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CHAPTER 8

Processing Trauma-and Attachment-Related Memories

Most existing approaches to avoidance behaviors such as DRBs or excessive substance use (e.g., DBT, interpersonal psychotherapy [IPT], MBRP, and Seeking Safety) focus primarily on emotional regulation training, mindfulness, and coping and interpersonal skills development, and provide, at best, only informal (Linehan, 1993) therapeutic exposure. In contrast, RA-focused therapy specifically includes a range of interventions that support emotional processing of the trauma= and attachment-related memories that contribute to DRBs.

It is understandable that some therapies are less concerned with therapeutic exposure in work with DRB-involved clients. First, such clients are especially likely to come to treatment in a state of relative instability and dysregulation, and therefore require more immediate interventions that increase their safety, stabilize their internal environment, and help them deal with potentially overwhelming intrusive experiences. Second, especially for those with major childhood trauma and/or attachment disturbance, ill-timed or less titrated therapeutic exposure can challenge stability and coping capacities, and potentially lead to overwhelming emotional states and experiences, if not premature termination.

Apropos of the latter concern, the average therapy completion rate (often defined as attending more than six sessions of an evidence-based treatment) in real-world clinical contexts is often less than 50% (e.g., Mott et al., 2014; Watts et al., 2014; see a detailed review by Najavits, 2015). Drop-out during exposure therapy may be even more common for the individuals most relevant to this book, for example those suffering from substance abuse, depression, dissociation, suicidality, more severe posttraumatic stress, and, especially, borderline personality disorder (e.g., Zayfert & Black, 2000; Zayfert et al., 2005).

This is a well-known conundrum for those who work with complex trauma survivors, especially those engaged in DRBs: Therapeutic exposure to trauma memories clearly can be helpful to the extent that it addresses the underlying basis for the client's avoidance. Yet it can be problematic if, for whatever reason, the client is unable to tolerate the distress associated with activated memories, and develops more symptoms or drops out of treatment. This issue—whether and when to directly address trauma memories in therapy—is currently a source of fruitful discussion in the trauma literature, with some writers suggesting a primary focus on building stability, coping responses, interpersonal relationships, and emotional regulation capacities (e.g., Linehan, 1993; Markowitz et al., 2015; Najavits, 2002; although see Najavits & Johnson, 2014), others emphasizing the benefit of therapeutic exposure to trauma memories (e.g., Foa et al., 2007; Zoellner et al., 2011), and still others asserting the importance of both, albeit typically focusing on capacity and skills development before memory processing (e.g., Bohus et al., 2013; Cloitre et al., 2006).

The RA perspective holds that within the context of a positive therapeutic relationship, a combination of stabilization, emotional regulation training (including trigger management), and titrated processing of distressing memories is likely to be most effective in work with those prone to DRBs. It may even be misleading to view these aspects of therapy as independent of one another. The positive effects of a good therapeutic relationship, for example, may include activation and processing of childhood memories, reworking of negative attachment-level assumptions about self and others, and development of a more robust emotional regulation repertoire. Similarly, therapeutic exposure to traumatic memories typically requires a safe and supportive relationship, metacognitive acceptance of current internal experiences, and some level of emotional regulation capacity.

In fact, although not always described as such, even mindfulness and emotional regulation interventions can lead to therapeutic exposure. To the extent that such activities result in decreased avoidance, they naturally allow emotional processing of previously avoided memories. In this sense, it may be a bit of a "straw person" debate as to whether exposure should be part of therapy. The issue instead is how exposure is conducted, and whether it can be done in ways that are safe, that do not overwhelm, and that meaningfully address the underlying etiologies of DRBs.

RA-focused treatment takes advantage of these exposure opportunities whenever possible, because it is unlikely that the interventions described in the previous chapters will, in and of themselves, completely eliminate DRBs. In most cases, even if the client is able to regulate his emotional responses to trauma, and learn ways to manage triggered responses, the underlying association between trauma stimuli and painful thoughts and feelings still exists, and can continue to produce distress. Although a major benefit for DRB-involved people, emotion regulation and tolerance skills do not especially address the actual trauma or attachment memories; they primarily ameliorate triggered effects of memory in the moment.

For this reason, an RA perspective focuses on both sides of the DRB equation: first working to increase resilience to triggered states, then carefully addressing the memories behind these states. Fortunately, these two foci often work together: (1) Increasing emotional regulation capacity reduces the need for avoidance, thereby allowing exposure to previously overwhelming memories, and (2) repeated titrated exposure to painful memories can increase emotional tolerance, as the client "gets used to" distress that he previously avoided. As noted by Najavits (2013)

> The goal is thus to move beyond the extremes that have historically guided therapy of PTSD/SUD [substance use disorder] clients: either none should do past-focused work ("they are too fragile") or all should do it ("it's helpful for everyone"). The clinician's task is to balance these opposites, focusing on how, when, and whether to move in and out of the work with each client. (p. 6)

This chapter reviews ways in which the client can directly process trauma-and attachment-related memories so that they are less able to motivate DRBs. Because some of the ideas in the RA approach differ from other treatment paradigms, we first explore several constructs integral to this model.

Emotional Processing

The term therapeutic exposure is used in this book to refer to a process in which the client is asked to talk about (and, thus, remember) past traumatic events in the specific context of a safe and caring therapeutic environment. As will be discussed, when exposure occurs in safety and with therapeutic support, trauma and attachment memories can slowly lose their power to produce distress, thereby reducing the motivation for DRBs. When this occurs, the client's activation–regulation balance can move toward equilibrium, in part due to increased emotional regulation capacity, but also decreased activatable distress. Although titrated exposure and activation is described in detail later in this chapter, it is best understood as part of a larger phenomenon, generally referred to as emotional processing.

PE, Fear Structures, and Trauma Schemas

Emotional processing was defined by Foa and Kozak (1986) as a process whereby erroneous trauma-related perceptions, beliefs, and expectations (what they call "pathological fear structures") are activated and are, through habituation, modified or replaced by new information. The basic idea of exposure-based habituation is that the client is repeatedly triggered into this fear structure, then "stays with" this state for relatively long periods of time (often up to 90 minutes per session [Foa & Rothbaum, 1998], hence the term prolonged exposure), until the emotion dissipates (habituates). Successful habituation is often defined as a reduction in subjective units of distress of at least 50% within a given session (e.g., Foa, Yadin, & Lichner, 2012).

Although habituation of fear has been a central goal of PE, other cognitive–emotional states are also associated with trauma-related stimuli, including anger, shame, humiliation, self-hatred, helplessness, and abandonment preoccupation—none of which are specifically targeted by classic exposure therapy (Linehan, 1993). The term trauma schema is used here for these more complex internal phenomena, defined here as systems of interlinked (chained) trauma or attachment-related memories, beliefs, expectations, and emotions that can be triggered by reminiscent stimuli. Interestingly, it is likely that, despite its initial focus on fear, therapeutic exposure also, to some extent, reduces nonanxiety-related symptoms (O'Donohue & Fisher, 2012). Clinical experience suggests that memory activation, nonreinforcement, emotional processing, correction of erroneous beliefs, and counterconditioning all occur in the treatment of these phenomena, as well as fear, and research on exposure-based treatments often reveal reductions in a range of PTSD symptoms, anger, guilt, and depression, as well as anxiety (e.g., Cahill, Rauch, Hembree, & Foa, 2003; Foa et al., 2005).

Beyond Habituation

As opposed to Foa and Kozak (1986), the RA model is not habituation-focused. In fact, the habituation construct has lost much of its favor in the psychological literature, largely because the outcome of exposure therapy does not actually appear to be affected by whether fear habituates within—or sometimes even across—sessions (e.g., Baker et al., 2010; Prenoveau, Craske, Liao, & Ornitz, 2013; van Minnen & Foa, 2006). In the absence of habituation as an active ingredient, an obvious question arises: Is it necessary to have prolonged exposure to a specific triggered cognitive–emotional state or fear structure in order for processing to occur?

Recent research suggests that it may not. Several studies have shown that less sustained exposure to trauma memories is just as effective as classical PE in reducing posttraumatic stress (e.g., Nacasch et al., 2015; van Minnen & Foa, 2006; Sloan, Marx, Lee, & Resick, 2018), leading Foa and McLean (2016) to conclude that "the fact that within-session fear reduction does not predict treatment outcome suggests that the length of PE sessions can be shortened without compromising efficacy" (p. 11).

In fact, recent work suggests that exposure may not even be necessary for symptom reduction. Markowitz and colleagues (2015) found that IPT (Weissman, Markowitz, & Klerman, 2000), which does not involve exposure or habituation, was at least equivalent to PE in reducing symptoms of PTSD, and was more effective in treating comorbid depression. Similarly, other therapies—for example, cognitive processing therapy (CPT; Resick & Schnicke, 1992), eye movement desensitization and reprocessing (EMDR; Shapiro, 1991, 2017), written exposure therapy (WET; Sloan et al., 2018), and Seeking Safety (Najavits, 2002)—have demonstrated efficacy in treating PTSD without obvious habituation components. The existence of these other effective therapies does not negate the usefulness of PE in all instances(e.g., Peck, Schumacher, Stasiewicz, & Coffey, 2018), but it does suggest that, especially for DRB-involved clients with low emotional regulation and distress intolerance, there may be effective alternatives to habituation-based—and therefore prolonged—exposure approaches.

Inhibitory Learning

To add to the complexity, it is becoming clear that exposure-based extinction does not actually involve the deletion or erasure of the association between a triggering stimulus and a conditioned (e.g., trauma-related) response. Indeed, these associations appear to remain in memory, even if they are no longer called upon (Bjork & Bjork, 1992). As Jacoby and Abramowitz (2016) note, "Once they are learned, such associations don't fade over time; rather access to them does" (p. 30). The continuing presence of old learning may explain in part why some extinguished associations are susceptible to spontaneous recovery after treatment. Such "relapses" of symptomatology appear to be more likely in situations or contexts that are different from those under which extinction learning originally occurred, and when additional traumatization or danger occurs after treatment, refreshing old trauma-related associations (Craske et al., 2014).

The continuing presence of old memories aside newer versions of them is a central focus of inhibitory learning theory (Lang, Craske, & Bjork, 1999), a perspective that has growing acceptance (Jacoby & Abramowitz, 2016). It suggests that therapy-based learning—for example, that interpersonal vulnerability does not always lead to danger—must compete with "old" but still potentially available expectancies (e.g., those formed in the context of childhood abuse). The difference between inhibitory learning and earlier habituation perspectives has significant implications for trauma and attachment processing, as described later in this chapter.

Counterconditioning

An RA approach to memory processing also includes significant attention to counterconditioning, to some extent as originally proposed decades ago in Wolpe's (1969) systematic desensitization approach. Wolpe hypothesized that if an anxiety-evoking stimulus (e.g., a trigger) is repeatedly presented while the person is in an anxiety-incompatible state, the association between the trigger and the anxiety responses will weaken. Interestingly, recent research (e.g., Högberg & Hällström, 2018; Lane, Ryan, Nadel, & Greenberg, 2014; Nadel, Hupbach, Gomez, & Newman-Smith, 2012) offers some support for Wolpe's contention, primarily in terms of what is described as memory reconsolidation in the next section. Translated into an RA perspective, counterconditioning is likely to occur when the client reexperiences trauma- or attachment-related memories in the context of a compassionate and caring therapeutic relationship, or when therapeutic activities such as relaxation or mindfulness training are integrated into therapeutic exposure, such that the memory at least partially changes its valence and loses some of its ability to produce distress upon being triggered.

Reconsolidation

Recent research may explain how memory inhibition and counterconditioning effects actually reduce triggerable emotional distress during successful emotional processing. Studies suggests that there is a golden window of several hours following the activation of a memory, during which time it can be updated with new information or altered emotionality, then "reconsolidated" back into the brain as a newer, more powerful memory (e.g., Tronson & Taylor, 2007). In this regard, Lane and colleagues (2015) propose that "the essential ingredients of therapeutic change include: (1) reactivating old memories; [and] (2) engaging in new emotional experiences that are incorporated into these reactivated memories via the process of reconsolidation" (p. 1). As noted by Högberg and Hällström (2018), this process "means that an autobiographical memory, when activated, can change its emotional valence in a short time frame and be reconsolidated with new emotional valence as part of personal memory" (p. 2). From this perspective, if a client can access distress-incompatible states (e.g., relaxation, warm feelings associated with a good therapeutic relationship)—or insights that decrease distress—during and soon after a painful memory is activated, future triggering of this updated and reconsolidated memory will be less associated with negative emotional states.

Thus, RA-focused therapy relies heavily on the counterconditioning and distress-reducing aspects of the therapeutic relationship, and often intersperses exposure with periods of relaxation or mindfulness, less distressing activities, such as psychoeducation, present-centered discussions, or emotion regulation practice. In contrast, exposure that is excessively prolonged or potentially overwhelming, and does not include the elicitation of positive or calming states, might theoretically lead to reconsolidation of structures and schemas that contain even more distress.

The option of counterconditioning trauma or attachment memories seemingly brings the therapeutic relationship into cognitive-behavioral approaches to trauma therapy. As is described later, it also suggests the importance of attachment in some instances of trauma processing, since the positive feelings associated with a caring therapeutic relationship may involve, in part, the activation of attachment-related neurobiology.

Memory Targets

In most exposure-based trauma treatments, the client is asked to choose her "worst" or most significant trauma memory, so that it can be elicited and habituated over a number of sessions. Following habituation-based processing of this memory, another memory may be chosen. An RA-focused perspective, on the other hand, does not constrain treatment to one trauma at a time, for several reasons.

First, as noted, recent research suggests that habituation is probably irrelevant to positive treatment outcomes. As a result, there is no specific reason why one memory must be habituated before another is considered. In fact, research has not yet demonstrated an optimal exposure period for clinical efficacy, although increasingly shorter exposure intervals appear to yield equivalent outcomes, and no research indicates that multiple, more brief, exposures to different memories are inferior to longer exposures that focus on a single memory. Furthermore, as noted earlier, inhibitory learning may be more effective when trauma-based associations are elicited and processed in a variety of different contexts and points in time.

Second, DRB-involved clients typically have a history of many trauma exposures and attachment breaches; thus, it can be difficult to pick "the worst" trauma= or attachment-related memory. Were that even possible, a number of other traumas of nearly the same severity would seemingly go untreated.

In fact, exposure to a single trauma memory is likely impossible in the first place. Especially in complex trauma survivors, exposure to one memory often activates recollections of other traumas and/or attachment breaches and their cognitive–emotional sequels, leading to a chained cascade of internal associations and activated states described in this book as trigger chaining. For example, a person might be processing memories of a sexual assault in therapy, which then trigger shame and self-blame associated with memories of child sexual abuse, which then activate early, largely implicit memories of neglect or caretaker disengagement, causing the client to feel sudden distrust of the therapist. In such situations, it would not be accurate to say that a single trauma memory was being processed.

Given this complexity, clinical experience suggests that therapy may be most helpful when clients are able to determine which trauma they want to address at any specific moment in treatment, rather than being refocused on the originally

agreed-upon therapeutic target. Because trauma memories tend to activate one another through trigger chaining, and most posttraumatic stress disorders appear to arise from multiple (not single) traumas, the RA model therapist generally follows the client from one memory to the next within a single session, gently encouraging some level of processing in each instance, and making sure that the client does not flood himself with too many memories over a short period of time. For example, the client might begin the session discussing an episode of child abuse, then move on to a rape experience in adolescence, and later describe a paramedic's judgmental comments after a recent overdose. In each instance, the therapist would encourage her to verbalize the event in as much detail as possible without the process being overwhelming. The therapist would also provide visible support and validation regarding the experiences, checking in with the client as to her current feelings and associations, and perhaps suggesting a brief relaxation or mindfulness exercise.

Not only should the client be able to determine which trauma she wants to address at any moment in treatment, the habituation data also suggest that the exposure process need not be extended nor extreme. Instead, such activities may be most tolerable when they are under the client's control as well. As noted by Linehan (1993), such personal control "may itself be therapeutic and render future exposure less frightening" (p. 352).

Self-Titration

The therapist's willingness to follow the client from memory to memory, and allow him to determine the extent and intensity of exposure, does not mean that instances of client memory avoidance are ignored (Constance Dalenberg, personal communication, February 25, 2018). Instead, the therapist might note at some point in time the client's earlier movement from one memory or topic to another, at which point a nonjudgmental discussion might ensue as to the reasons underlying such switching. If the movement was due to memories triggering memories (trigger chaining), repeated consideration of this process may increase the client's metacognitive appreciation of triggering phenomena, per se. If the switch was in the service of reduced activation, this response would be discussed as well, generally in terms of distress titration. In the latter instance, two questions might be asked: Why was avoidance necessary at that moment in time, and would less avoidance be possible the next time? Notably, these questions are predicated on the idea that avoidance is neither intrinsically "bad" nor is it a sign that the client is resisting therapy, but rather that it is a coping strategy that has upsides and downsides, the magnitude and balance of which vary from moment to moment.

The Efficiency of Multiple Targets

Although multitarget processing might appear to be less efficient than extended attention to a single memory, in practice, most DRB-involved clients have been exposed to multiple traumas and attachment disruptions in their lives that, cumulatively, better predict posttraumatic outcomes than do single-event traumas. In such instances, multitarget processing is likely to be more helpful than engaging in a series of separate, extended exposure interventions for each of a large number of distressing memories. Furthermore, clinical experience suggests that when the reasons for exposure are made clear to clients, and they are allowed to choose which memory to focus on at any specific moment, they often end up returning to the most problematic or distress-producing memories over time. In this way, greater exposure to significant traumas typically still occurs, but these memories emerge naturally, based on which memory especially draw the client's attention or intrudes to the greatest extent during treatment, and the client's self-determination is honored and reinforced.

Another benefit of multiple targets and variable levels of exposure is predicted by inhibitory learning theory. Specifically, it may be possible to increase the chances that therapy-based trauma processing will persist and continue to override or inhibit earlier abuse-related emotional associations, so that treatment effects are more durable and generalized. Although Craske et al. (2014) list a variety of techniques, two seem especially relevant to trauma treatment. Specifically, new learning may be strengthened when therapy:

Highlights expectancy violations. This occurs when the client is encouraged to discuss his expectations of what will happen if he talks about the trauma, feels the attendant feelings, opens up to relationships, avoids employing a DRB, or tries new things that contradict trauma-related learning. When this is paired with evidence that the client's expectations turned out to be incorrect, the disparity should be gently highlighted in subsequent discussions. In other words, as noted by Craske et al. (2014), the more the expectancy can be violated by experience, the less trauma-related conditioned responses are available for triggering. The wide-ranging targets of RA-guided treatment typically mean that

multiple schema and fear structures are activated and processed; hence, multiple expectancies are contradicted and counterconditioned by the safety and support of the therapeutic relationship.

Involves variable exposures and includes multiple contexts. As noted earlier, distress extinction is more durable and persistent when memories are processed from a variety of different contexts, perspectives, and situations, and at variable levels of intensity and duration (Craske et al., 2014). RA-focused treatment, by its nature, facilitates inhibitory learning, since it involves repeated titrated exposure to a range of implicit and explicit memories and contexts, often as they interact with, and trigger, one another. Furthermore, depending on the client's immediate activation– regulation status, titrated exposure varies in intensity and duration over time, thereby deepening the unavailability of past learning. As well, trauma-related associations are addressed both verbally and through relational processing, providing different "angles" and approaches to trauma-conditioned responses.

Interspersal

As noted in the counterconditioning and consolidation discussions, an important aspect of RA-oriented exposure exercises is the use of relaxation, mindfulness, nondistressing discussions, and positive relational activation, which are interspersed between periods of exposure. For example, the client might be invited to use a mindfulness meditation exercise like the ones in Appendix 1, then engage in a brief (e.g., 10–20 minute) period of titrated exposure to a memory of child abuse, perhaps followed by more mindfulness or a relaxation exercise, and then another brief exposure and further relaxation.

Interestingly, this approach is to some extent contrary to classic exposure models. The developers of PE, for example, specifically discourage the use of breath exercises during exposure because "we want them to experience their ability to cope with trauma-related memories and situations without special devices" (Foa et al., 2007, p. 2). Their concerns likely relate to research suggesting that the use of "safety" activities (behaviors that allay fear during exposure) sometimes reduces the effectiveness of therapeutic exposure (Helbig-Lang & Petermann, 2010; Weisman & Rodebaugh, 2018). However, others have not found evidence of adverse safety effects (e.g., Deacon et al., 2010; Meulders, Van Daele, Volders, & Vlaeyen, 2016), and some writers (e.g., Meulders et al., 2016) suggest that safety behaviors may actually increase the tolerability of exposure and support the client's sense of self-efficacy. Ultimately, however, these studies have limited implications for interspersal, since it does not occur during exposure episodes, but rather before and after them. As a result, rather than potentially inhibiting the effects of exposure, interspersal may facilitate emotional processing by pairing adversity-related memories with distress reducing states, which then may be reconsolidated in a less activating form.

Perhaps more immediately relevant to concerns about attenuating the effects of therapeutic exposure, recent research indicates that prior mindfulness exercises do not negate the effectiveness of subsequent exposure (e.g., Treanor, 2011) and may have neuropsychological effects that facilitate recovery from posttraumatic stress (King et al., 2016). In support of this research, Treanor (2011) outlines, in an extensive review, a variety of ways in which mindfulness prior to exposure may enhance extinction learning and thereby facilitate exposure effects. Research also does not indicate that prior relaxation interferes with the effects of exposure, although most studies suggest that it does not add to exposure in reducing anxiety-related symptoms (Tyron, 2005). However, in a study of clients more similar to those engaged in DRBs, Cloitre et al. (2002) found that a positive therapeutic relationship and the development of emotional regulation skills prior to emotional processing increased the effectiveness of subsequent therapeutic exposure activities.

There are also little data suggesting that post-exposure relaxation is problematic and good reason to suggest that it might be helpful in reducing unresolved exposure-related distress (e.g., Peck Schumacher, Stasiewicz, & Coffey, 2018). Deescalation of triggered memory effects may be especially relevant to DRB-involved clients, who otherwise might respond to continuing distress with postsession avoidance such as self-injury or substance abuse.

An additional potential benefit of interspersal is its tendency to constrain the intensity of emotional activation during therapeutic exposure. By alternating periods of arousal with activities that down-regulate arousal, memories of trauma or attachment-related distress have fewer chances to build to extreme levels; thus, the client is provided with the opportunity to move in and out of memory activation without feeling overwhelmed. And when triggered, nonoverwhelming emotional distress is subsequently downregulated, it is more likely that the reconsolidated memory will contain less negative emotional valence. Not only is this a form of titrated exposure, it may, as noted more generally

by Linehan (1993) and Meulders et al. (2016), decrease the DRB-involved client's fear of exposure and increase his sense of control and self-efficacy.

Finally, interspersal provides the client with multiple opportunities to learn and practice coping responses to moderate—but not overwhelming— arousal in relative safety, and thereby develop a broader repertoire of emotional regulation skills. As the client is repeatedly exposed to "handleable" levels of conditioned emotional distress, she is able to experiment with different emotional regulation approaches, as well as slowly developing greater tolerance to triggered emotional distress (Briere, 2002a).