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RESPONSE PAPER

The More You Do It, the Easier It Gets: Exposure and Response Prevention for OCD

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This manuscript is one in a series of invited papers to this journal. The purpose of the series is to highlight and discuss the similarities and differences between various behavioral and cognitive-behavioral approaches to the treatment of obsessive-compulsive disorder (OCD). The first article in this series (Twohig & Whittal) describes the case of "Caroline" upon which the current manuscript is based. We approach the case from a cognitive-behavioral orientation with exposure and ritual prevention (EX/RP) as the primary therapeutic approach. We highlight the use of EX/RP because of the considerable body of empirical evidence showing that EX/RP is an efficacious treatment for both adult and pediatric OCD. Using the provided case vignette, we outline a rationale for EX/RP and describe how EX/RP might be used to treat Caroline's OCD. We begin by discussing the theoretical underpinnings for EX/RP and providing a rationale for treatment. We then briefly discuss the rich extant literature supporting EX/RP as an effective treatment for OCD. We then provide a detailed case conceptualization and description of the treatment. We conclude with barriers commonly encountered during EX/RP.

The past decade has seen exciting advancements in psychosocial therapies for treating OCD. Arguably, though, the most thoroughly researched and most effective psychosocial treatment modality is cognitive-behavioral therapy (CBT) involving exposure and response prevention (EX/RP). EX/RP has consistently been shown to be effective for reducing symptoms of both adult and pediatric OCD. In fact, both the American Academy of Child and Adolescent Psychiatry (AACAP, 1998) and the American Psychological Association (Task Force on Promotion and Dissemination of Psychological Procedures, 1995) have concluded that CBT has garnered enough research support to be considered the treatment of choice for both children and adults with OCD. Although there are a host of specific techniques and delivery strategies subsumed under the CBT umbrella, one of the primary goals of CBT is to teach the patient the skills needed to directly confront fear-evoking stimuli without engaging in fear-neutralizing rituals. If this can be accomplished both persistently (for a sufficient duration of time per trial) and consistently (across trials), the patient is likely to experience a natural reduction in anxiety and, more importantly, will eventually be able to go about his/her day-to-day activities without the need for elaborate rituals or avoidance repertoires.

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Introduction to EX/RP for OCD

We would like to begin by stating that EX/RP, as we use it here, does not refer to a theoretical stance, but rather refers to a collection of treatment techniques that were borne from behavioral theory. As the name implies, EX/RP is a collection of therapeutic techniques aimed at teaching an individual to approach, rather than avoid, fear-producing stimuli (exposure) coupled with the prevention of fear-neutralizing rituals (response prevention). That being said, it would be misleading to suggest that we do not frequently employ other treatment techniques, such as those commonly used in treatment packages that emphasize more cognitively-based techniques (see Chosak, Marques, Fama, Renaud, Wilhelm, 2009). Together, this collection of techniques is frequently referred to as CBT. We do not consider the more cognitive techniques included in these packages to be inconsistent with behavioral theory nor with EX/RP.[1] We view them as ancillary techniques that can be used within a treatment package to accomplish the treatment goal of providing opportunities for an OCD patient to experience fear, observe fear reduction even in the absence of ritualistic efforts to avoid or prevent feared consequences, and to

[1] We conceptualize cognition as an active, albeit private, behavioral process, perhaps better termed "thinking," which is consistent with a behavioral analysis. However, for simplicity we will refer to "thinking" as "cognitive" and when referring to intervention techniques we will use the traditional term "cognitive therapy."

learn from repeated experience that the feared consequences do not materialize and that obsessional distress reduces over the course of time if allowed to do so.

It is also important to note from the outset that the cause of OCD remains unknown and no single model or theory yet proposed, including behavioral theory, is able to fully explain how or why OCD develops (Taylor, Abramowitz, & McKay, 2007). Further, there are no data to support any single theory in accounting for the wide symptom variability observed in OCD patients. In fact, one can be reasonably certain that the underlying cause of OCD is multifactorial; involving complex interactions between genetic, physiological, and behavioral (including cognitive, emotional, and social) factors. Just as psychopharmacological interventions have spawned from our understanding of the underlying biological processes involved in OCD, CBT has risen from our understanding of underlying behavioral processes involved in OCD.

Theoretical Rationale for EX/RP

Early learning models of OCD were based largely on a two-factor theory of fear (Dollard & Miller, 1950; Mowrer, 1951, 1960). The two-factor model proposes that when an individual is faced with a situation that elicits a physiological fear or anxiety state, an unconditioned (i.e., unlearned) behavioral reaction to escape that state is initiated. If the action is successful in reducing the anxiety, it is strengthened, through negative reinforcement, and thus is more likely to be reproduced in the presence of similar anxiety-producing stimuli in the future. Through learning experiences, various internal (e.g., thoughts and images) and external (i.e., contextual) stimuli acquire the ability to elicit anxiety and the ensuing escape response. When the escape response is performed "compulsively" in response to benign (albeit distress-evoking) stimuli, one is said to suffer from OCD.

EX/RP is based on the assumption that if an individual is systematically exposed to stimuli that elicit obsessional thoughts and associated anxiety, and is prevented from escaping or otherwise neutralizing the anxiety (ritual prevention), the anxiety will diminish over time through the process of extinction and the person will be better able to function in his/her daily life. Theorists such as Foa and Kozak (1986) have posited that habituation is aided by exposure to corrective information in that the individual learns, through direct experience, that the feared consequences do not materialize in the situations that typically evoke obsessional distress. With repetition, the reduction of anxiety in the previously feared situation makes it easier in the long run to resist the weaker urges to escape and/or ritualize.

From a practical standpoint, a behavioral conceptualization focuses on the here-and-now functional relationship between an individual's obsessions and compulsions, with the assumption that this relationship can be modified in treatment without necessarily understanding the "cause" of the obsessions. Furthermore, the specific content or form of the obsessions and compulsions is relatively unimportant except to the extent that they set the context for preparing specific treatment exercises. For example, a person who reports distress related to repetitive, intrusive thoughts of harming their spouse might engage in one or more forms of compulsive behavior to reduce this distress. Examples might include frequent "checking in," taking measures to avoid situations perceived as "high risk," or elaborate mental rituals. In each of these examples, the common underlying theme is the repetitive performance of one or more rituals that functions to remove or avoid the distress associated with obsessional thoughts. In each case, the individual can learn to manage his/her OCD using EX/RP without necessarily knowing how the obsession developed. In fact, throughout the course of EX/RP, analyzing the nature and cause of one's obsessions is actively discouraged as this often leads the person to "fight" with the obsessions, which is likely to ultimately make them worse.

Empirical Support for EX/RP for OCD

A review of the research literature shows strong support for EX/RP as a treatment for OCD. Several recent qualitative and quantitative (i.e., meta-analytic) literature reviews have evaluated and critiqued the CBT for OCD literature and each has concluded that CBT is an effective treatment for reducing OCD in adults and children (Abramowitz, 1996, 1997; Abramowitz, Franklin, & Foa, 2002; Abramowitz, Whiteside, & Deacon, 2005; Foa & Kozak, 1996). Overall, based on these reviews of the literature, reasonable estimates show EX/RP to be an effective treatment for 60% to 90% of individuals with 50% to 80% symptom reduction common (Abramowitz, 1996, 1997; Abramowitz et al., 2002; Abramowitz et al., 2005; Foa & Kozak, 1996; Greist, 2000). Furthermore, recent evidence suggests that treatment gains are maintained at 2-year follow-up (Whittal, Robichaud, Thordarson, & McLean, in press). The treatment improvement rates observed in EX/RP rival those of pharmacological studies, and head-to-head behavior therapy versus pharmacological treatment studies suggest that behavior therapy not only provides longer-lasting gains but also results in greater short-term improvement in symptoms (e.g., Foa et al., 2005; Greist, 1996; Simpson et al., 2004).

Case Conceptualization

The case of Caroline (Twohig & Whittal, 2009-this issue) provides a nice constellation of OC symptoms that

will allow us to outline how OCD would be conceptualized within a cognitive-behavioral framework and treated using EX/RP. Before we describe how EX/RP might proceed, it will be helpful for the reader to first review Caroline's primary OC symptoms, which are described below and are summarized in Table 1.

Caroline's primary obsessional theme centers around fears that she will cause harm to those around her by spreading "bad energy" or illness which will result in injury, illness, harm or death befalling friends, family members, children, or other individuals in her immediate proximity. Caroline's description of her obsessions is elaborate. She describes accompanying feelings of "dust" on her hands and mouth, which she believes serves as a medium by which "bad energy" is spread from herself to others.

When her obsessional thoughts are evoked, Caroline performs several compulsive rituals, which she believes will prevent harm from coming to others. Early in the course of her disorder, she would flick her fingers in order to remove the harmful dust, but she now fears that this might spread the dust to those around her. As a result, her compulsive rituals have evolved to include: (a) closing her hands into fists whenever she gets the dusty feeling, (b) biting the sides of her tongue to "dissolve" the dust so it does not spread, (c) praying for God to protect those around her, (d) repeating the phrase "just goodness," which she believes will protect those around her, (e) avoiding saying "goodbye" out of fear that doing so will cause harm to the recipient of the gesture, (f) wiping her hands before visiting someone who is ill, and (g) performing elaborate rituals to remove contaminants after visiting someone who is ill (wiping/washing her hands, washing her clothing, and showering). She also engages her husband in her rituals by asking him to wash his hands and clothing after visiting someone who is ill in order to prevent him from becoming ill. These by-proxy rituals, often referred to as accommodation, are not uncommon, especially within close interpersonal (e.g., spousal, partner and parent-child) relationships.

In addition to her fears of directly causing harm to others, Caroline reports a pathological sense of responsibility to prevent harm from coming to others and fears that if she does not perform specific rituals, those around her will contract cancer or will be otherwise harmed. To alleviate the anxiety associated with these obsessions, she engages in a variety of covert and overt "protective" rituals, which temporarily alleviate her discomfort. Her covert ritual involves creating an imagined circle around the person whom she believes she needs to protect and mentally "pulling" the imagined circle away from the person. In addition, she engages in a variety of overt rituals, including touching the person, praying, and eye-blinking. According to Caroline, these rituals protect the person from harm. It is also noteworthy that Caroline also engages in mental checking rituals. She states that when she hears of an accident (perhaps on the news), she "mentally reviews" whether she came into contact with the person involved in the accident. This type of questioning/checking would be considered a mental ritual designed to alleviate distress associated with her pathological sense of

Table 1
Caroline's primary obsessive-compulsive presentation

General Obsessional Theme	Specific Thoughts/Fears	Associated Rituals
Fear of causing harm to others	Fear of spreading "bad energy," in the form of dust from her hands or mouth, which will result in injury, illness, or death to others, especially friends and family members and individuals who are ill	Flicking fingers to remove the harmful dust Wiping or washing her hands to remove the dust Closing her hands into fists to prevent dust from escaping Biting the sides of her tongue to "dissolve" the dust Praying (for God to protect those around her) Repeating the phrase "just goodness" Avoiding saying "goodbye" Elaborate washing/cleaning rituals (washing her clothing, showering, etc. after visiting someone ill) By-proxy rituals (accommodation): asking her husband to wash his hands and clothing when she fears he has been "contaminated"
Pathological Sense of Responsibility for harm befalling others or to prevent harm from befalling others	Believing she is responsible for preventing harm from coming to others and protecting those around her from harm/danger/disease, especially cancer	Creating an imagined circle around the person whom she believes she needs to protect and mentally "pulling" the imagined circle away from the person Touching the person to prevent harm Praying Eye-blinking to prevent harm Mentally reviewing

responsibility. The function of mental rituals is the same as more overt rituals, and hence they too play a key role in the maintenance of OCD and must be directly targeted via response prevention.

Given her pattern of symptoms, and the generally robust response of OCD symptoms to EX/RP, Caroline would be a good candidate for this treatment. The goal of EX/RP would be to teach Caroline to confront feared situations, in a graduated manner, while simultaneously and voluntarily refraining from performing her rituals. Although the "meat" of treatment would focus on exposure and ritual prevention, maladaptive OCD-specific cognitions would be identified and cognitive therapy (CT) techniques could be also included to target these symptoms, as there is some research to show that cognitive techniques can be helpful. It has been suggested that cognitive techniques might increase compliance with exposure tasks for some patients (Freeston, Ladouceur, Gagnon, et al., 1997, Leahy, 2007) and compliance with treatment has been associated with improved treatment outcome (Abramowitz, Franklin, Zoellner, & DiBernardo, 2002). It has also been suggested that cognitive techniques might improve treatment retention (Vogel, Stiles, & Gotestam, 2004); however; empirical findings on this matter are mixed, with some clinical trials failing to demonstrate differential dropout rates between EX/RP with and without CT (Whittal, Thordarson, & McLean, 2005) and some recent research showing EX/RP to be associated with higher dropout rates than CT (Whittal et al., in press). It is important to note that when cognitive techniques are adopted and utilized in conjunction with EX/RP, the inclusion of cognitive therapy techniques is not meant to change, suppress, or stop the patient's irrational obsessions in the moment. To the contrary, the focus of treatment is to teach Caroline to directly confront the feared stimulus and deliberately elaborate or focus upon the fears in the moment, rather than to engage in attempts to stop obsessions and discomfort from occurring. Most often, patients with OCD have worked very hard at inherently futile attempts to stop their obsessions. Unfortunately, rather than decreasing distress, such attempts contribute to the problem and make OCD worse. For example, when working with Caroline, we might use cognitive techniques to teach her to evaluate and more accurately estimate the actual level of threat and probability of the negative outcomes that she fears. We may also teach her that thoughts are often inaccurate and that she does not necessarily have to listen to her thoughts or take them literally. Rather, we would suggest that her thoughts and fears are hypotheses that can be directly tested during EX/RP. In addition to increasing compliance with EX/RP, this technique is designed to "externalize" OCD and to encourage Caroline to stop "fighting" with her OCD and start "being her own boss." This places emphasis on trying to change her behavior rather than trying to change her thoughts.

In order to help Caroline to conceptualize her obsessions and rituals from an EX/RP standpoint, we would first help her to understand that her rituals are performed to alleviate the discomfort that is associated with the obsessional thoughts or images. It is often the case that individuals with OCD fail to understand that although their rituals are effective for reducing discomfort in the short term, they are maintaining (or even worsening) OCD in the long-term. To help Caroline understand how this relates to EX/RP, we would help her to understand that the only way for her to overcome her fears is to refrain from ritualizing and directly experience the outcome. Although rarely stated explicitly in our rational, these direct experiences will help her to experience that harm does not actually occur and that although refraining from ritualizing is uncomfortable (at least in the short term) it is not dangerous to herself or others.

During EX/RP, emphasis is always placed on the fact that patients with OCD can exercise voluntary control over their rituals but cannot, nor should not, attempt to control their obsessions or the associated distress in the moment. In fact, Abramowitz (2006) suggested that two "commandments" of successful EX/RP are that patients should (a) expect to feel uncomfortable and (b) should not try to fight the discomfort.

Implementation of EX/RP

The number and length of EX/RP sessions that an individual will need will vary considerably, depending upon the severity of the individual's OCD symptoms, the person's availability for treatment, and a host of other factors. Our experience (which is consistent with data reported from randomized controlled trials) is that most individuals seeking treatment on an outpatient basis will respond well to 12 to 15 treatment sessions, conducted at least weekly, and each lasting 60 to 90 minutes. There are now several manuals that provide step-by-step and session-by-session guides to implementing EX/RP (e.g., Abramowitz, 2006; Franklin & Foa, 1998; Kozak & Foa, 1997; Riggs & Foa, 1993; Steketee, 1993). Although each manual suggests slight variations in treatment, the general session structure is fairly consistent. The primary components of EX/RP include assessment of OCD symptoms, psychoeducation and treatment rationale, symptom monitoring, developing fear hierarchies, in-session and out-of-session exposure work, relapse prevention, and generalization training. A sample session structure is provided in Table 2.

Assessment and Review of OCD Symptoms

Caroline's primary OCD symptoms are outlined in detail in the conceptualization provided above. Caroline was

Table 2
Sample session structure for EX/RP

Session Number	Session Goals

Session 1	• Assessment/review of OCD symptoms
	• Psychoeducation
	  • Provide an overview of recent research on the biology and behavioral characteristics of OCD
	  • Explain to the patient that OCD is a neurobehavioral disorder with an unknown cause; focus on removing blame the patient may have placed on him/herself
	  • Avoid analysis aimed at uncovering the "cause" of OCD
	  • Conduct an "inconvenience review" to outline the specific ways in which OCD is disrupting the patient's life
	• Present the functional model of OCD and rationale for EX/RP
	• Work with the patient to "externalize" OCD
	• Teach symptom monitoring and rating (SUDS)
	• Begin development of fear hierarchy

Session 2	• Continue hierarchy development and refine hierarchies as needed • Create separate hierarchies for each obsession/ritual • Prepare/plan for exposure exercises • Develop strategies for ritual prevention • Continue to work with patient to "externalize" OCD • Review and continue symptom monitoring • Discuss possible barriers to treatment
Sessions 3–12	• Begin in-session, therapist-guided exposure tasks with response prevention • Assign out-of-session, patient-guided exposure "homework" • Review and continue symptom monitoring • Work progressively through hierarchy • Periodically assess OCD symptoms • Discuss and problem solve treatment barriers/noncompliance
Sessions 13–15	• Conduct final exposures • Take steps to promote generalization and maintenance • Have the patient create his/her own hierarchies, develop his/her own ritual prevention strategies, etc. • Prepare for future challenges and create plan for relapse prevention

assessed using the Yale-Brown Obsessive Compulsive Scale (Y-BOCS), which is the gold-standard instrument for assessing OCD symptoms in adults. The Y-BOCS has been shown to be sensitive for detecting treatment-related change so it can be administered repeatedly over the course of treatment to assess treatment gains. It is noteworthy, however, that in addition to the Y-BOCS, several other structured interviews and self-report instruments possess favorable psychometric properties and can be included to aid in the assessment of OCD symptoms. Commonly used structured interviews include the Structured Clinical Interview for the *DSM* (SCID; First et al., 1995) and the Anxiety Disorders Interview Schedule (ADIS; DiNardo, Brown, & Barlow, 1994). Commonly used self-report measures include the National Institute of Mental Health Global Obsessive-Compulsive Scale (NIMH-GOCS; Insel et al., 1983), the Padua Inventory (Sanavio, 1988), the Leyton Obsessional Inventory (LOI; Cooper, 1970), and the Obsessive Compulsive Inventory (OCI; Foa, Kozak, Salkovskis, Coles, & Amir, 1998). Each of these self-report measures show adequate psychometric properties and are relatively brief to complete (see St. Clare, 2003, for a review).

On the Y-BOCS, Caroline received a total sore of 22, suggesting that her symptoms were of moderate severity. As noted above and convergent with the great majority of individuals with clinical OCD (e.g., Foa & Kozak, 1995), Caroline reports both obsessions and compulsions that affect her life in several ways: She spends considerable time engaged in rituals, avoids children and individuals who are ill, avoids some (albeit few) situations and touching of items, and reports that daily activities require considerable effort. In addition, she directly involves her husband in her rituals, which may strain their relationship.

Psychoeducation

Psychoeducation will be provided during the first few sessions of treatment and periodically throughout treatment as necessary. Psychoeducation has several goals, which are summarized in Table 2. In addition to providing basic information about the disorder, it is also important to provide a working model of OCD that focuses on the here-and-now functional relationship between obsessions and rituals. By focusing on the present and future (rather than the past), the therapist can help the patient understand

the need for, and function of, EX/RP and can also help the patient understand that treatment can progress without necessarily knowing or understanding what "caused" the disorder in the first place. For example, it is often the case that patients will ask, "Why do I have OCD?" It is not uncommon for patients such as Caroline to have reviewed and searched events throughout their history for some clue or answer to this question, often with the hope that by discovering what caused the OCD they will be able to somehow fix the problem. For example, Caroline reports a series of unfortunate events that she might believe caused her OCD (e.g., strained relationship with her mother for which she felt a sense of responsibility, physical illness, several unexplained miscarriages, a friend who died from an illness for which Caroline blamed herself). These are certainly unfortunate life events, but these events did not cause Caroline's OCD, nor did Caroline cause these events to occur. When patients are focused on the cause of their OCD, we find it helpful to explain that OCD is a neurobehavioral disorder whose causes are not yet fully understood. Focusing on biological factors helps the patient understand that OCD is a medical illness rather than a "learned habit" that the patient can control with sufficient effort. For some patients, it is helpful to actually describe the neurobiological and neurochemical underpinnings believed to be involved in OCD. We then explain to the patient that there is evidence that if the patient learns EX/RP and changes their behavior, it is possible to directly affect the underlying neurobiological disruption.

In addition to providing essential information about OCD, psychoeducation often helps reduce any self-blame the patient may have and promotes the externalizing of OCD so that the patient can align with the therapist to learn new ways to manage his/her OCD (i.e., engage in EX/RP). Often, patients such as Caroline will make statements such as, "I am, deep down, a horrible person." Such statements are indicative of the level of self-blame and self-criticism some clients exhibit and highlight the importance of good psychoeducation. In this case we might begin by stating, "As I mentioned earlier, OCD is a medical disorder that often makes people feel pretty horrible. As you mentioned earlier, OCD has taken over your life in many ways and you have spent considerable time and effort fighting with your OCD at the expense of doing other things you would like to do. Unfortunately, this fighting hasn't seemed to work. Perhaps it is time to try something new." In addition, this is a good opportunity to introduce the concept of "externalizing" OCD. We might say to Caroline, "It sounds like OCD is telling you that you are a bad person, but one thing about OCD is that it doesn't always tell the truth. Perhaps OCD is telling you things that are not true. Does that seem possible?" We may also ask Caroline, "What makes a person good or bad?" Depending upon her response, we might then help her realize that OCD has prevented her from living her life the way she would like to, which has made her *feel* horrible, but that feeling horrible does not necessarily make her a horrible person. We can then propose that through EX/RP, Caroline can learn skills that will help her to function on a day-to-day basis. For example, if she learns to change her behavior so that she can pursue more enjoyable activities, she may feel better and less like a horrible person. Externalizing OCD is a therapeutic technique that should be used throughout treatment. It is designed to distance the patient's thoughts from his/her behavior and to align the patient and therapist as a "team" that is working toward changing the patient's behavior.

Providing a Cogent Rationale for EX/RP

From the perspective of EX/RP, further attempts to discover the cause of OCD beyond those presented in psychoeducation are not likely to enhance treatment. The primary goal of EX/RP is to help the person understand how their rituals are *currently* maintained, not how they came to be in the first place. Specifically, emphasis is placed on helping the person to understand that obsessions give rise to distress, compulsions reduce distress, and any behavior designed to reduce this distress will be strengthened and repeated. This focus on the present helps set the stage for EX/RP by providing a rationale for response prevention. Simply put, the rationale is that rituals (i.e., avoidance) are the problem because they "feed" the obsessions, which in turn elicit anxiety and discomfort. It is critically important, however, to convey to the patient that the reduction in the frequency and intensity of obsessional distress is a process that will occur over time with repeated exposure, and that in fact the short-term goal of the treatment is to *increase* this distress by intentionally confronting the very situations and thoughts that will provoke it. Put another way, we emphasize the importance of increasing distress and discomfort (focus on the present), with the knowledge that empirical studies have indicated that, over time, the patient's anxiety and distress will decrease.

Focusing on the functional relationship between obsessions and compulsions also underscores the importance of making efforts to limit rituals and other avoidance behaviors rather than trying to derail or change obsessions. This emphasis is essential to convey because many individuals with OCD are highly motivated to "fight" to control their obsessions. Ironically, however, fighting with obsessions is likely to do more harm than good, as there is considerable evidence to show that attempting to control obsessions is likely to increase their frequency and intensity (Clark, Ball, & Pape, 1991). This concept is introduced early in treatment in order to help the patient understand that trying to fight obsessions is much like "shoveling sand." The strong emphasis on ritual prevention helps highlight

the message that while the patient can exert some control over the performance of rituals, he/she cannot control (i.e., "stop") the thoughts or associated distress.

The rationale for ritual prevention should be broached carefully, as even the thought of refraining from performing rituals can elicit considerable anxiety, especially early in treatment. We often find it helpful to begin with examples unrelated to OCD. For example, we might ask Caroline, "Were you nervous the first time you went on a date with your husband?" If she answers "yes," then we can use this as a nonthreatening way to introduce the principles of EX/RP. For example, we might present the following: "It is normal to feel anxious during a first date, but, had you avoided dating because of your first date anxiety, what do you think would have been the outcome?" The goal is to help Caroline understand that if she had avoided her first date with her husband, she may not have developed a relationship with him, regardless of how much she desired one. In addition, we might ask Caroline "How nervous were you on the second date, third date, etc.?" or "How nervous are you to go on a date with your husband now?" and "Are you glad that you went on that first date?" The goal here is to use a non-threatening example to help Caroline understand that the more dates she attended with her husband, the easier it became. The possibility that a similar process might be applicable to OCD is introduced as a hypothesis to be tested through EX/RP. In other words, the goal is to help Caroline understand and accept that if she works with the therapist to learn a specific set of OCD management skills in which she is able to gradually reduce her ritualistic behavior, she will be better able to function on a day-to-day basis *despite* having OCD. By doing so across the board, interestingly enough and as the treatment outcome data in OCD repeatedly support, the frequency and intensity of the obsessions are likely to diminish with time. Thus, by paying less attention to obsessions in the short run, the therapist can make the empirically supported statement that their pernicious influence *as well as* their frequency will likely be reduced.

It is often the case that even after an individual gains an understanding of the principles behind EX/RP, they remain understandably hesitant to fully engage in the treatment because they quickly understand that they will be asked to tolerate discomfort (we often refer to this as the "You want me to do what?" phenomenon). The therapist might address this by helping Caroline understand that she is already tolerating great levels of discomfort, but toward no useful end. This is also when the therapist introduces the concept of extinction, which, simply put, can be summarized as "maybe you have to let yourself feel bad to feel good" and posed as a hypothesis that perhaps "the more you do it, the easier it gets." Although the immediate focus of therapy is reducing rituals, patients with a sufficient understanding of the EX/RP model quickly come to realize that by refraining from rituals, they are likely to experience a significant reduction in anxiety in the long run because they are no longer performing the escape/avoidance rituals and are thereby allowing extinction to occur. They are no longer "feeding the beast," as it were.

The Nuts and Bolts of EX/RP

After the client is on board with EX/RP, it is important to gather information about anxiety "triggers" and to help the client recognize their rituals, which is often difficult because some patients' rituals have become so habitual that they may be unaware of their performance. Helping a patient to recognize triggers and rituals is accomplished through a combination of clinician interview and self-monitoring. Self-monitoring forms can be easily developed to help patients record and recognize, in real-time, instances of ritualizing. When completing a self-monitoring form, it is important to not just record the time, frequency, and duration of rituals, but also to record contextual factors and information about obsessions (i.e., feared consequences) so that OC triggers can be identified. For example, triggers for Caroline might be leaving in the morning (having to say "goodbye" to her husband), crowded places where she might spread her "dust" to others, the sight of children, and social encounters that might require a hand-shake greeting.

Early in treatment, it is also helpful to teach patients a method for quantifying anxiety. This is typically accomplished using a Subjective Units of Distress Scale (SUDS). SUDS refers to a metric in which the client rates her anxiety on a 0-to-100 scale, with 0 indicating no distress and 100 indicating to maximum distress. The SUDS scale can be used to determine the level of anxiety triggered by various obsessions/triggers and will be essential for building a fear hierarchy. It also allows a very succinct way to convey the level of distress being experienced in a given exposure. The therapist can use this technique to begin constructing a hierarchy of feared situations that will be used during EX/RP. Sample hierarchies[2] for two of Caroline's primary fears and associated SUDS ratings are presented in Tables 3 and 4.

[2] Note that these hierarchies are presented in a somewhat simplified manner. Hierarchies are highly individualized to the patient and the individual's unique presentation of OC symptoms. In addition, hierarchies can include from a few to several dozen items and a single client may have multiple hierarchies for various obsessional fears. For Caroline, multiple hierarchies might be constructed to address each of her obsessions and associated rituals. We often tell clients that hierarchies are a bit like the Hawaiian Islands; there is a big island and several smaller islands, but we deal with them all the same way: low, medium, high, move on . . . low, medium, high, move on. In addition, hierarchies will likely be modified and expanded over the course of treatment.

After a sufficient hierarchy is developed (typically by Session 3), patients are ready to begin exposure exercises. Exposures begin with moderately easy items (typically SUDS ratings of 30 or less) and gradually work their way up the hierarchy to more difficult items. Exposure tasks are conducted in session (with the therapist) but the bulk of the exposure work is assigned as between-session homework, which the patient completes without assistance from the therapist. The combination of therapist and self-performed exposures is important as there is some evidence to suggest that patients who receive therapist-assisted exposures demonstrate greater symptom reduction than patients who perform only self-guided exposure exercises (Abramowitz, 1996). On the flip side, it is not practical for the patient to conduct all of their exposure work in session and learning to conduct self-exposures promotes treatment generalization.

Each exposure should be repeated several times until the patient is able to complete the exposure task with minimal effort and with complete ritual prevention. For example, in order to monitor the effectiveness of exposure exercises, Caroline will be asked to complete an exposure record in which she records her anxiety before, during, and after each exposure and she should not move from the first hierarchy item (e.g., shaking her husband's hand) to the second item (e.g., shaking a family member's hand) until she is able to complete the first item with minimal effort and without praying or "vacuuming" her "bad dust." As a general rule, the most important aspects of successful exposure are to (a) conduct exposure exercises that are manageable, (b) refrain from all ritualistic behavior during the exposure, (c) continue the exposure until it can be performed with relative ease both inside and outside of therapy sessions, (d) conduct the exposure repeatedly.

Table 3
Sample hierarchy for Caroline's fear that shaking hands and saying "goodbye" might befall harm on those around her

Hierarchy Item (without praying or "vacuuming")	SUDS
Shake husband's hand	20
Shake family member's hand (and not see that person again for 24 hours)	30
Say "goodbye" to husband over the telephone	40
Shake the hand of a familiar child	45
Shake the hand of an unfamiliar child	50
Shake the hand of a sick child	55
Say "goodbye" to husband over telephone + imagine he dies	65
Visit sick friend and shake his/her hand	70
Visit sick friend and say "goodbye"	75
Visit sick friend + shake his/her hand + say "goodbye"	80
Shake her husband's hand, say "goodbye," and state to herself "I hope you die"	90
Visit a sick friend, shake his/her hand, say "goodbye," and state to herself "I hope you die"	95
Touch ill friend + purposely blow "dust" on that person + say "goodbye" + state to herself "I hope you die"	100

Table 4
Sample hierarchy for Caroline's fear of spreading cancer

Hierarchy Item (without washing)	SUDS
Visit someone ill, delay hand wiping for 30 minutes	30
Visit someone ill, no hand wiping	40
Visit someone ill, no hand wiping or hand washing	45
Visit someone ill, no hand wiping, washing, or changing/washing clothes	50
Wear clothes (unwashed) day after visiting someone ill	55
Visit someone ill, husband shakes their hand, Caroline shakes husband's hand, no wiping or washing (ritual prevention by both husband and Caroline)	65
Visit someone ill, husband shakes their hand, Caroline shakes husband's hand + complete ritual prevention (no wiping, washing, cleaning, showering)	70
Visit someone ill, Caroline shakes their hand, + complete ritual prevention (no wiping, washing, cleaning, showering)	75
Visit someone ill, Caroline shakes their hand, no wiping or washing or changing clothes	80
Visit someone ill, Caroline shakes their hand, + complete ritual prevention (no wiping, washing, cleaning, showering)	90
Visit someone ill, Caroline shakes their hand, + imagine they get cancer and die + complete ritual prevention (no wiping, washing, cleaning, showering)	95
Visit someone ill, Caroline shakes their hand, + shake another person's hand (i.e., purposely "spread cancer") + complete ritual prevention (no wiping, washing, cleaning, showering)	100

As treatment progresses, it is important to repeatedly monitor and assess a patient's OC symptoms and add items to the hierarchy as necessary. However, the goal for treatment is not only to help the patient work through their hierarchy, but also to teach the patient to monitor OC symptoms, create new hierarchy exercises, and to conduct exposure exercises for new hierarchy items. In other words, the goal is to teach the patient a set of skills to help them manage their anxiety or "be their own therapist." For example, after mastering several items on her hierarchy, Caroline may disclose that "I am finding that I am vacuuming more than I used to when I am around children." Such a realization would be a good opportunity for the therapist to assess Caroline's mastery of EX/RP by having her develop her own exposure hierarchy to address this ritual (e.g., visit a familiar child, shake a child's hand, babysit a friend's child, visit a child care center, etc.). We often tell our clients that the ultimate goal of treatment is to make the patient an OCD and EX/RP expert, thereby making the therapist no longer necessary.

The last few sessions of treatment will focus on working through the most difficult items on the hierarchy and relapse prevention. If feasible, we prefer to have a patient work through the most difficult items on their hierarchy before treatment is terminated, but unfortunately this is not always feasible. However, if treatment has been successful, Caroline has learned to identify and monitor her OC symptoms and how to plan and build exposure exercises to address them. During the last few sessions, the therapist should work with Caroline to identify, and prepare for, future challenges and problem solve how to address them. This may include follow-up sessions and/or telephone calls with the therapist, recruiting family members to provide support, and/or reviewing treatment information.

Possible Difficulties and Barriers to Caroline's Treatment

Perhaps the most common barriers to treatment are noncompliance with exposure exercises and difficulties achieving successful response prevention. In the former case, it is important to work with the client to attempt to determine factors affecting treatment compliance. Common reasons include lack of motivation, misunderstanding/disagreement with the behavioral model, interpersonal factors or poor therapist-client match, moving too rapidly up the stimulus hierarchy, and comorbid or co-occurring psychological issues such as depression or social anxiety that may be more pressing and need to be addressed first. When a client understands the model and seems motivated for treatment yet is having difficulty with exposures or response prevention, it is important for the therapist to consider whether treatment is appropriately tailored for the particular client. For example, is the hierarchy appropriately constructed? Are the exposures relevant? Are the exposures too difficult? Treatment noncompliance should be addressed early in treatment and should be an iterative problem-solving process between the therapist and client.

Another common barrier to treatment is unintentional subtle avoidance, which often takes the form of substituting one obvious ritual for a less noticeable ritual that serves the same anxiety-reducing function. In most cases, patients are unaware that they are engaging in subtle avoidance. For example, a person with hand-washing rituals associated with contamination fears might learn to refrain from washing his/her hands, but might (either unwittingly or purposefully) wipe his/her hands on another surface to remove contamination. Another example of subtle avoidance is reassurance seeking. Caroline might have mastered several items on her hierarchy—for example, she may be able to attend a public event without praying, but she may ask the therapist, "I feel like I cause misery and death wherever I go; do you think I am causing harm to people around me?" In this case, Caroline may be seeking reassurance from the therapist to confirm that she is in fact *not* causing harm. The therapist must be careful in how he/she answers reassurance-seeking questions. If the therapist answers, "No, I don't think you are causing harm to people around you," the therapist can very easily reinforce OCD by reducing Caroline's anxiety (albeit incidentally). In fact, reassurance seeking is a common ritual in OCD than can be easily overlooked by both the therapist and the client. We might respond to such reassurance-seeking questions by stating, "Who is asking, you or OCD? It sounds to me that perhaps OCD is trying the back door technique. Do you think it is possible that OCD is telling you that you are causing harm because you are no longer ritualizing? Based on your experiences in therapy thus far, how would you answer OCD?" By turning the question back on the patient, the therapist can help the patient recognize subtle avoidance. In doing so, however, a patient might think that they have suffered a treatment setback because they did not recognize this subtle form of ritualizing. When this occurs, the therapist might state, "These forms of subtle avoidance need to be carefully attended to but can be viewed as treatment progress. It sounds like OCD's old tricks (i.e., old rituals) are no longer working so OCD is trying to trick you into other ways of ritualizing." We would then send the patient home to carefully monitor for any other subtle "tricks" that OCD may be attempting to pull.

Yet another factor that may complicate treatment arises when a patient's family members have become involved in rituals. This is especially common for children (who involve their parents) and individuals within intimate relationships (e.g., spouse). There is some evidence that Caroline has involved her husband in her rituals. Specifically, she asks him to wash his hands and clothing in order to prevent him from becoming ill. It would be beneficial to include Caroline's husband in treatment for two reasons. First, exposure exercises might include him directly. For example, an exposure exercise might involve having him visit someone ill or go to the hospital and come home but not wash his clothes. Second, he can serve as a model and support person for Caroline by helping her identify subtle rituals, provide encouragement, help her problem solve difficult situations, and model "normal" behavior in situations in which Caroline has a history of ritualizing. Ideally, Caroline's husband would be involved in all aspects of treatment; however, at a minimum it would be helpful if he understood the treatment model, the rationale for treatment, and was willing to participate in specific exposure exercises.

A final factor that might complicate treatment is the presence of a comorbid psychological disorder. In addition to OCD, Caroline suffers from other sources of

anxiety, many of which are related to social situations. Specifically, she reports having difficulty attending parties, public speaking, writing in public, eating in public, using public restrooms, being assertive, and initiating/maintaining a conversation, and fear of embarrassment. She also reports feeling "inferior." Also consistent with anxiety, she engages in a variety of avoidance behaviors to lessen her distress, including dressing conservatively and avoiding social situations. Although these factors might complicate treatment (e.g., Caroline may try to please the therapist, refuse treatment exercises such as writing, etc.), the therapist can easily work with Caroline to help her realize that, just as in OCD, other sources of anxiety can be subsumed under the same model; that is, avoidance is strengthened by the removal of anxiety and the more you do it, the easier it gets. Caroline's social anxiety might well be incorporated directly into treatment. In fact, discussing this source of anxiety is a good opportunity to test whether she understands the basic premise behind the behavioral model of anxiety and to have her develop and implement exposure exercises.

What Does the Future Hold for Treatment?

As noted above, there is a large body of research supporting the use of EX/RP for OCD. Caroline's prognosis will depend largely upon her progress during treatment. Most studies assessing long-term follow-up suggest that the majority of patients that respond to CBT maintain their treatment gains and that the better a person does in EX/RP in the short run the better off they will likely be in the long run (Simpson et al., 2005; Whittal et al., in press). Caroline has several indicators of a positive prognosis, including the fact that she is seeking treatment (suggesting some level of motivation), has a social support system (husband and family), and a symptom profile that is amenable to EX/RP. However, as a general rule, we tell patients to expect that there will be periodic instances in the future that will prompt OCD exacerbations while simultaneously encouraging them that if they anticipate and recognize these flare-ups, they now have the tools necessary to help them effectively manage the symptoms.

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