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Cognitive behavioral therapy of obsessive-compulsive disorder Edna B. Foa, PhD



Until the mid-1960s, obsessive-compulsive disorder (OCD) was considered to be treatment-resistant, as both psychodynamic psychotherapy and medication had been unsuccessful in significantly reducing OCD symptoms. The first real breakthrough came in 1966 with the introduction of exposure and ritual prevention. This paper will discuss the cognitive behavioral conceptualizations that influenced the development of cognitive behavioral treatments for OCD. There will be a brief discussion of the use of psychodynamic psychotherapy and early behavioral therapy, neither of which produced successful outcomes with OCD. The main part of the paper will be devoted to current cognitive behavioral therapy (CBT) with an emphasis on variants of exposure and ritual or response prevention (EX/RP) treatments, the therapy that has shown the most empirical evidence of its efficacy. © 2010, LLS SAS Dialogues Clin Neurosci. 2010;12:199-207

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bsessive-compulsive disorder (OCD) was considered until the mid-1960s to be resistant to treatment with both psychodynamic psychotherapy and medication. The first significant breakthrough came in the form of exposure and ritual prevention. This, along with other forms of cognitive behavioral therapy (CBT), and earlier behavioral therapy, will be discussed below.

Cognitive behavioral conceptualization of OCD

Several cognitive behavioral theories about the development and maintenance of OCD symptoms have been put forward. Dollard and Miller¹ adopted Mowrer's twostage theory^{2,3} to explain the development and maintenance of fear/anxiety and avoidance in OCD. Mowrer's theory maintains that a neutral event stimulus (conditioned stimulus, CS) comes to elicit fear when it is repeatedly presented together with an event that by its nature causes pain/distress (unconditioned stimulus; UCS). The CS can be a mental event, such as a thought, and/or a physical object, such as a bathroom or trash cans. After fear/anxiety/distress to the CS is acquired, escape or avoidance behaviors are developed to reduce the anxiety. In OCD, the behavioral avoidance and escape take the form of repeated compulsions or rituals. Like other avoidance behaviors, compulsions are maintained because they indeed reduce the distress. Not only does Mowrer's theory adequately explain fear acquisition,⁴ it is also consistent with observations of how rituals are maintained. In a series of experiments, Rachman and colleagues demonstrated that obsessions increase obsessional distress and compulsions reduce this distress.5,6 This conceptualization of a functional relationship between obsessions and compulsions influenced the

definitions of OCD in DSM-IIF and its successors.

Foa and Kozak⁸ proposed that OCD is characterized by erroneous cognitions. First, OCD sufferers assign a high probability of danger to situations that are relatively safe. For example, an individual with OCD will believe that if he or she touches a public doorknob without washing his or her hands thoroughly, the germs on the doorknob will cause serious disease to him or her and/or to people whom he or she touched with dirty hands. Second, individuals with OCD exaggerate the severity of the bad things that they think can happen. For example, contracting a minor cold is viewed as a terrible thing. Foa and Kozak also pointed out that individuals with OCD conclude that in the face of lack of evidence that a situation or an object is safe, it is dangerous, and therefore OCD sufferers require constant evidence of safety. For example, in order to feel safe, an OCD sufferer requires a guarantee that the dishes in a given restaurant are extremely clean before eating in this restaurant. People without OCD, on the other hand, conclude that if they do not have evidence that a situation is dangerous, then it is safe. Thus, a person without OCD would eat from the dishes in the restaurant unless he or she has clear evidence that they are dirty.

Salkovskis⁹ offered a cognitive theory of OCD. He proposed that five assumptions are characteristic of OCD: (i) thinking about an action is the same as doing it; (ii) failing to prevent harm is morally equivalent to causing harm; (iii) responsibility for harm is not diminished by extenuating circumstances; (iv) failing to ritualize in response to a thought about harm is the same as an intention to harm; and (v) one should exercise control over one's thoughts (p 579). Therefore, while the patient may feel their obsessions are unacceptable, the compulsions used to reduce the anxiety are deemed acceptable.

Traditional psychotherapy

OCD was initially viewed as intractable. Psychoanalytic and psychodynamic theories of unconscious drives and wishes produced several formulations of OCD and descriptions of case studies, but did not lead to treatments that reliably resulted in significant reduction of OCD symptoms. Nonetheless, due to lack of alternatives, psychodynamic psychotherapy continued to be administered to patients with OCD despite limited clinical benefit.¹⁰ Salzman and Thaler¹¹ in their review of the literature concluded that the traditional approaches to the treatment of OCD "require drastic revision because they have added nothing to the comprehension or resolution of these disorders." The authors proposed that treatment should be focused on the here and now, and refrain from using psychodynamic interpretations of past experiences. In his 1983 psychiatric review of OCD, Jenike¹² lamented that psychology had little to offer people suffering from OCD. He noted that "OCD is generally easy to diagnose but extremely difficult to treat successfully. The abundance of therapeutic approaches available suggests that none is clearly effective in the majority of cases. Psychotherapy and electroconvulsive therapy are ineffective treatments for pure OCD."¹²

At present it is widely recognized that, for OCD, psychodynamic approaches have little evidence base to justify their use. With regard to psychodynamic therapy and psychoanalysis, one of the most current expert guidelines notes that "there is doubt as to whether it has a place in mental health services for OCD" at all.¹³

Early behavior therapy

Several behavioral interventions were developed to alleviate OCD-related distress, with varying degrees of success. The goal was to reduce obsessional anxiety/distress by exposing the patient to the very events that evoked that distress-and are therefore avoided-until the patient adapted, or habituated, to the situation. Systematic desensitization, developed by Wolpe,¹⁴ for phobias, was applied in the treatment of OCD. This approach involved applied relaxation during gradual exposure to feared items and situations. The goal of desensitization was to eliminate the patient's obsessional anxiety, which in turn was thought to eliminate compulsions or rituals. The important components of treatment are to create a hierarchy of anxiety-provoking stimuli, to train the patient in relaxation techniques, and to present items from the hierarchy to the patient while in a relaxed state. The theory was that the presentation of the fear stimuli together with relaxation will dissipate the fear. Compulsions are not addressed directly because, according to the theory, once the anxiety dissipates, the patient will not need to perform the rituals. Systematic desensitization had only limited success with OCD and its use with this disorder has been extensive.

Aversion therapy, another behavioral therapy that was used in OCD, consists of punishment for an undesirable response. The idea behind this therapy is that an activity that is repeatedly paired with an unpleasant experience will be extinguished. Aversive experiences that have been used to change behaviors include drugs that induce nausea (eg, disulfiram for alcohol dependence, electrical shocks for paraphilias or addictions), or any other stimuli aversive to the patient. The most common application of aversive therapy in OCD has been the "rubber-band snapping technique," whereby the patient wears a rubber band on the wrist and is instructed to snap it every time he or she has an obsessive thought, resulting in a sharp pain; thus the pain and obsession become connected.15 This method was not very effective.16 A variant of aversive therapy is thought-stopping, in which the therapist or patient shout "Stop" immediately after an obsessional thought had been elicited, but this was also not effective in reducing OCD symptoms.17

The breakthrough: exposure and ritual prevention

As noted above, systematic desensitization, as well as operant-conditioning procedures aimed at blocking or punishing obsessions and compulsions, were used in OCD with limited or no success. The first real breakthrough came in 1966, when Meyer described two patients successfully treated with a behavioral therapy program that included prolonged exposure to distressing objects and situations, combined with strict prevention of rituals-exposure and ritual prevention (EX/RP).¹⁸ Meyer and his colleagues continued to implement EX/RP with additional OCD patients, and found that the treatment program was highly successful in 10 of 15 cases, and partially effective in the remaining patients. Moreover, 5 years later, only two of the patients in the case series had relapsed.¹⁹ All patients were hospitalized during their EX/RP treatment.

Description of EX/RP components

As noted above, treatment programs vary with respect to the components that they include. For example, Meyer and colleagues included exposure in vivo and ritual prevention only. Foa and colleagues include imaginal exposure, in vivo exposure, ritual prevention, and processing. Below are descriptions of each component.

Exposure in vivo (ie, exposure in real life), involves helping the patient confront cues that trigger obsessive thoughts. Cues include objects, words, images, or situations. For example, touching water faucets in a public restroom might trigger germ obsessions. Cues were presented in a hierarchical manner, beginning with the moderately distress-provoking ones and progressing to more distressing cues.

Imaginal exposure involves asking the patient to imagine in detail the distressing thoughts or situations. It is used primarily to help patients confront the disastrous consequences that they fear will happen if they do not perform the rituals. For example, imaginal exposure may involve the patient imagining contracting a sexually transmitted disease because they did not wash their hands sufficiently after using a public bathroom and consequently being shunned by friends and family. Obviously these feared consequences cannot and should not be created in reality.

Ritual prevention involves instructing the patient to abstain from the ritualizing that they believe prevents the feared disaster or reduces the distress produced by the obsession (eg, washing hands after touching the floor and fearing contracting a disease). By practicing ritual prevention the patient learns that the anxiety and distress decrease without ritualizing and that the feared consequences do not happen.

Processing involves discussing the patient's experience during or after exposure and response prevention, and how this experience confirms or disconfirms the patient's expectation (eg, you touched the floor and you did not wash your hands for about 1 hour; is your level of distress as high as in the beginning of the exposure? How strong are your urges to wash? Are they as strong as you expected? If not, what have you learned from this experience?)

The efficacy of EX/RP

The successful outcome described by Meyer and his colleagues,¹⁹ prompted clinical researchers to conduct controlled studies, which indeed lent support to Meyer's case reports.

In 1971, Rachman et al²⁰ conducted a controlled treatment study of 10 inpatients with chronic OCD. All patients received 15 sessions of relaxation control treatment prior to EX/RP. The patients were then assigned

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randomly to intensive treatment of 15 daily sessions of either modeling in vivo or flooding in vivo. Results indicated significantly more improvement in OCD symptoms in EX/RP compared with the relaxation treatment, and the patients maintained their gains at 3 months' follow-up. At a 2-year follow-up with the 10 original and 10 additional patients, three quarters of the 20 patients were much improved.²¹

Influenced by the research of Rachman, Marks, and Hodgson, Foa and Goldstein²² studied a series of OCD patients, using a quasi-experimental design. Patients' OCD symptom severity was assessed before and after 2 weeks, in which the therapists collected information about their OCD, history, and type of symptoms, but no treatment was conducted. Patients were then treated with EX/RP and their symptom severity was assessed again. This treatment differed in several ways from previous studies. First, for the majority of patients, treatment was conducted as outpatients rather than as inpatients. Second, exposure and ritual prevention involved 10 rather than 15 daily sessions. Third, influenced by reports about the efficacy of imaginal exposure with phobias (see ref 23). Foa and Goldstein²² included *imaginal* exposure in addition to in-vivo exposure in the EX/RP treatment. During imaginal exposure, therapists described the patients' feared "disasters" that might result from not performing the rituals and asked them to immerse themselves in imagining the scenario described. The treatment program proved quite effective. During the information-gathering stage, no improvement was evident. In contrast, during the 2-week EX/RP, a marked and highly significant improvement was found. At follow-up, 66% of patients were very much improved and 20% partially improved. Only three patients did not benefit from the treatment program, which was attributed to overvalued ideation, ie, poor insight. The treatment program in this study, as well as in all the treatment studies by Foa and colleagues to date, comprised the components described below.

The bulk of the treatment program involves the practice of exposure and ritual prevention exercises, both in session and as homework assignments, working through more difficult exposures as treatment progresses. During the last few sessions, emphasis is placed on relapse prevention and future maintenance of gains. These sessions can be conducted either once a week, twice a week, or daily in an intensive treatment program, depending on symptom severity and logistical considerations.

The relative efficacy of EX/RP treatment components

After the efficacy of EX/RP and its durability in reducing OCD symptom severity had been established, Foa and colleagues embarked on investigating the relative contribution of the different components of the treatment program. To this end, they conducted a series of dismantling studies to ascertain the separate effects of: in-vivo exposure, imaginal exposure, and ritual prevention.

Imaginal exposure compared with in-vivo exposure and their combination

In order to examine the effect of adding imaginal exposure to EX/RP, Foa et al²⁴ conducted a study that included OCD outpatients with checking rituals who were randomized to two treatments. The first consisted of 10 sessions of a 90-minute uninterrupted imaginal exposure, which focused on the patients' feared consequences if they did not perform their checking rituals; this was followed by a 30-minute in-vivo exposure to situations which give rise to an urge to perform checking rituals. The second treatment consisted of 120-minute invivo exposure; no imaginal exposure was conducted. Both groups were asked to refrain from performing checking rituals. At the end of treatment both groups showed equal improvement, but at follow-up those who received only the in-vivo exposure showed some relapse, whereas those receiving both imaginal and in-vivo exposure maintained their gains. Thus, imaginal exposure seemed to contribute to the maintenance of treatment gains.

In a second study, Foa et al²⁵ compared the efficacy of imaginal exposure with that of in-vivo exposure. OCD outpatients with checking rituals were randomly assigned to one of two treatment conditions: imaginal or in-vivo exposure. Ritual prevention was not included in the treatments. Both treatments involved 15 120-minute sessions over 3 weeks, and two home visits in the fourth week. Patients improved significantly in their OCD symptoms and continued to improve at follow-up (an average of 10 months post-treatment). No significant differences between treatments emerged at post-test or follow-up. The authors concluded that both imaginal and in-vivo exposure offered clinically significant and lasting benefits to patients with OCD.

In sum, although imaginal exposure does not appear essential for immediate outcome, it may enhance longterm maintenance and can be used as an adjunct to invivo exposure for patients who manifest fear of "disastrous consequences" such as burglary in the absence of checking door locks and windows.

The relative effects of exposure and ritual prevention

To examine the relative effects of exposure and ritual prevention, Foa et al²⁶ randomly assigned patients with contamination obsessions and washing rituals to treatment by exposure only (EX), ritual prevention only (RP), or their combination (EX/RP). Each treatment was conducted intensively (15 daily, 120-minute sessions conducted over 3 weeks) followed by a home visit. Patients in all conditions improved at both post-treatment and follow-up. However, patients in the EX/RP treatment (combining EX and RP) showed superior outcome on almost every symptom measure compared with EX-only or RP-only treatments. This superior outcome of the combined treatment was found at both post-treatment and follow-up. When comparing the outcome of EX only with that of RP only, patients who received EX reported lower anxiety when confronting feared contaminants than patients who had received RP, whereas the RP group reported greater decreases in urges to ritualize than did the EX patients. Thus, it appeared that EX and RP differentially affected OCD symptoms. The findings from this study clearly suggest that exposure and ritual prevention should be implemented concurrently; treatments that do not include both components yield inferior outcome.

The relative efficacy of medication, EX/RP, and their combination

Parallel to the development of effective cognitive behavioral therapy for OCD, there was a development of medication treatment for the disorder. Clomipramine was the first medication that showed efficacy in reducing OCD symptoms.²⁷ While it is outside of this article's scope to discuss the literature on the efficacy of pharmacotherapy on OCD symptoms, the relative effects of medication, EX/RP, and their combination will be described, as well as the effect of augmenting the benefit from medication by adding EX/RP.

Several studies examined the effects of medication, EX/RP, and their combination. The first study that used a straightforward design to compare the relative and

combined efficacy of clomipramine, intensive EX/RP, their combination, and placebo (PBO) was a two-site study conducted by Foa et al and Leibowitz et al. The EX/RP program included an intensive phase (15 2hour sessions conducted over 4 weeks) and a followup phase (6 brief sessions delivered over 8 weeks). EX/RP alone was compared with 12 weeks of CMI alone, combination of EX/RP+CMI, and PBO. At posttreatment all three active treatments were superior to placebo, and EX/RP was found to be superior to CMI. EX/RP+CMI was superior to CMI alone, but the combined therapy did not enhance outcome achieved by EX/RP alone.²⁸ Moreover, rate of relapse was higher following the discontinuation of CMI treatment compared with that of EX/RP alone or the combined treatment.29

Augmenting medication treatment with EX/RP

Most OCD patients who seek EX/RP treatment are already taking medication, primarily a serotonin uptake inhibitor (SRI). However, as noted earlier, most patients suffer from residual OCD symptoms even when treated with an adequate dose of medication; they seek psychological intervention to further reduce their symptoms. To examine the augmenting effects of EX/RP. Foa et al and Simpson et al conducted a two-site randomized control trial (RCT). Patients on a stable and therapeutic dose of SRI medication, but who experienced only partial response, were randomized to either EX/RP or stress management training (SMT) while continuing with their medication. At of the 8-week acute treatment phase, EX/RP was significantly superior to SMT in further reducing symptoms in OCD patients who are on medication.30

Summary

Results from numerous studies demonstrate the efficacy of EX/RP in reducing OCD symptoms; moreover, most patients maintain their gains following treatment. A number of RCTs have found that EX/RP is superior to a variety of control treatments, including placebo medication, relaxation, and anxiety management training. Furthermore, recent studies have indicated that these successful outcomes for EX/RP are not limited to highly selected samples of OCD patients.^{31,32}

Abramowitz³³ conducted a meta-analysis to determine

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the degree of symptom improvement associated with four different variations of EX/RP. The meta-analysis revealed that therapist-supervised exposure was more effective than self-exposure. Complete response prevention during exposure therapy yielded superior outcome to that of partial or no response prevention. The combination of in-vivo and imaginal exposure was superior to in-vivo exposure alone in reducing anxiety. There was no significant difference between treatments that included gradual exposure and those that included flooding.

With regard to the effects of combining medication to EX/RP treatment, two studies failed to detect an enhanced reduction in OCD symptoms by adding medication to EX/RP, two studies found a small but temporary effect, and one study found an advantage for combined treatment over EX/RP alone on obsessions but not on compulsions. On the other hand, the addition of EX/RP to medication enhances the efficacy of the medication and OCD symptoms can be reduced further by adding EX/RP to medication treatment.

Cognitive therapy

OCD patients are distressed about their thoughts, or obsessions, because they interpret them as warnings of events that are dangerous and likely to occur. Cognitive therapy (CT) is designed to help patients identify these automatic unrealistic thoughts and change their interpretations of the meaning of the thoughts, resulting in decreased anxiety and decreased compulsions.

In the first stage of CT, patients are taught to develop an awareness of their worries as obsessions and their rituals as compulsions. The patient keeps a daily diary of obsessions, called a thought record. In the thought record, patients write down their obsessions and the interpretations associated with the obsessions. Important details to record may include what the patient was doing when the obsession begin, the content of the obsession, the meaning attributed to the obsession, and what the patient did in response to the obsession (usually a compulsion).

The therapist will review the thought record with the patient and how the obsession was interpreted. Using gentle reasoning and Socratic questioning, the therapist will verbally challenge an unrealistic belief. This helps the patient to identify the cognitive distortion, typically a faulty assessment of danger, an exaggerated sense of responsibility, or fears that thinking something negative will make it come true (thought-action fusion).

Once patients are able to quickly identify their obsessions and compulsions as symptoms of OCD, the therapist will initiate a few behavioral experiments to disprove errors in thinking about cause and effect. For example, if a patient believes that smoking four cigarettes will prevent her family from being harmed in an auto accident, the therapist may instruct the patient to smoke only three cigarettes and then wait to see if family members are actually harmed that day in an auto accident. The therapist may then use the results of this experiment as material for discussion about other types of magical thinking. Over time, patients learn to identify and re-evaluate beliefs about the potential consequences of engaging in or refraining from compulsive behaviors and subsequently begin to eliminate compulsions (see ref 34).

Cognitive therapy compared to in-vivo exposure with ritual prevention

Van Oppen et al³⁵ conducted a treatment study comparing CT with EX/RP. Seventy-one Dutch OCD patients were randomly assigned to either CT or in-vivo exposure. Sixteen 45-minute sessions were administered. In the CT condition, treatment focused on "overestimation of danger and inflated personal responsibility," and after session 6, behavioral experiments were included to test the basis of unrealistic beliefs. The exposure condition consisted of EX/RP working up a hierarchy of feared and avoided situations, with no discussion of feared consequences until after session 6. Patients in both groups improved significantly. No differences between the two treatments emerged. It should be noted that the behavioral experiments in the CT condition introduced in-vivo exposure and ritual prevention. On the other hand, the processing component of EX/RP was omitted. Thus, it is difficult to interpret the results of the study.

Cottraux et al³⁶ conducted a study involving 62 French patients who received 20 sessions of CT or EX/RP for OCD. Treatment included 4 weeks of intensive treatment (16 hours) and 12 weeks of maintenance (4 hours). EX/RP and CT produced equal improvements in OCD symptoms after 4 weeks, although EX/RP patients showed greater improvement on a measure of intrusive thoughts and CT patients were more improved in anxiety and depression. By week 52, most of the differences had disappeared, but the EX/RP group had lower OCD symptoms and the CT group had lower depression. Notably, here too CT included some in vivo exposure in the form of behavioral experiments to test unrealistic fears and cognitive schemas; no processing of cognitive techniques were included in EX/RP.

In another dismantling study of CT and exposure for OCD,³⁷ patients with OCD were randomly assigned to receive exposure plus relaxation, exposure plus cognitive therapy, or waitlist. The CBT portion of the treatment consisted of 2-hour sessions held twice a week for 6 weeks using EX/RP along with either CT or relaxation; this was followed by 10 more sessions of in-vivo and/or imaginal exposure. The two CBT treatments were equally effective, and patients showed significant improvement post-treatment and through 12-month follow-up.

A meta-analysis by Eddy et al³⁸ examined data from 15 clinical trials. Treatments included EX/RP, CT, and active and passive control conditions. Overall, approximately two thirds of the patients who completed treatment improved, but only a third met recovery criteria. Among the intent-to-treat sample, which included dropouts, about one-half of patients improved and only a quarter recovered. Findings were stronger for EX/RP than CT, and individual therapy was more effective than group therapy.

Rosa-Alcazar et al³⁹ conducted a meta-analysis examining data from 19 controlled psychotherapy studies for OCD. EX/RP and CT as well as their combination were found to be highly effective, with no significant differences between treatments. The authors noted that the similarity of the findings for EX/RP and CT may have been due to the fact that both treatments included the same techniques. For example, CT most often included behavioral experiments that involved in vivo exposure to obsession-evoking situations to challenge irrational thoughts, thereby incorporating in-vivo exposure and ritual prevention. On the other hand, the application of EX/RP involves processing that help patients question their unrealistic beliefs and irrational thoughts. It is possible that EX/RP is more effective than CT, but the studies that compare EX/RP with CT have taken special care to avoid the use of cognitive elements in EX/RP, resulting in an incomplete application of EX/RP, whereas CT in research studies usually includes elements of exposure.39

Conclusion

Over 40 years of published research has led to the wide consensus among researchers and clinicians that CBT is an effective treatment for OCD.^{13,40,41} Exposure-based treatments have the largest evidence base to support their use for OCD. EX/RP which includes processing appears to be most effective, whereas exposure without processing and CT produced equivalent improvement. Based on the large empirical evidence for EX/RP it is recommended as the first-line treatment for OCD, with CBT as an alternative.

While EX/RP has strong support for its efficacy in reducing OCD symptom severity, 20% of patients drop out prematurely. Although about 80% of patients respond well to EX/RP, 20% do not; therefore about 40% of patients with OCD are not helped by existing treatments.42 Clinical researchers should continue to refine CBT programs to maximize improvement and make treatment more palatable to those in need of help. It is difficult to determine the usefulness of psychological interventions other than EX/RP and CBT because of lack of control studies. There has been one published RCT on an alternative therapy, yogic meditation, in the treatment of OCD,43 but no RCTs have been published on any other psychological interventions, such as hypnosis, virtual reality therapy, homeopathy, or an integrated psychological approach. Furthermore, no welldesigned single case studies have been published on interventions other than CBT.13 Further work is needed to validate alternative treatments for OCD.

More work also needs to be done to determine how to best tailor treatment to individual needs. Most studies do not have sufficient power to break down treatment response by OCD subtype such as "washers," "checkers," "orderers," and "hoarders." Some subtypes have been studied more than others, and some subtypes are typically excluded from RCTs. Most OCD sufferers have comorbid disorders, but studies typically exclude participants with substance abuse, psychosis, or bipolar disorder; thus we do not know how effective treatments are for comorbid populations.

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Terapia cognitivo conductual del trastorno obsesivo compulsivo

Hasta mediados de la década de 1960 se consideró que el trastorno obsesivo compulsivo (TOC) era resistente al tratamiento, va que tanto la psicoterapia psicodinámica como la medicación habían sido ineficaces en la reducción significativa de los síntomas del TOC. El primer avance real ocurrió en 1966 con la introducción de terapia de exposición y la prevención de rituales. En este artículo se discuten los conceptos cognitivo conductuales que influyen en el desarrollo de los tratamientos cognitivos conductuales para el TOC. Se efectúa una discusión breve acerca del empleo de la psicoterapia psicodinámica y las primeras terapias conductuales, a pesar que ninguna de ellas produjo un resultado exitoso en el TOC. La parte central del artículo está dedicada a la terapia cognitivo conductual actual, con un énfasis en las variantes de los tratamientos de exposición y prevención de rituales o respuestas, terapia que ha mostrado la mayor evidencia empírica de eficacia.

Thérapie cognitivocomportementale des troubles obsessionnels compulsifs

Jusqu'au milieu des années 60, les TOC (troubles obsessionnels compulsifs) étaient considérés comme résistant à la fois aux psychothérapies psychodynamigues et aux traitements médicamenteux qui n'avaient pas montré de diminution significative de leurs symptômes. La première réelle avancée a pris place en 1966 avec l'introduction de la thérapie par l'exposition et de la prévention des rituels. Cet article analyse les conceptualisations cognitivocomportementales qui influent sur le développement des traitements cognitivo-comportementaux des TOC. La psychothérapie psychodynamique et les premiers traitements comportementaux sont brièvement passés en revue, n'ayant eu ni l'un ni l'autre de résultats probants avec les TOC. L'article se consacre principalement aux thérapies cognitivocomportementales (TCC) actuelles en insistant sur les différents traitements par exposition et prévention de la réponse et du rituel (EX/PR), méthode qui a montré la meilleure efficacité empiriquement.

REFERENCES

1. Dollard J, Miller NE. Personality and Psychotherapy; an Analysis in Terms of Learning, Thinking, and Culture. New York, NY:McGraw-Hill;1950.

2. Mowrer OH. Stimulus response theory of anxiety. *Psychol Rev.* 1939;46:553-565.

3. Mowrer OH. Learning Theory and the Symbolic Processes. New York, NY: Wiley; 1960.

4. Rachman S, Wilson GT. Effects of Psychological Therapy. London, England: Pergamon; 1980.

5. Roper G, Rachman S. Obsessional-compulsive checking: experimental replication and development. *Behav Res Ther.* **1976**;14:25-32.

6. Roper G, Rachman S, Hodgson R. An experiment on obsessional checking. *Behav Res Ther.* 1973;11:271-277.

7. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 3rd ed. Washington, DC: American Psychiatric Association; 1980.

8. Foa EB, Kozak MJ. Treatment of anxiety disorders: implications for psychopathology. In: Tuma AH, Maser JD, eds. *Anxiety and the Anxiety Disorders*.

Hillsdale, NJ: Lawrence Erlbaum Associates;1985:421-452.
Salkovskis PM. Obsessional-compulsive problems: a cognitive-behavioral analysis. *Behav Res Ther.* 1985;23:571-583.

10. Greist JH, Jefferson JW. Chapter 31, OCD. In: Gabbard, GO, ed. *Gabbard's Treatments of Psychiatric Disorders*. 4th ed. Arlington, VA: American Psychiatric Publishing; 2007.

11. Salzman L, Thaler FH. Obsessive-compulsive disorders: a review of the literature. *Am J Psychiatry.* 1981;138:286-296.

Jenike MA. Obsessive compulsive disorder. *Compr Psychiatry*. 1983;24:99-115.
 National Institute for Health and Clinical Excellence (NICE). Obsessive-compulsive disorder: core interventions in the treatment of obsessive-compulsive disorder and body dysmorphic disorder. The British Psychological Society & The Royal College of Psychiatrists. 2006. Available at: www.nice.org.uk

14. Wolpe J. The Practice of Behavior Therapy, First Edition, New York, NY: Pergamon Press; 1969.

15. Mastellone M. Aversion therapy: a new use for the old rubber band. *J* Behav Ther Exp Psychiatry. **1974:5**;311-312.

16. Lam JN, Steketee GS. Reducing obsessions and compulsions through behavior therapy. *Psychoanal Ing.* 2001:21;157-182.

17. Stern RS. Obsessive thoughts: the problem of therapy. *Br J Psychiatry*. 1978:133;200-205.

18. Meyer, V. Modification of expectations in cases with obsessional rituals. *Behav Res Ther.* **1966**:4;273-280.

19. Meyer V, Levy R, Schnurer A. A behavioral treatment of obsessive-compulsive disorders. In Beech HR, ed. *Obsessional states*. London, UK: Methuen; 1974.

20. Rachman S, Hodgson R, Marks IM. The treatment of chronic obsessivecompulsive neurosis. *Behav Res Ther.* 1971:9;237-247.

21. Marks IM., Hodgson R, Rachman S. Treatment of chronic obsessive-compulsive neurosis by in vivo exposure. *Br J Psychiatry*. 1975:127;349-364.

22. Foa EB, Goldstein AJ. Continuous exposure and complete response prevention in the treatment of obsessive-compulsive neurosis. *Behav Ther.* 1978:9;821-829.

23. Mathews A. Fear-reduction research and clinical phobias. *Psychol Bull.* 1978:85;390-404.

24. Foa EB, Steketee G, Turner RM, Fischer SC. Effects of imaginal exposure to feared disasters in obsessive-compulsive checkers. *Behav Res Ther.* 1980:18;449-455.

25. Foa EB, Steketee G, Grayson JB. Imaginal and in vivo exposure: a comparison with obsessive-compulsive checkers. *Behav Ther.* **1985**:16;292-302.

26. Foa EB, Steketee G, Grayson JB, Turner RM, Latimer P. Deliberate exposure and blocking of obsessive-compulsive rituals: Immediate and long-term effects. *Behav Ther.* 1864:15;450-472. 27. Fernandez-Cordoba E, Lopez-Ibor Alino J. Monochlorimipramine in mental patients resisting other forms of treatment. *Actas Luso Esp Neurol Psiquiatr.* 1967;26:119-147.

28. Foa EB, Liebowitz MR, Kozak, MJ, et al. Randomized, placebo-controlled trial of exposure and ritual prevention, clomipramine, and their combination in the treatment of obsessive-compulsive disorder. *Am J Psychiatry*. 2005:162;151-161.

29. Simpson HB, Liebowitz MR, Foa EB, et al. Post-treatment effects of exposure therapy and clomipramine in obsessive-compulsive disorder. *Depress Anxiety.* **2004**;19:225-233.

30. Simpson HB, Foa EB, Liebowitz, MR, et al. A randomized, controlled trial of cognitive-behavioral therapy for augmenting pharmacotherapy in obsessive-compulsive disorder. *Am J Psychiatry*. **2008**;165:621-630.

31. Franklin ME, Abramowitz JS, Kozak MJ, Levitt JT, Foa EB. Effectiveness of exposure and ritual prevention for obsessive-compulsive disorder: randomized compared with nonrandomized samples. *J Consult Clin Psychol.* 2000;68:594-602.

 Valderhaug L, Götestam P. An open clinical trial of cognitive-behavior therapy in children and adolescents with obsessive-compulsive disorder administered in regular outpatient clinics. *Behav Res Ther.* 2007:45;577-589.
 Abramowitz JS. Variants of exposure and response prevention in the treatment of obsessive-compulsive disorder: a meta-analysis. *Behav Ther.* 1996;27:583-600.

34. Salkovskis PM. Psychological approaches to the understanding of obsessional problems. In: Swinson RP, Antony MM, Rachman S, Richter MA, eds. *Obsessive-Compulsive Disorder: Theory, Research, and Treatment*. New York, NY: Guilford Press; 1998:33-50. **35.** Van Oppen P, de Haan E, Van Balkom AJLM, et al. Cognitive therapy and exposure in vivo in the treatment of obsessive compulsive disorder. *Behav Res Ther.* **1995**:33;379-390.

36. Cottraux J, Note I, Yao SN, et al. A randomized controlled trial of cognitive therapy versus intensive behavior therapy in obsessive compulsive disorder. *Psychother Psychosom*. **2001**:70;288-297.

37. Vogel PA, Stiles TC, Gotestam KG. Adding cognitive therapy elements to exposure therapy for obsessive compulsive disorder: a controlled study. *Behav Cogn Psychother.* **2004**:32;275-290.

38. Eddy KT, Dutra L, Bradley R, Westen D. A multidimensional meta-analysis of psychotherapy and pharmacotherapy for obsessive-compulsive disorder. *Clin Psychol Rev.* **2004**:24;1011-1030.

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

40. Frances A, Docherty JP, Kahn DA. Treatment of obsessive-compulsive disorder. J Clin Psychiatry. 1997;58(suppl 4);5-72.

41. Greist JH., Bandelow B, Hollander E, et al. WCA recommendations for the long-term treatment of obsessive-compulsive disorder in adults. *CNS Spectr.* **2003;8(suppl 1):7-16**.

42. Abramowitz JS. The psychological treatment of obsessive-compulsive disorder. *Can J Psychiatry*. **2006**:51;407-416.

43. Shannahoff-Khalsa DS, Ray LE, Levine S, Gallen CC, Schwartz BJ, Sidorowich JJ. Randomized controlled trial of yogic meditation techniques for patients with obsessive-compulsive disorder. *CNS Spectrums.* **1999:4**;34-47.