mindfulness techniques in the treatment of obsessive-compulsive symptoms([41-44](#_ENREF_41)).

One of the first mindfulness-based approaches was MBSR([45](#_ENREF_45)), an 8- to 10-week, 2-hour per session, group treatment originally designed in a medical setting for chronic pain([46](#_ENREF_46)). MBSR trains a number of meditation techniques, including hatha yoga, a daylong silent retreat during the 6th week, and substantial homework, including 45 minutes of daily meditation. Support for MBSR for obsessive compulsive and related disorders is in its infancy, with only one case report supporting its use([47](#_ENREF_47)).

MBCT is based on a combination of cognitive therapy and MBSR, incorporating the elements of cognitive therapy that focus on taking a decentered stance towards internal experiences rather than changing the content of thoughts themselves. Recently, MBCT has been adapted to address psychological disorders other than depression([48](#_ENREF_48)), and has received preliminary support in anxiety disordered populations([49-51](#_ENREF_49)). So far, only one qualitative study has examined MBCT for OCD([52](#_ENREF_52)). Qualitative data from 12 participants indicated that all found MBCT to be an acceptable and beneficial treatment, with two-thirds of participants reporting decreases in OCD symptoms.

**Dialectical Behavior Therapy**

DBT was developed as a treatment for individuals diagnosed with borderline personality disorder and chronic suicidality([53](#_ENREF_53)). The primary dialectic in DBT is that of acceptance and change. This manifests in therapy as a dynamic balance between acceptance strategies adapted from principles of Zen Buddhism and behavior change strategies. Specific skills training modules focus on teaching mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness([53](#_ENREF_53)). As applied to anxiety disorders, DBT emphasizes emotion regulation skills([54](#_ENREF_54)).

There are currently no studies examining the efficacy of DBT for OCD. However, one study examined the effects of DBT-enhanced habit reversal training for trichotillomania, emphasizing relapse prevention([55\*](#_ENREF_55)). An open trial of 10 participants with affectively triggered hair pulling, tested 11 weekly sessions and 4 maintenance sessions during the following 3 months. Significant improvements were observed for hair pulling severity, impairment, anxiety, depression, and emotion regulation; results were maintained at 3 months. At 6-month follow-up, hair pulling severity and emotion regulation gains were maintained, and 9 of 10 participants were full or partial treatment responders([56\*](#_ENREF_56)).

**Conclusion**

Authors have struggled to pull together these types of approaches that may represent a shift from traditional CBT as presented by such luminaries as Drs. Beck, Ellis, and Rachman. This shift has been titled “third wave”([57](#_ENREF_57)), “newer generations of CBT”([16](#_ENREF_16)), and contextual CBT([58](#_ENREF_58)). We purport that the strongest shift in these types of treatment is their functional view of cognitions over a more content or topographical analysis. Many who practice CBT or ERP are quite comfortable with this functional approach arguing that it is very similar to the way that they conceptualize obsessive compulsive and related disorders([59](#_ENREF_59)). In general we agree that most approaches to OCD address the function of inner experiences to some degree; in addition arguing that what makes the approaches covered here unique is the *greater* or *complete* shift toward addressing the function of inner experiences and a substantial reduction in categorizations of types or styles of inner experiences.

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This meta-analysis compiled 63 studies of anxiety and OC-spectrum disorders and showed a significant medium correlation between psychological flexibility as measured by the AAQ or AAQ-II and general and specific measures of anxiety. A significant medium correlation between psychological flexibility and measures of OCD was observed (*r* = .36, *p* < .01, *n* = 1122). Prelimilary meta-analytic results indicate that ACT is equally effective as CBT.

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In this RCT, 79 participants with OCD completed 8, 1-hour sessions of ACT or progressive relaxation training (PRT). Participants in the ACT condition achieved a significantly greater rate of improvement in OCD symptom severity than those in PRT, with an effect size of 0.84. The ACT condition also had a significantly greater number of treatment responders than PRT at post (ACT = 46%-56%, PRT = 13%-18%) and 3-month follow-up (ACT = 46%-66%, PRT = 16%-18%). Of participants with at least mild depression, those in the ACT condition were significantly less depressed than those in PRT at post and follow-up, with effect sizes of 1.40 and 1.52 respectively.

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This study investigated 8 sessions of ACT without exposures to treat problematic pornography viewing in 6 male participants using a multiple baseline across participants design. Treatment resulted in an 85% reduction in time viewing pornography with results maintained at 3-month follow-up. ACT-consistent processes of change showed corresponding reductions throughout treatment. In addition, increases on quality of life measures and decreases on OCD and scrupulosity measures were observed.

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This RCT compared the effects of metacognitive therapy, fluvoxamine, and their combination in 19 adults with OCD. Participants in the metacognitive therapy and combined groups showed significant improvements compared to fluvoxamine in symptom severity, depression, and anxiety. There were no differences between the metacognitive therapy and combined groups. Clinically significant change was achieved in 83.33% of participants receiving either metacognitive therapy or combined treatment and 16.66% receiving fluvoxamine. This study indicates that metacognitive therapy may be an effective treatment for OCD, may be more effective than medication alone, and the addition of medication to metacognitive thearpy does not appear to have a detrimental effect on outcome.

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