# chapter two

# Specialized cognitive behavior therapy for treatment resistant obsessive compulsive disorder

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## Introduction

Obsessive compulsive disorder (OCD) is a heterogeneous, frequently incapacitating disorder that is distinct from other anxiety disorders in terms of psychopathology and treatment requirements (Frost & Steketee, 2002). Cognitive behavior therapy (CBT), with the essential interventions of exposure and response prevention (ERP), is the empirically established psychotherapy of choice (American Psychiatric Association, 2007). Several controlled studies have found that CBT combined with pharmacological treatment is no more effective than CBT alone for OCD symptoms (Foa et al., 2005; O'Connor et al., 2006; Rufer, Grothusen, Mab, Peter, & Hand, 2005). Improvement is more sustained with ERP compared with medication, and adding ERP to medication substantially improves response rate and reduces susceptibility to relapse compared with medication alone (Kordan et al., 2005; Simpson, Franklin, Cheng, Foa, & Liebowitz, 2005; Simpson et al., 2008). Indications for combined treatment include presence of severe comorbid mood disorder or other disorders or symptoms that require medication (e.g., Hohagen et al., 1998). Thus, it can be concluded from available empirical evidence that the first-line treatment of choice for OCD is CBT and that pharmacotherapy, where indicated, should be administered in combination with CBT for optimal and sustained results. Unfortunately, many individuals with OCD do not receive CBT (Goodwin, Koenen, Hellman, Guardino, & Struening, 2002), and fewer still receive specialized CBT for OCD delivered or supervised by a therapist experienced with this disorder.

An important advance by experts in this field is the development of specialized approaches for symptom subtypes (for discussion of these approaches, see Abramowitz, McKay, & Taylor, 2008; Antony, Purdon, & Summerfeldt, 2007; Sookman, Abramowitz, Calamari, Wilhelm, & McKay, 2005). There is a lag between development of these innovative approaches and methodologically adequate controlled outcome studies to examine their efficacy. Based on available controlled studies, approximately 50% of patients do not respond optimally to CBT even when combined with pharmacotherapy. This includes patients who refuse to participate or drop out of ERP (20%), do not improve (25%), or have relapsed at follow-up (Baer & Minichiello, 1998; Cottraux, Bouvard, & Milliery, 2005; Stanley & Turner, 1995). In the few studies where this is reported, only one quarter recover completely (Eddy, Dutra, Bradley, & Westen, 2004). This is in part due to many patients being unwilling or unable to collaborate fully with ERP (Araujo, Ito, & Marks, 1996; Whittal, Thordarson, & McLean, 2005) and to other patient characteristics, but importantly also to the process and content of CBT administered. Because residual symptoms confer susceptibility to symptom exacerbation and chronic OCD, even at subclinical levels,

is commonly associated with long-term psychosocial impairment and secondary depression, it is important to maximize symptomatic improvement in OCD symptoms.

Given that our aim, whenever possible, is remission at posttreatment and long-term maintenance of improvement, we are far from our goal for many patients. We have proposed the following criteria for CBT resistance in OCD (Sookman & Steketee, 2007, p. 6):

- 1. The patient does not participate fully in exposure so some avoidance remains.
- 2. The patient does not engage in and/or sustain complete response prevention during or between sessions.
- 3. Residual behavioral or cognitive rituals persist.
- 4. Symptom-related pathology such as beliefs (and/or strategic processing) are not resolved to within normal limits.

Limited response may be due to inadequate administration of empirically based interventions, use of inflexible manualized treatment protocols in research trials that do not allow for individualized CBT delivery, and patient characteristics that complicate treatment, especially in the face of insufficient clinical research to guide the clinician.

This chapter has the following aims: (1) to describe several factors that commonly contribute to resistance during CBT for OCD subtypes; (2) to further describe and illustrate two approaches developed for resistant patients; and (3) to propose an operational definition of intervention and response criteria for CBT resistant OCD. With regard to approaches for resistant patients, we first describe cognitive therapy (CT) modules with promising results that are designed to address specific classes of characteristic dysfunctional beliefs (Wilhelm & Steketee, 2006; Wilhelm et al., 2005). Importantly, this approach may improve participation and response to ERP. We outline and illustrate this approach and discuss available outcome data. Second, we describe the integrative schema-based theoretical model and intervention approach developed by Sookman and colleagues for resistant OCD of different subtypes and present available outcome data. In the final section, intervention and response criteria for CBT resistant of cBT resistant of the final section indications for future research discussed.

In the next section, we briefly discuss selected CBT outcome literature to provide an empirical frame for our discussion of treatment resistance. Key theoretical models that led to empirically validated CBT approaches for OCD developed by Salkovskis, Rachman, Freeston, and the Obsessive Compulsive Cognitions Working Group (OCCWG) have been reviewed extensively elsewhere (e.g., Clark, 2004; Taylor, Abramowitz, & McKay, 2007). Additional review and discussion of recent developments in CBT interventions for OCD subtypes are also available (see Abramowitz, 2006; Abramowitz et al., 2008; Antony et al., 2007; Clark, 2004; Sookman & Pinard, 2007; Sookman & Steketee, 2007).

#### *Outcome literature relevant to treatment resistance*

An OCD patient cannot be considered CBT resistant unless an adequate trial of empirically based CBT has been attempted. However, expert consensus regarding criteria for an adequate trial of ERP and cognitive therapy does not currently exist. Review of available outcome literature indicates heterogeneity in procedural variants; for example, exposure sessions range in duration from 30 to 120 minutes at a frequency of 1 to 5 sessions weekly (Abramowitz, 2006). Research provides clinicians with crucial guidelines about optimal administration of CBT, but many findings require replication or extension to additional OCD samples and to specialized subtypes. In a meta-analysis of treatment outcome studies at that time, Abramowitz (1996, 1997) reported that best results with ERP involved prolonged (90-minute) sessions several times weekly, frequent homework, therapist-assisted exposure, and complete response prevention. Although self-directed exposure can be helpful in some cases (e.g., Fritzler, Hecker, & Losee, 1997), Tolin et al. (2007) also reported that patients receiving therapist-assisted ERP showed superior response in terms of OCD symptoms and functional impairment. Fading of therapist involvement is considered important for maintenance and generalization of improvement. Imagined exposure may be helpful for some cases in reducing anxiety and facilitating preparatory coping in combination with in vivo ERP (Foa & Franklin, 2003). Like rituals that reduce discomfort and interfere with habituation, reassurance seeking during ERP has been found to interfere with improvement (Abramowitz, Franklin, & Cahill, 2003). Several authors (e.g., Foa et al., 2005) advocate that clinicians expose patients to the most anxiety-provoking stimuli by mid-treatment to allow sufficient practice and generalization. Others have suggested that complete response prevention may be too rigid for some individuals (Abramowitz et al., 2003). Graduated exposure is usually undertaken first as a more tolerable method for confronting feared situations (Abramowitz, 1996); however, intensive exposure, or flooding, may be optimal for some patients (Fontenelle et al., 2000), as described in one of our case illustrations below. Therapist modeling during ERP can be useful in some cases where this does not constitute inappropriate reassurance (Steketee, 1993).

Studies on spacing of ERP sessions have varied in results, based on divergent samples, intervention characteristics, and response criteria. Fifteen 90-minute treatment sessions administered daily for approximately 3 weeks (Franklin, Abramowitz, Kozak, Levitt, & Foa, 2000) were reported to be as effective at 3 months' follow-up as 8 weeks of twice-weekly therapy (Abramowitz et al., 2003); however, neither regimen is sufficient for recovery in many cases. For some patients, the effect of office-based ERP was comparable to ERP administered in patients' naturalistic environments (Rowa, Antony, Summerfeldt, Purdon, & Swinson, 2004). In interpreting these results it is important to underline that efficacy likely depends on the extent to which ERP to salient feared stimuli can be reproduced in the office and on the patient's capacity to engage in ERP homework alone between sessions (Sookman & Steketee, 2007). Benefit in clinical practice settings can be approximately equivalent to outcomes from well-executed clinical trials for some cases (Franklin et al., 2000), but the question of replicability and variability across sites remains.

Several studies have demonstrated the efficacy of both ERP and CT in reducing symptoms and beliefs (e.g., Cottraux et al., 2001; Emmelkamp, van Oppen, & van Balkom, 2002; McLean et al., 2001). Cognitive therapy developed for obsessions (Freeston et al., 1997; Rachman, 2003) involves helping the patient to identify and modify appraisals, emotional responses, and information processing in response to intrusions perceived as threatening (e.g., hypervigilance, selective attention). Some studies found that individual CBT results in greater improvement than group treatment methods (Eddy et al., 2004). Others reported that ERP is equally effective when carried out in an individual versus group format, but that cognitive therapy is more effective when administered individually (McLean et al. 2001; Whittal et al., 2005).

Methodological factors such as overlap of therapeutic ingredients, targets and amount of CT administered, and limited sample size contribute to difficulty in assessing to what extent cognitive therapy significantly adds to the efficacy of ERP (Abramowitz, 2006; Vogel, Stiles, & Götestam, 2004; Wilhelm & Steketee, 2006). Nonetheless, there is considerable support for combining CT with ERP for OCD. Dropout rates have been reported to be lower in CBT that includes cognitive methods (Foa et al., 2005). Individuals with OCD report varied emotional responses in addition to anxiety, and complex metacognitive dysfunction, that may be difficult to ameliorate with exposure alone (Foa & McNally, 1996). Fisher and Wells (2005) reported that explicitly challenging beliefs about the threatening meaning of intrusions with behavioral experiments was more effective in reducing dysfunctional beliefs, urges to ritualize, and anxiety compared with ERP administered with a habituation rationale. OCD patients reported high levels of "cognitive self-consciousness," higher than for generalized anxiety disorder (GAD) patients (Cartwright-Hatton & Wells, 1997). Gwilliam, Wells, and Cartwright-Hatton (2004) found that metacognitive beliefs predicted OC symptoms, while responsibility beliefs did not when their interrelationship was controlled.

The recommended practice by many, if not most, experts is combined CT and ERP from the onset as a first-line treatment (Sookman & Steketee, 2007). More research is needed to clarify which patients benefit most from CT combined with behavioral experiments and/or ERP. As elaborated in the approaches we present in this chapter, in our view cognitive therapy is beneficial for most patients throughout treatment.

Studies on patient characteristics that impact outcome have provided mixed results. In some studies type and severity of OCD symptoms, degree of insight, and comorbid disorders such as severe depression predicted outcome, but in others this was not the case (Foa, Abramowitz, Franklin, & Kozak, 1999; Himle, Van Etten, Janeck, & Fischer, 2006; Mataix-Cols, Marks, Greist, Kobak, & Baer, 2002; Steketee, Chambless, & Tran, 2001). Patients with hoarding tend to report limited distress and recognition of the problem (Steketee & Frost, 2003) and have consistently responded less well to CBT approaches developed for other OCD symptoms (e.g., Abramowitz et al., 2003; Mataix-Cols et al., 2002). A specialized approach developed for this subtype has shown promising results (Steketee, Frost, Wincze, Greene, & Douglass, 2000; Steketee et al., in prep.; Tolin, Frost, & Steketee, 2007). Further research is also required for patients with symptoms of symmetry, exactness, ordering, repeating, counting, and slowness who have been under-represented in treatment trials (Ball, Baer, & Otto, 1996) relative to their estimated prevalence (Calamari et al., 2004). Relevant to family involvement in CBT is the important finding that expressed hostility from family was associated with a greater rate of dropout and poorer response among treatment completers (Chambless & Steketee, 1999). In another study, patients who reported feeling more upset by relatives' criticism reported greater discomfort during exposure and higher daily ratings of anxiety and depression (Steketee, Lam, Chambless, Rodebaugh, & McCullouch, 2007).

Relatively few approaches have been developed for resistant OCD, and, as addressed later in this chapter, a clear definition for CBT resistance in OCD does not currently exist. In describing their St. Louis model, Van Dyke and Pollard (2005) and Pollard (2007) indicated that reasons for nonresponse to CBT include inadequacies of administration of CBT and/ or the presence of treatment-interfering behaviors (TIBs). TIBs are assessed during interview and on their Treatment-Interfering Behavior Checklist (VanDyke & Pollard, 2005). These are defined as "any behavior the therapist believes is incompatible with effective participation in therapy or the pursuit of recovery" (Pollard, 2007). Their "readiness therapy" addresses beliefs, emotional disregulation, skills deficits, and incentive/motivation deficits that may interfere with collaboration in ERP. The St. Louis model involves intensive CBT outpatient treatment that includes 2 hours of daily therapist-assisted ERP and two or three additional individual sessions weekly for other interventions (e.g., cognitive restructuring, pharmacotherapy). Gradual fading of therapist involvement and relapse prevention are additional components. Meetings with family members are offered for some cases. In a preliminary report, readiness treatment was successful in reducing TIBs in 7 of 11 treatment resistant OCD patients (Van Dyke & Pollard, 2005); however, controlled studies have not been done yet.

Stewart, Stack, Farrell, Pauls, and Jenike (2005) reported the efficacy of inpatient residential treatment (IRT) in a sample of 403 patients with severe OCD who had not responded to outpatient treatment. CBT was administered intensively for 2 to 4 hours daily and combined with pharmacotherapy. Length of hospitalization averaged 66 days, indicating that the typical patients received approximately 200 hours of therapy. Mean Yale–Brown Obsessive Compulsive Scale (Y-BOCS) scores for these severely ill patients reduced from 26.6 to 18.6. A very important recommendation made by these authors, with which we agree, is that up to 3 months of IRT should be administered before considering an OCD patient treatment refractory. Osgood-Hynes, Riemann, and Björgvinsson (2003) reported that following an average duration of 46 to 65 days of IRTs in two different settings, mean Y-BOCS scores for their inpatients reduced by approximately half (47% to 55%). These results indicate that intensive inpatient CBT can be an effective strategy for some patients whose symptoms have not responded to outpatient therapy. We would expect this to be the case for patients whose rituals do not take place exclusively in their home, although CBT should also be administered in their naturalistic environments.

# Compliance with specialized ERP for OCD

A crucial clinical and research question is how to optimize participation in and emotionally meaningful learning during ERP, CT, and behavioral experiments. The heterogeneity of internal and situational stimuli associated with OCD symptoms underlines the need for conceptual and intervention models that can be tailored flexibly to the idiosyncratic experience of each patient. As Sookman and Pinard (2007, p. 98) noted:

> Similar OCD symptoms have different functions for different patients (e.g., washing to prevent feared illness as opposed to reduce feelings of disgust). Symptom-related beliefs differ across symptom subtypes. For example, responsibility appraisals (Salkovskis, 1985) are characteristic of checkers with harm-related obsessions but are not characteristic of washers who describe "feeling" contaminated (OCCWG, 2001). Catastrophic misappraisal of

thoughts as dangerous, specifically those viewed as contrary to one's value system (Rachman, 1998), with efforts at thought control (Clark, 2004), are central for many patients with obsessions. However, this aspect of psychopathology is not reported by other subtypes (e.g., some washers, hoarders). Thought–action fusion is experienced by some checkers (e.g., "If I have the thought death, a family member will die"), but not by others (e.g., "If I don't check my stove properly, my house will burn down"). Individuals concerned with symmetry or order may report feeling a need for perfection, or rather that their symptoms are associated with a sense of incompleteness or "not just right" experiences (Coles, Frost, Heimberg, & Rhéaume, 2003).

Some patients do not endorse beliefs on available cognitive scales at dysfunctional levels (Calamari et al., 2006; Taylor et al., 2007). As noted above, this subgroup may report that their symptoms are related to "not just right" experiences, feelings of incompleteness, or intolerance of distress without apparent feared consequences except their fear that distress will not abate (Coles et al., 2005; Summerfeldt, 2004, 2007). Thus, symptom subtypes should be treated with specialized approaches that target their diverse cognitive content, themes underlying rituals, feared consequences, and distressing experience. In fact, complex combinations of symptoms are a common presentation.

# *Meanings of and reasons for resistance to cognitive therapy and ERP*

Integral to ERP is the basic requirement that each individual experience, rather than avoid, feared intrusions, emotions, and external stimuli that provoke distressing inner experience. We summarize below some (overlapping) areas or reasons for resistance that in our experience are commonly reported by patients who have difficulty benefiting from cognitive therapy and participating in ERP. In the sections that follow, we discuss and illustrate two approaches developed to improve the response of resistant OCD subtypes.

1. The patient is reluctant to disclose content of some obsessions (Rachman, 2007) because of fear of being judged or perceived as crazy or dangerous. For example: *"If I tell the therapist I have thoughts* 

of molesting children (running over bodies, poisoning my dog, forging checks, yelling obscenities in Sunday school, etc.), the therapist might think I am a child molester (or other awful label) and that I might actually do it one day. Maybe it would have to be reported, and my life will be ruined."

- 2. The patient's model of therapy and process of change includes the belief that talking can sufficiently change thoughts and feelings to the extent that facing feared events without ritualizing would not provoke strong distressing feelings. If this is possible, why face emotional pain perceived as highly distressing or intolerable?
- 3. The patient fears that intrusions, images, or other experience such as sense of incompleteness or "not just right" will worsen or persist if rituals are not performed. The patient also fears that symptoms will interfere with basic functioning or that these will be experienced as intolerably distressing.
- 4. The patient fears experiencing, or is unwilling to experience, strong feelings of fear, anxiety, and other emotions (e.g., guilt, disgust) that ERP would provoke, with resultant persistence of risk aversion. These responses may persist despite provision of emotion-management strategies, offer of therapist-assisted ERP, education about the essential role of facing feelings and the high probability distress will subside faster than anticipated, and CT for dysfunctional beliefs associated with distress. For example: *"Strong feelings are dangerous and will never go down. I could go crazy."* (See also Sookman et al., 1994; Sookman & Pinard, 1999; Sookman & Steketee, 2007; Leahy, this volume.)
- 5. A strong discrepancy persists between beliefs experienced on "quiet reflection" or reported on cognitive scales and beliefs experienced during exposure to feared situations that interfere with full collaboration during ERP. For example: "*I don't believe it's true, but I feel it's true*" (Sookman & Pinard, 1999).
- 6. The patient has poor insight or overvalued ideas that are intransigent to disconfirmation in CT. These beliefs are strongly endorsed even when the individual is not in distress and removed from feared situations. In these cases, there is little discrepancy between cognitive and emotional aspects of belief.
- 7. The patient feels unwilling, or unable, to accept the perceived risks (e.g., *complete loss of control, irreversible spread of contamination, fatal illness, preventable harm to others, future calamity, eternal damnation*) of not engaging in rituals or other safety behaviors. The patient may agree to ritual abbreviation, restriction, or response delay (Schwartz, 1996) but refuses complete ERP.

- 8. The patient has perceived and/or actual skills deficits with respect to inner and external events. Examples are difficulties with emotional tolerance and regulation, and dysfunctional appraisals of emotional experience. Rituals have become a central cognitive and emotion-relieving strategy with few, if any, perceived alternatives.
- 9. The patient goes through the motions of engaging partially in ERP without substantial change in emotional responses, dysfunctional beliefs, or strategic processing of internal and external events.
- 10. The patient is unable to tolerate reduction in therapist time, and treatment gains fail to generalize to other non-treatment settings. There is difficulty with therapist fading and generalization of treatment gains.
- 11. Intrafamilial and interpersonal problems interfere with treatment.
- 12. Dysfunctional appraisals and strategic processing, urges to ritualize, and ritualization recur following discontinuation of therapy.
- 13. The therapist hypothesizes that core schemas may be interfering with emotionally meaningful accommodation to new experience (Piaget, 1960).

## Applying CT without formal ERP

#### Description of CT methods

In their treatment manual, Wilhelm and Steketee (2006) describe a form of Beckian cognitive therapy for OCD that does not include prolonged exposure or restrictions of rituals but uses a variety of cognitive strategies and behavioral experiments to help patients test their (faulty) hypotheses. Treatment is delivered to outpatients via 22 weekly sessions with fading of therapist involvement in the final month to once every 2 weeks. CT begins with an assessment of the patient's OCD symptoms using a variety of measures to help clarify the subtypes (e.g., contamination/washing/cleaning, fears of harm and checking). Beliefs are assessed using an extended version of the 87-item Obsessive Beliefs Questionnaire (OBQ) (OCCWG, 1997, 2007) to identify six theoretically derived subscales and two additional ones on fear of positive experiences and consequences of anxiety; high scores on subscales help identify CT modules needed in treatment. Beliefs are also assessed using a simple five-column thought record form that inquires about situational context, the actual intrusion (obsessive thought), interpretation made and strength of belief, emotion experienced and its strength, and compulsive or avoidance behavior. This recording method was adapted from Beckian CT methods, where it is commonly used.



*Figure 2.1* Cognitive model of OCD. (From *Cognitive Therapy for Obsessive–Compulsive Disorder: A Guide for Professionals,* by S. Wilhelm and G.S. Steketee, 2006, Oakland, CA: New Harbinger Publications. Reprinted with permission.)

Treatment begins with the therapist interviewing the patient to understand OCD symptoms, related problems, history, and current thinking in obsessive trigger situations. Education follows in which the therapist describes obsessions as ordinary intrusions that are common in the population but have now become triggers for adverse (mis)interpretations. The therapist also provides written material on OCD and the CT model. The therapist and patient develop a shared model for understanding how intrusions are interpreted, their effect on emotional and behavioral responses, and how this sequence negatively reinforces rituals and avoidance behavior. The two also examine how the patient's early experiences, general mood, and core beliefs contribute to misinterpretation (misappraisal) of the meaning of the intrusive thoughts. However, the contribution of core beliefs is not so heavily emphasized in this method as in the schema-based treatment described after this section. A generic model is reproduced in Figure 2.1, and a blank form of this model is used to guide patients to examine specific obsessive situations in light of the CT model for OCD.

The therapist selects CT modules based on the patient's main obsessive concerns as identified from the OBQ, from thought records, and from the therapist's discussions of specific OCD situations during initial sessions and development of the patient's CT model. The treatment modules cover over-importance and control of thoughts, over-estimation of threat or harm, inflated responsibility, perfectionism, and need for certainty, as well as less common concerns of managing high anxiety and fears of positive experiences.

Cognitive strategies within each module are aimed at evaluating and correcting erroneous interpretations and beliefs pertinent to that topic. Patients begin by learning basic techniques such as identifying their own cognitive errors (J. Beck, 1995). Therapists employ the downward arrow method to help patients identify their most feared consequences and possible core beliefs (which are usually addressed later in treatment). Socratic questioning is used throughout treatment to help patients examine the evidence that supports or fails to support their interpretations. As van Oppen et al. (1995) recommended, therapists do not challenge the intrusions themselves (for example, whether or not a stove is on or an item is contaminated) but instead examine only the associated appraisal (such as whether the client is truly careless and the likely effect of carelessness). Therapists commonly employ behavioral experiments to test patients' beliefs and alter their conclusions. These experiments are typically brief and used to test hypotheses rather than habituate anxiety as in ERP methods. In addition to these basic methods, patients who overestimate danger are taught to calculate the probability of harm and those who exaggerate their responsibility learn a pie technique to parcel out all sources of responsibility to the appropriate sources. Mindfulness skills help patients tolerate discomfort and intrusive thoughts; metaphors, stories, and the courtroom technique engage patients in considering perspectives that are different from their own. The therapy manual by Wilhelm and Steketee (2006) provides detailed instructions and forms for conducting this cognitive therapy.

#### Evidence for success of CT methods

Wilhelm and colleagues (2005) published a case series of their initial pilot findings for CT methods described above with 15 participants; of these patients, 10 had no prior behavioral therapy, and 5 had previous exposure treatment but did not benefit adequately. The full sample of 15 patients showed a 42% decline in OCD symptoms (Y-BOCS, 23.3 at pretest to 13.5 after CT) and 41% reduction in depression. However, the ERP naïve patients' OCD symptoms improved more than the previously treated patients (53% vs. 21%), and the former group also benefited more on beliefs (28% vs. 12%). Certainly the previously treated subgroup had more severe anxiety, depression, and OC beliefs which could account for their poorer outcome, and the findings derive from a very small sample and require cautious interpretation. Nonetheless, it was not clear that previously

treatment-refractory patients, at least those receiving ERP, would benefit adequately from CT alone without formal ERP added. A further problem was the relatively brief 14-session treatment delivered in this pilot study. In fact, two of the previously treated sample thought they would have benefited with more sessions. Thus, in a second wait-list controlled study, the CT dosage was increased to 22 sessions which provided more benefit overall.

In a second trial, Wilhelm et al. (2008) compared a wait-list control condition to CT that employed more cognitive techniques and behavioral experiments (but, again, no formal ERP). Findings for 15 patients in each group showed much stronger performance by CT over wait-list in which patients' symptoms did not change. The longer CT in this study produced even better results, with OCD symptoms reduced by an average of 57% across all completers (Y-BOCS, 25.6 pretest to 11.5 after treatment); depressed mood also reduced. Unfortunately, the OCD patients in this study were not considered treatment refractory, so it is impossible to know how well CT would perform for treatment resistant cases.

One concern with regard to treatment resistance that we have raised earlier is that ERP may be rejected by up to 25% of patients as simply too difficult to tolerate (Riggs & Foa, 1993). Interestingly, when we surveyed 15 clinic applicants with OCD who requested psychological treatment from Dr. Wilhelm's OCD clinic, 87% (all but 2) stated that they preferred to enter CT over ERP. Further, dropout rates from our CT studies were low (about 10 to 15%), consistent with other studies that have tested CT for OCD symptoms (e.g., van Oppen et al., 1995). Thus, this CT method may be less stressful to patients, even severe ones, and more acceptable than ERP, leading more patients to choose this method and continue in treatment.

Perhaps the behavioral experiments that test patients' hypotheses make CT less threatening and more acceptable to some patients than the prolonged exposures and ritual blocking from the beginning of therapy. In this CT method, patients draw conclusions about their (mis)interpretations of their intrusive thoughts in light of the evidence and in so doing are encouraged to put these new conclusions into practice. Inevitably, this means stopping avoidance behaviors and rituals, a critical reduction in symptoms that comes about as a logical follow to new understanding of the contexts in which obsessions have occurred in the past. Intrusive thoughts gradually decline as well. Thus, CT with behavioral experiments may accomplish the goal of symptom reduction via an alternative avenue. We also find that CT can be less stressful on the therapist, but it is equally clear that much practice and skill in applying this method are essential as therapists must think on their feet to stay abreast of the patients' obsessive thinking and "yes, but ..." interjections. It is not yet clear which types of patients may benefit most from the type of CT employed here. Certainly, this will require studies with larger sample sizes than are available currently. Like van Oppen et al. (1995), we suspect that CT will be especially effective for patients whose intrusions trigger concerns about over-importance of thoughts, responsibility, and perfectionism that trigger checking behaviors. We are less sanguine about the benefits of CT over ERP for patients with washing rituals, especially as our research combining outcome data from nine different sites suggested that CT most benefitted patients who did not have contamination or washing fears (Wilhelm, Steketee, & Yovel, 2004).

In examining subtypes, CT may also be beneficial for patients with mental but not behavioral rituals. Having primary obsessive thoughts has usually predicted worse outcomes (e.g., Mataix-Cols et al., 2002), and exposures and ritual blocking methods are harder to design for these patients. In fact, Freeston and colleagues (1997) obtained excellent results using CT and loop-tape exposures in conjunction with ERP methods for these difficult-to-treat patients, suggesting that CT may enhance exposure effects for patients with this subtype. We also find that the CT method works well for patients with religious, sexual, and harming obsessions (Wilhelm et al., 2008). With many studies now conducted (for review, see Antony et al., 2007), CT must be considered an appropriate alternative to ERP for many patients with OCD symptoms and concurrent depressive symptoms. Whether it is a remedy needed for ERP treatment-refractory patients is unclear at this time.

### A schema-based model

Sookman and colleagues developed and elaborated a schema-based conceptual model and treatment approach for OCD of different subtypes (Sookman & Pinard, 1999, 2007; Sookman, Pinard, & Beauchemin, 1994; Sookman, Pinard, & A.T. Beck, 2001). Schema-based interventions expand upon standard CT methods described above and are intended to facilitate ERP, improve generalization and maintenance of change, and reduce relapse rates. The methods are combined with Beckian cognitive therapy to change problematic beliefs and reduce anxiety, concurrent ERP and behavioral experiments to reduce rituals, and other techniques to improve learning and train new skills. This approach stems from the hypothesis that dysfunctional schemas may interfere with adaptive learning from potentially disconfirmatory experience (Rosen, 1989). Core beliefs such as "I am a vulnerable or dangerous person" influence appraisals of thoughts and other strategic processing of internal and external events. Such schemas may underlie beliefs about threat (Sookman & Pinard, 2002), render these intransigent, and contribute to difficulty engaging fully in ERP and other



*Figure 2.2* Identity structure. (Adapted from "Multidimensional Schematic Restructuring. Treatment for Obsessions: Theory and Practice," by D. Sookman, G. Pinard, and N. Beauchemin, 1994, *Journal of Cognitive Psychotherapy*, *8*, p. 178.)

risk aversion (Sookman & Pinard, 2007; Steketee & Frost, 1994). As contemporary CBT models suggest: (1) dysfunctional responses to inner and external events may indicate dysfunction at the core schema level, and (2) modification of these dysfunctional schemas is critical to prevent symptom recurrence (A.T. Beck, 1996).

#### The model in theory

The model of OCD proposed by Sookman et al. (1994) is theoretically broad and was developed as a general model for conceptualization and intervention planning given OCD's heterogeneity. The following concepts are proposed as relevant to OCD symptoms: (1) schemas (Beck & Freeman, 1990; Beck, Emery, & Greenberg, 1985); (2) developmental theory (e.g., Piaget, 1960); (3) role of attachment experiences (Bowlby, 1985; Liotti, 1988, 1991); (4) constructivist model of identity structure (Guidano, 1990; Guidano & Liotti, 1985); and (5) metacognitive and appraisal theory (Salkovskis, 1985, 1989; Wells & Mathews, 1994). The figures shown here have been adapted slightly from Sookman et al., 1994.

Figure 2.2 illustrates aspects of the model pertaining to identity structure (adapted from Guidano & Liotti, 1985). In this conceptualization, cognitive, emotional, and motor schemas interact at a tacit level (beyond immediate accessibility to awareness) and influence explicit (experienced) processing of information, emotional retrieval and experience, and behavioral responses. Core schemas are hypothesized to develop during early attachment and developmental formation and to accommodate through life experience (e.g., Bowlby, 1985; Piaget, 1960). Schemas that do not accommodate adequately to new experience may underlie intransigence of dysfunctional patterns (Beck & Freeman, 1990; Rosen, 1989; Safran, 1990a,b).

Sookman et al. (1994) hypothesized that presence and activation of vulnerability schemas are a central mechanism underlying appraisals and emotional experience of danger, characteristic of several subtypes. The Vulnerability Schemata Scale (Sookman et al., 2001) was developed to assess vulnerability schemas characteristic of OCD. Four dimensions are assessed: (1) perceived vulnerability; (2) difficulty with unpredictability, newness, and change; (3) need for control; and (4) view of or response to strong affect. This last subscale assesses beliefs about strong feelings and one's capacity to tolerate and cope with these in oneself and others (e.g., "Strong feelings are dangerous" or "I cannot cope with strong feelings"). As intended, items on the vulnerability, unpredictability, and control subscales were significantly more strongly endorsed by OCD patients compared with other anxiety disorders and nonpsychiatric controls. Perceived difficulty to cope with strong emotions was found to be more characteristic of both OCD and other anxiety disorders compared with normals. Multidimensional schemas, including emotional, that may underlie psychopathology and impact resistance to change have also been emphasized in recent conceptual models (Beck, Freeman, & Davis, 2004; Leahy, 2002, Leahy, this volume).

Figure 2.3 illustrates the proposed interaction among core schemas and other factors relevant to symptoms. Dysfunctional information processing includes thought-action fusion ("If I think of a bad event, it is more likely to happen") (Shafran, Thordarson, & Rachman, 1996) and emotional reasoning ("I feel scared, so I must be in danger") (Arntz, Rauner, & van den Hout, 1995). Patients' cognitive responses to intrusions illustrated in Figure 2.3 range from appraisals and beliefs to more complex cognitive processes. The delineation "high-level information processing" refers to cognitive phenomena beyond automatic thoughts (Beck, 1976), such as beliefs about appraisals and beliefs about beliefs (metacognition). Metacognition refers to the monitoring, interpreting, and regulating of processes and content of cognition (Wells & Mathews, 1994). Cognitiveemotional processing also involves appraisals of emotion, emotional responses to thoughts, and emotional responses to emotions (e.g., fear of fear) (Goldstein & Chambless, 1978). These phenomena are considered products of activated schemas (Sookman & Pinard, 2007).

Thus, this model offers a general, adaptable frame for individualized case conceptualization and treatment planning based on heterogeneity of symptoms, their function and meaning, related feelings and beliefs, and schemas at a more core level. Factors that may affect resistance to change are operationalized and targeted as precisely as possible for each case.



\* Cognitive processes and content range from automatic thoughts to high-level information processing.

*Figure 2.3* Transformation of an intrusion. (Adapted from "Multidimensional Schematic Restructuring. Treatment for Obsessions: Theory and Practice," by D. Sookman, G. Pinard, and N. Beauchemin, 1994, *Journal of Cognitive Psychotherapy*, *8*, p. 179.)

## The model in practice: CBT for resistant OCD

Interventions based on this approach are summarized next, with case illustrations. This material is adapted from Sookman and Pinard (1999). First, the therapist collaborates with each patient to develop a profile of emotional, cognitive, interpersonal, and behavioral functioning. Symptom subtype characteristics are assessed, and specifically targeted treatment strategies are tailored to each patient's idiosyncratic experience. Dysfunctional beliefs are assessed using the Interpretation of Intrusions Inventory and the Obsessive Beliefs Questionnaire-87 (OBQ-87) (OCCWG, 2001, 2003, 2005). We prefer the OBQ-87 because of its separate subscales for threat estimation and responsibility, reflecting the clinical picture for many patients. Core beliefs are assessed on the Vulnerability Schemata Scale (Sookman et al., 2001). Other measures are completed on an individualized basis: Personal Significance Scale (PSS) (Rachman, 2003); Thought-Action Fusion Scale (Shafran et al., 1996); Thought Fusion Instrument (Wells, Gwilliam, & Cartwright-Hatton, 2001); Not Just Right Experience Questionnaire-Revised (Coles et al., 2003); and Homework Compliance Form (Promakoff, Epstein, & Covi, 1986). Symptoms, beliefs, and feelings are also assessed ideographically with many cases. Patients rate on a 0 to 100 scale how much they *believe* the idea is true and *feel* it is true (cognitive and emotional aspect of belief) (Sookman & Pinard, 1999).

Beckian (e.g., A.T. Beck, 1995; J. Beck, 1995) cognitive therapy is administered prior to and during ERP and behavioral experiments and as homework assignments for virtually all patients. Therapist-assisted behavioral avoidance tests (BATs) are carried out in patients' naturalistic environments (e.g., Steketee, Chambless, Tran, Worden, & Gillis, 1996). This observational methodology facilitates assessment and modification of information processing, emotional response, rituals, and avoidance that actually occur in feared situations. Strategies to tolerate, decenter, and reappraise intrusions are taught in sessions and during ERP and are given as homework. Imagined and *in vivo* practice of strategies to label, modulate, reappraise, and appropriately express strong feelings precedes and is combined with ERP in situations that provoke these (see Sookman et al., 1994, for illustrations).

Thus, the primary focus of cognitive therapy in this approach is not necessarily cognitive dysfunction. The (hypothesized) inseparable components of schemas: cognitive–emotional–interpersonal–behavioral (Beck, 1996) are targeted. For example, intolerance of distress and "not just right" experience are routinely addressed for washers who "just can't stand the feeling" of contamination without fear of illness and for individuals with symmetry, ordering, and arranging who may not report elevated beliefs on cognitive measures (Taylor et al., 2006). The therapist may elect to use Beckian CT strategies for cognitive and emotional core schemas that seem related to intransigence of symptoms (see below). Schema-based interventions are considered appropriate for about 50% of OCD cases seen in our clinic. These are considered if the patient's participation in ERP is not complete and if avoidance of inner experience or metacognitive dysfunction is not adequately resolved. Use of these strategies is also contingent on attachment and developmental experiences reported.

We generally use graduated exposure with complete RP but may begin with flooding to most feared stimuli when rapid improvement is urgent (e.g., parent whose OCD interferes with child care) or when a graduated approach was previously ineffective. As will be illustrated, an advantage of flooding for some incapacitated patients with pervasive rituals may be speed of habituation, belief change, and self-efficacy. Among the advantages of complete response prevention is that this procedure can preempt the patient's struggle to resist rituals following exposure and thereby reduce distress and suffering. Therapist-assisted *in vivo* ERP is administered in patients' naturalistic environments (home, work) whenever office-based treatment appears suboptimal. Severely ill patients are offered intensive naturalistic CBT or hospitalization. Duration of hospitalization for intensive specialized CBT is approximately 3 months, with 2- to 4-hour sessions 4 times weekly, followed by twice weekly outpatient treatment for at least 6 months. Significant others regularly participate in selected sessions, with the agreement and collaboration of the patient. This involves education, ERP, and adaptive strategies for patients' symptoms such as gradual withdrawal of inappropriate reassurance and fostering of autonomous functioning. Significant others are not included if they are deemed too antagonistic or dysfunctional to participate or if this is not considered appropriate. Other skills strategies such as problem-solving, decision-making, vocational, and social skills are offered to address difficulties or deficits and to help patients "get a life."

Relapse prevention and generalization strategies are integral to CBT methods. These include therapist and family fading, anticipation of triggers, and imagined rehearsal of coping under stress. Guidelines to maintain progress under stress are spelled out. Among the most important are instructions to engage in adaptive strategies for intrusions, self-administered ERP, and corrective cognitive and emotional strategic processing (Sookman & Pinard, 2007) as an immediate response to urges to ritualize. Sookman and colleagues developed the latter strategy<sup>1</sup> to promote change and relapse prevention throughout and following treatment (see illustration below).

Finally, treatment is not time limited and is based on clinical need. Duration of treatment ranges from 6 weeks to 2 years, with booster sessions provided as needed. Severely ill patients who receive schema-based interventions may continue for 2 years or more. Therapy is delivered in a large specialized OCD clinic at the McGill University Health Centre in Montreal that accepts OCD patients of all ages (children to seniors) regardless of comorbidity or illness severity. Psychiatric consultation and pharmacological intervention are available as needed.

#### Clinical example of CBT without schema-based interventions

This case illustrates the application of complete ERP, using imagined exposure and cognitive therapy, which addressed this patient's specific symptom and belief profile, followed by a flooding paradigm. The thorough case history routinely taken with all patients on intake is not elaborated fully because of space constraints. Her treatment was time limited because she was referred from another country. This case has a long-term (7 years) follow-up outcome.

Michaela was a 47-year-old married woman, with three children, referred from a Middle Eastern country after 10 years of twice weekly psychotherapy (*"to figure out my underlying conflicts"*), a year of twice-weekly

<sup>&</sup>lt;sup>1</sup> In developing this clinical strategy specifically for OCD, we built upon the conceptual and treatment model of OCD proposed by Sookman, Pinard, and Beauchemin (1994); the general information processing model of anxiety proposed by Beck and Clark (1997); and the model of vulnerability schemas in OCD proposed by Sookman, Pinard, and Beck (2001).

outpatient CBT that ended a year prior to the referral, several adequate pharmacotherapy trials that had included augmenting strategies, and a lengthy general hospitalization for severe secondary depression. These treatments had failed to improve her OCD and she had recently made a near-fatal suicide attempt. Certainly, her 100 sessions of previous ERP and CT, combined with pharmacotherapy, qualified her as treatment resistant.

Michaela's symptoms began 17 years earlier when she and her family moved to a different country for a year to accommodate her husband's work. Michaela felt unhappy there because of the restrictive culture, despite her elevated socioeconomic status. Her OCD began when workmen came to her home to do repairs. They had raw beef for lunch, common in this culture. Michaela saw a drop of blood on the floor and recalled thinking: "That is so disgusting; look at the mess they made." She experienced a strong feeling of repulsion and asked her housekeeper to wash the floor. Michaela then scrubbed the floor herself and took a lengthy shower. Over a period of several months her symptoms rapidly generalized to the point that she became housebound, with virtually constant obsessions about the possibility she had touched raw meat. On initial assessment in our clinic, she reported incapacitating cognitive and behavioral rituals with classic patterns of contamination spread from raw meat sources. For example, she felt her car had become contaminated as she thought about the possibility that the wind could blow particles into her car from delivery trucks which might have come into contact with raw meat.

Michaela engaged in extensive washing for about 6 hours daily at home, but she struggled not to require the same behavior from her husband and children. After her children went to bed, she completed extensive washing of all objects that had come from the outside. She was hypervigilant about what her family brought into the house, did ongoing mental reviews of the extent of contamination, and had great difficulty delaying washing her hands for even a few minutes because of "intense urges to get rid of all feelings of contamination." She engaged in lengthy handwashing over 50 times a day, maintained "safe" areas in the home, and made repeated requests for reassurance. To her great sorrow, she had been unable to hug her children for many years except when they were just out of their bath in pajamas. Affection and sexual relations took place with her husband after he had showered. She could not accompany her husband or children to any activities, had withdrawn from friends and relatives, feeling anxious and ashamed. Contributing to her suicidality, she felt that her children and husband "are better off without me." On initial assessment, she said she felt "hopeless" about getting better.

The only symptom-related beliefs Michaela reported were "*Raw meat* is disgusting. If I touch it, I feel contaminated. I feel guilty about spreading contamination all over my home. It's not that anything bad will happen to anyone. I *just can't face the feeling.*" Michaela said she felt she had to wash until she felt better. Obvious information processing distortions were generalization and all-or-nothing thinking: "If one drop of raw meat gets on me, it spreads to everything." At initial assessment, Michaela's total score on the Y-BOCS was 28. Her scores on three cognitive measures (III, OBQ, VSS) were comparable to normals. Idiographic recordkeeping was implemented to assess weekly change in obsessions and rituals, the two symptom-related beliefs she reported, and a variety of feelings.

Michaela was the eldest of three sisters with whom she reported having a good relationship. She described her childhood as happy and privileged and raised by "loving and liberal-minded parents." She felt she had a relatively good relationship with her husband "who sees men and women as equal. We love each other very much," though it was strained because of the severity of her OCD. Michaela reported, and seemed to manifest in sessions, good tolerance for and expression of other strong feelings. She appeared to be highly motivated. Despite thorough exploration of Michaela's attachment and developmental history, cultural and interpersonal experiences, and meaning to her of the perceived precipitating event, ongoing schema-based assessment did not suggest a hypothesis for Michaela's intolerance of this specific experience of disgust. Her developmental and premorbid functioning appeared to have been good, and there were no other identifiable skills deficits.

Michaela reported (and the therapist's written report confirmed) that previous treatment had included education about appraisal models of OCD, and ERP with both habituation and appraisal/belief disconfirmation rationales. Previous cognitive therapy had addressed beliefs about the probability and extent of contamination and self-doubt (e.g., "Did I wash enough? Is the speck of meat that could have been there gone?"). Previous ERP was graduated and therapist assisted. This included looking at pictures of raw meat, walking past raw meat in the supermarket, driving within sight of food trucks, and, finally, touching raw meat "with one finger." Michaela had refused to confront the most contaminated stimuli, and she had been unable to follow response prevention instructions between sessions. She said she sometimes washed at home after sessions, for example, shampooing her hair many times. There was minimal change.

The primary CT interventions in our clinic focused on strategies to help Michaela to tolerate and reappraise dreaded feelings of anxiety and disgust that appeared central to her prior refusal to engage fully in ERP. The therapist told Michaela that avoidance of these feelings perpetuated their intensity and her perceived inability to cope. Although the ultimate goal of therapy, of course, was to diminish her feelings of disgust and related symptoms, the initial goal was conceptualized as helping her to develop more adaptive *responses* to her inner experience. She was advised that if all else failed a recommended strategy was to "*defuse*" or disconnect her thoughts, feelings, and behavior and to follow the ERP "prescription" (see below) regardless of her inner experience. Michaela said intolerance of distress had not been addressed in her previous therapy. She confirmed that she understood the rationale presented, that if she engaged in ERP these feelings were expected to diminish. She agreed she had to face her feelings. Nonetheless, Michaela said: "I feel I cannot, it's too intense." She asked the therapist to "go very slowly so my anxiety is not too bad."

In view of the failure of previous graduated exposure the therapist recommended the contrary, telling the patient that she would be unlikely to get better unless she faced whatever painful feelings occurred, and proposing that intensive exposure could more rapidly decrease these feelings. Given previous difficulty sustaining ritual prevention, ERP was constructed to prolong response prevention following exposure with the help of a family member. The therapist made it clear that ERP would not be offered until Michaela requested it as recommended.

Treatment began with several sessions of prolonged imagined exposure (90 minutes), in which Michaela was asked to imagine two opposing motivational scenarios. In the first, she faced distressing feelings of disgust for several weeks of intensive therapy by following the therapist's behavioral prescriptions and imagined going home able to physically express her love for her husband and three daughters, hugging them and sharing life experiences she had been missing. In the second scenario, she continued to avoid raw meat and continued to suffer her crippling symptoms. Following three imagined exposure sessions Michaela said: "*I will do anything to have my life back. I want the ERP. I'll do my best to face it.*" Michaela stayed locally at her sister's home during treatment. Because of her trusting relationship with her brother-in-law Samuel, a close friend of her husband, she asked him to participate and he agreed.

The schedule and content of ERP were planned collaboratively with the patient and her family. ERP was administered in two 1-hour sessions, 4 times weekly, for 6 weeks—a total of 48 hours of ERP. Samuel attended all sessions and participated in the ERP and assigned homework for the first 2 weeks. Flooding involved the highest step on the hierarchy from the onset. Samuel was asked to bring a package of raw beef to the first ERP session. Each step had been clearly outlined and agreed upon beforehand. The therapist repeated the agreed-upon instructions and asked Michaela to follow these regardless of what she was thinking and feeling, as follows:

- T. Okay, Michaela, as we agreed, remove the covering from the meat with your hands.
- M. How can I do this? I have not done this for 17 years.

- T. You want your life back, there is no way around this.
- M. (Opens the package, shaking.)
- T. Great. Now, as we agreed, touch the meat completely with both your palms. Put your palms on the piece of raw meat. Think of your daughters while you do it.
- M. I'm doing it, but how will I feel afterward? There is blood on my hands now. (She looks at her hands, and looks scared. Samuel tells her she is doing great and he is proud of her. He repeats the same exposure by also touching the meat.)
- T. This is going very well. Now, as we discussed, let's do the next steps fast. You can pat your hands for a second on the paper towel once. Good. Now, touch your hair, your face, all your clothes, your shoes. (Michaela does all this, and begins to cry). Now, why don't you and Samuel hug each other so he is also utterly contaminated (said with humor). (They hug, and Samuel says how pleased he feels. Michaela cries and laughs a little at the same time.)
- M. I can't believe I just did that. I just can't believe this.
- T. How do you feel, Michaela? You did great, you did really great.
- M. It's all over me now. I feel a very strong urge to take a shower to get it off me.
- T. I know, but you want your life back. Do you feel proud of yourself?
- M. I am very scared. Maybe a little bit proud. I have had nothing to feel proud of for 17 years. (She cries, and Samuel puts his arm around her.)
- T. Congratulations, Michaela. You have come closer to the life you want back so badly. Okay, now let's review the response prevention that is essential if we want the exposure we just did to work. You go home to your sister's, and as you all agreed, you touch everything so nothing is left untouched. This is very important that there be no exceptions. Everything in the kitchen, every room. Lie in your bed, get under the covers with the clothes you are wearing now, and put your head on your pillow. Touch all of your belongings. Don't wash at all, not your hands or anything else, except to brush your teeth until tomorrow morning before your next session. As we agreed, Samuel will be with you. He will touch everything first, and then you do the same as him. Okay? Any questions?

At the second session the next day, Michaela reported that the RP had been carried out exactly as prescribed. She had difficulty sleeping; her anxiety had dropped from 100% to only around 70%. She had experienced many obsessions about what she had done. The same ERP exercise was repeated four times during the first week, with much encouragement from the therapist and family. Therapist fading was

rapidly implemented: At the end of week one, Michaela repeated all the steps in the presence of the therapist and Samuel, but without any instructions from the therapist or modeling by Samuel. At her sister's home, it was recommended she take the initiative in "contaminating" the entire house with Samuel only accompanying her. Week two focused on normalizing a wide range of activities. First with Samuel or her sister and then alone, Michaela bought meat at a supermarket, drove her rental car intentionally behind food trucks, ate at restaurants, and used public washrooms. At end of week two, Michaela was engaging in a wide range of activities in and out of the home. She reported (confirmed by family) that she was ritual free. To her great surprise, she felt that her obsessions and anxiety had dramatically reduced and her feelings of hope and pride had greatly increased.

At week three, the therapist recommended that the patient additionally grill or pan fry hamburgers and steaks daily for her family (treatment took place during the summer). Each step required was reviewed with the therapist beforehand (e.g., how to handle raw beef, use of utensils, serving, cleaning up). Given the duration of dysfunction, essential ingredients to the relearning process involved education about normal meal procedures and rehearsal of resisting inevitable occurrence of urges to engage in "just little rituals." As exposures became easier Michaela asked if she should do the same with raw pork and chicken, although these meats had bothered her less. The therapist recommended against this for realistic health reasons (not one of Michaela's concerns). Further education was provided about normal handling and preparation of these meats and other foods (e.g., brief handwashing after touching) and normal clean-up without rituals.

At Michaela's suggestion, during week three she began to volunteer at a butcher shop cutting meat and serving customers. The therapist said she could not have thought of a better idea. While Michaela still believed about 30 to 40% that raw meat was contaminated, she felt little anxiety and was able to joke with customers as she worked.

In addition to daily exposures described above, the therapist recommended that Michaela agree to see relatives who wished to travel to Montreal from the United States to visit her. Michaela said she had been socially isolated and ashamed of herself for so long, these encounters provoked much initial anxiety and urge to avoid. Social encounters were discussed as behavioral experiments to test whether people would be judgmental as she feared or loving and joyous as she hoped.

The second half of treatment involved detailed discussion of strategies for generalization and maintenance of gains in her home country. The therapist recommended a minimum of 6 weeks of intensive exposure (flooding), replicating the clinic procedures, and jumping into autonomous shopping, cooking, and traveling around the city immediately. This was to be followed by another 6 weeks of ERP 3 times a week, with gradual fading of formal exercises provided there were no rituals or avoidance in her normal daily activities. Michaela gave advance instructions to her housekeeper and family to stop all previous protective and safety behaviors and reassurance. The therapist emphasized the crucial importance of maintaining complete exposure and response prevention regardless of the strength of urges to ritualize. Formal ERP exercises were to be resumed as needed to prevent relapse. Also of crucial importance was resuming varied activities in and outside the home with her husband and daughters, as she had longed for.

An important relapse prevention strategy used was *Corrective Cognitive and Emotional Strategic Processing* (Sookman & Pinard, 2007), referred to above. This was formulated collaboratively, rehearsed during imagined exposure, and given as homework. For example, Michaela proposed the following as helpful to forestall relapse:

- 1. "I had a strong feeling of disgust touching raw beef for supper tonight (*emotional response to OCD trigger*). What if my OCD comes back? Oh, no, I'm getting anxious. Everything the meat touched is contaminated (*appraisal*). Maybe I should do something to clean up all traces of it (*urge to ritualize*). No, as I learned in therapy, this feeling is a false trigger. These feelings of disgust and contamination are harmless, no matter how strong (*corrective processing*). My husband asked my opinion about an important decision today. This made me feel very happy, but I guess I also feel stressed (*corrective processing identification of varied emotions, possible precipitant and meaning of symptom exacerbation*). I should try to figure out what's bothering me, talk to him, and deal with it (*problem solving to deal adaptively with emotions and relationship*)."
- 2. "I have an urge to wash to get rid of this feeling that I am contaminated. But, as I learned in therapy, I can tolerate this feeling without letting it control my behavior. I will not let it affect my behavior because I do not want a recurrence of my OCD (*corrective processing*)."

The last week of treatment, Michaela's husband, Stan, and children came to pick her up, and all went home together. Michaela introduced her daughters to the therapist, laughing and hugging them. During two couple therapy sessions planned from the onset, the procedure for ERP and normalization of activities at home were discussed with her husband with Michaela demonstrating. Her husband was astonished and began to cry. As Michaela had described, he seemed loving and supportive but understandably anxious about her illness and the possibility of relapse. He reported avoiding sharing his feelings or work difficulties with Michaela for fear she was "too fragile" and felt that the strain on him had been "enormous." The couple agreed to try to resume to function as equal partners, as they recalled doing before the onset of OCD. Before she left, Michaela demonstrated her flooding paradigm on videotape and gave consent to show this to other patients who feared ERP.

The therapist offered Michaela weekly phone sessions for 6 weeks, during the implementation of ERP and normalization at home, and then on an as-needed basis. She successfully generalized and maintained her improvement. Michaela reported she continued to feel about 30% "raw beef *is contaminated,*" but this did not usually cause anxiety. Over the months that followed, she reported several stressful periods where the urge to ritualize was very strong but she resisted because "I never want to get OCD again, and I know ERP is my protection." Michaela returned to the clinic a year later for 2 weeks, following the death of a close relative. Michaela had not engaged in rituals, but her urges were so strong she felt she was "in danger of giving in." Six sessions focused on discussion of her feelings of loss, and the positive evolution of her relationship with her husband and children. At a 7-year follow-up Michaela reported she was completely ritual free and was engaging in varied activities with family and friends, with no avoidance. During this period she spoke with the therapist by phone an additional five times.

Why was Michaela able to engage fully in complete ERP, and in flooding, at our clinic and to maintain her progress at home? She attributed her success to five interventions: (1) emphasis on tolerating and coping with distress; (2) motivational imagined sessions prior to ERP "helped me get in touch with how strong my feelings are of wanting to share life with my children and husband. I realized these feelings are as strong or stronger than what raw *meat made me feel"*; (3) therapist-assisted flooding and complete response prevention, "we went so fast, the anxiety went down fast, I didn't have to think about rituals because it was not possible to do them if I followed the prescription, I quickly learned I could cope with my feelings"; (4) imagined practice of corrective strategic processing in sessions, and at home "Strategies I learned and practiced during therapy, to prepare for going home, that I could use anytime to identify and cope better with what I think and feel"; and (5) Samuel's collaboration, that was initially indispensable to complete ERP: "His support and encouragement also made me feel I could do it." Indeed, in the therapist's experience, Samuel was one of the best significant other co-therapists ever encountered. He was loving, supportive, and he modeled coping. In collaboration with the therapist, Samuel helped Michaela to de-catastrophize her distress, to focus on reality ("it's just a feeling I can learn to cope with") and to envision the future she wanted.

# *The model in practice: schema-based assessment and treatment interventions for resistant OCD*

This section provides a brief summary with a few illustrations of schemabased strategies. Additional information about these methods is provided elsewhere (Sookman & Pinard, 1999, 2007; Sookman & Steketee, 2007; Sookman et al., 1994). In 1994, Sookman et al. proposed that: "The schematic meaning of an obsession encompasses dysfunctional core beliefs, feelings, and memories about the self related to key attachment experiences. ... In order to access and modify a schema in treatment, the patient must become able to emotionally experience as well as to cognitively reflect upon its contents" (p. 190). The first step in this process is to start with elements perceived as threatening that are readily accessible to awareness, including feelings, sensations, images, urges, impulses, intrusions, and *thoughts*. Some patients readily recognize associations among inner experience and behavior and core aspects such as self-image, but others require intervention. For example, Michael was a 25-year-old orthodox Jewish doctoral student who spent 5 hours checking daily. He had felt unable to participate fully in response prevention in two previous CT and ERP treatments. He stated during an initial session:

> I have many intrusions I will miss a signal that someone else is in danger and I will not act fast enough to save them. Last week I saw that a road sign about a sharp turn ahead had fallen off. The bus was going so fast that by the time I rushed to the front and spoke to the driver he did not know which road I referred to. So I could not report it. I had images all night of someone dying because of me and felt I am basically a bad person who does not care enough about others. I can only feel good about myself if I feel I have done enough checking to make sure others are safe. I'm afraid I will never be able to get over the guilt and these feelings will interfere long-term with my being happy.

Here, the core element of feeling like a bad person unless rituals are performed was readily accessible. The insightful feared consequence was not being able to feel happy due to his own feelings of guilt.

The next step is to identify and to modify aspects that are less accessible to awareness which the patient cannot spontaneously report. This may be crucial in modifying patients' strategic processing of distressing events. As Sookman and Pinard (2007, pp. 101–102) noted:

Patients are typically less aware of: (a) the role of their myriad emotional, cognitive, and behavioral responses to inner and external events in perpetuating symptoms; (b) the influence of core aspects, such as personal values (Rachman, 1998), on their responses to specific events; and (c) the impact of past experience on current functioning. The downward arrow technique (Beck et al., 1985; Burns, 1980) to identify core beliefs in OCD has been described elsewhere (e.g., Freeston et al., 1997; Wilhelm & Steketee, 2006). The aim of the downward arrow in this approach is to reach a level of belief that is relatively undissociated from emotion, that is, at the implicational level (Teasdale & Barnard, 1993). Regardless of content, the therapist assesses and targets dysfunctional emotional beliefs such as "I don't believe it's true, but I feel it's true." In the next step, schemas are linked to symptoms, as in the following illustrative sequence of maladaptive information processing, which would be communicated to the patient inserting his or her idiosyncratic content: Pre-existing dysfunctional cognitive and emotional schemas (e.g., vulnerability schemas) influence autonomic and strategic processing of events  $\rightarrow$ specific inner and external events are experienced/ appraised as dangerous  $\rightarrow$  strong feelings of anxiety or discomfort, urge to act to restore predictable feelings of safety and comfort, fear of loss of control  $\rightarrow$ hyperattention, vigilance, thoughts about thoughts, thought suppression, cognitive rituals, behavioral rituals, reassurance seeking, and avoidance  $\rightarrow$ appraisals and beliefs about (inevitable) failure of dysfunctional strategies  $\rightarrow$  perceived confirmation of dysfunctional core schemas  $\rightarrow$  escalating anxiety and symptoms.

The therapist explores the effects of past attachment and developmental experiences on current functioning to further understand and reduce intransigent entrenched patterns. Various strategies are employed to help the person tolerate, reappraise, and express core emotional schemas and to risk exposure to situations that activate these. These interventions are combined with ERP and assigned as homework. The patient is helped to identify and engage in adaptive behaviors that are schema inconsistent and to experience "with new eyes" how the outcome differs from childhood experiences. New skills are taught and practiced. Graduated behavioral experiments are designed to disconfirm maladaptive emotional responses and core beliefs (flooding is not recommended here).

Michael's previously intransigent feelings of guilt, and related core beliefs about badness, were addressed by helping him to *emotionally* differentiate between OCD and normal standards for interpersonal responsibility and ethics. He risked disregarding, rather than acting on, urges to repeatedly check. He reconceptualized his feelings of guilt as emanating from his past relationship with his father that he could now disregard in the present. His comments in a schema-based session were:

> My father was more particular even than our orthodox rabbi about the way I observed our religion. If I made any mistakes when I would daven (pray) he asked me to repeat sentences over many times. He told me it was not good for my spiritual wellbeing and happiness to be sloppy. What got to me was the unhappy part, I felt like that when he was around. Frankly, I didn't care then about how perfectly I recited prayers. But I guess I cared about my father's opinion. ... I swallowed it hook, line, and sinker. Now I am obsessed that if I am sloppy with people I am doomed to unhappiness. Another way to see this is my father was overly rigid ... but I ended up feeling I am basically a bad person. To reassure myself I'm not, I have to check out and act on every imaginable threat to everyone, or else I do not deserve happiness. But maybe my standard of sloppy is a normal person's standard of responsible and my father's standards were unreasonable.

In this approach, schema restructuring becomes a goal within the therapeutic relationship as the therapist aims to create a therapeutic experience that fosters *relational affective relearning* (Sookman et al., 1994, p. 90). This process has been described in other theoretical frames (Alexander, 1956; Greenberg & Safran, 1987; Kohut, 1971; Safran, 1990a,b). In this method, the therapist uses spontaneous "hot moments" of emotional opportunity to disconfirm dysfunctional responses and links these to past experience and to current patterns that are now reappraised. The therapist models normal risk taking, anxiety management, and skills as appropriate. To illustrate, we use a few segments from early sessions with a 35-year oldwoman with perfectionism and checking rituals related to fear of making mistakes. Sally was recently fired as a legal secretary because of virtually constant symptoms. She had just left her husband of 5 years, though he had said he wanted to stay together. She had quit four previous therapies, during which she was chronically late "due to rituals" and noncompliant with homework ("*I won't do it well enough*").

- S. You answered the knock on your door instead of ignoring it. I think you should have ignored it.
- T. What did this mean to you?
- S. You really are not concentrating completely on me. I wanted to completely finish the thoughts I was expressing. Now you won't understand me. I know it only took a few minutes ... but no reason is okay.
- T. How did this make you feel?
- S. I feel hurt ... just like in lots of other situations. I feel you just don't care, like with my husband, as I've already told you. All therapists are pretty much the same. (Her tone is annoyed and devaluing.)
- T. I'm sorry this caused you to feel hurt. I think it's important that you concluded that I don't care about you and that you feel nothing can disconfirm this, that no reason is okay, including an emergency like a burst pipe. (Sally smiles.) I'd like to understand more about why you feel this way. I can tell you this certainly is not accurate about what I am feeling. I feel sorry we had to interrupt. I am genuinely interested in what you are telling me about yourself and in trying to help. (Sally looked surprised and a bit tearful.)

Several sessions then focused on her relationship with her husband. In response to specific questions, Sally was able to talk about experiences with her father, whom she viewed as self-centered and critical, and to reflect on their possible effect on her view of herself and others. She said she had felt "devalued" growing up. Sally expressed a pervasive feeling of emotional isolation, a longstanding core belief that she did not deserve attention or love from others, and a "constant need to prove myself by not making any mistakes or else nothing I do will be worthy." The therapist asked: "Is it possible that these core beliefs affect how you feel and think in relationships in the present? If this is the case, you may sometimes be concluding things about others' feelings toward you that are not accurate, as you did with me … and with your husband. I think this is related to your symptoms of perfectionism, feeling of emotional isolation, and quitting relationships so you don't get hurt."

# Treatment efficacy for resistant OCD

Sookman and Pinard (1999) and Sookman, Dalfen, Annable, and Pinard (2003) reported outcome data on OCD symptoms, depression, and beliefs using this schema-based approach with two samples (total n = 39) of CBTresistant OCD patients, including all symptom subtypes. Previous cognitive therapy and ERP had lasted over 2 years. Individual outpatient sessions were administered 1 or 2 times weekly for an average of nearly 10 months. Of the 39 patients, 32 (82%) showed clinically significant improvement in OCD symptoms and depression (Jacobson & Truax, 1991). Mean Y-BOCS scores improved from 23.2 to 11.9 in the second study (n = 32). More importantly, 10 patients were recovered (Y-BOCS score < 7) following treatment. Another 10 reported mild symptoms (Y-BOCS < 16), and 5 remained moderately ill. Dysfunctional beliefs assessed on the OBQ-87 and core beliefs on the Vulnerability Schemata Scale reliably improved for responders and did not change for nonresponders. Symptomatically recovered patients showed reductions in dysfunctional beliefs to within normal range at posttreatment. We attribute these strong results for previously resistant samples to the specificity of this CBT approach, such as attention to subtype characteristics and other factors that seemed relevant to patients' resistance to change. Some patients who previously did not participate in ERP did so in these trials. The important question of long-term maintenance of change is currently under study in a 5-year follow-up.

### Implications for future research of CBT resistance in OCD

As evident from the above review and illustrations of treatment, cognitive therapy methods produce positive results for OCD symptoms and may be especially potent when combined with behavioral ERP strategies. Expanded interventions that focus on schema-level features that appear to be common in patients who have not benefited from previous therapy, even well-executed ERP, seem very promising. Certainly, more clinical trials are needed to further examine the efficacy of these methods for a range of patients with various OCD subtypes and personality characteristics. However, before commencing such trials there is a need for consensus on intervention and response criteria for CBT-resistant OCD (Pallanti et al., 2002; Simpson, Huppert, & Petkova, 2005; Sookman et al., 2006). Available studies have considerable heterogeneity in samples, interventions, and assessment of response (Moher, Schulz, & Altman, 2001; Tolin, Abramowitz, & Diefenbach, 2005). What combination of ERP and CT interventions, with respect to content, duration, speed, location, and degree of therapist and family assistance, constitutes an adequate trial of specialized CBT for various OCD subtypes? As several experts have pointed out, criteria are needed to further define resistance to CBT, to identify contributing factors, and to develop strategies for addressing these (e.g., Cottraux et al., 2005). The intervention and response criteria proposed below for CBT-resistant OCD are based on current available empirical literature and our own clinical experience.

## Intervention criteria for CBT resistance in OCD

We propose the following criteria for determining whether an adequate trial of specialized CBT has been provided:

- 1. Specialized CBT is administered by a therapist, or under the supervision of a therapist, experienced in treating OCD. As a general guideline, the therapist should have engaged in supervised CBT with at least 10 and preferably 20 OCD patients of varying subtypes. Considerably more supervised experience may be required for some therapists to successfully treat patients with the schemabased approaches described earlier and for patients who have not responded well to an initial trial of CBT. Multidimensional assessment of symptoms, comorbid conditions, medical status, skills repertoire, resources, and intrafamilial and psychosocial functioning has been adequate to formulate an empirically based individualized CBT case conceptualization and treatment plan, which evolves with the patient's active collaboration during treatment. Assessment strategies include standardized scales to assess subtypes and severity of OCD symptoms, comorbid conditions, beliefs, emotional distress, quality of life, and other relevant variables (e.g., degree of insight), and direct behavioral observation and interviews with significant others when possible. Idiographic record keeping during treatment is important unless contraindicated for cases of severe perfectionism.
- 2. Delivery of empirically based CBT and/or CT with behavioral experiments. ERP includes planned prolonged exposures and prevention of rituals and avoidance behaviors triggered by these exposures. CT addresses appraisals of intrusions, beliefs, emotional responses, and metacognitive dysfunction characteristic of OCD. These treatments are directed at all subtypes of OCD symptoms present.
- 3. At least 40 hours of therapy are delivered in intensive or spaced formats with therapist assistance unless the patient recovers sooner. If clear progress is evident but the patient is not scoring in the subclinical range on OCD symptoms, additional treatment should be

provided. If spaced sessions (e.g., once weekly) do not produce clear evidence of improvement after 10 hours, treatment should be intensified (2 or 3 times weekly or even daily), and session duration should be lengthened (90 minutes or more). ERP and CT methods should be employed by the patient in relevant naturalistic environments; if needed to complete assigned tasks, assistance from family members or the therapist should be added.

- 4. Relevant daily ERP and CT homework is assigned, monitored, and adjusted regularly during sessions.
- 5. Skills limitations have been identified and addressed with skills acquisition interventions (e.g., emotion tolerance and modulation, interpersonal skills, decision making).
- 6. Family/significant other difficulties that may impede improvement are addressed in meetings with significant others. Unless this is deemed inappropriate, significant others receive education about OCD, recommendations for adaptive responses to the patient's symptoms, and strategies to foster healthy functioning. These recommendations are provided with the patient's knowledge and prior consent (except in emergencies) and are congruent with the patient's progress in treatment (e.g., degree/level of ritual prevention following ERP).
- 7. Referral for prior or concurrent pharmacological treatment is empirically based (i.e., comorbid disorders or symptoms that require medication). When adequate CBT produces limited response by mid-treatment, medications may be added when hypothesized reasons for poor outcome suggest a need for medication rather than change in psychological strategy. Pharmacotherapy dosage and adherence are optimal, and empirically based augmenting strategies are employed.
- 8. Therapy fading, generalization, and relapse prevention strategies are provided. Fading requires that therapists and family members assisting in office or home-based sessions reduce the frequency and intensity of their involvement over time. Hospitalized patients should receive regular outpatient sessions following discharge for at least 6 months with a graduated reduction schedule. Generalization refers to the need to apply exposures and CT methods across a broad range of situations in which symptoms occur to ensure learning across relevant contexts. Methods to sustain gains include stress management strategies and anticipation and planning for likely future triggers of symptoms.
- 9. Treatment-interfering behaviors (Pollard, 2007) have been identified and addressed.
- 10. Booster sessions are provided as needed.

## Criteria for remission or recovery following CBT for OCD

We propose the following response criteria for remission/recovery following specialized CBT for OCD (see also Sookman & Steketee, 2007):

- 1. The patient no longer meets diagnostic criteria for OCD.
- 2. Y-BOCS total score is 7 or lower.<sup>2</sup>
- 3. No subjective distress due to OCD symptoms.
- 4. No rituals are performed (minimal obsessions and urges to ritualize may occur).
- 5. No avoidance of previously feared situations and OCD triggers.
- 6. Dysfunctional appraisals and beliefs, and other OCD-linked symptoms such as secondary depression, are resolved to within normal limits (see scores for normal controls on cognitive measures; OCCWG, 2003).
- 7. Absence of functional impairment, or return to premorbid level of function, in multiple quality of life spheres including work, activity level, and interpersonal relationships.
- 8. The patient cooperated fully in ERP or CT with behavioral experiments.
- 9. Improvement is maintained for at least 6 months.

Thus, *optimal treatment response* refers to remission rather than merely clinically significant improvement; this goal is also shared by other experts (e.g., Hollander & Zohar, 2004). Although patients with a Y-BOCS score below l6 at posttreatment would not meet the criteria for a clinical trial, they still suffer noticeable symptoms which can adversely impact their quality of life. Further, continuing dysfunctional beliefs and negative mood can also impair functioning and contribute to relapse.

### Criteria for CBT resistance in OCD

Following from the above-listed criteria for adequate treatment and for recovery, we also propose that a patient be considered resistant to CBT if the following response criteria are met after an adequate trial of CBT has been delivered or attempted:

- 1. The patient continues to meet diagnostic criteria for OCD.
- 2. Y-BOCS total score 14 or higher and/or less than 50% improvement in OCD symptoms from pretreatment.<sup>3</sup>

<sup>3</sup> Within mild range of OCD symptom severity, ≥1 standard deviation below the mean for clinical OCD samples reported by the OCCWG (2003); 20.5 (mean) – 6.9 (standard deviation) = 13.6; *n* = 248.

<sup>&</sup>lt;sup>2</sup> Within normal range,  $\leq$ 1 standard deviation above the mean for normal controls reported by the OCCWG (2003); 2.5 (mean) + 4.3 (standard deviation) = 6.8; *n* = 87.

- 3. Mild or greater subjective distress due to OCD symptoms.
- 4. Continued rituals are performed in response to obsessions and urges to ritualize.
- 5. Continued avoidance of feared situations and OCD triggers.
- 6. Dysfunctional beliefs and other OCD-linked symptoms, such as secondary depression, remain within dysfunctional limits (see scores for OCD clinical samples on cognitive measures; OCCWG, 2003).
- 7. Mild or greater functional impairment due to OCD symptoms in one or more quality of life spheres including work, activity level, and interpersonal relationships.
- 8. Refusal to cooperate fully in ERP or CT with behavioral experiments. Reasons for refusal have been directly addressed without success and consultation with an expert in OCD has been undertaken.
- 9. Improvement is not maintained at a short-term follow-up of 6 months, with a sustained worsening of OCD symptoms by 25% or more since end of treatment.

Further controlled research is required to examine specific therapeutic ingredients and mediators of sustained change. Although the statistical significance of mean change scores and pre-post effect sizes are important, they are of limited value in examining treatment resistance. We recommend that published reporting of group results include clinical categorization according to the number of patients who recover, who achieve clinically meaningful improvement (i.e., into mild range), and who do not achieve such benefits, as well as long-term outcomes in each of these categories. To date, results have been reported this way in relatively few studies (Eddy et al., 2004; Hollander et al., 2003; Rufer et al. 2005; Simpson et al., 2005; Sookman et al., 2003), and in some of our own research we are equally at fault. Investigation of characteristics (predictors) among recovered patients, and those on the continuum of recovery, can facilitate further development and refinement of interventions. For example, neurobiological correlates of change may help us to understand differences among patients on the continuum from CBT resistant to recovered. Further, an essential issue in addressing CBT resistance is treatment delivery and how to best disseminate expertise available at specialized OCD clinics.

On an individual basis, there are different degrees of resistance to treatment that require further examination. Theoretically, individuals are susceptible to relapse if they continue to ritualize in response to feared events. The extent of change in cognitive, emotional, and behavioral responses to inner and external events, especially if these return to within normal limits, may mediate long-term maintenance of change. Continued practice of adaptive skills taught in therapy would be important to operationalize and assess. *Corrective Strategic Processing* (cognitive and emotional processing and regulation) may be a particularly sensitive predictor of outcome. Susceptibility to maladaptive reactions to intrusions may persist, or reappear under stress, without instigating relapse if the patient's cognitive and emotional strategic processing is corrective (Sookman & Pinard, 2007). How to achieve the goals outlined in this chapter for more OCD patients is a challenge for the future.

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