EMDR in the Treatment of Adolescent Obsessive-Compulsive Disorder: A Case Study

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Most of the empirical evidence supporting the efficacy of eye movement desensitization and reprocessing (EMDR) has been with individuals suffering from posttraumatic stress disorder (PTSD). This case study reports on the successful treatment of obsessive-compulsive disorder (OCD) in a 13-year-old male using the standard three-pronged approach of EMDR in a private practice setting. The current protocol addressed the initial touchstone event, the current level of distress related to that event, as well as anticipation and planning for future feared events. The participant received 15 sessions of EMDR. At 90-day posttreatment follow-up, there was a substantial decrease in OCD symptoms (from moderate to subclinical) as measured by the Children's Yale-Brown Obsessive–Compulsive Scale, indicating a large effect size (d = 0.81). The current study provides insight into treating OCD in adolescence and how using the three-pronged approach (past, present, and future) of EMDR can be an effective tool. Study limitations and suggestions for future clinical research are discussed.

Keywords: OCD; adolescent; eye movement desensitization and reprocessing (EMDR) therapy; Children's Yale-Brown Obsessive-Compulsive Scale (CY-BOCS); anxiety

bsessive-compulsive disorder (OCD) affects approximately half a million children in the United States, with about 50% of adults with OCD developing their symptoms in childhood (Marsden, 2016; Wagner, 2009). If OCD is treated effectively during childhood and adolescence, this could have a significant impact on later psychological functioning in adulthood for many of these individuals. Historically, a combination of cognitive behavioral therapy (CBT) and selective serotonin reuptake inhibitor (SSRI) medication has proven to be the most effective treatment for pediatric OCD (The Pediatric OCD Treatment Study [POTS] Team, 2004). When treating OCD in children, it is important to provide psychoeducation and parent training to improve compliance with treatment involving homework outside of the therapy session (Piacentini, Langley, & Roblek, 2007). The most effective treatment for OCD to date appears to be exposure and response prevention (ERP) protocols (Himle & Franklin, 2009).

According to the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2013), OCD is characterized by one or both of the following: unwanted or intrusive and recurrent persistent thoughts, urges, or images (known as obsessions) and/or repetitive behaviors or mental acts that the individual feels compelled to perform in response to an obsession or rigidly held rules (known as compulsions). Obsessions may include a fear of being contaminated or getting sick or a fear of bad things happening to others. Compulsions may include behaviors such as excessive handwashing connected to the fear of getting sick or avoiding stepping on cracks in the sidewalk to prevent bad things from happening to others. Engaging in these thoughts and behaviors are time-consuming (take at least 1 hour/day) and cause clinically significant distress to the individual or impair one's ability to function in daily activities (e.g., academically, socially, occupationally, etc.).

Treatment of OCD

The symptoms of OCD can have an incredibly negative impact on an individual's daily functioning. Therefore, it was important to develop an evidencebased treatment for OCD, once considered a condition resistant to any psychotherapeutic intervention (Abramowitz & Arch, 2014). At the time when mostly psychodynamic and supportive interventions were being used to treat OCD, Meyer (1966) created ERP, which has theoretical bases in exposure and CBT. Since that time, ERP has repeatedly shown to be an effective treatment for OCD with both immediate and long-lasting effects (Olatunji, Davis, Powers, & Smits, 2013).

ERP begins with psychoeducation about OCD and the ways that family members and loved ones can accommodate an individual's need to engage in obsessive and compulsive behaviors (Foa, Yadin, & Lichner, 2012). It teaches individuals to self-monitor and track their rituals and behaviors so they can gain insight into how much OCD interferes with their daily life. ERP also involves cognitive restructuring of the beliefs that support the irrational fears and rituals of OCD. Similar to traditional exposure therapy (Wolpe, 1959), ERP involves exposure to the feared or distressing situations using imaginal exposure where the individual imagines being in the feared situation. It also involves in-vivo exposure where the individual is exposed to the feared situation but is prevented from engaging in the rituals that typically follow (Abramowitz, 2006).

ERP has been shown to be effective at decreasing the intensity of OCD symptoms by 50%-60% of patients who successfully complete treatment (Fisher & Wells, 2005). However, it is suggested that approximately 25% of patients drop out of treatment prematurely due to the difficulty they have in tolerating the exposure tasks, which involve facing the situations they fear the most (Aderka et al., 2011; Maher et al., 2010). Some have theorized that because ERP involves gradual exposure to one distressing stimulus at a time, this does not accurately reflect how individuals are exposed to feared situations in real life after treatment. Recent efforts have been made by Craske et al. (2008) to make ERP more effective in posttreatment by capitalizing on varying types of exposure and inhibitory learning principles.

It is important to consider that only 21% of patients are asymptomatic at the end of ERP treatment (Fisher & Wells, 2005), meaning that 79% of patients continue to experience symptoms after completing ERP. Despite strong empirical support for using ERP to treat OCD, it may be worth exploring alternative forms of treatment for those who drop out of treatment or continue to be symptomatic following ERP. Investigating the source of OCD symptoms and allowing individuals to process the origins of their irrational fears may prove to be a viable option for decreasing OCD behaviors in the long-term. As an example, eye movement desensitization and reprocessing (EMDR) therapy involves processing and decreasing the impact that fearful stimuli have on an individual's daily functioning.

EMDR Therapy

EMDR is an evidence-based treatment developed by Francine Shapiro in the 1980s, originally to treat posttraumatic stress disorder (PTSD) in military and civilian populations (Shapiro, 2001). Since then, it has been used to treat traumatic stress with great success. As of today, it is an empirically supported treatment for PTSD, with recent evidence of effectiveness for other anxiety disorders, including panic disorder (Horst et al., 2017). The theoretical basis for EMDR is the Adaptive Information Processing (AIP) model, which posits that posttraumatic factors can interfere with processing and storage of a traumatic memory (Shapiro, 2001). When traumatic events get "stuck" and remain unprocessed, they are understood to cause continued psychological distress and interference in daily life.

EMDR helps by accessing and processing these memories and allows the individual to move toward recovery and healing. EMDR takes a comprehensive "three-pronged approach" to a feared or traumatic event by processing: (a) historical information about the traumatic event and current residual distress, (b) how the present functioning of the individual is affected as well as tapping into resources or skills the individual can use for coping, in addition to (c) planning for and anticipating future feared events or triggers (Shapiro, 2001).

EMDR involves eight phases of treatment, which start in Phases 1 and 2 with extensive history-taking and preparation for the target memories or "targets" to be processed using bilateral stimulation (BLS). Then, in Phase 3, individuals are asked to identify a mental image or picture they associate with the target memory as well as the resulting beliefs that they have about themselves with regard to the memory. In this phase, initial assessments are made regarding the level of distress when thinking about the event or memory using the Subjective Units of Disturbance Scale (SUDS; Shapiro, 2001), with 0 being no distress and 10 being the highest amount of distress. This assessment also involves obtaining information where the distress is felt in the body when thinking about the target memory. Idiosyncratic beliefs related to the target memory are identified by asking what the individuals think about themselves now, known as the negative cognition (NC; "I'll be this way forever"). Individuals are also asked about what they would like to think about themselves regarding the target

memory, known as the positive cognition (PC; "I can handle this"). They are also asked how strongly they believe the PC using the validity of cognition (VOC) scale, ranging from 1–7, with 1 meaning not true at all and 7 meaning completely true or believable.

In Phase 4, individuals reprocess the target memory using bilateral visual, tactile, and/or auditory stimulation until the distress level (SUDS) they experience is at a 0 or 1 on a scale of 0-10. Phases 5 and 6 include connecting the neutral cognition or PC to the target memory while monitoring for the somatic experience of distress, which is expected to decrease significantly by this point. Phase 7 involves closing out the session and grounding individuals to a neutral psychological state, while Phase 8 includes re-evaluation of the reactions to the target memory at the beginning of each new session. Once the SUDS score for a target memory reaches 0 or 1, the PC for that target is paired or "installed" with the original target in order to connect the once disturbing memory or event with a positive self-belief. A full body scan is done at the end of processing each target memory to identify any remaining somatic disturbance in the body.

EMDR Therapy and OCD

More recently, efforts have been made to expand the use of EMDR therapy to other mental health disorders. Over 50% of adults with OCD have experienced at least one traumatic event in their lifetime (De Silva & Marks, 1999), and recent studies indicate a significant association between traumatic experiences and OCD (Dykshoorn, 2014; Mathews, Kaur, & Stein, 2008). Given this connection between trauma and OCD, it is plausible that modifying a treatment used for traumatic experiences, like EMDR, could be effective for those who have been diagnosed with OCD. Like PTSD, there is usually a feared or stressful event or situation that prompts the development of OCD, and by targeting that specific event, we may be able to unravel the emotion and distress connected to that event.

Within the last two decades, there have been a handful of studies to demonstrate that EMDR may be a viable modality for the treatment of anxiety disorders and OCD (De Jongh & ten Broeke, 2009; Horst et al., 2017; Potik, 2017). In most studies to date, the Yale-Brown Obsessive–Compulsive Scale (Y-BOCS; Goodman et al., 1989) is used to measure an individual's OCD symptoms pre, post, and at follow-up phases of treatment. For example, Böhm and Voderholzer (2010) described research where three individuals with OCD were treated concurrently with ERP and

EMDR, and all participants experienced decreases in their Y-BOCS clinical rating scores for obsessive and compulsive symptoms.

The authors suggested that EMDR could be a beneficial adjunct to ERP treatment and was particularly helpful for one participant who experienced a history of trauma. One limitation of the study was that all participants were adults aged 24 years and older, so the treatment effects cannot be generalized to a younger population. Additionally, De Jongh and ten Broeke (2009) reviewed the available research on the effectiveness of EMDR in the treatment of anxiety disorders and found that although EMDR was helpful compared to no treatment or waitlist conditions, the question of whether EMDR can be an effective treatment for conditions other than PTSD has not been effectively established.

Since 2011, there have been a handful of researchers who have published case studies on the effectiveness of EMDR in treating OCD in adolescent and young adult populations (Marr, 2012; Marsden, 2016; Marsden, Lovell, Blore, Ali, & Delgadillo, 2018; Nazari, Momeni, Jariani, & Tarrahi, 2011; Potik, 2017). Nazari et al. (2011) compared EMDR with an SSRI medication (citalopram) in the treatment of OCD using a randomized clinical trial with individuals aged 10 years and older. Their results suggested that both EMDR and citalopram are effective in improving obsessive-compulsive symptoms, but that individuals receiving EMDR compared to those only taking citalopram had a larger decrease in their OCD symptoms during the 12 weeks of treatment. This study was the first to compare EMDR to a medication treatment for symptoms of OCD.

In order to further explore EMDR as a treatment option for OCD, Marr (2012) developed an Adapted EMDR Phobia Protocol, which involved processing current obsessions and compulsions, imagining future situations, and then working on any past-related disturbing memories (current, future, past, respectively). He also developed a modified Adapted EMDR Phobia Protocol with Video Playback, which again changes the order in which obsessions and compulsions are processed (current, past, future, respectively). When these protocols were used in treating individuals with OCD aged 19-28 years, participants experienced 70%-76% reduction in Y-BOCS symptoms using the Adapted EMDR Phobia Protocol, and an 81% reduction in symptoms using the Adapted EMDR Phobia Protocol with Video Playback. Symptom improvement was reported in two to three sessions by participants who received 14-16 1-hour sessions of EMDR using the previously mentioned protocols (Marr, 2012). Marsden (2016) further investigated these protocols and conducted a successful case study involving an 18-year-old female where EMDR was used to help alleviate her OCD symptoms. The treatment protocol followed Marr's Adapted EMDR Phobia Protocol where the patient and therapist processed current triggers, used the future template, and then processed past-related memories. After 11 sessions of EMDR, the female participant (who was not taking any medication prior to or during treatment) reported no checking behaviors, although some thoughts to engage in checking behaviors still existed. She reported improved social and emotional functioning, and her Y-BOCS score was 0 (indicating subclinical OCD symptoms) at treatment follow-up.

In an effort to continue to validate EMDR as a treatment option for OCD, Marsden and colleagues (2018) compared the effectiveness of CBT and EMDR in treating OCD by conducting a randomized controlled trial including 55 adult patients recruited through a primary care mental health clinic. In their study, participants received CBT, which followed the ERP model to include both imaginal and in-vivo exposure to feared stimuli. Participants who received EMDR were treated based on the Marr's (2012) OCD protocol, which processed current, future, and past events and triggers related to feared stimuli, respectively. Results from Marsden et al. (2018) study were promising and suggested similar symptom improvements and posttreatment outcomes for participants receiving CBT and EMDR. These results are encouraging and provide additional evidence that EMDR can potentially be considered another evidence-based treatment option for individuals with OCD.

Most recently, Potik (2017) published a case study of a 27-year-old man who began experiencing distressing intrusive images and anxiety about sharp objects following exposure to a violent scene from the TV series Game of Thrones. The man's symptoms were assessed using the Y-BOCS, and he was diagnosed with OCD. Potik used EMDR, ERP, and psychodynamic treatment techniques to help alleviate the young man's symptoms. Although all three treatments contributed to improvement of the individual's OCD symptoms, EMDR was found to be the most effective in decreasing intrusive imagery and distress related to the imagery. The young man also reported significant improvements in his social and occupational functioning within the first 10 sessions of Potik (2017) study also provided additional support for the AIP model in that the individual's intrusive memories and images were decreased with target processing and contributed to a decrease in disturbance related to those images.

Potik (2017) study contributes to the growing literature that supports EMDR as an effective treatment for OCD, and there is a need for more studies to demonstrate EMDR's success with a younger population. To date, there have been only a few documented studies highlighting the effectiveness of using EMDR in children and adolescents suffering from OCD. A major aim of the current case study is to provide additional evidence that EMDR is a viable treatment option for treatment of OCD in childhood.

EMDR and Childhood OCD

Adler-Tapia and Settle (2012) have written about their work in using EMDR to treat a variety of childhood mental health conditions, including OCD. They recommend targeting events consistent with the phobia protocol suggested by Shapiro (2001) beginning with the first time the child experienced anxious or phobic symptoms (past), teaching children skills on how to manage current and future anxiety at the beginning of treatment (present), and moving to anticipating future situations using the future template once all previous memories and current triggers are processed (future). In their recent book, Adler-Tapia and Settle (2017) provide insight into how to implement EMDR with a variety of childhood issues with examples of their own clinical successes using EMDR. Their book and related trainings are valuable resources for clinicians looking to use EMDR with children who have a variety of mental health diagnoses.

Adler-Tapia and Settle (2012) suggest an important variation in the EMDR protocol by targeting instances when children or teens had an anxiety attack and the bodily symptoms they experienced during the attack. They recommend educating children on anxiety and how the body responds to a real or imagined threat. It is encouraged that children are asked to float back to the first time they experienced an anxiety attack and any secondary trauma resulting from the attack (e.g., fainting, vomiting, being made fun of or ridiculed by others). The therapist is encouraged to target the child's physiological symptoms of anxiety, including heart-racing, shortness of breath, or sweating, as well as secondary anxiety (e.g., anxiety about having another anxiety attack) and any associated "blocking beliefs" or beliefs that may hinder the child's ability to thoroughly process recent or future anxiety events.

Once all previous and current anxiety targets are processed to an SUDS of 0 or 1, it is recommended that the future template is utilized to help children imagine future instances of anxiety and incorporate resources and skills taught to help them manage those future events. Adler-Tapia and Settle (2012) also suggest that future successful experiences in managing anxiety should be used and installed as resources during any additional processing (e.g., "I can handle it"). The previously mentioned and recommended protocol variations were utilized in the current study.

Case Description

Presenting Complaint

Ben (name and details changed to protect confidentiality) was a White, 13-year-old male in the seventh grade living in a two-parent household in an uppermiddle-class suburb of a major metropolitan city. Ben's mother contacted me to seek help for her son, who was seen at my private practice. At intake, Ben and his mother mentioned that the primary presenting issue was his "anxiety and fear of getting sick," which had been present for the past 2 years. He identified this fear as beginning after an evening at home where he woke up in the middle of the night and vomited in the bathroom. Since that night Ben refused to eat the meal he had eaten the night he became ill at home, and developed a persistent fear, including intrusive images of vomiting in public places. This fear was impacting him at school and affecting his participation and interest in extracurricular activities.

History

Ben was an only child in a two-parent household; both parents worked full-time outside of the home. His parents denied any developmental delays, except for repeating kindergarten. Ben was an average to above-average student in school and struggled the most with his Spanish class at the time of treatment. He did not have any history of reported behavior problems at school but stated that, during the last 2 years, he would often have to remain in the school office during assemblies because he would become overwhelmingly anxious in that setting. Ben had seen two previous therapists over the preceding 2 years, one who may have done some tactile BLS but had no immediate impact on decreasing Ben's OCD symptoms. He was also prescribed sertraline by his pediatrician; his dose was increased from 25 to 50 mg within 6 months of beginning therapy with me.

Ben reported other obsessive symptoms, including being fearful that he might stab the family cat when walking by sharp objects at home, fearing that he might have a heart attack, and worrying about doing something embarrassing in front of other people. He reported compulsive symptoms of having to restart activities when he had previously mentioned "bad thoughts," excessive handwashing, walking through doorways multiple times, checking his homework repeatedly or rewriting his assignments, or repeating his steps if he walked on cracks on the sidewalk or street. He identified the most severe and concerning symptom as the fear of getting sick; he found the other symptoms to be manageable or less of a concern for him at the initial intake.

Diagnosis

Ben's obsessive and compulsive symptoms as well as their interference on his daily functioning suggested the diagnosis of OCD. The age of onset was around the age of 11 years, consistent with the mean age of onset for pediatric OCD (Kessler et al., 2005). The onset of symptoms appeared to be gradual, with earlier symptoms being associated with obsessiveness on school and homework assignments, including checking and rewriting, and gradually expanded to include what may be considered "stereotypical" OCD symptoms of handwashing, repetitive behaviors, avoidance, and excessive fear of irrational events taking place. Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal Infections was ruled out during initial intake, and the family denied any major sicknesses or illnesses for Ben that may be associated with the development of his OCD symptoms.

Assessment

The following questionnaire was administered prior to beginning EMDR treatment and 90 days following treatment termination. The children's Y-BOCS (CY-BOCS; Goodman et al., 1989) is the gold standard for assessing pediatric OCD and was designed to rate the severity of obsessive and compulsive symptoms in children and adolescents aged 6-17 years. It is generally administered by a clinician or trained interviewer. The final rating is based on the clinical judgment of the interviewer and includes ratings of the type and severity of obsessive and compulsive symptoms within the week preceding the clinical interview. Historically, the CY-BOCS shows a high level of internal consistency reliability with a Cronbach's α of .87 (N = 65; Scahill et al., 1997). The CY-BOCS total score shows good convergent validity with the Leyton scale (r =.62, p = .0001) and divergent validity with the Children's Depression Inventory (Kovacs, 1985) at r = .34, p = .02 and Revised Children's Manifest Anxiety Scale (Reynolds & Richmond, 1987) at r = .37, p = .05.

Scoring of the CY-BOCS is a cumulative score based on the severity rating reported by the child for both obsessive and compulsive symptoms. It assesses how much time is spent on each symptom, the level of interference for each symptom, the distress associated with each symptom, and the amount of resistance and degree of control over each symptom. Obsessive subtotal and compulsion subtotal scores are added and result in a CY-BOCS total score. The total score is then interpreted into subclinical, mild, moderate, severe, and extreme severity categories.

For the purposes of this study, the CY-BOCS was administered by the treating clinician with Ben on an individual basis in person at pretreatment and 90 days following treatment termination over the telephone. Ben scored 17 at the beginning of treatment, indicating moderate severity of OCD symptoms. A subjective report of Ben's behavior was received from Ben's mother at pretreatment, weekly during treatment, and at 90-day follow-up. Initial subjective reports from Ben's parents indicated that his symptoms were mainly interfering with his ability to participate in extracurricular baseball and school assemblies.

EMDR Treatment Conceptualization and Treatment Plan

ERP is generally the first-line treatment recommended for OCD, but treatment with two previous therapists involving thought stopping, relaxation exercises, and a few instances of EMDR using tactile BLS had not alleviated Ben's symptoms over a course of 2 years. Ben's symptoms were conceptualized as having a single incident or cause, such as a traumatic experience, and it appears this incident became "stuck" in his mind and pervaded his outlook and prediction of future events and activities. Essentially, the image of getting sick as well as the somatic experiences of becoming ill (past) became maladaptively stored in Ben's memory and would resurface when he started to feel anxious, scared, or when his stomach became upset (present). Like the re-experiencing symptoms of PTSD, Ben would relive and often fear that the night he became ill would happen in public places like school, the mall, and other open areas, leading to high anxiety and an urge to avoid these settings when possible (future).

As mentioned previously, EMDR is based on the AIP model, which posits that negative experiences sometimes become stuck or maladaptively stored in the memory system, as well as the cognitive, emotional, and physical symptoms that occurred during and following the negative experience. Since EMDR is an empirically validated treatment approach in processing past, present, and future events that are disturbing emotionally and physically (Shapiro, 2001), it seemed highly likely that EMDR would be helpful for Ben's concerns. Using EMDR to help Ben revisit that frightening evening would theoretically allow the memory and the associated symptoms to be unpacked and more appropriately stored without future interference on his behavior.

Treatment Summary

Treatment was administered by myself, a licensed psychologist with a PhD in Counseling Psychology who has several years of experience working with children in a variety of clinical and nonclinical settings. I completed basic EMDR training in April 2017 and completed an advanced 2-day EMDR training entitled "EMDR With Pre-Teens and Adolescents" with Carolyn Settle where I was trained on how to apply an EMDR protocol with adolescents suffering from a variety of anxiety disorders, including OCD. Throughout the course of treatment with Ben, I participated in monthly telephone EMDR group consultation meetings as part of training and EMDR certification requirements. Treatment fidelity was assessed indirectly through these consultation meetings.

Ben attended two intake sessions over a period of 2 weeks to assess symptoms and discuss treatment options. This was followed by 15 individual 1-hour EMDR sessions occurring on average twice per month over the course of 6 months, with CY-BOCS administered at pretreatment and 90 days post. Originally, the treatment plan was to use ERP to treat Ben's symptoms, so psychoeducation about anxiety, the physiological experience of anxiety, and how family members' behaviors in response to the individual's symptoms could reinforce or strengthen OCD symptoms was provided.

Ben and his mother obtained "It's Only a False Alarm" (Piacentini et al., 2007) and began reviewing the information about OCD and what to expect in the ERP protocol. The treating clinician had recently completed basic and advanced training in EMDR, and when she presented the possibility of exploring EMDR treatment, both Ben and his parents were excited about EMDR as a potentially efficacious treatment option. The treatment provided used standard EMDR procedures as suggested by Adler-Tapia and Settle (2012).

Consistent with the theme of this investigation, all NCs and PCs were focused on the clients' fear of vomiting in public places. Resources were taught to Ben to help him manage current triggers including

TABLE 1. Treatment Outline

Session No.	Focus of Treatment	Starting SUD	Ending SUD
1-3	History-taking, preparation	_	_
4	Reprocessing getting sick	8	3-4
5a	Reprocessing fear of getting sick	8	3-4
5b	Resourcing/future template	8	6
6	Reprocessing fear of getting sick	5	2
7a	Reprocessing school assembly and future template for assembly	5	3
7b	Future template for family vacation	5	3
8	Reprocessing school assembly	6	5
9	Reprocessing and future template school assembly	5	4
10	Future template school assembly	3	3
11	Future template going to the mall	5	3.5
12	Future template for nervousness	3	2.5
13	Future template for nervousness	3	2
14	Future template for nervousness	2	1.5
15	Future template/revisiting fear of getting sick at school	6	3

Note. SUD = Subjective Units of Disturbance.

grounding, mindfulness techniques, and cognitive restructuring (e.g., square breathing, progressive muscle relaxation, mindful breathing, and positive self-talk). Cognitive interweaves involved incorporating these activities as well as using an icon that resembled a figure whom Ben viewed as confident (e.g., a favorite athlete). Throughout the protocol and resourcing, Ben would either automatically add positive, self-encouraging statements or he would be asked if he thought any resources or icons could help him through the future feared situation.

EMDR History-Taking Phase: Sessions 1–2

From the beginning of treatment, Ben was pleasant and engaged in treatment; he was enjoyable to work with and often presented at treatment with a positive attitude and outlook toward life in general. Rapport was developed easily with Ben, and the therapeutic relationship appeared to be a contributing factor to Ben's overall success with the treatment protocol.

After a thorough evaluation of Ben's concerns was complete, he was asked to identify and create a target map (Adler-Tapia & Settle, 2012) of the disturbing fears and anxieties that he struggled with daily. He was asked to rate the severity of the fear/event on the SUDS of 0–10 and was also asked to label the targets based on the order or priority level of each target, as presented in the list that follows.

1. Fear of getting sick (SUD = 8)

- 2. School assemblies (SUD = 5)
- 3. Nervousness (SUD = 3)

EMDR Preparation Phase: Session 3

The preparation phase included continued psychoeducation about OCD and a thorough explanation of EMDR treatment. Ben was taught the self-soothing "calm place" exercise which he was asked to practice daily. For the BLS portion of resource installation, Ben chose to use visual and tactile modalities administered using the Neurotek Eye Scan 4000 blue light bar with standard tactile pulsers. Ben had previously received EMDR treatment and appeared to be comfortable with the treatment protocol from the beginning of treatment. Behaviorally, Ben was observed to become calmer during the calm place exercise; he would often appear as though he was becoming relaxed and slightly drowsy. These behavioral indicators suggested that Ben would likely respond well to BLS using the modalities he had chosen.

EMDR Reprocessing: Session 4

The first targeted memory that Ben chose was the evening he became sick at home (see Table 1). Ben ranked this memory as SUD = 8, the NC was "I'm gonna get sick," and the PC was "I'm gonna be okay" with a VOC of 3 on a scale of 1–7 with 7 being completely true. Ben spontaneously came up with some self-talk messages that could help him manage this fear (e.g., "stay calm, breathe, and everything will be okay") throughout the session. At the end of this session, he rated his SUD at "3 or 4," and the session ended with the calm place exercise.

EMDR Reprocessing: Session 5

Reprocessing of the evening when Ben became sick at home continued during this session. Ben's SUD remained at a "3 or 4" for the target, and he stated that he believed that was as low as it would get for him. A clinical decision was made to help Ben connect this past event with any current distress he may be feeling. Ben denied any current distress but mentioned that he was planning to go to the store with his mother and had anxiety about the possibility of becoming sick while at the store later that day. He ranked this future event as SUD = 8 at the beginning of the session, the NC was "I'm gonna get sick," and the PC was "I'm good" with a VOC of 6.

Resource installation/future template was used to help Ben envision himself in this future situation. Ben spontaneously included positive coping thoughts during the reprocessing to include "calmness," "your body tells you when it's sick," and "everyone feels discomfort." Ben came up with a mantra for this future event to include "get through it." Resources were introduced during this session to include skills from the smartphone apps Calm and Breathe Kids. Ben was encouraged to practice skills within the apps for homework before the following session. Ending Subjective Unit of Disturbance (SUDS) was 6 for the future template, and the session was ended with the calm place exercise.

EMDR Reprocessing: Session 6

Session 6 involved continued reprocessing of Ben's fear of getting sick. His SUDS at the beginning of the session was lower than in previous sessions (SUDS = 5), the NC was "I'm gonna get sick," and the PC was "I'm good." Ben's SUDS was not changing much throughout the session so a cognitive interweave of bringing in an icon to help Ben manage this fear was introduced. He chose a favorite athlete and was encouraged to develop a mantra for coping with this fear; he chose "be strong" as his mantra. His SUDS remained at a 5 for the duration of the session and Ben stated he feels this level of disturbance about this fear "most of the time." Blocking beliefs related to processing were assessed, and Ben could not identify anything that would be keeping him from processing this event any further. A clinical decision was made at this point to assess for current distress related to this target; Ben mentioned being worried about attending a family dinner later that day and being afraid that he may become sick at the restaurant.

The future template calm place exercise (Dressner, 2017) was employed to help Ben use an existing resource to anticipate and plan for the family dinner. The SUD for this future event was relatively low (SUD = 4), the NC was "I'm not gonna be okay," and the PC was "I'm gonna be okay" with a VOC of 7. Resources were used during this exercise to include imagining his calm place, repeating his mantra of "I'm strong," and utilizing his icon from earlier in the session. His SUD had decreased to 2 for the future template by the end of the session, and Ben insisted that his SUD would likely not decrease below that level. A thorough body scan revealed an absence of somatic disturbance associated with the target and the installation of Ben's PC was paired with the original target memory of getting sick that evening at home.

EMDR Reprocessing: Session 7

At the beginning of Session 7, Ben reported that he attended the family dinner at the restaurant and could participate and enjoy the meal with his family by focusing his attention on interacting with his family members versus being preoccupied with his fear of getting sick. He reported that his fear of getting sick was at a much more manageable level and rated his SUDS on a low level. Despite most EMDR treatment protocols requiring the SUDS to be at a 0 or 1 before proceeding to another target, a clinical decision was made to proceed after assessing Ben's current SUDS multiple times, and him being insistent that the number he reported was the lowest he believed it would get. He continued to deny any blocking beliefs or reasons for his SUDS being above required limits.

His target map was revisited, and he chose to start reprocessing his anxiety in school assemblies, also connected to his fear of getting sick in this environment. He identified the worst part of these assemblies as "all the people" and described the environment as very crowded and hot, which added to his anxiety. In the previous school year, Ben had avoided attending school assemblies due to the high amount of anxiety that he experienced. He would go to the school office or school nurse and request to stay in the office during assemblies.

This target had a SUDS = 5, the NC of "I can't handle it," and the PC of "I can handle it" with a VOC of 4. Ben's fear of assemblies was tied to his fear of getting sick in front of others. He reported a SUDS of 3 as the lowest his SUDS would go and his VOC increased from 4 to 5. The future template was used next to help Ben plan for the resources he would use at an upcoming assembly at school. Since Ben and his family were planning to go on a vacation soon, it was decided that future template would be used to help Ben anticipate managing his anxiety in this new environment. For the vacation, Ben's SUDS decreased from 5 to 3 and his VOC for "I'm gonna be okay" increased from 5 to 6. Ben went on vacation the following week with his family, with some anxiety while encountering heights, which he reported to be manageable.

EMDR Reprocessing: Session 8

Reprocessing continued in Session 8 as we worked on a previous school assembly and prepared Ben with resources to manage a back to school assembly that would be coming in the approaching school year. The worst part of the assembly was "getting sick," and the fear of getting sick that accompanied Ben's feelings of anxiety. Reprocessing of the school assembly involved the NC of "I can't handle it" with a SUDS of 6 and a PC of "I can handle it" with a VOC of 5. When we introduced the resource from the card deck (discussed in the text that follows), his SUDS decreased to "4.5," and he again insisted that it was the lowest amount of disturbance he would feel about this event.

During this session, Ben developed his own resource by coming up with the idea of putting a folded-up piece of paper in his pocket to help him cope during the assembly and serve as a reminder to use his coping skills. I presented a new resource to him and gave him the Be Mindful Card Deck for Teens (Beigel, 2016) to choose a mindful coping skill from. He chose the card that described the difference between caring and worrying, and we discussed how caring about the outcome of something feels different than worrying. Ben took the card home with him to practice "caring vs. worrying" over the coming week.

EMDR Reprocessing: Session 9

Preparation for the upcoming school assembly continued during this session. The NC and PC remained the same, the SUDS decreased from 5 to 4, and the VOC increased from 5.5 to 5.75. Additional coping skills were taught to Ben during this session, including development of a mantra ("You got it"), the skill of square breathing, and coming up with a calming cue word to which Ben chose his favorite color. At the next session, Ben reported having great success at the school assembly we prepared for in the previous weeks and noted another school assembly that he wanted to work on next.

EMDR Reprocessing: Session 10

During this session, the future template was used to help Ben plan for another upcoming school assembly. His SUDS began and ended at 3, his NC was "I can't do it," and his PC was "I'm calm" with a VOC of 6. Ben developed a few coping skills during this session to include some positive self-talk, using his nervousness as excitement for the assembly and motivation to participate and cheer with his classmates. Ben noted that his SUDS of 3 was the lowest he anticipated feeling about this future event, so installation was done pairing his PC with the feared event of the school assembly. In consideration of the fact that installation is usually not used until the SUDS reaches 0 or 1, a clinical decision was made to proceed with installation with SUDS at 3 after a thorough assessment of any potential blocking beliefs was complete. Also, a

body scan revealed an absence of somatic disturbance associated with this target memory. Additional coping skills were taught to Ben during this session, including a grounding exercise and progressive muscle relaxation. Ben was encouraged to practice using these skills throughout the week and before his next scheduled session.

EMDR Reprocessing: Session 11

With a couple of successful school assemblies under his belt, Ben came into the following session wanting to work on a future event of going to a large local mall with his mom later that day. He noted an NC of "I won't be okay" with a beginning SUDS of 5, and a PC of "I'll get through it" with a VOC that increased from 5 to 5.5. In the following session, Ben reported having a successful experience at the mall with his mom.

EMDR Reprocessing: Sessions 12–15

The next target that Ben chose to focus on from his target map was one he labeled as "nervousness." He described this as something he experienced regularly, but that it increased in specific situations like large crowds, open fields, the school basketball court, and one of his classes where the flooring was hard instead of carpeted (like the flooring in a bathroom). This nervousness was connected to his fear of getting sick in these environments, but he reported this fear as being present for him still, "but it's not bad at all." We used target reprocessing and future template to help Ben process any remaining anxiety about these environments as well as to help him plan for future events in these environments. See Table 1 for a treatment outline.

EMDR Reprocessing: Session 16

The last session with Ben involved discussing the progress he made in the previous sessions and acknowledging all the effort he put into feeling better. He reported that overall things were going well; his mom shared that she had made similar observations about his progress. Of note, Ben's mother reported that she felt as though Ben had returned to pre-OCD levels of functioning as a result of engaging in EMDR treatment with me. Ben noted that his anxiety was not bothering him much and that he was able to go into previously feared environments without disturbing feelings of anxiety. He spoke positively about his future plans, including college, and possible career paths. As discussed in previous sessions, the therapist was scheduled to relocate to a different state, and Ben was given the option to continue therapy with another clinician or to take a break from therapy. He chose to take a break and was encouraged to return to therapy in the future if his symptoms worsened.

Follow-Up

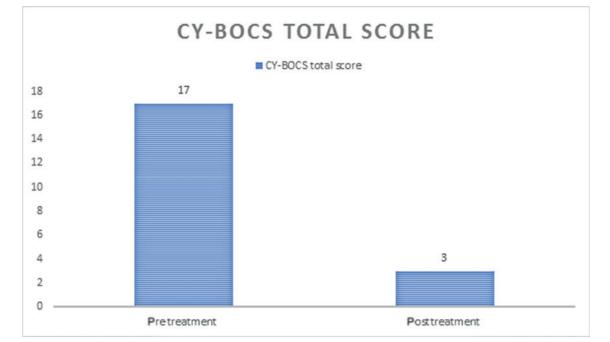
Due to therapist relocation, immediate treatment follow-up could not be completed. However, approximately 90 days following treatment completion, contact was made between the therapist and Ben's mother, who reported that things were continuing to go well and at posttreatment levels. The therapist inquired about the availability of conducting a posttreatment interview and completing another CY-BOCS with Ben. Overall, Ben reported continuing to do well and noted minimal anxiety symptoms. A CY-BOCS was administered over the phone and indicated that Ben's symptoms were now at a subclinical level (total score = 3). Ben and his mother denied the need for additional therapy at the time of the follow-up assessment. Based on the clinical interview with Ben, he no longer met criteria for the diagnosis of OCD as he noted little to no interference of his symptoms on his daily functioning despite occasional (and likely normal) anxiety being present. See Figure 1.

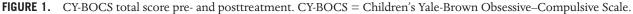
Summary

This article presented an individual case of an adolescent who suffered from OCD, which materialized as an intense and overwhelming fear of becoming sick in public places. At the beginning of treatment, Ben was having difficulty engaging in daily school and extracurricular activities without being disturbed by the fear of getting sick while participating in these activities. This individual would avoid or attempt to avoid feared situations and events to the extent that it was interfering with once-enjoyed and very normal experiences for an individual his age.

Ben primarily presented with disturbing imagery of getting sick in a variety of settings but mainly those that involved hard surfaces (similar to his original incident of becoming sick in his bathroom at home). This image of getting sick appeared to get "stuck" in Ben's brain and would intrude on his expectations for what would happen in a tiled classroom, baseball field, basketball court, and open field where other students were present. His fear of getting sick generalized to many activities and environments, leading to a strong desire to avoid settings where this fear was present. At the beginning of treatment, Ben was struggling to get through a baseball game without being close to the bullpen, he avoided school assemblies that took place in the school gym, and he would experience a large amount of anxiety when going to restaurants and malls, similar to the avoidance features of PTSD.

Due to previous success attributed to using EMDR to treat intrusive images associated with PTSD and OCD, I chose to utilize EMDR with Ben. Previous therapists had attempted cognitive and behavioral interventions, like thought stopping and relaxation





exercises, with little success. It was worth investigating whether an alternative treatment designed at targeting images and memories that have gotten "stuck" in one's memory would be successful for Ben. After receiving advanced training from Carolyn Settle and hearing the successes she had in treating kids and adolescents with OCD and other anxiety-related disorders, I felt it was promising that Ben would also benefit from receiving a treatment that had been effective for others.

Discussion

Treatment Implications

Consistent with the available literature to support the treatment of OCD using EMDR, this case study provides additional evidence suggesting the possibility of including EMDR as a potentially efficacious treatment modality for adolescent OCD. Similar to Nazari et al. (2011), this study supports the treatment of OCD using EMDR in adolescents. In the case presented here, the individual was treated using both medication and EMDR, resulting in a clinically significant decrease in OCD symptoms from a moderate to subclinical range as measured by the CY-BOCS in a total of 16 individual sessions including intake. The current study provides at least preliminary support for the need for additional investigation of EMDR's use as an effective, evidence-based treatment for OCD in children and adolescents.

The current results are comparable to Marr (2012) who found that individuals experienced a 70%-76% decrease in their OCD symptoms in 14-16 1-hour EMDR sessions. In the present study, the individual receiving treatment reported an 82% decrease in his OCD symptoms. This case study is also consistent with results obtained by Marsden (2016), Marsden et al. (2018), which found EMDR to be an effective treatment for OCD with similar treatment effects to CBT approaches like ERP. Theoretically, because EMDR involves processing memories and targets from a distance versus direct exposure to stress-provoking stimuli, the use of EMDR may help to prevent the treatment dropout that occurs for a considerable number of individuals who participate in ERP treatment.

Limitations

The present study is not without limitations. First, the successful treatment of one individual does not necessarily generalize to treatment success for other individuals who may not respond well to the proposed treatment of EMDR. The current case demonstrates additional clinical success while using a variation of an EMDR protocol to treat the intrusive and behavioral symptoms of OCD in adolescence. The individual in this study was also being concurrently treated with medication that was started many months before EMDR therapy was started; this can and should be considered an additional component that contributed to treatment success. Responses to treatment vary greatly by individual and should be considered on a case-by-case basis.

Secondly, the current study may only generalize to individuals who closely match the demographic profile of the case presented here. It would be important for future case studies, clinical trials, and research on EMDR in treating OCD to provide results from a variety of cultural and socioeconomic backgrounds. Many community-based agencies employ therapists who are trained in EMDR, and it would be important for them to replicate and publish their results.

Lastly, the present article highlights a successful case of using EMDR for teenage OCD in a private practice setting. This treatment may not be as available or prominent in other practice settings, namely community mental health agencies or other public mental health organizations. Continued work in making EMDR more accessible to therapists would likely help contribute to the amount of empirical evidence supporting this treatment approach.

Future Recommendations

It is recommended that EMDR continues to be investigated as a potentially efficacious treatment for adolescent OCD. Ideally, conducting larger-scale studies of adolescents with OCD in a well-controlled research environment would be a promising direction for future research on this topic. EMDR clinicians are encouraged to continue to publish their work to continue evaluating EMDR as an evidence-based treatment for a variety of mental health diagnoses.

Without supporting research and literature, EMDR and its powerful results may continue to exist in the shadows of other empirically supported treatments for OCD. While publishing research can be challenging for those who work in nonacademic or exclusively clinical positions, it is very likely these individuals who are witnessing the inherent power of EMDR are the ones who can provide a supportive voice to how much this treatment can offer those who suffer from OCD and other debilitating mental health disorders.

References

- Abramowitz, J. S. (2006). Understanding and treating obsessive-compulsive disorder: A cognitive-behavioral approach. Mahwah, NJ: Lawrence Erlbaum.
- Abramowitz, J. S., & Arch, J. J. (2014). Strategies for improving long-term outcomes in cognitive behavioral therapy for obsessive-compulsive disorder: Insights from learning theory. *Cognitive and Behavioral Practice*, *21*(1), 20–31. http://dx.doi.org/10.1016/j.cbpra.2013.06.004
- Aderka, I. M., Anholt, G. E., van Balkom, A. J., Smit, J. H., Hermesh, H., Hofmann, S. G., & van Oppen, P. (2011).
 Differences between early and late drop-outs from treatment for obsessive-compulsive disorder. *Journal of Anxiety Disorders*, 25(7), 918–923. http://dx.doi.org/10.1016/j. janxdis.2011.05.004
- Adler-Tapia, R., & Settle, C. (2012). Specialty topics on using EMDR with children. *Journal of EMDR Practice and Research*, 6(3), 145–153. http://dx.doi.org/10.1891/ 1933-3196.6.3.145
- Adler-Tapia, R. L., & Settle, C. S. (2017). *EMDR and the art of psychotherapy with children: Infants to adolescents*. New York, NY: Springer Publishing.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: Author.
- Beigel, G. M. (2016). Be Mindful Card Deck for Teens. Eau Claire, WI: PESI.
- Böhm, K., & Voderholzer, U. (2010). Use of EMDR in the treatment of obsessive-compulsive disorders: A case series. *Verhaltenstherapie*, 20, 175–181. http://dx.doi. org/10.12691/ajap-2-5-3
- Craske, M. G., Kircanski, K., Zelikowsky, M., Mystkowski, J., Chowdhury, N., & Baker, A. (2008). Optimizing inhibitory learning during exposure therapy. *Behaviour Research and Therapy*, 46(1), 5–27. http://dx.doi.org/10.1016/j.brat. 2007.10.003
- De Jongh, A., & ten Broeke, E. (2009). EMDR and the anxiety disorders: Exploring the current status. *Journal of EMDR Practice and Research*, *3*(3), 133–140. http://dx. doi.org/10.1891/1933-3196.3.3.133
- De Silva, P., & Marks, M. (1999). The role of traumatic experiences in the genesis of obsessive-compulsive disorder. *Behaviour Research and Therapy*, *37*(10), 941–951. http://dx.doi.org/10.1016/ S0005-7967(98)00185-5
- Dressner, I. (2017). Future calm place. Copyrighted and distributed to author in-person via EMDRIA-approved EMDR training, April 2017.
- Dykshoorn, K. L. (2014). Trauma-related obsessive-compulsive disorder: A review. *Health Psychology and Behavioral Medicine*, 2(1), 517–528. http://dx.doi.org/10.1080/ 21642850.2014.905207
- Fisher, P. L., & Wells, A. (2005). How effective are cognitive and behavioral treatments for obsessive-compulsive disorder? A clinical significance analysis. *Behaviour Research and Therapy*, 43(12), 1543–1558.

- Foa, E. B., Yadin, E., & Lichner, T. K. (2012). Exposure and response (Ritual) prevention therapy for obsessive-compulsive disorder: Therapist guide (2nd ed.). Oxford, UK: Oxford University Press.
- Goodman, W. K., Price, L. H., Rasmussen, S. A., Mazure, C., Fleischmann, R. L., Hill, C. L., . . . Charney, D. S. (1989). The Yale-Brown Obsessive Compulsive Scale:
 I. Development, use, and reliability. *Archives of General Psychiatry*, 46(11), 1006–1011. http://dx.doi.org/10. 1001/archpsyc.1989.01810110048007
- Himle, M. B., & Franklin, M. E. (2009). The more you do it, the easier it gets: Exposure and response prevention for OCD. *Cognitive and Behavioral Practice*, 16(1), 29–39. http://dx.doi.org/10.1016/j.cbpra.2008.03.002
- Horst, F., Den Oudsten, B., Zijlstra, W., de Jongh, A., Lobbestael, J., & De Vries, J. (2017). Cognitive behavioral therapy vs. eye movement desensitization and reprocessing for treating panic disorder: A randomized controlled trial. *Frontiers in Psychology*, 8, 1409. http:// dx.doi.org/10.3389/fpsyg.2017.01409
- Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-ofonset distributions of *DSM-IV* disorders in the national comorbidity survey replication. *Archives of General Psychiatry*, 62(6), 593–602. http://dx.doi.org/10.1001/archpsyc. 62.6.593
- Kovacs, M. (1985). The Children's Depression Inventory (CDI). *Psychopharmacology Bulletin*, *21*(4), 995–998.
- Maher, M. J., Huppert, J. D., Chen, H., Duan, N., Foa, E. B., Liebowitz, M. R., & Simpson, H. B. (2010). Moderators and predictors of response to cognitive-behavioral therapy augmentation of pharmacotherapy in obsessive-compulsive disorder. *Psychological Medicine*, 40(12), 2013–2023.
- Marr, J. (2012). EMDR treatment of obsessive-compulsive disorder: Preliminary research. *Journal of EMDR Practice and Research*, 6(1), 2–15. http://dx.doi.org/10.1891/1933-3196.6.1.2
- Marsden, Z. (2016). EMDR treatment of obsessive-compulsive disorder: Three cases. *Journal of EMDR Practice and Research*, 10(2), 91–103. http://dx.doi.org/10.1891/ 1933-3196.10.2.91
- Marsden, Z., Lovell, K., Blore, D., Ali, S., & Delgadillo, J. (2018). A randomized controlled trial comparing EMDR and CBT for obsessive-compulsive disorder. *Clinical Psychology & Psychotherapy*, *25*(1), e10–e18.
- Mathews, C. A., Kaur, N., & Stein, M. B. (2008). Childhood trauma and obsessive-compulsive symptoms. *Depression and Anxiety*, *25*(9), 742–751. http://dx.doi.org/10.1002/da.20316
- Meyer, V. (1966). Modification of expectations in cases with obsessional rituals. *Behaviour Research and Therapy*, 4(4), 273–280. http://dx.doi.org/10.1016/ 0005-7967(66)90023-4
- Nazari, H., Momeni, N., Jariani, M., & Tarrahi, M. J. (2011). Comparison of eye movement desensitization and reprocessing with citalopram in treatment of

obsessive-compulsive disorder. *International Journal of Psychiatry in Clinical Practice*, 15(4), 270–274. http://dx.doi. org/10.3109/13651501.2011.590210

- Olatunji, B. O., Davis, M. L., Powers, M. B., & Smits, J. A. (2013). Cognitive-behavioral therapy for obsessive-compulsive disorder: A meta-analysis of treatment outcome and moderators. *Journal of Psychiatric Research*, 47(1), 33– 41. http://dx.doi.org/10.1016/j.jpsychires.2012.08.020
- Piacentini, J., Langley, A., & Roblek, T. (2007). *It's only a false alarm*. Oxford, UK: Oxford University Press.
- Potik, D. (2017). "Winter is coming!"—Treatment of Obsessive-compulsive disorder imagery after viewing the television series Game of Thrones. *Journal of EMDR Practice and Research*, 11(3), 147–161. http://dx.doi.org/ 10.1891/1933-3196.11.3.147
- Reynolds, C. R., & Richmond, B. (1987). *Revised Children's Manifest Anxiety Scale (RCMAS) manual*. Los Angeles, CA: Western Psychological Services.
- Scahill, L., Riddle, M. A., McSwiggin-Hardin, M., Ort,
 S. I., King, R. A., Goodman, W. K., . . . Leckman,
 J. F. (1997). Children's Yale-Brown Obsessive
 Compulsive Scale: Reliability and validity. Journal
 of the American Academy of Child and Adolescent

Psychiatry, 36(6), 844–852. http://dx.doi.org/10.1097/00004583-199706000-00023

- Shapiro, F. (2001). Eye movement desensitization and reprocessing: Basic principles, protocols, and procedures. New York, NY: Guilford Press.
- The Pediatric OCD Treatment Study (POTS) Team. (2004). Cognitive-behavior therapy, sertraline, and their combination for children and adolescents with obsessive-compulsive disorder. *Journal of the American Medical Association*, *292*(16), 1969–1976. http://dx.doi.org/10.1001/jama.292. 16.1969
- Wagner, A. P. (2009). Obsessive-compulsive disorder in children and teenagers. *International OCD Foundation*. Retrieved from https://iocdf.org/wp-content/uploads/ 2014/10/OCD-in-Children-and-Teenagers-Fact-Sheet. pdf
- Wolpe, J. (Ed.). (1959). *Psychotherapy based on the principle of reciprocal inhibition*. Oxford, UK: Prentice Hall.

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