A Tale of Two Compulsions – Two Case Studies Using Accelerated Resolution Therapy (ART) for Obsessive Compulsive Disorder (OCD)

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ABSTRACT Although research for accelerated resolution therapy (ART) has been predominately for post-traumatic stress disorder, ART has shown promise as a treatment for other behavioral health conditions as well. ART is a brief, trauma-focused, eye movement-based therapy that has been successfully utilized to treat a wide array of behavioral health disorders, including obsessive compulsive disorder. This article will present an overview of the theory behind the reconsolidation concept used in ART and two cases of obsessive compulsive disorder treatment using ART with outcome measures visual trend analysis.

Accelerated resolution therapy (ART) is a brief, traumafocused, eye movement-based therapy developed in response to the need for safe, quick, and effective psychotherapeutic treatments for an array of behavioral health problems. ART has been successfully delivered in 2-5 60-minute treatment sessions and involves no homework assignments. 1-4 ART was originally designed for use with patients experiencing trauma, specifically post-traumatic stress disorder (PTSD). It has also been utilized for many different types of behavioral health problems, such as depression, anxiety, phobias, grief, suicidality, and relationship issues. ^{2,5,6} A randomized control trial comparing ART with attention control (AC) in 57 active duty service members and veterans with PTSD, including many with refractory symptoms. The trial showed 94% treatment completion, and a reduction in PTSD, depression, anxiety, and trauma-related guilt symptoms significantly greater for ART than the AC group, and a high effect size that persisted for three months following an average of 3-4 sessions.

ART relies on the memory reconsolidation process to help patients achieve relief. This is in contrast to extinction learning, which is often utilized for symptom improvement in other trauma-focused therapies. Traditional extinction-based therapies rely on the creation of new associations that compete with previously learned distressing associations in the absence of reinforcement. In other words, old memories/ thoughts are updated rather than changed. The degree of

modification depends on the extent to which the new experience deviates from the reactivated memory. The original memory may also return, contending further with the competing new association through renewal, reinstatement, or spontaneous recovery. 13

In contrast, reconsolidation theory posits that it is possible to permanently dis-associate learned associations. At the molecular level, learning involves modification of synapses, formation of new synapses and neuronal circuits; unwiring, erasing and re-writing of unwanted learning. ¹⁴ When a memory is reactivated, the memory enters a labile phase, in which it experiences plasticity and is vulnerable to change. ^{11,15–17} Enduring new associations may be then be established, decreasing negative symptoms, images, and sensations related to the original memories ^{1,4–6}; see Figure 1.

When using ART for obsessive compulsive disorder (OCD), memories of the target behaviors are activated to the point of physiological reactivity, signaling that they have become labile and changeable. Patients are asked to mentally walk through their day, visualizing themselves experiencing obsessions and compulsions, to facilitate *in vitro* exposure and activate memories of their OCD symptoms at a tolerable level. The visualized troublesome behaviors are then paired with new insights, positive sensations, or new tools/coping skills they have at their disposal in order to establish a new learned association. This occurs while the window of reconsolidation is open.¹⁵

OCD involves intense urges to perform repetitive acts in response to anxiety caused by mental obsessions, sometimes despite full insight into how senseless these acts are. The subsequent achievement of relief from the anxiety only reinforces the compulsive behaviors. According to the DSM-5, insight in individuals with OCD can vary from "good or fair," to "poor," to "absent/delusional beliefs" (in which case a psychotic disorder diagnosis should be given)¹⁸ (American Psychiatric Association [APA], 2013, p. 236). Both cases presented "knew" what they were doing, considered their

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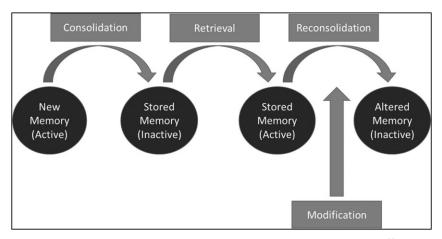


FIGURE 1. Reconsolidation concept. Reprinted with permission from Schwabe, Nader, & Pruessner, 2014, p. 275.

thinking to be irrational, and were embarrassed about continuing to do these things when they did not want to so they would be considered as having very good insight (Figs 2 and 3).

In OCD, behaviors often become a conditioned response, such as a habit, hence the DSM-5's categorization of OCD with other related conditions, such as hoarding, compulsive shopping, trichotillomania, excoriation, body dysmorphic disorder, hypochondriasis, and somatization. ¹⁸ OCD imparts a significant burden on quality of life, interpersonal relationships, work, and academic activities. It is notoriously challenging to treat, especially because patients find ways to justify their obsessions and compulsions despite significant social and occupational impairment. ^{18–20} Clinical improvement with treatment varies from 32 to 74% in adults and most do not achieve remission. It is usually considered a chronic condition with lifelong morbidity. Psychotherapy can be helpful, despite often offering little more than moderate control of symptoms. ^{19,20}

OCD is also considered difficult to treat with medications. Very high (a.k.a. "heroic") doses of medications, especially selective serotonin reuptake inhibitors, are often needed. Side effects of these medications may be significant, including weight gain, diaphoresis, sedation, sexual side effects, and others.²¹

TWO CLINICAL CASES

Two OCD clinical cases treated with ART are presented with outcome measures using visual trend analysis. The patients in both of these cases have given the authors permission to use their clinical information in these case reports. For anonymity, every attempt has been made to de-identify the patients. Sessions were sixty minutes each.

Psychometric scales that were used are: (1) Behavior and Symptom Identification Scale 24 (BASIS-24),²² a general distress measure for tracking clinical outcomes with scores ranging from 0 to 3.0 where 1.09 or less is considered subclinical; (2) Generalized Anxiety Disorder 7 (GAD-7),²³ an

anxiety disorder-burden tracking with scores ranging from 0 to 21 where less than 10 is considered subclinical; (3) Patient Health Questionnaire 9 (PHQ-9),²⁴ a depression illness burden tracking with scores ranging from 0 to 27 where less than 10 is considered subclinical; and (4) PTSD Checklist 5 (PCL-5),²⁵ a PTSD illness burden tracking measure with scores ranging from 0 to 85 where less than 42 is considered subclinical.

Case 1: The patient is a 36-year-old single Caucasian male, never married, no children, who had difficulty maintaining relationships throughout his adult life. He presented to behavioral health for a medication evaluation after "exhausting all other resources." He had a 15+ year history of OCD, which began with his taking long showers multiple times a day, and progressed to his feeling "morally contaminated" and "exposed" to most items (what do you mean by "most items"?). He was spending more than 4 hours a day showering. He stated "I feel like I'm putting out fires all day. I get through one episode and another comes up." For many years would not allow himself to use public restrooms and was limiting his fluid intake so that he could wait until lunchtime to leave his work to go home to use that restroom. He displayed significant pathological doubt pattern with anxiety, checking behaviors, and was labeling people, place, and things as good/bad, supportive/non-supportive to him as things he could/could not engage. He had been having problems at work for some time and had also not been able to have an intimate relationship for many years. He completed three separate residential treatment programs with little improvement in his symptoms.

He was seen in our clinic where his OCD diagnosis was validated, meeting DSM-5 criteria. ¹⁸ He was started on fluoxetine 20 mg per day and the dose was increased to 40 mg per day at his second appointment, prior to his agreeing to an initial ART session.

The patient participated in four ART sessions. He reported complete relief after the third session. The fourth session was used to "reinforce" the work he accomplished during his first

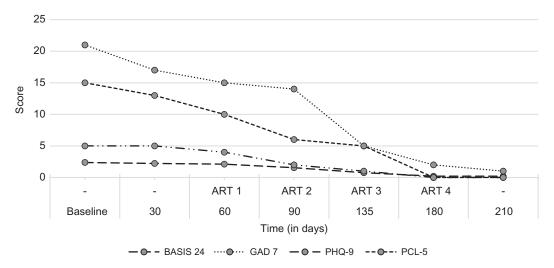


FIGURE 2. Case #1 outcome measures visual trend analysis.

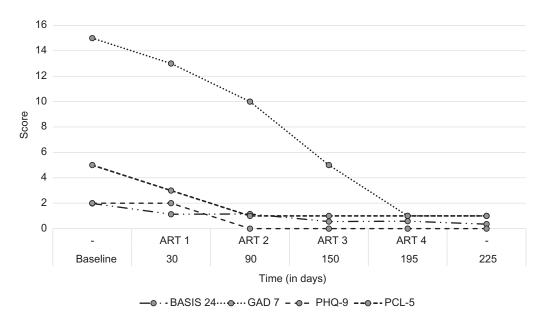


FIGURE 3. Case #2 outcome measures visual trend analysis.

three sessions. In the first session, he was directed to imagine a "typical OCD scene," in which he experienced each of the long showers he compulsively took on a daily basis to manage his obsession with germs. He described his showers as very long, painful, and anxiety-provoking. During the rescripting segment of the ART protocol, he was directed to visualize how he would prefer to shower, (i.e., taking a "normal" 5-minute shower, during which he was able to wash thoroughly, but to not scrub or dwell for too long on specific areas).

During his second session, he was directed to mentally walk through a typical day, during which he experienced all of his OCD symptoms. While visualizing his typical day, he was asked to imagine a "little liar" that tells him lies about why he needs to perform his compulsions, then to imagine himself controlling the symptoms by defeating the "little liar."

For the third session, he was directed to think about when the anxiety regarding cleanliness and the idea of contamination first started, by mentally going back in time to a time when he first recalled experiencing his symptoms. He identified an event from his childhood and utilized the ART protocol to process this event during this session. The patient reported a greater than 75% improvement in symptoms after this third ART session. He provided informed consent to be slowly tapered off of his medication and agreed to a fourth session to reinforce the gains he made during the first three sessions. After his fourth ART session, the patient's fluoxetine was discontinued altogether. At the time this manuscript was submitted, the patient reported that he has remained off of medication and without behavioral health treatment for over 24 months.

Case 2: The patient is a 39-year-old single Caucasian male, who had never been married and had no children. He stated, "I feel like I'm always being judged and people are waiting for me to fail." The patient reported having obsessive thoughts about being judged and being "looked at under a microscope." He also had a history of compulsive behaviors, such as biting and picking at his skin. At the time of his initial assessment, he reported that flying, public speaking, and presenting at work had also become more anxiety provoking, and he was finding social interactions to be nearly impossible. Although he remembered having these symptoms as early as high school, he has felt that these have gotten worse over the past eight to ten years with his New Year's resolution this year to be to finally seek treatment. The patient was diagnosed with OCD and Excoriation Disorder, meeting criteria per the DSM-5.¹⁸ He agreed to an initial ART session after being started on fluoxetine 20 mg per day. He denied suicidal and homicidal ideation at any point in his life.

The patient had a total of four ART sessions. In the first session, he processed a typical day that included all of his symptoms. In the second ART session, he was instructed to imagine a metaphor for his emotions. He described feeling that his life was like a soccer game. The crowd was mean and berating him for everything he did during the entire game. In accordance with the ART protocol, he was instructed to make positive changes to his metaphor. He mentally changed the soccer game so that the crowd was excited for him and would cheer him on no matter what happened during the game. During his third ART session, he processed another typical day, but was asked to also conceptualize his symptoms as being outside of himself, and was directed to imagine using virtual tools to mitigate them. During his final ART session, prior to which he already had a greater than 75% decrease in symptoms, he processed another metaphor about being looked at under a microscope, and visualized himself going home to visit family for the holidays without the burden of his obsessions and compulsions. He reported being excited about testing out his new confidence in real life. More than 9 months after his fourth and final ART session, he had been off of medications and remained symptom-free.

CONCLUSIONS

ART is a promising therapy for a wide variety of behavioral health disorders that have demonstrated effectiveness for subjects with PTSD. The two OCD cases presented in this paper demonstrated a dramatic and sustained response after 3–4 sessions of ART. The protocol technique studied for use in trauma appears to work similarly for the negative memories experienced by patients with OCD. This may be due to the significant insight that many OCD patients have into the nonsensical nature of their obsessions and compulsions and their strong desire to eliminate them. Future research on ART should include a variety of behavioral health disorders such as OCD, as ART has potential as an intervention for a wide-range of behavioral health difficulties.

REFERENCES

- Kip K, Rosenzweig L, Hernandez D, et al: Randomized controlled trial of accelerated resolution therapy (art) for symptoms of combat-related post-traumatic stress disorder (PTSD). Mil Med 2013; 178(12): 1298–309. doi:10.7205/milmed-d-13-00298.
- Kip K, Shuman A, Hernandez D, Diamond D, Rosenzweig L: Case report and theoretical description of accelerated resolution therapy (art) for military-related post-traumatic stress disorder. Mil Med 2014; 179 (1): 31–7. doi:10.7205/milmed-d-13-00229; Diagnostic And Statistical Manual Of Mental Disorders. 5th ed. Arlington, VA: American Psychiatric Publishing; 2013.
- Finnegan A, Kip K, Hernandez D, et al: Accelerated resolution therapy: an innovative mental health intervention to treat post-traumatic stress disorder. J R Army Med Corps 2015; 162(2): 90–7. doi:10.1136/jramc-2015-000417.
- Waits W, Marumoto M, Weaver J: Accelerated resolution therapy (ART): a review and research to date. Curr Psychiatry Rep 2017; 19 (18): 1–7. doi:10.1007/s11920-017-0765-y.
- Kip K, Sullivan K, Lengacher C, et al: Brief treatment of co-occurring post-traumatic stress and depressive symptoms by use of accelerated resolution therapy®. Front Psychiatry 2013; 4(11): 1–12. doi:10.3389/ fpsyt.2013.00011.
- Hoge C, Lee D, Castro C: Refining trauma-focused treatments for servicemembers and veterans with posttraumatic stress disorder. JAMA Psychiatry 2017; 74(1): 13–4. doi:10.1001/jamapsychiatry.2016.2740.
- Foa EB, Hembree E, Rothbaum BO: Prolonged Exposure Therapy for PTSD: Emotional Processing of Traumatic Experiences Therapist Guide. New York, NY, Oxford University Press, 2007.
- Resick P, Monson C, Chard K: Cognitive Processing Therapy For PTSD. New York, NY, Guilford Press, 2017.
- Sloan D, Lee D, Litwack S, Sawyer A, Marx B: Written exposure therapy for veterans diagnosed with PTSD: a pilot study. J Trauma Stress 2013; 26(6): 776–9. doi:10.1002/jts.21858.
- Dahlitz M, Hall G: Memory Reconsolidation In Psychotherapy. Lexington, KY, Dahlitz Media, 2015.
- Schwabe L, Nader K, Pruessner J: Reconsolidation of human memory: brain mechanisms and clinical relevance. Biol Psychiatry 2014; 76(4): 274–80. doi:10.1016/j.biopsych.2014.03.008.
- 12. Van der Kolk B: The Body Keeps The Score: Brain, Mind, and Body in the Healing of Trauma. New York, NY, Viking, 2014.
- 13. Bouton M: Why behavior change is difficult to sustain. Prev Med 2014; 68: 29–36. doi:10.1016/j.ypmed.2014.06.010.
- 14. Ormrod J: Human Learning. Upper Saddle River, NJ, Merrill, 2012.
- Ecker B, Ticic R, Hulley L: Unlocking The Emotional Brain: Eliminating Symptoms At Their Roots Using Memory Reconsolidation. NY, Routledge, 2012.
- Scully I, Napper L, Hupbach A: Does reactivation trigger episodic memory change? A meta-analysis. Neurobiol Learn Mem 2017; 142: 99–107. doi:10.1016/j.nlm.2016.12.012.
- 17. Simon K, Gómez R, Nadel L, Scalf P: Brain correlates of memory reconsolidation: a role for the TPJ. Neurobiol Learn Mem 2017; 142: 154–61. doi:10.1016/j.nlm.2017.03.003.
- American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, (Ed 5), Arlington, VA, American Psychiatric Publishing, 2013.
- Bloch M, Green C, Kichuk S, et al: Long-term outcome in adults with obsessive-compulsive disorder. Depress Anxiety 2013; 30(8): 716–22. doi:10.1002/da.22103.
- Chase T, Wetterneck C, Bartsch R, Leonard R, Riemann B: Investigating treatment outcomes across OCD symptom dimensions in a clinical sample of OCD patients. Cogn Behav Ther 2015; 44(5): 365–76. doi:10.1080/16506073.2015.1015162.
- Stahl S: Stahl's Essential Psychopharmacology. Cambridge, Cambridge University Press, 2013.

- 22. Cameron IM, et al: Psychometric properties of the BASIS-24 (Behavioral and Symptom Identification Scale Revised) mental health outcome measure. Int J Psychiatry Clin Pract 2007; 11(1): 36–43.
- Spitzer RL, Kroenke K, Williams JB, Löwe B: A brief measure for assessing generalized anxiety disorder: The GAD-7. Arch Intern Med 2006; 166: 1092–7.
- 24. Lowe B, Kroenke K, Herzog W, Grafe K: Measuring depression outcome with a brief self-report instrument: sensitivity to change of the Patient Health Questionnaire (PHQ-9). J Affect Disord 2004; 81(1): 61–6.
- 25. Bovin MJ, et al: Psychometric properties of the PTSD Checklist for Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition (PCL-5) in veterans. Psychol Assess 2016; 28: 1379–91.