



Contents lists available at SciVerse ScienceDirect

Journal of Obsessive-Compulsive and Related Disorders

journal homepage: www.elsevier.com/locate/jocrd

Clinical Report

Common pitfalls in exposure and response prevention (EX/RP) for OCD

Seth J. Gillihan^{a,*}, Monnica T. Williams^b, Emily Malcoun^a, Elna Yadin^a, Edna B. Foa^a^a Center for the Treatment and Study of Anxiety, Department of Psychiatry, University of Pennsylvania Perelman School of Medicine, 3535 Market Street, 6th Floor, Philadelphia, PA 19104 USA^b Center for Mental Health Disparities, University of Louisville, 2301 South Third Street, Louisville, KY 40292 USA

ARTICLE INFO

Article history:

Received 7 March 2012

Received in revised form

26 April 2012

Accepted 3 May 2012

Available online 30 May 2012

Keywords:

Obsessive-compulsive disorder
Exposure and response prevention
Treatment
Cognitive-behavioral therapy
Anxiety

ABSTRACT

Obsessive-compulsive disorder (OCD) is a highly debilitating disorder. Fortunately there are treatments that help the majority of OCD sufferers. The behavioral treatment with the most empirical support for its efficacy is exposure and response prevention (EX/RP). Over the years in our supervision meetings and in our clinical practice we have noted a number of relatively common therapist pitfalls that decrease the effectiveness of EX/RP. These pitfalls include not encouraging patients to approach the most distressing situations, doing imaginal exposure when in vivo is called for (and vice versa), encouraging distraction during exposure, providing reassurance, failing to address the core fear, ineffective handling of mental compulsions, and difficulty working with close others in the patient's life. In the current article we describe these common pitfalls and how to avoid them.

© 2012 Elsevier Ltd. All rights reserved.

1. Introduction

Obsessive-compulsive disorder (OCD) is a relatively common and highly debilitating disorder with a 2.3% lifetime prevalence in the U.S. population (Ruscio, Stein, Chiu, & Kessler, 2010). As many as 90% of OCD sufferers meet criteria for a comorbid disorder, most commonly another anxiety disorder followed by mood, impulse control, and substance use disorders. OCD is associated with a significant degree of impairment, with approximately two out of three individuals reporting severe impairment in major life domains (e.g., work, relationships); individuals with OCD spend an average of almost 9 years with active OCD (Ruscio et al., 2010).

Fortunately there are effective pharmacological and cognitive behavioral (CBT) treatments that help the majority of OCD sufferers. The CBT program with the most empirical support for its efficacy (Abramowitz, Taylor, & McKay, 2009; National Institute for Health and Clinical Effectiveness, 2006) is exposure and response prevention (also called exposure and *ritual* prevention; abbreviated EX/RP or ERP). As the name implies, EX/RP is based on the principle of exposure to stimuli that evoke obsessional distress without performing the rituals (compulsions) that aim at reducing that distress; exposures may be conducted in real life (in vivo) or in imagination (imaginal). For example, an in vivo exposure for an OCD sufferer with contamination concerns might involve touching a doorknob perceived to be “dirty” (the distressing stimulus)

without the compulsion of excessive hand washing; an imaginal exposure could comprise thinking about the possible consequences of contamination-related exposures without rituals (e.g., contracting a terrible disease). With repeated exposure and ritual prevention, the distress associated with stimuli that trigger obsessions decreases, and the associated urges to ritualize decrease. EX/RP has a structured manual that fully describes the treatment and the procedures used in each session (Foa, Yadin, & Lichner, 2012).

Randomized controlled trials (RCTs) have found that EX/RP is more effective than placebo, the tricyclic antidepressant clomipramine (Foa et al., 2005), and anxiety management (Lindsay, Crino, & Andrews, 1997) in treating OCD. Foa et al. (2005) found that 86% of EX/RP completers responded to the treatment versus 48% for clomipramine and 10% for placebo. Improvements tend to be sustained at follow-up; for example, within-group effect sizes on OCD severity associated with twice-weekly EX/RP were large both at post-treatment ($d=1.80$) and at 3-month follow-up ($d=2.12$; Abramowitz, Foa, & Franklin, 2003). Thus EX/RP can lead to large and sustained reductions in OCD symptoms. A meta-analysis of RCTs that examined CBT programs for anxiety disorders found that EX/RP for OCD produced the largest average effect size compared to CBT for other anxiety diagnoses (Hofmann & Smits, 2008). Furthermore, EX/RP can successfully augment treatment with serotonin reuptake inhibitors significantly more than anxiety management training (Simpson et al., 2008).

Despite the seeming simplicity of EX/RP, some practitioners struggle to deliver it effectively. To understand the ways in which EX/RP can be rendered less effective, it is helpful to consider how the treatment reduces OCD symptoms (see Foa et al., 2012,

* Corresponding author. Tel.: +1 215 746 3327; fax +1 215 746 3311.
E-mail address: sethgillihan@gmail.com (S.J. Gillihan).

chapter 3). Through EX/RP, patients learn that their anxiety/distress and urge to ritualize decrease even when they refrain from rituals. As a result, the urge to ritualize is weakened. Additionally, patients with OCD can experience disconfirmation of their feared consequences. By repeatedly confronting distressing stimuli (e.g., touching toilet seats), the individual learns that the feared outcome (e.g., contracting HIV) does not occur. Even if their distress does not diminish during the exposure session, patients learn experientially that they can tolerate the distress that obsession-related stimuli provoke—that is, their “fear toleration” (Craske et al., 2008) increases. In the process they learn that they do not “go crazy” or “fall apart” when experiencing states of high anxiety. Crucially, the exposure must be done without rituals, as exposure without ritual prevention is not effective (Foa, Steketee, Grayson, Turner, & Latimer, 1984). Like safety behaviors, performing rituals during or immediately after the exposure prevents disconfirmation of the feared consequences (e.g., sitting on the floor without washing and cleaning will cause severe infection) and learning that anxiety and distress during exposure decrease even without compulsive behaviors.

As noted above, while the techniques involved in EX/RP are very straightforward—exposure to stimuli that provoke obsessions, cessation of compulsive behaviors—the practice of EX/RP is more complex. This complexity is apparent in mistakes that new EX/RP therapists make while learning the treatment and from stories that we hear from OCD patients at the Center for the Treatment and Study of Anxiety (CTSA) who describe some of their past experiences with EX/RP. Over the years we have noted a number of relatively common pitfalls that reduce the efficacy of EX/RP by interfering with the mechanisms that are viewed to underlie successful EX/RP (see Moscovitch, Antony, & Swinson, 2009). This article aims to describe these common mistakes and to provide instruction on how to avoid them. These pitfalls include not encouraging patients to approach their most distressing situations, doing imaginal exposure when in vivo would be better, encouraging distraction during exposure, providing reassurance, failing to address the core fear, ineffective handling of mental compulsions, and difficulty working with close others in the patient's life. We will address each of these potential problems in turn. The issues we present complement previous work in this area, especially that of Abramowitz, Franklin, and Cahill (2003) and Pence, Sulkowski, Jordan, and Storch (2010). We refer the reader to relevant articles in the sections that follow.

2. Not encouraging patient to go far enough in exposures

In order to be effective, EX/RP must fully address the avoidance and rituals that the patient falsely believes are preventing the feared outcomes from occurring. The goal is to maximize disconfirmation of the obsessional concerns, thereby minimizing the likelihood that the patient will attribute the non-occurrence of the feared outcomes to compulsions or avoidance. Leaving untreated areas in OCD is problematic because it makes relapse more likely. Therefore the top of exposure hierarchies often involve activities that go beyond what people without OCD typically do. For example, a patient with contamination concerns related to the toilet might eat food that has been placed on a toilet seat. Patients sometimes protest that they should not do things that people without OCD do not normally do. However, while the goal of EX/RP is to help patients resume ordinary behaviors, treatment often requires extraordinary exposures to be most effective. The purpose of this exposure is not to be extreme per se but to promote full recovery by removing the possibility that the person will attribute the lack of harm to avoidance of the most feared obsessional content. We sometimes liken OCD

treatment to treating cancer: All the cancer cells must be removed or else the remaining cells will grow and spread; the surgeon cannot leave behind some cancer cells simply because they are more difficult to remove. In the same way, leaving “safe areas” in OCD treatment by not aiming high enough when designing the exposure hierarchy virtually ensures that the patient will experience a relapse. Of course, EX/RP does *not* involve exposures with a high risk for negative outcomes, such as handling HIV-infected human blood. While EX/RP exposures may at times be “extreme” compared to what people typically do, they place patients and therapists at no substantially greater risk for bad outcomes than what people generally encounter.

An essential part of helping patients to go to the top of their hierarchy is ensuring that they complete the agreed upon exposures (see Abramowitz et al., 2003). Patients often will balk at an exposure they had planned to do if their anxiety is activated and they are having strong obsessions. Many EX/RP therapists, particularly ones new to the practice of EX/RP, find it difficult to encourage—and at times push—patients to do things that make them temporarily uncomfortable. Thus when patients resist a planned exposure, some therapists too readily go along with the patient's desire to avoid. However, it is crucial in these moments that the therapist take the lead in the treatment and encourage the patient to continue with the planned exposure. With gentle and firm persistence on the part of the therapist, most patients are able to push through their initial hesitation.

The key to helping patients confront feared stimuli is to balance being accepting and non-punitive on the one hand and emphasizing the importance of the exposure on the other. As Abramowitz (2006, chapter 14) suggests, an important first step may be for the therapist to ask why the patient is not willing to do the exposure. It is important to review with the patient the rationale for EX/RP, as well as revisiting the cost of living with OCD and what motivated the patient to come for treatment (e.g., “I want to spend time with my kids instead of doing rituals all the time”). It also can be helpful to draw the patient's attention to his strengths: “I believe you can do this”; “Remember how you confronted exposures lower on your hierarchy and it got better”; “You're strong enough to face your fears.” The role of the EX/RP therapist is like that of a coach who encourages an athlete to work as hard as possible in order to maximize performance. Patients often report that being encouraged to push through their resistance to exposure was one of the most important parts of their recovery from OCD. Indeed, the strong desire to avoid a particular exposure commonly reflects the importance of that exposure for the patient. As we typically tell patients at these times, “This is a chance to really stick it to OCD.”

Occasionally a patient will refuse to do an exposure despite the therapist's persistent encouragement. At these times the therapist should keep an optimistic demeanor and work with the patient to identify a challenging yet approachable exposure: “All right, that feels too hard for right now. What are you willing to tackle today?” For example, a patient who is unwilling to put his entire hand on the carpet can be encouraged to start with one fingertip. Thus the therapist emphasizes that work will continue in the direction of the planned exposures.

3. Choosing the wrong form of exposure (in vivo Vs. imaginal)

Therapists who treat OCD have several tools at their disposal, including imaginal and in vivo exposures. In vivo exposure involves having patients come into contact with actual stimuli or situations related to their obsessions. In vivo exposure in EX/RP may involve, for example, driving (harm-related OCD), touching raw meat (contamination-related OCD), or writing “666” (scrupulosity-related

OCD). In vivo exposure likely operates through multiple mechanisms to produce symptom relief (for a review of possible mechanisms see Moscovitch et al., 2009). First and foremost, in vivo exposure provides direct and powerful disconfirmation of a patient's feared outcomes. For example, the patient who touches doorknobs disconfirms the belief that he will contract a deadly virus from such contact. Interestingly, patients sometimes report no longer believing that their feared consequence will happen even if the event is relatively far in the future and could not logically have been disconfirmed—for example, the fear that one will go to hell for blasphemy. Thus patients can benefit in the short term from in vivo exposure the results of which could take months or years to know for certain. Additionally, patients learn through in vivo exposure that distress related to their obsessions does not last forever; as mentioned above, patients also learn that they are better able to tolerate states of high anxiety than they thought, and that they do not “go crazy” from high anxiety. Thus patients may be more willing to resist urges to ritualize to escape high anxiety knowing that they have the strength to handle obsession-related distress.

Imaginal exposure, on the other hand, is designed to allow patients to confront their anticipated catastrophes related to their obsessions. To conduct an imaginal exposure, the therapist and patient develop a detailed story about the worst outcome of the patient's obsessive fear. The story will describe a catastrophe that is a direct result of the patient's failure to perform rituals; the patient's task is to imagine the scenario vividly while being confronted with the narrative over and over. Distress levels are assessed at various points throughout the narrative to assure that the story is evoking enough anxiety to be productive. The exposure typically is recorded to facilitate repeated listening as homework (Abramowitz & Zoellner, 2002; Freeston, Léger, & Ladouceur, 2001). Situations especially appropriate for an imaginal exposure are those in which the patient fears he may change in a fundamental way (e.g., becoming a pedophile), cause a distal catastrophe (e.g., starting a chain of events that results in an airplane crash), or when the result of failing to do a ritual is far in the future (e.g., dying from AIDS; Williams, Powers, & Foa, 2012).

As with in vivo exposure, several mechanisms are believed to underlie the effectiveness of imaginal exposure (see Moscovitch et al., 2009). First, by repeating the distressing ideas in the form of a narrative, the person with OCD learns that dwelling on the thoughts does not make them occur. Thus imaginal exposure can address the “thought-action fusion” (TAF; Shafran, Thordarson, & Rachman, 1996) that commonly occurs in OCD—that is, that thoughts are the same as actions (see Abramowitz et al., 2003, for recommendations about how to work with patients' TAF in OCD). Consequently, patients may begin to assign a lower probability to the feared outcome. Second, repeated encounters with the imagined scenario lead to a reduction in associated distress; as a result, patients may assign a lower cost to the feared outcome, leading to further reductions in obsessions. Third, the decreased distress that patients experience after repeated imaginal exposure disconfirms their belief that confrontation with obsession-related material will (a) invariably provoke distress and (b) be so upsetting that the patient will “fall apart.” Over time, the person gains a new perspective on the fear and is able to appraise it more objectively (Foa & Wilson, 2001).

Sometimes therapists conduct an imaginal exposure in a situation where an in vivo exposure is possible—for example, having a patient with contamination concerns imagine using a dirty public restroom. Real-world exposure to feared stimuli produces disconfirmation of the feared outcome because the individual confronts the feared stimulus and learns that the feared disasters do not materialize. This kind of disconfirmation cannot occur via imaginal exposure because no actual contact with the feared stimulus or situation occurs. Therefore patients

can always attribute the lack of negative outcome following imaginal exposure to the fact that they did not actually experience the avoided situations. Furthermore, in vivo exposure typically is devised based on activities the patient has been avoiding and therefore will allow the patient to reincorporate these activities into daily life. Patients treated with in vivo exposure improve further at follow-up than those treated with imaginal exposure alone (Foa, Steketee, & Grayson, 1985). For these reasons it is important that therapists employ in vivo exposure whenever appropriate.

On the other hand, the failure to use imaginal exposure when called for robs the patient of a crucial opportunity to confront their “core fear”—that is, the feared consequences that may drive the obsessional fears and subsequent rituals. This issue is addressed at length in a later section (“Treating the Peripheral Symptoms and Not the Core Fear”). The combination of in vivo and imaginal exposure can be a powerful intervention, with imaginal exposure done either during or immediately following in vivo exposure. For example, a patient might touch a toilet seat while imagining a chain of negative outcomes that culminate at the core fear. It may also be more efficient to combine these interventions rather than applying them separately. In vivo exposure may “prime” the effectiveness of imaginal exposure through activating the expectation of danger; in a complementary way, imaginal exposure can enhance the effects of in vivo exposure by focusing the patient's attention on the consequences that they fear.

4. Encouraging distraction during exposure

The goal of exposure in EX/RP is to face the obsession-provoking stimuli head-on, without tricks or subtle forms of avoidance. While there is still debate about the effect of distraction during exposure in EX/RP, we take the view that attention to the obsessional content is required for good outcomes in EX/RP. Multiple studies have found that exposure works better when patients focus their attention on the feared stimulus rather than distracting themselves during exposure (e.g., Grayson, Foa, & Steketee, 1982, 1986; Kamphuis & Telch, 2000). Although some studies have found distraction during exposure to be helpful (e.g., Johnstone & Page, 2004; Oliver & Page, 2003), these studies did not examine distraction in the context of exposure for OCD.

A review of distraction in the context of exposure therapy (Parrish, Radnosky, & Dugas, 2008) defined aspects of distraction that make it more or less likely to interfere with the efficacy of treatments like EX/RP. First, distraction will tend to be detrimental to treatment outcome when it interferes with a sense of self-efficacy. Some therapists will encourage patients to confront feared stimuli and then will instruct them to engage in some form of distraction, such as thinking about topics unrelated to the exposure. Such instruction creates a mixed message in EX/RP, that on the one hand the patient needs to approach feared stimuli and on the other that the patient is not able to handle “undiluted” confrontation with these stimuli. As such, distraction interferes with the potential disconfirmation of the belief that the patient cannot tolerate high levels of anxiety. Second, distraction should not demand too many attentional resources; while some forms of conversation during exposure may be acceptable, discussions about complex matters that make the patient forget about the exposure are likely to have a negative effect on outcome. Third, distraction may be beneficial if it allows a patient to complete exposures and disconfirm his or her OCD-driven expectations. Again, care must be taken to ensure that the patient is still aware of the exposure. Finally, distraction will detract from treatment outcome when patients believe that the feared outcome did not happen *because of* the distraction. If patients

make this attribution they will not have disconfirmed their expectation of danger; furthermore, they run the risk of making distraction another form of ritual.

A more subtle form of distraction can occur when patients, intentionally or not, distance themselves emotionally from the exposure—for example, by thinking about other things during exposure. Therefore it is important for the therapist to be attentive to what the patient is thinking and doing during exposure and, as necessary, to redirect the patient back to the exposure and to the feared consequences of that exposure.

5. Providing reassurance

The majority of people with OCD often feel the need to be reassured in regard to their obsessions; patients with religious and sexual obsessions are the most likely to seek reassurance to cope with obsessions (Williams et al., 2011). Most therapists have been trained to provide reassurance to patients as needed, and certainly a small amount of reassurance is appropriate at times, particularly early in the treatment process with patients who need corrective information related to their obsessive concerns. For example, a patient with fear of being a child molester who clearly has no sexual interest in children can be reassured early in treatment that he has OCD and does not seem to be a pedophile; the therapist can explain the difference between the sorts of thoughts a pedophile would have in contrast to those of someone with OCD. However, repeated requests for reassurance are an OCD ritual, and like all rituals, these must be stopped if the patient is to make progress (Abramowitz, 1996; see also Abramowitz et al., 2003).

Reassurance interferes with progress in EX/RP because it prevents direct exposure to the actual feared situation, which involves being somewhat uncertain about the consequences of the exposure (Abramowitz et al., 2003). Patients with OCD must learn to reduce their fear of uncertainty and resist urges to attain certainty so that they learn that even without the provision of reassurance they can tolerate high distress, and that the distress often will abate in the absence of rituals.

In treatment, the therapist should explain to the patient that requests for reassurance will not be granted, and teach their patients to stop reassurance-seeking. Furthermore, friends and family should not be used as a source of reassurance by the patient (see later section “Working With the Patient’s Significant Others”). Inexperienced therapists may unwittingly spend whole sessions providing reassurance to their OCD patients—for example, by telling them how unlikely their feared consequences are to occur—which is counterproductive to recovery as it serves the same function as rituals. It is important to note the difference between praising or reinforcing the patient for engaging in exposures (reinforcing non-OCD-driven behavior) and reassuring the patient that their feared consequence will not occur.

6. Treating the peripheral symptoms and not the core fear

During initial treatment planning in EX/RP, the therapist and patient collaboratively develop a hierarchy of exposures that will trigger the patient’s obsessional distress. Many persons who have been suffering from OCD start treatment with a myriad of symptoms that encompass a broad spectrum of obsessions and compulsions. For example, an individual with scrupulosity concerns might avoid numbers associated with the Devil, repeat ritualized prayers, avoid saying certain words, and repeat actions if performed while thinking of the Devil.

Such an abundance of rituals can seem overwhelming and insurmountable to the patient, as well as to the therapist, whose

task is to help patients make sense of their condition and to offer them effective treatment in a manageable timeframe. Therefore an important part of the therapist’s job is to identify the “core fear” that often underlies all of the OCD-related concerns. The individual with scrupulosity OCD, for example, might have a core fear of going to hell. If the items on the exposure hierarchy are approached only at their face value (e.g., exposing the patient to the number “6”), the patient may do well on those items and be able to reduce ritualizing when confronted by those particular triggers. However, since the underlying obsession unifying all of the ritual presentations has not been identified and developed into an exposure, treatment is likely to proceed slowly. Furthermore, it is possible that new avoidances and/or rituals will replace the ones eliminated through the EX/RP exercises.

To achieve a faster, more generalized therapeutic effect and improve prognosis for relapse prevention, it is essential to identify early on in therapy the underlying core fear that may be contributing to the abundance of ritual presentations. Some common examples of the obsessional “well” that can feed the sufferer’s fears are: being responsible for harm, going “crazy,” being a bad or immoral person, contracting a fatal disease, dying, suffering, being an outcast, or going to hell. It is crucial to identify the precise core fear, which may not be apparent at first. For example, one patient with obsessions related to the possibility of being gay was not very distressed by an imagined scenario of having a torrid gay love affair; rather, his core fear was that he would realize he was gay, come out to his family, and as a result would lose the people in his life that he loved the most.

For many core fears, the use of imaginal exposure to the worst-case scenario (in combination with in vivo exposures and ritual prevention) yields the best results. Patients imagine that a disastrous event happens because they failed to perform their rituals; after repeated use of these imaginal exposure techniques, patients are better able to tolerate the distress associated with the imagined disaster. As a result, they are able to give up behaviors that artificially neutralize their distress or prevent their feared consequences from happening. Additionally, as discussed above, imaginal exposure provides a major opportunity for disconfirmation of patients’ belief that thinking about terrible outcomes can make them happen (thought-action fusion). An example of an abbreviated imaginal exposure script about responsibility for harm is found in Table 1.

Patients can also be encouraged to assess whether other avoidances or rituals are being sustained by the same imagined worst-case scenario; habituation to the feared consequences can facilitate the elimination of such avoidance and rituals. Many patients report that once they are able to tolerate the distress that comes from exposures to the underlying core fear (e.g., going to hell), their reduced distress generalizes downward to triggers (e.g., the number “6”) that are emanating from the core fear. As a consequence, patients are able to relinquish their rituals more easily. Thus addressing the core fear improves the efficiency and effectiveness of the therapy, and maximizes potential for maintenance of gains and relapse prevention (Foa, Steketee, Turner, and Fischer, 1980).

It is important to point out that not all patients require imaginal exposure to feared consequences. Indeed, for some patients there is no identifiable feared disaster—for example, among OCD patients who report that a lack of order “just doesn’t feel right” or who are afraid of damaging their personal possessions without any deeper or longer term fear. For these and similar patients, in vivo exposure is likely to be sufficient.

7. Ineffectively handling mental compulsions

Failure to identify and effectively address mental compulsions is another common pitfall in OCD treatment. Mental compulsions

Table 1

Abbreviated imaginal exposure script about responsibility for harm.

I am determined to overcome my OCD and so I decide to stop my OCD-related checking rituals. Each night before bed I lock the front and back doors of my house and then walk away without making sure I've really locked them by turning the handle and tugging on the door; I resist any urges to check multiple times that they are indeed locked. I also refrain from making sure every night that the windows are actually closed and locked. One night I see on the news that a burglar broke into a house in our town and I have a strong urge to double check that everything is secure, but I resist this urge because the most important thing for me is to get rid of my OCD. So I tell myself that I have to face the anxiety, live with the possibility that someone could break in, and not check the doors and the windows in order to avoid relapsing into OCD. My wife wakes me up in the early hours of the morning saying that she heard a noise and thinks there is someone in the house. As I'm getting my slippers on to go downstairs she walks into the hallway to check on our 3-year-old son in his bedroom. She runs into a burglar and screams, waking up our son. He sees my wife struggling with the burglar and starts to cry. The burglar pushes my wife into our son's bedroom and she falls and hits her head on a chair. The burglar runs down the stairs and out of the house. My wife, who is bleeding from the fall, looks at me through her tears and says, "You didn't check to make sure that the doors were locked, did you? How could you be so irresponsible and selfish? You are so focused on getting rid of your OCD that you neglect your responsibility to the family." I feel terrible, and even worse when my son begins to have recurring nightmares about intruders coming into the house. My family counted on me to protect them and I let them down, all because I selfishly tried to tackle my OCD. Now I doubt my family will ever trust me again and I will have to live with the guilt and shame of what I have done.

involve words, numbers, images, phrases, or prayers that patients repeats to themselves to neutralize anxiety or prevent a feared outcome (see Salkovskis & Westbrook, 1989). As with physical rituals, mental compulsions are problematic because they reinforce obsessions and maintain OCD (see Pence et al., 2010).

In their investigation on the pure obsessional type of OCD, Williams et al. (2011) point out that the unobservable nature of mental compulsions may cause clinicians to miss them or mistake them for obsessions. Whereas the *form* of obsessions and compulsions may be the same, the *function* is very different. For example, obsessions and mental compulsions both may involve numbers; the number "6" may increase anxiety (obsession) due to its association with the devil whereas "3" may be repeated mentally to neutralize the feared outcomes associated with the thought of "6" (ritual). For this reason, it is crucial to distinguish between obsessions (intrusive worries that *increase* anxiety) and mental compulsions (mental acts that are intended to *decrease* anxiety). Common mental compulsions include:

- Self-reassurance
- Special prayers, often repeated in a set manner
- Wishing or "should" statements (e.g., wishing something to be different)
- Mental repeating of special words, images or numbers
- Mental counting
- Mental list making
- Mental reviewing (reviewing thoughts, feelings, conversations, or actions)
- Mental erasing of unpleasant mental images
- Mental un-doing

Mental rituals can be identified through clinical interview, asking patients about the kinds of mental processes they engage in after experiencing an obsession. The Yale-Brown Obsessive Compulsive Inventory (Goodman et al., 1989a; 1989b), a semi-structured interview consisting of an OCD symptom checklist and severity scale, includes a "Mental Rituals" category under "Miscellaneous Compulsions," which therapists can expand to ask about specific kinds of mental rituals as listed above (see Foa et al., 1995). Therapists can also educate patients about mental rituals such that patients learn to recognize them, and can instruct patients to refrain from mental rituals, including during *in vivo* exposure. Patients often ask how to distinguish between an obsessive thought and a mental compulsion. A useful heuristic for patients is that obsessions increase anxiety whereas rituals decrease (or are intended to decrease) anxiety. Therefore patients should be told that they can allow themselves to have thoughts that provoke anxiety (e.g., "I love Satan") and that they need to avoid mental compulsions that aim to decrease anxiety (e.g., prayers to neutralize blasphemous thoughts).

It often takes creativity on the part of the therapist and patient to block mental compulsions, given their often almost involuntary

nature. For example, patients can read an imaginal exposure script aloud to create a cognitive load that does not allow for the performance of mental rituals. Patients may also need to replace their covert rituals with covert or overt exposure statements, such as saying "I love Satan" to prevent automatic mental prayers for forgiveness. When patients do give in to the urge to perform a mental ritual, therapists can teach patients to "spoil" the ritual by immediately re-exposing themselves to the triggering stimulus.

Therapists often mistakenly teach patients to identify mental compulsions using self-statements like "that's OCD," which itself can become a ritual. For example, patients might say "It's only OCD" whenever they have an obsessional thought in order to reassure themselves that there is no actual danger associated with the feared stimulus. Instead, patients should be taught to respond to mental compulsions using exposure statements that target the core fear. For example, patients who reassure themselves that they will not go crazy each time they take medication should be instructed to replace self-reassurance with statements like, "I might go crazy from taking this medicine." As with overt rituals, patients are instructed to "spoil" mental compulsions that occur (sometimes automatically) by using exposure statements.

8. Working with the patient's significant others

Many individuals with OCD recruit family members to participate in avoidance and compulsions. These behaviors have been termed "family accommodation" and are more common when OCD symptom severity is high (Calvocoressi et al., 1995; Storch et al., 2007). While most therapists instruct patients to refrain from reassurance seeking, it also may be important to teach family members or other persons involved with the patient how to respond to this ritual and to refrain from providing reassurance. It is often necessary to work directly with involved persons (with the patient's consent and collaboration) to help them learn the difference between giving comfort and support (helpful and therefore is encouraged) and providing reassurance (reinforces OCD and therefore is discouraged; see Foa et al., 2012).

Involved persons provide reassurance because they (1) believe it is helpful to the patient and shows that they care about their loved one, (2) lack understanding that it interferes with treatment, (3) are negatively reinforced for providing reassurance because it decreases conflict with the patient, and (4) lack knowledge of alternative responses. Because giving reassurance often relieves the patient's distress in the short term, significant others may come to believe that sufficient reassurance will eliminate the obsessive concerns. Therefore it is helpful to teach them that, even when the reassurance provides short-term relief for all involved and patients insist that reassurance is helpful, it functions to reinforce compulsions and therefore maintains the patient's disorder. Therapists should explain that reassuring

statements that are effective for individuals without OCD are not effective and actually interfere with the progress of patients with OCD. The following kinds of statements might be helpful to significant others:

- Reassurance seems to help when your son is really upset; do the effects of reassurance last for long?
- Your wife has asked that you not provide her with reassurance even if she's really upset. Is that something you can commit to as part of her treatment?

It also is important to teach family members that they should refrain from performing “OCD by proxy”—for example, by washing the patient's clothes so she does not have to confront the OCD-related distress associated with dirty laundry.

Involved persons should be reminded that it is not their job to treat the patient, but that providing comfort and support through means other than reassurance is helpful. Statements that support treatment include:

- I know this is difficult and I also know you are strong enough to fight OCD.
- OCD really seems to be bothering you right now. What can you do to fight back?
- You are seeking reassurance. What can you do instead?
- I know you really want reassurance; what have you learned to do instead?

It is important to note that simply saying “that's OCD” is not helpful to patients; neither are angry responses or criticism, which generally only increases the patient's distress level. Rather, involved persons should empathize with the patient and simultaneously encourage them to apply skills acquired in therapy.

If patients continue to seek reassurance after involved persons respond appropriately, the targeted individual can exit the situation (e.g., leave the room, hang up the telephone) or respond with relevant exposure statements that target the patient's core fear (e.g., “We don't know if the water is poisoned. You will have to live with that possibility”). We recommend working with the patient and their close others to develop a plan for how they should respond to the patient's reassurance seeking. Not only will this plan help relieve involved individuals of the burden of managing the patient's OCD, but it will strengthen the patient's ability to apply ritual prevention across contexts, optimizing the likelihood of treatment success.

9. Conclusion

As noted in the introduction, the principles underlying EX/RP are few and are relatively simple: Confront situations that give rise to obsessions (exposure) and do not ritualize. Yet as the number of possible pitfalls should make clear, there are many ways in which the effectiveness of this treatment can be diminished. The pitfalls discussed here can be understood as interfering with one or the other (or both) of the treatment components. Several of the pitfalls discussed directly weaken the effects of exposure, including doing imaginal exposure when in vivo exposure is called for (and vice versa), encouraging distraction during exposure, not addressing the core fear, and not pushing far enough during exposure, thereby leaving “safe places.” Other pitfalls interfere with ritual prevention, including providing reassurance and failing to attend to mental compulsions. Failing to work effectively with the patient's family omits a valuable opportunity to reinforce the treatment principles through the participation of significant others.

The many potential pitfalls in EX/RP point to the need for adequate training and supervision in the treatment, which can prepare therapists to recognize and avoid the problems discussed here. Accordingly we recommend that therapists new to EX/RP seek out opportunities for supervision and consultation on their cases to promote effective delivery of the treatment. Clinicians generally find that such supervision and support are essential in learning the nuances of EX/RP for OCD.

References

- Abramowitz, J. S. (1996). Variants of exposure and response prevention in the treatment of obsessive-compulsive disorder: A meta-analysis. *Behavior Therapy*, 27, 583–600, [http://dx.doi.org/10.1016/S0005-7894\(96\)80045-1](http://dx.doi.org/10.1016/S0005-7894(96)80045-1).
- Abramowitz, J. S. (2006). *Understanding and treating obsessive-compulsive disorder: A cognitive-behavioral approach*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Abramowitz, J. S., Foa, E. B., & Franklin, M. E. (2003). Exposure and ritual prevention for obsessive-compulsive disorder: Effects of intensive versus twice-weekly sessions. *Journal of Consulting and Clinical Psychology*, 71, 394–398, <http://dx.doi.org/10.1037/0022-006X.71.2.394>.
- Abramowitz, J. S., Franklin, M. E., & Cahill, S. P. (2003). Approaches to common obstacles in the exposure-based treatment of obsessive-compulsive disorder. *Cognitive and Behavioral Practice*, 10, 14–22, [http://dx.doi.org/10.1016/S1077-7229\(03\)80004-4](http://dx.doi.org/10.1016/S1077-7229(03)80004-4).
- Abramowitz, J. S., Taylor, S., & McKay, D. (2009). Obsessive-compulsive disorder. *Lancet*, 374, 491–499, [http://dx.doi.org/10.1016/S0140-6736\(09\)60240-3](http://dx.doi.org/10.1016/S0140-6736(09)60240-3).
- Abramowitz, J. S., & Zoellner, L. A. (2002). Cognitive-behavior therapy as an adjunct to medication for obsessive-compulsive disorder with mental rituals: A pilot study. *Romanian Journal of Cognitive Behavioral Therapy*, 2, 11–22.
- Calvocoressi, L., Lewis, B., Harris, M., Trufan, S. J., Goodman, W. K., McDougle, C. J., et al. (1995). Family accommodation in obsessive-compulsive disorder. *American Journal of Psychiatry*, 152, 441–443.
- Craske, M. G., Kircanski, K., Zelikowsky, M., Mystkowski, J., Chowdhury, N., & Baker, A. (2008). Optimizing inhibitory learning during exposure therapy. *Behaviour Research and Therapy*, 46, 5–27.
- Foa, E. B., Kozak, M. J., Goodman, W. K., Hollander, E., Jenike, M. A., & Rasmussen, S. A. (1995). DSM-IV field trial: Obsessive-compulsive disorder. *American Journal of Psychiatry*, 152, 90–96.
- Foa, E. B., Liebowitz, M. R., Kozak, M. J., Davies, S., Campeas, R., Franklin, M. E., et al. (2005). Randomized, placebo-controlled trial of exposure and ritual prevention, clomipramine, and their combination in the treatment of obsessive-compulsive disorder. *American Journal of Psychiatry*, 162, 151–161, <http://dx.doi.org/10.1176/appi.ajp.162.1.151>.
- Foa, E. B., Steketee, G., & Grayson, J. B. (1985). Imaginal and in vivo exposure: A comparison with obsessive-compulsive checkers. *Behavior Therapy*, 16, 292–302, [http://dx.doi.org/10.1016/S0005-7894\(85\)80017-4](http://dx.doi.org/10.1016/S0005-7894(85)80017-4).
- Foa, E. B., Steketee, G., Grayson, J. B., Turner, R. M., & Latimer, P. R. (1984). Deliberate exposure and blocking of obsessive-compulsive rituals: Immediate and long-term effects. *Behavior Therapy*, 15, 450–472, [http://dx.doi.org/10.1016/S0005-7894\(84\)80049-0](http://dx.doi.org/10.1016/S0005-7894(84)80049-0).
- Foa, E. B., Steketee, G., Turner, R. M., & Fischer, S. C. (1980). Effects of imaginal exposure to feared disasters in obsessive-compulsive checkers. *Behaviour Research and Therapy*, 18, 449–455, [http://dx.doi.org/10.1016/0005-7967\(80\)90010-8](http://dx.doi.org/10.1016/0005-7967(80)90010-8).
- Foa, E. B., Yadin, E., & Lichner, T. K. (2012). *Exposure and Response (Ritual) Prevention for Obsessive-Compulsive Disorder*. New York: Oxford University Press.
- Freeston, M. H., Léger, E., & Ladouceur, R. (2001). Cognitive therapy of obsessive thoughts. *Cognitive and Behavioral Practice*, 8, 61–78, [http://dx.doi.org/10.1016/S1077-7229\(01\)80045-6](http://dx.doi.org/10.1016/S1077-7229(01)80045-6).
- Grayson, J. B., Foa, E. B., & Steketee, G. S. (1982). Habituation during exposure treatment: Distraction vs attention-focusing. *Behaviour Research and Therapy*, 20, 323–328, [http://dx.doi.org/10.1016/0005-7967\(82\)90091-2](http://dx.doi.org/10.1016/0005-7967(82)90091-2).
- Grayson, J. B., Foa, E. B., & Steketee, G. S. (1986). Exposure in vivo of obsessive-compulsives under distracting and attention-focusing conditions: Replication and extension. *Behaviour Research and Therapy*, 24, 475–479, [http://dx.doi.org/10.1016/0005-7967\(86\)90013-6](http://dx.doi.org/10.1016/0005-7967(86)90013-6).
- Hofmann, S. G., & Smits, J. A. J. (2008). Cognitive-behavioral therapy for adult anxiety disorders: A meta-analysis of randomized placebo-controlled trials. *Journal of Clinical Psychiatry*, 69, 621–632.
- Kamphuis, J. H., & Telch, M. J. (2000). Effects of distraction and guided threat reappraisal on fear reduction during exposure-based treatments for specific fears. *Behaviour Research and Therapy*, 38, 1163–1181, [http://dx.doi.org/10.1016/S0005-7967\(99\)00147-3](http://dx.doi.org/10.1016/S0005-7967(99)00147-3).
- Johnstone, K. A., & Page, A. C. (2004). Attention to phobic stimuli during exposure: The effect of distraction on anxiety reduction, self-efficacy and perceived control. *Behaviour Research and Therapy*, 42, 249–275, [http://dx.doi.org/10.1016/S0005-7967\(03\)00137-2](http://dx.doi.org/10.1016/S0005-7967(03)00137-2).
- Lindsay, M., Crino, R., & Andrews, G. (1997). Controlled trial of exposure and response prevention in obsessive-compulsive disorder. *British Journal of Psychiatry*, 171, 135–139, <http://dx.doi.org/10.1192/bjp.171.2.135>.

- Moscovitch, D. A., Antony, M. M., & Swinson, R. P. (2009). Exposure-based treatments for anxiety disorders: Theory and process. In: M. M. Antony, & M. B. Stein (Eds.), *Oxford handbook of anxiety and related disorders* (pp. 461–475). New York: Oxford University Press.
- National Institute for Health and Clinical Effectiveness (2006). *Obsessive-compulsive disorder: Core interventions in the treatment of obsessive-compulsive disorder and body dysmorphic disorder*. The British Psychological Society and The Royal College of Psychiatrists. <www.nice.org.uk>.
- Oliver, N. S., & Page, A. C. (2003). Fear reduction during in vivo exposure to blood-injection stimuli: Distraction vs. attentional focus. *British Journal of Clinical Psychology*, 42, 13–25, <http://dx.doi.org/10.1348/014466503762841986>.
- Parrish, C. L., Radmosky, A. S., & Dugas, M. J. (2008). Anxiety-control strategies: Is there room for neutralization in successful exposure treatment? *Clinical Psychology Review*, 28, 1400–1412, <http://dx.doi.org/10.1016/j.cpr.2008.07.007>.
- Pence, S. L., Sulkowski, M. L., Jordan, C., & Storch, E. A. (2010). When exposures go wrong: Troubleshooting guidelines for managing difficult scenarios that arise in exposure-based treatment for obsessive-compulsive disorder. *American Journal of Psychotherapy*, 64, 39–53.
- Ruscio, A. M., Stein, D. J., Chiu, W. T., & Kessler, R. C. (2010). The epidemiology of obsessive-compulsive disorder in the National Comorbidity Survey Replication. *Molecular Psychiatry*, 15, 53–63, <http://dx.doi.org/10.1038/mp.2008.94>.
- Salkovskis, E. M., & Westbrook, D. (1989). Behaviour therapy and obsessive ruminations: Can failure be turned into success? *Behaviour Research and Therapy*, 27, 149–160, [http://dx.doi.org/10.1016/0005-7967\(89\)90073-9](http://dx.doi.org/10.1016/0005-7967(89)90073-9).
- Simpson, H. B., Foa, E. B., Liebowitz, M. R., Ledley, D. R., Huppert, J. D., Cahill, S. P., et al. (2008). A randomized, controlled trial of cognitive-behavioral therapy for augmenting pharmacotherapy in obsessive-compulsive disorder. *American Journal of Psychiatry*, 165, 621–630, <http://dx.doi.org/10.1176/appi.ajp.2007.07091440>.
- Storch, E. A., Geffken, G. R., Merlo, L. J., Jacob, M. L., Murphy, T. K., Goodman, W. K., et al. (2007). Family accommodation in pediatric obsessive-compulsive disorder. *Journal of Clinical Child and Adolescent Psychology*, 36, 207–216, <http://dx.doi.org/10.1080/15374410701277929>.
- Williams, M. T., Farris, S. G., Turkheimer, E., Pinto, A., Ozanick, K., Franklin, M. E., et al. (2011). The myth of the pure obsessional type in obsessive-compulsive disorder. *Depression and Anxiety*, 28, 495–500, <http://dx.doi.org/10.1002/da.20820>.
- Williams, M. T., Powers, M. B., & Foa, E. B. (2012). Psychological treatment for obsessive-compulsive disorder. In: P. Sturmey, & M. Hersen (Eds.), *Handbook of evidence-based practice in clinical psychology*, Vol. 2). Hoboken, NJ: Wiley.